

THE
PHRENOLOGICAL JOURNAL

AND
LIFE ILLUSTRATED.

A REPOSITORY OF

Science, Literature, and General Intelligence,

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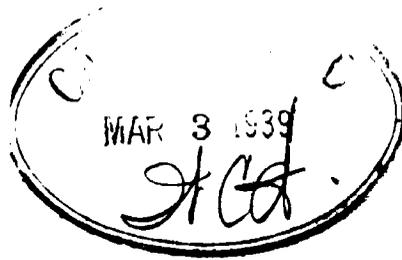
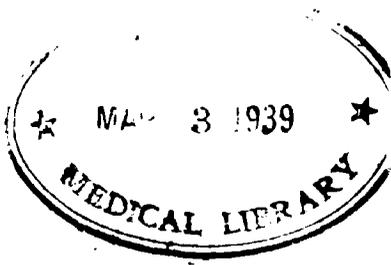
ETHNOLOGY, PHYSIOLOGY, PHRENOLOGY, PHYSIOGNOMY, SOCIOLOGY, PSYCHOLOGY, EDUCATION,
MECHANISM, AGRICULTURE, NATURAL HISTORY, AND TO ALL THOSE PROGRESSIVE
MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE
MANKIND, SPIRITUALLY, INTELLECTUALLY, AND SOCIALLY.

Embellished with Numerous Portraits from Life, and other Engravings.

VOL. LXII. OLD SERIES.—VOL. XIII. NEW SERIES.
JANUARY TO JUNE, 1876.

H. S. DRAYTON AND N. SIZER, EDITORS.

NEW YORK:
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1876.



"Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée, ne perfectionnera jamais la physiologie du cerveau."—GALL.

"I regard Phrenology as the only system of mental philosophy which can be said to indicate, with anything like clearness and precision, man's mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power; with his wants, as a creature of necessity; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence."—

JOHN BELL, M.D.

"To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science."—*Encyclopædia Britannica*, 8th Edition.



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LOUISE CHANDLER MOULTON.
"GRACE GREENWOOD."

JULIA WARD HOWE.

MARY CLEMMER AMES.
"JENNIE JUNE."

AMERICAN WOMEN JOURNALISTS.

"GRACE GREENWOOD" "JENNIE JUNE," JULIA WARD HOWE, MARY CLEMMER AMES,
LOUISE CHANDLER MOULTON.

THE last twenty-five years has marked an era in journalism. Our great dailies, brimming with news from all parts of the world, brought by rail and telegraph, have grown up within that period. Nearly within those limits the career of woman as a journalist has begun. In 1841 Mrs. Child took charge of the *Anti-Slavery Standard*, and was its chief editor for two years, and for six years thereafter aided her husband in the work.

In 1851 Harriet Beecher Stowe began the publication of "Uncle Tom's Cabin" in the *National Era*, a literary production without a peer in its immediate and lasting influence upon the age. The *Dial* was established in 1840, and, though short lived, placed Margaret Fuller at the head of literary critics in America.

As early as 1846 the delighted public was alive with eager curiosity to know who was the charming, witty, vivacious author of "Greenwood Leaves." Poetry and prose flowed with equal facility from her pen, and whatever she wrote was read with avidity and praised without measure. In 1851 "Fanny Fern" rose a new star in the galaxy of brilliant writers for the press, and, in her way, did a world of good with laughter and derision, and ridicule and good nature, pointing out the faults and follies of the passing time.

The same year Julia Ward Howe, in the full maturity of womanhood, entered upon her career as a journalist, editing with her husband *The Commonwealth*, a newspaper dedicated to free thought, and zealous for the liberty of the slave.

In 1855 Jennie June took her place

in the army of editors, and is the first woman in America to adopt journalism as a profession.

To enumerate the mere names of women well-known as influential writers for the daily and weekly press, would overpass the limits of this article. From them selections have been made, illustrating the different styles of talent shown by the gentle sex in this new field of activity. Properly to study the faces grouped at the head of this article, they should be separated and interspersed among women of average ability and culture, in which case it would appear how far they resemble and how far they differ from other women less gifted by nature and opportunity than they.

In all these faces the most casual observer can not fail to read signs of marked ability. Full intellectual developments characterize each face, and may be seen in the large forehead, the high top-head, the well-developed nose, and the full chin possessed by each one of these journalists. Moreover, it will be seen that each face is harmonious with itself, and that, by measurement, the nose in each face occupies about one-third the distance from brow to chin; in Mrs. Howe even a little more than this, and by so much does she stand out conspicuous and pronounced above the rest. It will also be seen that the three lines in each face, bounding forehead, nose, and chin, run parallel with each other. This is an invariable indication of ability of some sort.

We have in this group representatives of the various temperaments of women. Mrs. Howe had bright, red hair and a florid complexion, which

shows itself in the title of the first volume of poetry she published, "Passion Flowers." Mrs. Lippincott is a brunette, Mrs. Ames has dark hair and blue eyes, Jennie June is a blonde, Mrs. Moulton has brown hair, and eyes that change with every mood, sometimes blue, sometimes brown, and sometimes gray.

Various styles of writers are also represented here. Mrs. Howe is an earnest, restless, public-spirited woman, throbbing with passionate pulses, full of irrepressible longings after something better, nobler, more satisfying for herself as a woman and for women as women, than anything she or they have as yet realized.

"Grace Greenwood" (Mrs. Lippincott), is a writer overflowing with vitality, full of picturesque description, humor, character painting, and poetry.

Jennie June is a mild, thoughtful, earnest woman, with every sense exquisitely open and sensitive to external impressions, and with the power of throwing words around impressions as they rise, or are mirrored in her soul, that give to those who read after her a clear vision of what she herself has seen and felt. She loves work, loves to feel every faculty called into requisition, and engaged at its highest. No one of this group has a wider vision than she, and she is working as efficiently, though quietly, in the direction of the elevation of her sex to a higher and higher position, as is Mrs. Howe, the avowed champion and advocate of "Woman's Rights."

Mrs. Ames (Miss Clemmer), is a keen and sagacious observer of whatever goes on about her, and possesses a rare facility of describing what she sees, and discerning the spirit of men and events passing around her.

Mrs. Moulton is a very pleasing and

entertaining writer, and is always affable, gracious, and overflowing with courtesy. She has a quick and appreciative eye for whatever is beautiful in poetry or prose, in art or nature, and delights far more in pointing out the merits of an author than in holding him up to even deserved censure.

GRACE GREENWOOD.

Mrs. L. K. Lippincott was born in 1824 in Onondago County, New York. Her father was Dr. Thaddeus Clarke, a grandson of President Edwards. In mature life the great-granddaughter has shown many of the traits of the Edwards family. "She has rejected the iron-hooped Calvinism of her ancestor, but she is indebted to him for an unflagging and ever-fresh interest in nature, for ceaseless mental fecundity, that finds no bottom to its cruse of oil, and for a toughness of intellectual fiber that fits her for a life of perpetual mental activity." Those familiar with the fine portrait, by Vanderlyn, of Aaron Burr, her kinsman, which may be seen in the rooms of the New York Historical Society, can not fail to find resemblance in the contour of her face and his.

In early life she was a gay romp, a mighty hunter of wild fruits. At the age of ten she would go to the pasture with a nub of corn, call up a frolicsome young horse, halter him, and without saddle or bridle put him to his highest speed. In the retirement of her country-home she emulated the bold riding she had seen at the circus; standing erect with stocking feet on her pony, she would put him through all his paces. Later she became an accomplished swimmer, and by these various athletic sports built up a magnificent and powerful physique.

On her return from Rochester, where

from the age of twelve to that of nineteen she attended school, she began to write under the *nom de plume* she has worn ever since, and with which the whole literary world is familiar.

In 1853 she went to Europe, and immediately after her return, her correspondence, while there, was collected and published under the title of "Haps and Mishaps of a Tour in Europe." For many years after her marriage to Mr. Leander K. Lippincott her pen was chiefly employed in writings for the young. These sketches and stories have been collected and published in book form. Soon after its establishment Mrs. Lippincott became a contributor to the *Independent*, and during the war a lecturer to soldiers and at sanitary fairs. To the readers of the *Times* and the *Tribune* her name is familiar as a household word. No woman in America writes purer or more faultless English. Her articles in the papers are from time to time collected in permanent form, and are valuable contributions to current literature.

As a lecturer and reader Mrs. Lippincott is a favorite with the public, but she finds her chief pleasure in the exercise of her pen, and in superintending the education of her one only child. To her present work she brings faculties polished by large and diligent culture, a heart throbbing with every fine sensibility and every generous emotion, a large, warm, exuberant nature, a ripe and glorious womanhood.

JULIA WARD HOWE

was born in the city of New York, in the year 1819. Her father was a wealthy banker, well-bred and scholarly. Every intellectual, literary and artistic advantage was afforded the young girl, who very early gave promise of genius. While other girls played with dolls, she

wrote poetry for pastime. French and Italian she mastered with perfect ease, and then German. Here she found her native air, and Goethe and Schiller became her divinities. One of her earliest literary efforts was a review of their minor poems. The abstruse speculations of German metaphysics were a delight to her, and thus dividing her time between study and the society of the great metropolis, in which she was a central figure, the early part of her young womanhood passed.

At twenty her father died, and this event plunged her in the deepest sorrow. Discarding the teaching that had led her to skepticism, she threw herself into the arms of revealed religion, and for two years read little else than the Bible and Paradise Lost, living in a state of spiritual exaltation too abnormal to last.

About this time she read Guizot's History of Civilization, and its "large thought roused her from a dream of holiness to a life of use, while it lent wings to her self-centered imagination."

At twenty-three she was married to Dr. Samuel G. Howe, of Boston, and with him went immediately to Europe. Here she was received simply as the wife of the "new Bayard," of the man who had labored so heroically for Greece in her struggles for independence. Though humiliating it was to be considered merely as the appanage to another, the results were gracious. Mrs. Howe had time to grow and ripen, and prepare herself more fully and completely for the career upon which nearly ten years later she was to enter. When in 1851 her husband was called to the editorship of the *Commonwealth*, her time came. Editorials, literary articles, poetry, brilliant paragraphs from her pen made the paper famous. This success

prepared the way for the publication of "Passion Flowers." Two years later "Words for the Hour" were published. In 1859 Mr. and Mrs. Howe accompanied Theodore Parker to Cuba, where he sought restoration to health. A charming series of articles, written by Mrs. Howe for the *Atlantic Monthly* during this absence, was collected on her return, and published in a volume entitled, "A Trip to Cuba." Returning home she devoted herself to the study of German philosophical writings, and to dashing off letters for the *Tribune*, from Boston, New York, Washington, and various watering places. The "Battle Hymn of the Republic" was written in Washington one night after a party of which Mrs. Howe was a member had been surprised and nearly captured by a Confederate raid. Waking early in the gray dawn of morning, the verses began to spin themselves in her mind, and she scribbled them off in the dark, not looking at the paper under her hand, after which she went back to bed and fell asleep, quite unconscious that the almost illegible scrawl was the one great poetical utterance of the war.

In 1868 her last work, "From the Oak to the Olive," was published, and is a record of her third tour to Europe, which she made for the purpose of assisting in the distribution of American supplies to the Cretans.

In September, 1870, her stirring "Appeal to Womanhood Throughout the World," was issued, and "knocked at every door in Europe." It was translated into French, German, Spanish, Italian, and Swedish, and is the noblest peace manifesto ever written by a woman's pen. Of late years Mrs. Howe has taken great interest in the woman movement. She is one of the editors of the *Woman's Journal*, and makes

her voice heard in all the great efforts for the advancement, not of her sex alone, but of the race. Wherever her helping voice is needed, there is she found, reading thoughtful papers before the Radical Club, holding out the hand of love and sympathy to working girls, presiding over the New England Woman's Club with grace and dignity, joining the dress reformers in their efforts to emancipate women from the tyranny of fashion; the lesson of her life is earnest work for the noblest purposes.

JENNIE JUNE.

Mrs. D. G. Croly was born about forty years ago or more, in England, but came to this country when very young, so that, as far as feeling, habits, and education are concerned, she is essentially American. Her father was an English Unitarian, and a man of some note as a thinker. When she was twelve years old she was named "Jennie June" by a clerical friend of the family, who said "she was the Juniest girl he ever knew." Under that name she is still known in innumerable households throughout the land. Her first essay as a writer was to edit the paper of a literary society, in Southbridge, Mass., where she was acting as housekeeper for her brother, and, in addition to her duties as editor, doing all the housework, except the washing, for a family of four, acting as Secretary of the Sewing Society, and factotum in every social enterprise afoot. Probably at this period some of the recipes were tested that have made her "American Cookery Book," published many years later, of material aid to housekeepers, young and old.

In 1853 she was married to David G. Croly, long connected with the *New York World*, and more recently with the *Graphic*. With her marriage began

her career as a journalist, and she wrote editorials, reviews, *critiques*, articles on fashions, and social topics for prominent New York papers, acting at the same time as correspondent for numerous publications West and South. She was the first to popularize American fashions, and initiate the duplicate correspondence. For her were the first pair of thick walking boots made, and she wore and wrote them into fashion. For this, had she done nothing else, she deserves a marble monument to keep her memory fresh. For twelve years she was the fashion editor of the *World*, and during eight years of that time of the *New York Times* also, besides being engaged on the *Sunday Times* as critic, fashion writer, and mail reader.

A series of articles running through two years on the "Æsthetics of Dress," were written for the *Round Table*, and widely copied into nearly every paper in America, and many European papers, including the *London Times*, though in most instances without credit. One of these articles was translated into four languages.

The most important of Mrs. Croly's writings are contained in several volumes, entitled, "The Physical Life of Woman," "Woman in the Household," "Letters to my Daughter," and "Woman in Professions and Societies." The last, and best, is only just completed. Eighteen years ago Mrs. Croly called a Fashion Congress, which was responded to by the wives of public dignitaries, among them the wife of the then Chief Justice, but want of time, pressure of work, and cares prevented her from following it up. To Mrs. Croly, also, belongs the honor of originating "Sorosis," an association of women, which has been foremost in the advocacy of whatever seemed necessary to the happiness and general

welfare of the sex. The Woman's Parliament, which was called by Mrs. Croly, and convened in October, 1869, under the most flattering auspices, was an effort to widen the spheres of Sorosis, and make it the nucleus of a national organization of women, who should elect their own president and their own representatives to an annual parliament or congress. The present Woman's Congress is an outgrowth of that idea, but has, as yet, no representative organization or permanent basis of action.

Mrs. Croly has been for many years one of the editors of the *Demorest's Monthly*, and is the regular New York correspondent of the *Baltimore American*.

She is a worker, and her greatest desire outside of her ambition as a journalist is to create and perfect organization among women. The sense of duty is her strongest motive-power.

During the twenty years of her married life she has become the mother of seven children, only four of whom are living, and at no time for all the twenty years has she been away from her editorial desk for more than two weeks at a time. United with intellectual talents rarely surpassed, Mrs. Croly possesses, in an eminent degree, those social qualities which render her a devoted friend, a good wife, a judicious parent, and a superior housewife, as all who have partaken of her generous hospitality can testify. She has often been importuned to enter the lecture field, but prefers to use her pen and devote herself to her family.

—
MARY CLEMMER AMES.

Mrs. Ames, or Miss Clemmer, was born in Utica, New York, about the year 1840. At fourteen she began to write poetry and prose for the *Mirror*, the

News Letter (a Westfield, Mass., paper), and for the *Springfield Republican*. In 1860 and 1861 she became connected with the *Evening Post*, the *Independent*, and the *Tribune* as correspondent from Washington. Besides her regular contributions, running through many years to the *Independent* and other papers, she is the author of several volumes. "Victor," her first novel, appeared more than ten years ago. Then came "Irene," published first as a serial in *Putnam's Magazine*. Succeeding that was the memorial of the Carey sisters; their "Outlines" being selections from her articles in the *Independent*. Quite recently she has published a volume entitled, "Ten Years in Washington," in which she gives the result of her varied observations and reflections upon life in the national capital. Her last novel, "His Two Wives," shows an increase of power, and promises yet more for the future.

But Mrs. Ames' great forte is newspaper correspondence. She is deliciously gossipy, vivacious, and interesting, interweaving into her delineations of character and manner just those items of personal history, experience, and peculiarity which the average reader is interested in knowing concerning public men and women. In fact, she is the ideal Washington correspondent so far as giving a truthful representation of the gay society can make her so.

LOUISE CHANDLER MOULTON.

This lady, the youngest of this group, was born something more than thirty years ago, in Pomfret, Connecticut, and was educated partly by Rev. Roswell Park, an Episcopal clergyman of rare scholastic attainments, and partly at Mrs. Willard's Seminary, Troy, New York. An only child, and almost without playmates, her earliest amusement

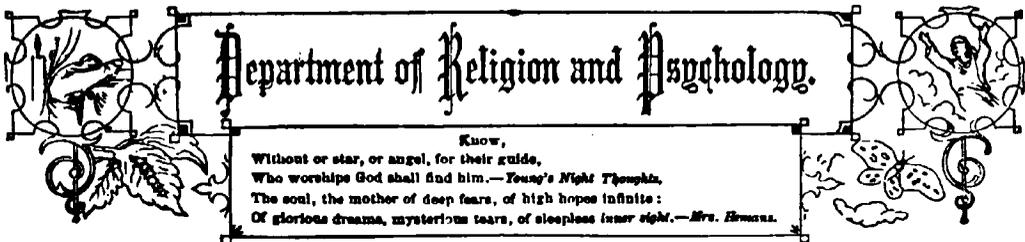
was to make up stories for herself. At fourteen she sent to the *Norwich Bulletin* a poem entitled "Getting the Latin Lesson," and was quite delighted to see it in print and hear it praised. Mrs. Moulton is known chiefly as a writer of stories for the magazines, and as the author of "Boston Literary Notes," which have so many years delighted the readers of the *Tribune*.

Her first volume, "This, That, and the Other," was written before she had completed her eighteenth year, and though by a new and untried author, sold to the extent of 15,000 copies. The readers of *Harper's*, *Scribner's*, *The Atlantic*, *The Galaxy*, all know and love the graceful, versatile pen of Mrs. Moulton, whether it is engaged in writing poetry or prose. Her various contributions to magazine literature have been from time to time collected and published in book form, and have been received with great popular favor. One of her stories, "Brains," contained in the volume entitled "Some Women's Hearts," had the high praise of being pronounced one of the best stories yet written by an American. Her "Bed-time Stories" were written for and dedicated to her only daughter Florence. Mrs. Moulton is but in the beginning of her work as poetess and journalist, and what she has done is only an "earnest" of what we may expect from her ripening powers.

WHAT IS CHARACTER?—What is character? It is more than reputation, for this (*i. e.*, reputation) depends upon others. It is accidental; it has the element of conjecture in it; its source is hearsay, report. But character, whether good or bad, lies in the man. Its essence is in the spirit, even as sin is in the motive, and not in the outward ac-

tion. Character is the mark of what you are; it has a foundation within you. It is not dependent upon others, nor upon report, but upon you. It can not be injured by others. Your own acts have influence, either for good or evil, upon it. You can be the architect of your character, though another may be of your reputation. You can build your reputation up toward perfection, and you can pull it down after it is built up. You, *you* alone have such power as this. This must be so, since it is undeniably true that you *alone* have embodied the things within your inner life, the sum total of which make

up your character. This sum total of embodied or crystallized things, whatever they may be, whether good or bad, results in the formation of character, which, in its outward acts, is a revelation of the character which you have made; and these acts are almost infallible criteria of your character, for they will partake of the mental and moral life, out of which they come. No man can for a lifetime hide himself behind thin disguises and shallow verbiage. What is *in* one will show itself, sooner or later. Acts are the fatal evidences against hypocrisy and self-delusion.



ABOUT SUPERSTITIONS.

AMONG many interesting subjects, perhaps there are none into which research will be attended with more pleasure, combined with food for serious thought, and, oftentimes, occasion for sorrow, than the superstitions of different ages and countries.

Whether we turn to Oriental people in distant climes, or glance at the forest homes of the Western world, we find that the mind of man, from the learned magi of the East to the

"Poor Indian, whose untutored mind,
Sees God in clouds or hears him in the wind."

is ever prone to look above the material world around him, and seek to penetrate the mysteries of an unknown future and an unseen world. In ancient Chaldaea and Egypt the priest-

hood, besides exercising what would now be deemed their appropriate functions, practiced the "healing art," and by means of various divinations, signs, and omens, prognosticated future events. In the Bible we find that "Moses was learned in all the wisdom of the Egyptians," which, no doubt, included a thorough knowledge of their various magical arts and incantations; and previous to the well-contested departure of the Israelites from Egypt we have the interesting account of how, assisted by Israel's God, he surpassed the wonderful deeds of their wisest men, and performed miracles which they could not achieve. Dreams were held to be of great significance by the ancients, and they would even seem to

have been a favorite means employed by God himself to warn His chosen ones of impending danger, and to reveal to them future blessings. It was the related dreams of Joseph which increased the hatred and envy of his brothers, whose cruel malice led to their fulfillment in a manner which is most remarkable.

To be skillful in the interpretation of dreams was considered a Divine gift, and, as in Joseph's case, we find its exercise leading to almost kingly honors in the history of Daniel. It was a dream which heralded the Saviour of the world, and induced the fearful wife of Pilate to entreat her husband to "have nothing to do with that just man;" and in after years heavenly visions gave new strength to His despised and persecuted disciples. The Jews were addicted to many superstitious practices, borrowed from the heathen nations around them, which drew on them Divine displeasure. The tale of one of their kings applying in a time of perplexity and fear for advice to the Witch of Endor, whose death, or that of her class, he had previously ordered, affords a striking commentary on the fickleness and perversity of human nature.

Delightfully intermingled with the history of Greece, indeed, inseparably connected with it, is the mythology of that favored land of the poets. For was not Mount Olympus the abode of the Gods, and the whole land their temple?

The Greeks of olden times never wearied in recounting the brave deeds of their heroic ancestors, and from them traced their descent to the immortal gods themselves. Had Darwin lived in those days, and ventured to proclaim his theories, he would have been exiled—or metamorphosed himself into one of the lower species.

Superstition has been termed "the poetry of history," and nowhere is it more apparent than in those dear old fables of the Grecians. All the works of nature—nay, even the earth itself, with the heavens above—were considered to be endowed with "the attributes of humanity," and in various degrees with Divine powers, and, in the words of Bossuet, "Everything was a god but God himself." The sun was their god Helios, who each morning mounted his chariot and rode in triumph through the skies, stopping midway to rest, and complacently viewing his dominions, then going onward to reach the western horizon at sunset.

Very beautiful was the belief that the stars were placed in the sky by Jupiter to watch the actions of mortals. Poetical and expressive is the fable that the waters of the river Lethe caused all who might drink thereof to forget their sorrow. There is a good moral in the story of Medusa, whose look turned any one who gazed at her into stone, as showing to what extent every evil tendency of the human heart, if indulged in, may disfigure the human countenance. King Midas, obtaining his much-desired wish of transforming all that he touched into gold, and then almost dying of hunger, is a good illustration of the punishment attending insatiable avarice. Very marked in the history of Greece is their anxiety to peer into the darkness of futurity, and their unwillingness to commence any important project, or go to war, without first ascertaining if the gods were propitious. Their will was ascertained by dreams and visions, various omens interpreted by augurs, as thunder, lightning, eclipses, and the flight or notes of birds; but more particularly by oracles, the most ancient of which was one in Epeirus, where Jupiter an-

nounced his will by the whistling of the wind through the lofty trees. The most celebrated oracle, however, was one at Dephi, built on the side of Mount Parnassus. After inhaling an intoxicating vapor which arose from the chasm, the words of the priestess were believed to be the revelations of Apollo, the god of prophecy.

Very nearly allied to Grecian mythology was the Roman, though it would seem to have been cast in a sterner mold. The Arabians have a superstition or fable that every human being is attended by a good and a bad angel, one at his right shoulder, the other at his left; when he performs a noble action, the angel at his right rejoices; but when an unworthy one, that good angel hides his face and weeps. Connected with the religious superstitions of the Hindoos are many cruel and revolting practices. The Hindoo mother thought but of the pleasure it would afford the gods when she offered her infant a sacrifice to the river Ganges. With no cry of agony did the Hindoo widow approach the funeral pile which consumed her alive with the dead body of her husband. The victim as he threw himself beneath the wheels of the fatal car of Juggernaut thought not in his frenzy of present torture, but of eternal bliss.

Turning to the shores of "Merrie England," we find the heathen natives superstitious followers of the druids or priests; their gods were of a harsh and warlike nature, and to appease them human sacrifices were often offered. The druids are said to have held absolute control over the souls and lives of their victims; and so complete was their power that they were accustomed to borrow large sums of money, promising to repay them in another world. The names of our days are derived from

those of Saxon gods; the festival of Easter dates back to one held in honor of a heathen goddess. The mistletoe, held in peculiar esteem among the English, was sacred with the ancient Britons. One of the beliefs of the old Britons about the creation of the world is somewhat amusing. They asserted that one of their warlike gods having taken another prisoner, killed him, and then very practically made the earth from his flesh, the rocks from his bones, the rivers from his blood, and the heavens from his skull. At the four corners of the sky were placed four dwarfs to hold it up, who were called North, South, East, and West. Man and woman were said to have been formed out of two pieces of ash and elm.

But departing from heathen traditions and superstitions, and coming down to the time when the Gospel of Christ and the pure truths of Christianity were introduced into Britain, we find even then many cruelties practiced, many superstitions lingering.

"Oh, Liberty! how many crimes are committed in thy name!" was the exclamation of the heroic Madame Roland, as she ascended the scaffold; and well might thousands of victims, substituting the word Religion, re-echo the cry—not merely among Mohammedan fanatics or Hindoo zealots, but among the professed followers of the lowly Jesus, Who proclaimed "peace on earth and good will toward men," and gave His own life a "ransom for many."

Recalling the early history of the Christian Church, we find what could not have been otherwise than some tincturing of superstition remaining, and that gradually human ambition and love of place and power, pride and bigotry, corrupted its primitive simplicity, and led to immeasurable evils. Then there arose a priesthood, from the au-

thority of whose supreme head not even kings were exempt, who, in his sovereign displeasure, could absolve his subjects from their allegiance, as in the case of King John, of England.

The Inquisition, first established in the southern part of Europe, was introduced into England in the time of Henry III. It had for its object the suppression of all sentiments or opinions contrary, or supposed by its cruel judges to be contrary, to the established religion. From its fearful sentences there was no appeal. Great thinkers, profound scholars, and noble, Christian men, whose greatest crime was superiority to their persecutors, have languished in its dungeons or suffered fiendish tortures. Malignity and malice could wreak a sure revenge in this way, and hundreds of thousands perished by its means. It was finally abolished by Napoleon in 1808, who for this act certainly merits the gratitude of mankind.

What but superstition has countenanced relics, been able to impose pilgrimages and penances, and to introduce indulgences and other means of obtaining money from the ignorant and credulous. Closely allied with religious bigotry, it has in times gone by made sad havoc in the peaceful vales of Switzerland, caused the streets of Paris to be filled with dead bodies, filled England's noted Tower, and desolated her homes, and forced Scottish covenanters to flee for refuge to the caves and mountains of their native land.

Who does not love to read the fairy tales which tell of the quaint beliefs and fancies of other days, and con over the delightful works of Shakspeare, in which ghosts and witches sometimes play a prominent part? But when we read of the cruelties practiced in Europe upon witches, or those accused of witch-

craft, it can but awaken feelings of pity and indignation. The history of New England is marred by the witchcraft doings of two hundred years ago. For the reputed crime of witchcraft one hundred thousand persons are said to have been put to death in Europe and in this country. They were believed to have intercourse with the powers of darkness, and through their assistance could make air voyages without a balloon, raise storms, transform themselves into any shape, cause or cure diseases, bewitch and carry away children, and foretell future events. To be aged and poor, peculiar, morbid, diseased, and hated, was oftentimes sufficient evidence of the crime, and no lenity was ever shown, the methods of trials being as absurd as they were unjust. One was to throw the victim into the river; if he floated, it was clearly evident that he was a witch; if he sank, then no further action was necessary, he was left beneath the waves.

More than a hundred years have passed away since the last trial for witchcraft; the law forbid that religious animosities or bigotry should vent themselves in persecution of a sect or creed; but ah! how often still do little feuds and uncharitable reviling about mere questions of external rite or form show that the sparks of superstition remain, though smouldering in ashes, and that the time is not yet come when mankind, arising above the trammels of denominationalism and doctrines, shall recognize the bond of union existing between all those who worship the same eternal Father, and believe in the same unchangeable Saviour, who has declared that on this commandment, "As ye would that others should do unto you, even so do ye unto them," "hang all the law and the prophets."

C. I. APPLETON.

YOUR RELIGION.

WHAT good comes of it? Do you simply *profess* it? or do you really *possess* it? Does it make you more amiable? Or are you just as harsh, petulant, and irritable as the unregenerated? Does it make you more kindly, forgiving, and generous, with a spirit which wishes well to all mankind? Or are you selfish, narrow-minded, unforgiving? Does it resign you to the inevitable? Is it a comfort in times of affliction? a support when you meet with losses, reverses, and calamities? Can you contemplate death with composure and equanimity? Do you *believe* "in the promises," that all will be well with the good? Are you resigned? Can you truly say, "Thy will be done?" If you are a Christian, you will "do as you would be done by," seek the good of others, rather than personal gratification—will be just, hopeful, forgiving, cheerful, trusting, charitable.

A Christian will carefully regulate his propensities, guard against a sordid love of money, vain pride or egotism, an acrimonious temper, fault-finding, unjust suspicion, jealousy, deception, or double-dealing, or doing anything which the great teacher Christ himself would not have approved.

A truly vital religion elevates and improves; spurious religion, or hypocrisy, corrupts and leads downward. A *true* Christian worships God "in sincerity and in truth," and looks more to the adornment of his mind than of his body.

A contemporary says: "I have seen a woman professing to love Christ more than the world, clad in a silk dress costing \$75; making up and trimming of same, \$40; bonnet (or apology for one), \$35; velvet mantle, \$150; diamond ring, \$500; watch, chain, pin,

and other trappings, \$300; total, \$1,100—all hung upon one frail mortal. I have seen her at a meeting in behalf of homeless wanderers in New York, wipe her eyes upon an embroidered handkerchief—costing \$10—at the story of their sufferings, and when the contribution-box came round, take from a well-filled wallet of costly workmanship *twenty-five cents* to aid the society formed to promote their welfare. Ah, thought I, dollars for ribbons and pennies for Christ's children!"

How is it with the men? What amount do they spend on their indulgence in costly dinners, wine, liquor, and tobacco, that should be used for good purposes? How much for mere pleasure excursions, visiting watering places, and in dissipation and flirtations? How much for fast horses, stylish equipages, and vain display? Are the clergy themselves exempt from all these things? Are vestrymen, deacons, and other church officers, all circumspect and consistent Christians?

Are all those who sing praises to Him in sacred song actuated by an exalted Christian spirit? or are they ambitious for worldly honors, eager for wages, or for the praises of flattering tongues? How shocking to a devout mind it is to witness the utter want of reverence in a person approaching his Maker with a manner of indifference, as though he were an auctioneer about to harangue a body of tobacco buyers. Such scenes may be witnessed not a thousand miles from New York.

True religion is not a cloak to cover up sin, though impostors so use it. Nor is it a means by which the purse-proud, the arrogant, or haughty Pharisee can secure happiness here or hereafter. True religion brings blessings to its possessor, let his worldly circumstances be what

they may. Reader, be not deceived, see to it that *your* religion is founded on the truth. With CHRIST for your guide, teacher, companion, you can not remain in error nor go far wrong.

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A GREAT MOTHER TO A GREAT SON.—The mother of John Quincy Adams said, in a letter to him, when he was only twelve: "I would rather see you laid in your grave than grow up a profane and graceless boy."

Not long before his death, a gentleman said to him: "I have found out who made you."

"What do you mean?" asked Mr. Adams. The gentleman replied: "I have been reading the published letters of your mother."

"If," this gentleman relates, "I had spoken that dear name to some little boy who had been for weeks away from his mother, his eyes could not have flashed more brightly, nor his face glowed more quickly, than did the eyes of that venerable old man when I pronounced the name of his mother. He stood up in his peculiar manner and said,

"Yes, sir; all that is good in me I owe to my mother."

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REASON AND RELIGION.

A CONSIDERATION OF THE FUNCTIONS AND RELATIONS OF THE RELIGIOUS AND INTELLECTUAL ORGANS IN MENTAL PHENOMENA.

(PRIZE ESSAY NO. 1.)

THE problems of man's nature and destiny are the most important themes on which the human mind has ever been exercised. For ages reason and religion have battled for the mastery over each other. The greatest minds of the world have engaged in the warfare between religious faith and human reason. The perversion of reason has led to doubt, infidelity, and licentiousness. The perversion of religion has produced superstition, bigotry, and persecution. In this unparalleled contest no hero has ever achieved a complete victory; and the mighty struggle of centuries is yet continued. Men distinguished for learning and talent, thoroughly convinced that man is endowed with reason; that the laws of nature are uniform, and that there is much ignorance, prejudice, and superstition in the prevalent systems of religious faith and worship, reject all religious forms and doctrines, contending that there is no reality in any religion whatever. They teach that religion originated in priest-craft, and was spread

over the world by fraud and violence during the Dark Ages; and that it is now used in order to hold the masses of the people in subjection to the powers of government, civil and ecclesiastical. Other men, learned in the history and literature of the world, but regarding philosophy and science as antagonistic to the distinctive principles and teachings of Christianity, and calculated to subvert the faith of the orthodox churches, oppose scientific investigations, and retard the progress of useful knowledge. Many well-meaning men, cherishing an indescribable horror of infidelity in all its forms and phases, are unfavorable to progressive ideas and radical reforms.

Long and fierce has been the conflict between philosophers and theologians, neither class of the combatants having been guided by a reliable system of mental science; and we believe that Phrenology is destined to reconcile the contending parties. During the many ages from Aristotle to Gall the world made but little progress in the knowl-

edge of the human mind. Philosophical investigation and metaphysical speculation failed to impart adequate instruction concerning the functions of the brain. The discoveries of Dr. Gall inaugurated a new era in the history of mental philosophy. The observations, experiments, investigations, and teachings of Gall, Spurzheim, Vimont, Combe, and others, have established the principles of a new, correct, simple, thorough, and reliable system of mental science for all ages to come. And now appears to be a favorable time for effort to advance the cause of God and humanity. This is an age of progress. Many people desire a knowledge of the truth. The light of science is dispelling the darkness which has enshrouded the intellectual and moral world for ages.

A KNOWLEDGE OF THE MIND'S CONSTRUCTION ESSENTIAL.

You can not rightly apprehend any intricate or important question in religion, in morals, or philosophy, unless you first acquire a correct knowledge of the human mind, and the laws by which it is governed. If your mental philosophy is defective or wrong, your ideas of character will be unreliable, your judgment of morals will be false, and your theory of religion will be faulty. Hence, we can easily account for all the erroneous views and teachings of those who reject or ignore the distinctive principles of Phrenology. All difficult questions must be adjusted by a true mental science. Phrenology is the key to universal knowledge. This noble science will elucidate all questions pertaining to the human mind, and harmonize all the organs, faculties, and functions of the human constitution. It will reconcile reason and religion, and unite all the conflicting sects of Christendom.

The world must learn that man's religious and intellectual functions are

performed through cerebral organization, and that there are established relations between the religious and the intellectual organs. The vexed questions of religion and of mental philosophy can not be properly adjusted without a general recognition of these important teachings of Phrenology.

We know that matter exists. We take cognizance of its forms and qualities. We are endowed with various faculties which adapt us to the different properties, forms, and forces of the material world. Mental phenomena—the diversified manifestations of thought and affection—demonstrate the existence of mind and personal identity. Every man of sane mind is conscious that he performs various functions of perception, reflection, and affection. Consequently it is just as impossible to doubt the existence of mind as the existence of matter. Thought, or affection—any mental function—is an operation, exercise, or process. The person, mind, or entity that thinks, and the thought produced, are different and distinct. The actor is not the act, and *vice versa*. The brain is the organ of thought, but not the thinking person. I see, and hear; the eye is the organ of sight, but not the person that sees; the ear is the organ of hearing, but not the person that hears. The brain is the organ of thought, but not the person that thinks.

MAN A COMPLEX ORGANISM.

Man, in the present state of existence, is endowed with many organs. He is constituted with a mind and a body. He is organized with reference to the present condition of things. He is adapted to the material and to the spiritual world. Especially is he in accord with the present state of things; that is, the material world, and the laws by which it is governed. All his functions,

whether physical or mental, are performed by means of material organs. Locomotion, respiration, circulation, and digestion are performed by physical organs. The functions of hearing, sight, taste, smell, and feeling are performed through organs pertaining to the nervous system. And the various functions of thought and affection are performed by different cerebral organs, or parts of the brain.

Reason is the power or capacity of man to reflect upon objects, facts, and principles, and form conclusions. There are two elements of reason. We call them Comparison and Causality.

Religion is the right exercise and use of man's spiritual faculties. Religion, according to Webster, is "right feelings toward God as rightly apprehended."

Feelings toward God can not be right if not according to reason; and God can not be rightly apprehended without the exercise of the reflective faculties. Religion is a man's feelings toward God. But the right exercise of the affections depends upon the intellect. All the affections are to be guided by the reasoning faculties, enlightened by the truth.

Religion is not the work of God upon the human spirit; it is the exercise of the human spirit toward God. We experience our own religious exercises. We exercise our spiritual or devotional faculties toward God, and are sensible of our affections. Religion is a constituent part of human nature. Its elements, or essential parts, are, in phrenological language, Spirituality, Hope, Veneration, Conscientiousness, and Benevolence. Each organ performs its own proper function, or class of functions. The size of the cerebral organ, other things being equal, is the measure of mental power. A man's character

corresponds with his organization. The religious character depends upon the organs of the brain. George Combe, in his peerless work on the "Constitution of Man," says: "All existing interpretations of Scripture have been adopted in ignorance of the facts that every person in whose brain the animal organs preponderate greatly over the moral and intellectual organs, has a native and instinctive tendency to immoral conduct, and *vice versa*; and that the influence of organization is fundamental—that is to say, that no means are yet known by which an ill-formed brain may be made to manifest the moral and intellectual faculties with the same success as a brain of an excellent configuration. An individual possessing a brain like that of Melancthon * * * is naturally adapted to receive, comprehend, and practice the precepts of Christianity; whereas, it will be found extremely difficult to render persons with brains developed like those of Hare, Pope Alexander VI., Vitellius, or the Carib, practical Christians. * * * Only phrenologists, who have observed for many years, in various situations and under different influences, the conduct of individuals constituted in these different ways, can conceive the importance of the relative development of the cerebral organs; but after it is discovered, the inferences from it are irresistible. The religious teachers of mankind are yet ignorant of the most momentous fact which nature presents in regard to the moral and intellectual improvement of the race.

"I have heard it said that Christianity affords a better and a more instantaneous remedy for human depravity than improvement of the cerebral organization; because the moment a man is penetrated by the love of God

in Christ, his moral and religious affections become far stronger and more elevated, whatever his brain may be, than those of any individual whatever without that love, however noble his cerebral development, and however much he may be instructed in natural knowledge. I observe, however, that in this life a man can not become penetrated by the love of God except through the aid of sound and efficient material organs. This fact is directly proved by cases of madness and idiocy. Disease in the organs is the cause of insanity, and mere deficiency of their size is one and an invariable cause of idiocy (see figure of an idiot head on page 198). In neither of these states can the mind receive the advantages of the Christian doctrine. It is, therefore, obvious that the power of receiving and appreciating Christianity itself is modified by the condition of the brain; and I venture to affirm that the influence of the organs does not terminate with these extreme cases, but operates in all circumstances and in every individual, aiding or impeding the reception and efficacy even of revelation. If this were not the case, there would be in operation a power capable of influencing the human mind during life, without the intervention of material organs; and, accordingly, many excellent persons believe this to be Scriptural truth, and matter of experience also. But those who entertain this opinion are not instructed in the functions of the brain; they are not aware of the universally admitted facts, which establish that while life continues the mind can not act or be acted upon except through the medium of organs; nor do they bring forward one example of idiots and madmen being rendered pious, practical, and enlightened Christians by this power, notwithstanding

the state of their brains. Cases, indeed, occur in which religious feelings co-exist with partial idiocy or partial insanity; but in them the organs of these sentiments will be discovered to be well developed; and if the feelings be sane, the organs will be found unaffected by disease.

“Serious persons who are offended by this doctrine, constantly forget that the reciprocal influence of the mind and brain is not of man’s devising, but that God himself established it, and conferred on the organs those qualities which He saw to be necessary for executing the purposes to which he had appointed them. If the statements now made be unfounded, I shall be the first to give them up; but, believing them to be true, I can not avoid adhering to them. When, therefore, I add that I have never seen an individual with large organs of the animal, and small organs of the moral and intellectual faculties, whose conduct was steadily moral under the ordinary temptations of life, however high his religious professions might be, I merely state a fact which the Creator himself has decreed to exist. Indeed, I have seen several striking instances of persons who, after making a great profession of religion, ultimately disgraced it; and I have observed that in all these instances, without one exception, the organs of the inferior propensities were large, and those of one or more of the moral sentiments deficient; and I am convinced that the same conclusion, after sufficiently accurate and extensive observations, will force itself upon all candid and reflecting minds.

“My inference, therefore, is that the Divine Spirit, revealed in Scripture as a power influencing the human mind, invariably acts in harmony with the laws of organization; because the lat-

ter, as emanating from the same source, can never be in contradiction with the former; and because a well-constituted brain is a condition essential to the existence of Christian dispositions. If this be really the fact, and if the constitution of the brain be in any degree regulated by the laws of physiology, it is impossible to doubt that a knowledge of the natural laws is destined to exercise a vast influence in rendering men capable of appreciating and practicing Christianity."

The views and sentiments expressed in these lucid extracts will stand the test of the most thorough examination and the most rigid criticism. Thorough observation and investigation confirm Mr. Combe's views and statements. A man with large selfish organs, and small religious and moral organs, is unreliable in matters pertaining to religion and morality. Natural religion is the basis of the Christian religion; and no man with small religious and moral organs will manifest a strong and consistent Christian character. Each mental faculty may be improved by proper cultivation. A bad man may change his conduct, and improve his moral character; but, in so doing, he will develop the cerebral organs through which the moral functions are performed. Organization and character accord with each other.

Each mental function, or class of functions, is indicated by the name and by the definition of its organ.

SPIRITUALITY.

Phrenological Definition: Sense of spiritual beings; faith; intuition; prescience.

"The function of this organ is to give a perception of spiritual things, faith in the unseen, and an intuitive knowledge of what is true and good, with a prophetic insight and an internal conscious-

ness of immortality and a supersensuous existence."—*Wells.*

Spirituality is a primary element of human nature; it adapts man to the true worship of God; it inclines us to place our affections on things heavenly and divine, and to worship God in spirit and in truth. Through this organ we hold communion with God and "the spirits of just men made perfect." It elevates and sanctifies all the other elements of our nature.

"The exercise of no other faculty fills the soul with such a flood of holy, happy emotion. Believers in the immortality of the soul rightly maintain that disembodied spirits are capable of being inconceivably happy, and that the joys of heaven are of an order, as well as degree, infinitely higher than those of earth. Why? Because this spiritual state so infinitely exalts and enhances our capabilities of enjoying, as well as seasoning those joys. Consequently, the more we exercise this spiritualizing faculty, the more we sweeten even the pleasures of earth with this seasoning of heaven.

"This faculty, moreover, so purifies the soul as to redouble many times over every pleasure, even of earth; so exalts the mind and all its appetites and passions as to dispose and enable us to see God and love Him, in all the works of His hands, as well as imparts a heavenly relish, zest, and exquisiteness to the domestic affection, to all the animal propensities, the intellectual operations, and especially to the moral virtues, which words utterly fail to portray—which, to be appreciated, must be felt."—*Fowler.*

The perversion of Spirituality leads to superstition, credulity, and excessive love of the wonderful. A low development of the faculty disposes to indifference toward religious or sacred

subjects, and man is naturally inclined to think and reason. In matters of religion, as in other things, the masses of the people are very credulous. They either do not use rightly, or are not capable of rightly using, their reflective faculties. Man is more liable to credulity and superstition than to skepticism and infidelity. The most of people are entirely too credulous; they believe without reliable evidence, and receive as true much that is contrary to "common sense," science, and reason. They subscribe to articles of faith which are contrary to the established laws of nature and subversive of human improvement. They believe the most unreasonable dogmas of sects and clergymen. There are but few people who rightly use their reflective faculties in matters of religion.

Unperverted religion conforms to reason. The intellectual faculties should guide and direct our religious affections. "Reason must be our last judge and guide in everything."—*Locke*.

We can not believe anything which is contrary to our senses or reflective faculties. We can not be rightly required to believe contrary to good evidence. Everything we believe should accord with the laws of the human mind. I can not receive as true any assertion or doctrine which seems to me to be contrary to the established laws of nature. I am forced to reject everything which does not accord with my senses and reasoning faculties. Faith is spurious if contrary to science and reason.

But there is nothing in the normal exercise of Spirituality which is contrary to Causality. Faith in a future state is not contrary to reason. Spirituality was made for use. Faith in a future state is a normal function of man's religious nature, and, therefore, right.

Spirituality indicates a better state and a higher life than the present; and its premonitions should be heeded. Still, we should believe nothing unreasonable or self-contradictory. We should be neither skeptical nor credulous, but let each faculty do its proper work, that we may receive new light and truth from every source. We should test all things, and adhere to the good.

HOPE.

Phrenological Definition: Anticipation; confidence in the future; expectation of future happiness.

Hope gives us bright anticipations of the joys of heaven. It inspires us with the expectation of a future state and a glorious immortality. Hope is a constituent part of man's spiritual nature, and an important element of religion. It imparts strength in the day of trial. It gives courage in the struggle with the powers of darkness. It makes us bold in the cause of God and humanity. It renders us cheerful in the time of adversity. In every period and condition of life it directs us to a blissful future.

"Hope adapts us to a future state of happiness, and proves that such a state exists. Hope and Spirituality combined give man a strong assurance of life after death. All our natural desires are to be gratified. "It may be safely asserted, as a law of balancing harmonies in the physical and sentient universe, that that for which there is a physical or moral necessity to any creature or being, or that for which any being has a natural hunger, thirst, or aspiration, does somewhere exist." Man needs a future state in which to develop the higher powers of his nature; accordingly, the Bible gives him the promise of immortality.

"Moreover, for this immortal existence the soul has a desire and aspiration, which are the strongest and most

characteristic of all its desires and aspirations. And so far from this being a mere abnormal and unnatural sentimentality, man is expressly provided with phrenological organs through which these desires and aspirations may be manifested to the external world; and it is especially worthy of remark that the more fully, purely, and beautifully the character is developed, the more fully this aspiration is unfolded, and the more clear and undoubted becomes the faith in its object. Indeed, the normal and most essential *food* of the soul—the food on which it most thrives, and with which it develops its most God-like traits—is the belief and contemplation of an immortal existence; and without this food it necessarily remains in a comparatively low, groveling, and brute-like state. Can it be possible that this *law*, by which supplies are made to answer constitutional demands, by which food is provided to gratify hunger, by which objects are created to satisfy aspirations, while applying *universally* elsewhere, finds its *only* exception just here, where above all others it ought not to fail?”

For every want there is a supply. Man desires God and immortality; therefore, God and immortality exist.

VENERATION.

Phrenological Definition: Reverence for God; religious devotion; respect for authority; tendency to worship.

Veneration produces in man a tendency to reverence and adore a superior Power. It is a leading element in man's religious constitution, and adapts him to the worship of God. It produces within us a sense of God's presence, and gives us confidence in His works and government. It inclines us to submit to the providence of God, and to worship Him with adoration, prayer, and praise.

Phrenology settles the questions concerning the existence of God and the reality of religion. Man is religious by nature. He is endowed with a phrenological organ called Veneration, which inclines and adapts him to the worship of God. Every faculty is to be exercised and gratified, but not perverted. Wherever there is a natural faculty or instinct, in either man or animal, requiring for its normal and appropriate exercise or gratification any object whatever, we find that such an object exists. This law of adaptation prevails throughout all nature. If there be an eye, there is light and other objects adapted to the eye. If there are ears, there are sounds adapted to the organs of hearing. If there is hunger, or a desire for nutriment, there is food to be found; and nature intends that it should be eaten. Consequently, if we find in man, as a race, a natural organ and tendency to worship, there certainly is a Being who is the proper and intended object of adoration and worship. Grant that man is naturally inclined to pay homage to some Power superior to himself, and it follows that either there is a God to be worshiped, or else nature, in this one instance, has departed from her established law of procedure, and has given a faculty and yet has provided no suitable object for its exercise and gratification. But nature never deceives her children. All our faculties were made for use and gratification. There is provision for every normal want and desire of man. Our religious faculties are intended to be exercised and gratified in the worship of a Supreme Being. For it would be absurd to say that nature has made any organ or faculty of the mind for no use or purpose. The fact that man has by nature a phrenological organ which adapts him to the worship of

God, proves that there is a God to be worshiped, and that man should worship Him.

Man is, always and everywhere, a worshiper. He is religious by nature. Man is as really religious as he is rational. Some few persons are destitute of reason, yet man is always considered a rational being; that is, the race, as such, is endowed with reason. There are cases of mental deformity as well as of physical deformity. So, although there may be some few persons who have no tendency to worship, and never manifest the least disposition to pay homage to any superior Power, yet it is true that man, as a race, has always and everywhere given the most convincing proof that he is by nature a worshiper. Idolatry, superstition, sectarian bigotry, each is a perversion of man's religious nature. But the perversion of a faculty proves that the faculty exists and should be rightly used. Let philosophers, theologians, and the rest of mankind learn that each mental faculty is naturally good, but liable to perversion; that is to say, that each organ is capable of a normal and of an abnormal action.

Religion was not invented by priests or others who make it their business or mission to attend to the ordinance of worship; no, ignorant priests have *perverted* religion. Corrupt priests and politicians have made religion an engine of oppression and cruelty. Man could no more *invent* religion than he could invent Alimentiveness, Inhabitiveness, or Causality. It is a part of his nature.

Veneration and Spirituality combined produce a strong sense of the presence of God, and faith in his providential dealings with his people. Veneration and Hope acting together give us confidence in God, His works and govern-

ment. Veneration, Spirituality, and Hope combined make us devotional, spiritual, hopeful, cheerful, and joyful.

The perversion of Veneration leads to idolatry, superstition, and reverence for ancient forms, customs, and doctrines. Those whose Veneration is excessive are averse to progressive ideas and radical reforms. Veneration should act with the reasoning faculties.

CONSCIENTIOUSNESS.

Defined as the desire to do right; sense of duty; love of truth; moral rectitude.

Conscientiousness produces a sense of right and wrong. It gives man a sense of right and duty, and adapts him to truth and moral rectitude. Man is naturally inclined to do right. He has a mental organ which renders him a moral agent, inclines him to duty, and adapts him to a standard of right. It gives a sense of justice and moral obligation. Man loves right on its own account; he discharges duty from a sense of obligation; he loves truth because he is adapted to it. "There is a natural affinity in the human mind for truth."—*Wayland*.

"According to phrenological teaching, there exists a power or faculty distinct from all others, the object of which is to produce a sentiment of justice, a feeling of duty and obligation independent of selfishness, fear of punishment, or hope of reward. Those persons who have the organ large, experience powerfully the sentiment of justice; while those in whom the organ is small, are little alive to the emotion. It is as easy to observe the difference existing between persons in regard to this development and the corresponding manifestation, as it is to demonstrate any palpable conclusion of physical science."—*Sizer*.

Phrenology dissipates the darkness

which has enshrouded man's moral nature for ages. It shows that man is moral by nature; and it accounts for depravity and sin, crime and evil, on scientific principles. It recognizes, teaches, and establishes the most perfect system of ethics. It is in harmony with the purest principles of Christianity, and demonstrates the reality of true religion. Revelation itself presupposes and recognizes in man natural faculties which render him susceptible of moral obligation, and adapt him to the service of God. Phrenology, by proving that man has organs which incline and adapt him to religion and morality, shows that metaphysical and theological writers have misunderstood human nature, and obscured the truth.

Conscientiousness, as an independent faculty, desires the right, but does not infallibly determine what is right, and must be guided and regulated by the intellect. "Reason must be our judge and guide in everything."

Conscientiousness and Spirituality combined, or acting together, incline us to subject the selfish propensities to the higher faculties.

Conscientiousness and Hope combined make us believe that truth and right must prevail.

Conscientiousness and Veneration combined make us believe that God will enforce His own laws, bless the righteous, and punish the wicked.

Conscientiousness may be dormant and inefficient, but will never lead us into positive error when acting in conjunction with a strong and enlightened intellect.

BENEVOLENCE.

Sympathy; kindness; generosity; liberality; humanity; philanthropy; desire to do good.

Benevolence gives us the disposition to render others happy. Man not only

has selfish propensities, but he also has a special organ which inclines him to seek the good of others, and to labor for the relief of suffering humanity. Benevolence desires the greatest happiness of the largest number of persons. Happiness is to be acquired and conferred by the use of right and proper measures. Happiness is the true and only right end and aim of life. But every object in nature is governed by a fixed law. "God is love." Benevolence is one of the most important principles, if not the most important, in His administration. But He governs everything by an established law. Every part, organ, faculty, and function of man's physical, intellectual, and moral constitution is under its own special law. Every organ and faculty of man's complex being is governed by a law adapted to its capacity, and according to its nature. The laws of nature are uniform. There is nothing arbitrary or partial in the natural and moral government of the world. God himself (with reverence be it said) operates and acts according to the laws of His own nature. He will neither violate His laws nor suffer their violation; all is ordered for the happiness of His creatures. Justice, therefore, is a prevalent principle of His government.

Man is made for happiness. Phrenology and Physiology teach that we are made for happiness, and that all the laws of nature are adapted to that end. The structure and functions of the physical organization prove that man is designed for happiness. When all the organs of the human constitution are rightly performing their functions, no pain or physical suffering is felt, nothing but pleasurable sensations accompanying life. Every organ of the body, every faculty of the mind, every element of man's being, is made for and

adapted to happiness. It is the violation of law that produces pain or misery. Abnormal action produces misery. Suffering is the natural and necessary consequence of sin. Sin is unnatural. Suffering is contrary to the laws which should govern the human constitution. Man is made to acquire happiness by the right exercise, use, and gratification of his natural powers.

Benevolence disposes us to seek the good of others. It makes us grateful for favors, and is an important element in religious devotion. It renders us charitable, liberal, and forgiving. It gives the genuine missionary spirit, and makes us practical Christians. It is recorded of Christ that he "*went about doing good*;" and there is no trait of human character more Christ-like than Benevolence. This faculty is liable to perversion and abuse, and should be exercised in connection with Conscientiousness and Causality.

Spirituality indicates a higher life; Hope, a future state of happiness; Veneration, a God to be worshiped; Conscientiousness, a standard of right to be observed; Benevolence, happiness to be conferred on sentient beings. What is there contrary to reason in these sentiments? Do they not perfectly accord with reason? They are in harmony with science and demanded by reason. Indeed, they are the deductions of scientific analysis.

THE INTELLECTUAL ORGANS

are located in the forehead. Individuality takes cognizance of things as mere existences, without reference to their qualities. Form takes cognizance of shape and configuration; it remembers faces, features, and forms. Size takes cognizance of bulk, magnitude, dimension. Weight perceives gravitation and motion, and gives us the power to balance. Color perceives colors, and

loves natural or artificial tints and hues. Order perceives method, system, arrangement. Calculation takes cognizance of numbers, and enables us to count and calculate by the head or with figures. Eventuality takes cognizance of facts, incidents, and occurrences. Locality takes cognizance of place and position. Time takes cognizance of duration. Tune takes cognizance of sounds, and adapts us to music. Language remembers words, and expresses thoughts and emotions, orally, by act, or in writing. Comparison discovers the resemblances and differences between various subjects and objects; reasons by induction, analyzes, classifies, compares, discriminates, criticizes, illustrates, and draws inferences. Causality discovers the differences between causes and their effects, and their relations to each other; reasons by deduction, invents, originates, plans, and applies means to ends; perceives first principles, and reflects upon objects, facts, and truths, and forms conclusions.

The "five senses"—hearing, sight, taste, smell, and feeling—are the media between the mind and external objects. The Perceptive organs, through the external senses, bring man into direct communication with the material world. The Reflective organs enable us to reason on objects, facts, and principles, and form conclusions. They are situated higher, and perform higher functions, than any other organs of the intellectual group, Causality being greater than Comparison. Man's religious and intellectual organs constitute him a religious and rational being; and it is important to understand the relations of the religious and intellectual organs.

THE RELIGIOUS AND RATIONAL RELATED CLOSELY.

Phrenology shows not only that organs related as to function are grouped

together in the brain, and consequently combine with each other in their operations, but also that the intellectual organs act with the religious and moral organs. Reason and religion are in a great measure dependent on each other. The intellectual organs modify the functions of the religious organs, and *vice versa*. Reason and religion are not opposed to each other. One is not the lord of the other. They are intimate friends. They mutually assist each other. They reciprocate each other's services. Neither is complete without the other. Both elevate man immeasurably above the animals. Religion elevates reason; reason guides religion. The religious organs are above the intellectual organs, and elevate the intellectual functions. The intellectual organs are in front of the religious organs, and direct the religious functions. The religious organs can not reason, but they furnish data for the reflective organs. The reflective organs are incapable of emotions, but they can rightly direct the religious emotions. The intellectual faculties both serve and guide the religious affections.

The reflective organs occupy much time in the service of the religious organs. The religious organs take cognizance of God, immortality, moral obligation, and good will to all men. The reflective organs form conceptions and conclusions concerning these important matters of thought and affection. Much time is spent in reflecting on things pertaining to theology, religion, and morality. This service is a pleasure. The intellectual faculties delight to serve the religious faculties.

Unperverted religion conforms to reason. The normal actions of the religious organs are in harmony with the reflective organs. Reason is the guide

of religion. Hence, most well-informed and rightly-organized people are disposed to be unsectarian and progressive in religion.

PROCESSES OF ENLIGHTENMENT.

The human mind acquires knowledge through two different media, the senses and the affections. The perceptive faculties, through the external senses, acquire a knowledge of objects and facts appertaining to the material world, upon which the reasoning faculties reflect and form conclusions. And the reflective faculties, through the religious affections, acquire much knowledge of the highest importance. By the former process we acquire a knowledge of facts and material objects; by the latter process we acquire a knowledge of truths and principles. By the former process we acquire a knowledge of physical science; by the latter process we acquire a knowledge of religious and moral science. By the former process we learn man's physical and temporal wants; by the latter process we learn man's spiritual and external wants. We rely upon our senses; and why should we doubt our affections? The law of adaptation—that adequate provision is made for the normal wants and desires of all sentient beings—is verified by observation and reason; and we may safely make deductions from it, provided we only reason correctly.

The largest organs form the strongest elements of character. The larger the organ, the more it influences other organs. Leading traits of character result from large organs.

A man with large reflective organs, and small religious organs, is inclined to be skeptical and irreligious. This accounts for infidels among great men. A very small organ influences a man but very little; therefore, he is unreli-

able in the direction of the influence of his small organs. As a man with small intellectual organs can not excel in science and philosophy, however large may be his religious organs, so a man with small religious organs can not excel in religion, however large may be his intellectual organs.

A man with large religious organs and small intellectual organs is inclined to be devotional, but cares nothing for philosophy and science. Indeed, he is opposed to reason and progress. A man with a very small organ is idiotic in the faculty appertaining to that organ.

DIFFERENCES OF ADAPTATION.

A man can not excel in that for which he has but little capacity. Hence great men may be credulous in matters of reason and science, and be skeptical concerning religion. But this is not all; theologians, with but comparative few exceptions, are very credulous in matters of religion, but skeptical concerning reason and science. The same person is both credulous and skeptical, according to the development and training of his organs. Most people are extreme in their feelings and sentiments. Theologians, as a class, are as skeptical as any other class of men. Indeed, the sectarian minister is among the most skeptical, for he is even skeptical concerning religion, rejecting, as he does, views which are not considered favorably by his particular church, and so is inclined to oppose views and measures, perhaps often essential to the elevation and improvement of man, because they are not approved in his creed.

A man's views of God are according to his mental organization. Hence, it is easy to account for the various sects; and sects will continue to multiply until man comprehends his own nature. Each of the various sects depends largely upon a special organization. Let a

man know himself, and see how much he is biased by the organs of his mind, and he can, to a considerable extent, correct his errors and defects. He can, by a proper knowledge of himself, change and improve both his organization and character.

Large Veneration, Individuality, Form, Size, and Locality, with small Spirituality, Comparison, and Causality, lead to Anthropomorphism. Accordingly, during the whole period of man's history, a large majority of the people, both learned and ignorant, have held materialistic views and sentiments concerning the Deity. These views are still taught by some religious ministers, and are entertained by the masses of the people. Systems of theology and denominational books and papers abound with such errors. The very men who ascribe to God human attributes and passions, contend that Phrenology teaches materialism! But Phrenology is the only system of philosophy yet discovered whose teachings are fully competent to check and rectify the materialistic tendencies of man.

A religious man may be immoral; and a moral man may be irreligious. A man with large Veneration, deficient in all other respects, may pray and manifest much devotional feeling, and yet be destitute of honor and moral rectitude. If a man have large Conscientiousness, with small Veneration, Spirituality, and Hope, he may be very honest and upright in his dealings with other men, and yet reject religion. A man with large Veneration, Conscientiousness, and Benevolence, and small Comparison and Causality, will be devotional, honest, and charitable, and yet be superstitious for the want of general knowledge to guide his religious affections.

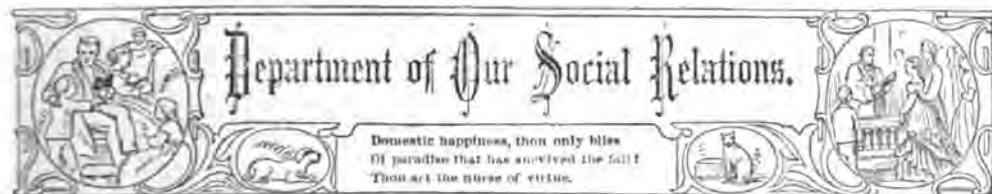
Knowledge is more valuable than

gold; and self-knowledge is the greatest of all knowledge. If the philosopher desire a knowledge of nature, he should acquire a knowledge of man, and especially should he study man's religious nature.

If the theologian desire a knowledge of religion, let him study man, especially his religious and rational nature. "The proper study of mankind is man."

How can we benefit him by our preaching or teaching if we misapprehend his nature? How can we acquire a knowledge of God the Creator while we remain ignorant of man, the creature?

If the phrenologist or progressive Christian would accomplish his mission, let him teach man how to develop, exercise, and use all the powers of his complex being.



SOIL AND SOUL.

EVER from the depths of each truly human soul there arises something of aspiration toward the beautiful, the true, the good; subject, however, to misdirection and error as to what is beautiful, what is true, and what is good. Hence the infinite misery of aspiring minds in many instances; for the value of a good understanding consists largely in the power to keep oneself from coveting things which—however desirable in themselves they may be—under the circumstances are not really desirable. For very many individuals it is true that—

"Not to desire and not to admire
Were better and more
Than to walk all day in a garden of spice
Like the sultan of yore."

Nevertheless, our young people are indiscriminately taught to aspire—to "set their mark high"—which is all very well, *provided* the marksman is a high and straight shooter. But what if he isn't? Why, the mark is missed, and a life is wasted, that is all. Very great and imperative is the need of

knowledge for the right direction of all our faculties, and especially so for the guidance of the aspirations of the young.

Pending the diffusion of that knowledge which shall make mistakes in the choice of a life occupation as rare as now they are common, I would call the attention of young men to a vocation which, as a means of intellectual and moral culture, has never been duly appreciated, and which has always been regarded as, at the best, a hard means of a mere livelihood. I mean agriculture. I will not undertake to say that the rage for professional life that overruns and rots out the rural districts is not in a certain sense a "noble rage," like unto that sung by the poet in his immortal *Elegy*; yet in the vast majority of instances it must be set down as a phase of misguided aspiration, for the reason that it is seldom founded on a just estimate of the natural fitness of the aspirant for a profession, nor is it more frequently regulated by a reasonable apprehension of the obstacles to success therein. Worst of all, the

mainspring of this ambition is generally a false estimate of the relative value and dignity of occupations. It is not believed by the average country young man or woman that anything can make "drudgery divine," or that honor all lies in acting well one's part. It is imagined that in a title there is a talismanic power to ward off mediocrity and win respect, and that brains and character necessarily reside within a professor's coat and hat. There are several ways and means of accounting for the general disaffection toward agriculture among the more intelligent youth of the country, as well as their inclination to seek a profession. In the first place, on the general principle of hallucination. The mass of men, both young and old, labor and live under some kind of hallucination, the most comprehensive form of which is imagining that other people are more fortunate than they, and that any other occupation is preferable to their own. The agricultural youth is deluded by a fancy—not discreditable to any part of him except the understanding—that he can never get an "education" unless he quits the farm and spends some five or six of the best years of his life immured within the walls of some institution of learning. Moreover, it is notoriety, with a life of imagined ease and possible affluence, and not knowledge, that he really courts. Now, while I believe in books, schools, and culture—even the poor, imperfect thing which passes for such in the absence of better—I affirm that whatever of order, beauty, or wealth can be found in books can be found out of them, and that more abundantly. Whence came knowledge primarily? was it from books or from brains? Must a young man necessarily go to books for knowledge? Must he have a library, or remain a hopeless

idiot? Did the makers of books get their knowledge from other books? if so, where did the first book-makers get their knowledge from? There must be some primary source of wisdom, and I would recommend those whose circumstances forbid a liberal acquaintance with authors to try to discover it, especially the hundreds and thousands of young men who must perforce spend their lives in tilling the soil, and who yet long for the advantages of education.

Education, I take it, is tilling the *soul*, while agriculture is tilling the *soil*. And I know of no two other occupations that are so susceptible of being blended together and made one. In this matter the farmer youth enjoys rare and incalculable advantages, so far is he from being exiled from the privileges of culture and growth. The school, the course that young Rusticus covets, and which his father can not afford, doubtless would stimulate one or more of his faculties, and those, perchance, the use of which he will least need in subsequent life; while those faculties he will most need to use in his business would be likely enough to lie dormant. On the other hand, in his occupation of agriculturist every faculty of the mind, from those percepts which take cognizance of the outer world, with all its endless variations of feature, form, and color, up to the higher, which perceive causes and take hold on principles, are every day and hour called into use and normal expression; and this is culture, this is education. Only let it be so understood and so used, and the vast discrepancy between the advantages of a scholastic education and of a practical education, which now is thought to be in favor of the former, will be shifted to the side of the latter. Take, to begin with, for

illustration, the principle of Order. "Order is heaven's first law," and is, therefore, an excellent thing to begin an education upon. What a school for this faculty is here! Nowhere is a well-educated faculty of Order more imperatively needed than in the pursuit of agriculture, and nowhere, in no business, are system and shape worse neglected. The young man deploras his disadvantages, while every duty on his hands continually is calling him to order. Do everything that is to be done on the farm in an orderly manner, and in a short time we have one faculty of the mind educated, trained, developed. What more could any school do than this?

What a vast aggregate of time is lost and vexation suffered for want of training in ability to find things, or, rather, to know where they are! Not one farmer in ten is well educated in this respect; yet no man more needs a clear perception of relative position and place than he, and no man enjoys better advantages for studying geography than he. Have a place for everything and everything in its place, and tilling the soil and tilling the soul will grow harmoniously together.

The historical faculty here comes in play. Poor historians farmers are generally; they never had much of a chance to cultivate their minds; yet every farm has a history of its own—serious, comic, tragic, all of history is repeated on a small scale at least within its boundaries, and every year and day is replete with events which, if fastened in the memory, will strengthen it quite as much as reading about other events that have happened elsewhere. Of course I would not limit the exercise of this faculty to the events of life on a farm, but I find here an excellent preparatory course to a larger range. How

few, also, are well developed in the perception of periods of time; a good memory of dates is comparatively rare; few can remember when any but the most important events occurred. Every day the farmer does something new, and the recollection afterward of when it was done is often, if not always, of advantage. Work is being done, and events are transpiring on every farm enough to keep the faculty of Time constantly on the alert to remember the date. Thus no better opportunity is offered to any for the exercise of this most important faculty than the farmer possesses, and exercise is the law and the gospel of growth.

The jargon of schools is of little use in the way of mental exercise compared with a system of education that presents directly to the various perceptions their natural and appropriate objects. Furthermore, a practical education obtained in this way may be gained in connection with regular and healthful bodily exercise, without special sacrifice of time and means. Only get the true idea of what real education is, and what are the natural objects of the faculties, and it will speedily become apparent that agriculture is infinitely rich in opportunities for soul culture. Nor can I conceive of any other situation or occupation in itself so well calculated to excite and call forth the moral and spiritual powers. It is a notorious fact that farmers and out-door laborers are exceptionally dull and indifferent under the delivery of the regular Sunday sermon. May there not be a moral as well as a physiological reason for this fact? may it not be that it is the listening to so much more eloquent teaching through nature's thousand voices the whole work-day week that makes the pulpit discourse flat and unprofitable by comparison? and the singing of praise

by bird and bee from every flower, bush, and tree, does it not make the choir music tame and stupid? But that is a fine point, and I leave it. Yet as a prophet once prayed for the eyes of the young man who was with him, yet blind to his surroundings, to be opened, so I would that the eyes of every young man engaged in agriculture might be opened to see in his surroundings and occupation, especially the latter, that infinite capacity of spiritual suggestion and illustration from which the first of Teachers drew His choicest figures.

Not alone for the health and strength it gives, and its comparative freedom from strife and care, do I envy the tiller of the soil his occupation. From the sowing of the seed, the budding and blossoming of the grass and grain up to the garnering of the perfect fruit, every hour, every act is replete with suggestions of a higher significance than mere temporal growth and gain. Even while I toiled with my hands, glances and glimpses of divine order and harmony would steal in unbidden on my soul; and surely if it were my privilege I would prefer to take my bread from the hand of the Creator rather than from the middleman or merchant. Here are all the necessary conditions for genuine, healthful, and noble living; independence, health, peace, these are the privileges of the farmer; yet the curse of unconsciousness hangs over every human being, and man will never admit that he is already blessed.

After all, there is a cause for the disaffection toward rural life and labor which lies deeper than any yet mentioned. It is isolation. Human beings are constituted gregarious; as naturally as young birds take to the air, or young ducks to the water, so do young humans take to each other's society. The most radical defect in our rural

economy, and that which breeds the deepest and most determined hostility to home life in the country, is the want of means and opportunities to gratify the social instincts of the growing population. Large farms, keeping neighbors wide apart, are partly accountable for this; and the ignorance of parents of this vital necessity explains the rest. In very many instances the cry for "education" comes up from these depths; and the discontent of country youths with their occupation grows largely out of social starvation. The young man and the young woman as well knows that at school or college there will be society for them, social contact, social stimulus, social life. The city becomes attractive, and thousands of young country people flock thither, and, when there, "sigh for the hillside soft and green" again. Neither place, the farm or the village, the country or the city, fully supplies the wants of their nature; the one is all solitude, the other all excitement. Professional life means mingling with the crowd also, and this element in its attractions figures largely.

In respect to social education, it must be confessed that the tiller of the soil has not equal advantages with the citizen or the professional. It matters not to the youth socially inclined that he abides with the beautiful from year to year; the gorgeous panoramas of sun and sky and lovely colored cloud that every day go above and about him, the "splendor in the grass and glory in the flower," are lost in social longing. There is a beauty of the face, a light through the eye, and a music of speech that nature with all her tints and hues, her voices and her calls, can never atone for. Yet in all the elements of the highest and best culture, the lifting up and broadening of the

spiritual powers, the occupation of the worker out-of-doors richly abounds. Let him count every day as lost that lifts him not into higher and serener faith, brighter hope, and broader char-

ity, as well as clearer understanding. This is the glory of tilling the soil, that it gives the opportunity and furnishes the incitements to till the soul.

H. P. SHOVE, M.D.

DEATH IN LIFE.

DARK is the earth whereon we tread!
 Look up, the light is overhead,
 And, lit by stars, the sky smiles down
 With its hushed glory on the town.
 The earth's at rest, the trees embrace,
 And night has kissed them on the face.
 Up, up so far, the midnight stars
 Gleam through the twisted em'rald bars
 Of drooping elm, and willows old
 That clasp the town within their hold.

She woke from that mad dream of bliss
 To wretchedness so deep as this.
 From her young life the charm was
 gone,
 And here she makes unceasing moan.

"Oh, Mary, mother, Mary mild!
 Turn pitying eyes upon thy child,
 So weary, sad, and so forlorn,
 Out in the darkness, fearing morn,



And there, beneath their double shade,
 Sobbing kneels one who's not a maid,
 Or yet a bride, or loving wife,
 No widow she, for her lone life
 Came not by cruel death's device.
 Ah, no! there's yet a higher price,
 This woman crouching in the shade,
 For her deep misery madly paid.

Once whispers sweet cajoled her fears,
 And lover's lips drank up her tears;
 Once twining arms around her clasped,
 While kisses chained her senses fast.

With its cold, freezing, scornful eyes
 That look on me with stern surprise,
 As though I alone of all the throng
 Had ever done the slightest wrong.

"Turned from my father's mansion door,
 My mother claims me her's no more.
 But yesterday, my sister sweet
 I face to face met on the street;
 I caught her dress, I begged her speak
 Just one kind word, if love were weak;
 She tore away and threw me gold
 That glit'ring on the pavement rolled.

“And this she hissed beneath her breath,
 In words more bitter cold than death:
 ‘Take that and go, and have it said
 In all the papers that you’re dead.
 Take this,’ and then she gave her purse,
 ‘And keep yourself from getting worse;

I took her gold, I have it here,
 Dimmed and stained by many a tear.
 I thought I’d go and really drown
 In the dark lake beyond the town;
 But when I stood upon the brink,
 And knelt a moment, just to think



A servant in some town afar,
 My future then you will not mar.
 She turned away and left me there,
 Pierced through and through by her cold
 stare.

A word of prayer before I sent
 My soul to endless banishment,
 A low voice whispered, ‘Wait, though
 yet
 There’s ’gainst thy soul a heavy debt,



“But Mary, mother, Mary mild
 In mercy look upon thy child;
 Oh, hold my fainting spirit up,
 While I drink deep this bitter cup!

All may be paid, and opened wide
 Through heaven’s gates thou’lt pass a bride,
 I rose and kissed the bending tree
 Wherein the noise seeméd to be:

Then came to look upon this place,
Where he and I did often pace.
But there I left upon the brink
My shawl, so mother, sister, too, might
think
That there beneath the waters deep
I slept my final, dreamless sleep."

"Dear bowers, dear home, a long farewell,
Whither I go I can not tell;
But somewhere hence I'll seek a place
Where none will know my dark disgrace.
But I'll not serve the proud or rich,
I'll help the fallen from the ditch;
I'll tend the sick, I'll teach the poor,
And go about from door to door,
Where grief and poverty are sore,
And tell the words of comfort o'er.
Mid toil and pain I'll pass my life,
Not fearing sickness, death, or strife.

"So father, mother, sister dear,
I'll leave a blessing for you here.
May all that's beautiful and bright

Enter your home and make it light.
May ne'er a dream of Ada's name
Bring up the thought of Ada's shame.
Dear sister, ever may'st thou be
Pure as once she who prays for thee.
Now, Mother, Mary, mother mild,
Reach down thy hand and lead thy child."

She rose and turned her from the shade
The drooping elms and willows made.
Right soon she passed the close-barred door,
Which she could enter "never more;"
She kissed her hand as she went by,
Then, pointing upward to the sky,
Walked forward still with steadfast feet
Toward where night and morning meet.
As she moved on the stars went down,
And morning smiled upon the town.
I know not where she found a rest,
But, soon or late, on old earth's breast
She'll sleep—dear earth, that somehow
cleanses out
The stains of sin, the sin of doubt.

AMELIE V. PETIT.

MARGARET FULLER'S POWER OF TRUTH-SPEAKING.

ONE of the highest qualities of the human mind is the power to see the difference between right and wrong. Nothing is more evident than that this power exists in very different degrees in different persons. It is a gift, like the gift of imagination or reason, an intuitive trait, the presence or absence of which the person is not always responsible for.

But the power to perceive truth, and an instinctive and controlling love of it, do not necessarily imply the power to speak it. This is a gift, too, and a much rarer one than the other. A hundred people are in love with the truth, but not twenty of them have the heroism of the tongue that qualifies them to utter it. "There are enough to flatter and to praise," wrote one of these rare truth-speakers once, at the close of a searching criticism of some

fault, "there must be some plain dealers like me."

This blue-eyed woman penetrated the veil of shams and illusions with unerring vision, and executed unflinching punishment upon the offender.

This power of truth-speaking extended to the friends she loved best as well as to the common run. Love, in her case, did not blind. The most admirable qualities did not prevent her from seeing faults, and from hating them.

None of the astonishing qualities of Margaret Fuller was more marked than her power of speaking truth. Perfectly transparent herself, she detected every deceit in others, and reproved it with serene severity. She did not need the stimulus of indignation or passion to give her courage, but spoke calmly, without heat, as upon any ordinary matter.

Her biographer gives an incident of her life which strongly illustrates this striking trait. It was while she was in Europe, in Paris, a most egotistic, selfish, untruthful man was the object of her condemnation. Her friends and others in the room described it as tremendous. "They all sat breathless; Mr. — was struck dumb; his eyes fixed on her with wonder and amazement, yet gazing, too, with an attention which seemed like fascination. When she had done, he still looked to see if she was to say more; and when he found that she had really finished, he arose, took his hat, said faintly, "I thank you," and left the room. He afterward said, "I never shall speak ill of her; she has done me good."

This sincerity of utterance was not limited to grave matters. "Even in trifles," says her biographer, "one might find with her the advantage and the electricity of a little honesty." Here follows an account of a scene that passed in Boston at the Academy of Music.

A party had gone early and taken

an excellent place to hear one of Beethoven's symphonies. Just behind them were soon seated a young lady and two gentlemen, who made an incessant buzzing, in spite of bitter looks cast on them by the whole neighborhood, and destroyed all the musical comfort. After all was over, Margaret leaned across one seat, and catching the eye of this girl, who was pretty and well-dressed, said, in her blandest, gentlest voice, "May I speak with you one moment?" "Certainly," said the young lady, with a flattered, pleased look, bending forward. "I only wish to say," said Margaret, "that I trust that in the whole course of your life you will not suffer so great a degree of annoyance as you have inflicted on a large party of lovers of music this evening." This was said with the serenest air, as if to a little child, and it was as good as a play to, see the change of countenance which the young lady exhibited, who had no replication to make to so Christian a blessing.

JENNY BURR.

THE BLUE-BIRD.

THE coming of the blue-bird in the early part of the year has always been associated with the advent of spring; and those, especially, who live in the rural districts give him a hearty welcome. In March, this lively, familiar, pretty bird usually makes the Northern States its permanent residence, until the cold north winds warn him that he must seek a more comfortable region for his winter's stay.

The blue-bird belongs to the large family of thrushes. In length it is about seven and a half inches, the wings being very full and broad, extending, in maturity, ten inches. The

plumage of the male bird is soft and blended; above being of a bright blue; below, yellowish brown; underneath, white; the legs are black. The domestic habits of this bird are very marked. Phrenologically speaking, Conjugal and Philoprogenitiveness are strong qualities in his organization. He seeks perpetually the company of his mate, showing his gallantry by frequently feeding her with some favorite insect; and if a rival makes his appearance, the attack is immediate, the intruder being driven off with angry chattering.

The nest is not made with much care,

a little hay, with the intermixture of a few feathers, constituting its chief materials. Five or six eggs of a pale blue tint form a brood; these are unspotted. Two or three broods are raised in a season, the male taking the youngest under his charge, while his mate is occupied with the more intimate affairs of the nest.

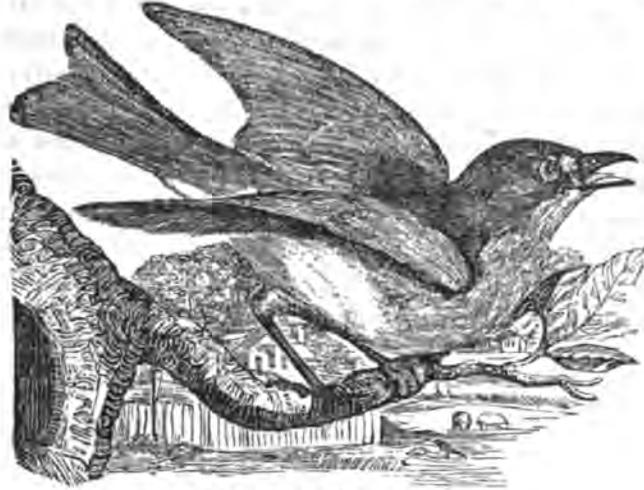
The food of the blue-birds consists mainly of insects, particularly beetles. They are also fond of spiders and grass-hoppers, and the common wire-worm is highly appreciated. They are very busy during the warm season in hunting up their food. In August they regale themselves with different kinds of berries, like those of the wild cherry or pepperridge.

The note of the blue-bird, familiar enough to country people, is a delicate warble, repeated most frequently in the early spring, when the sky is serene and the temperature warm.

Gentle and firm in disposition, and, when treated kindly, evincing a charming confidence in man, the society of the blue-bird is much appreciated by farmers, many of whom furnish him and his mate with a box in which they can construct their nest, and feel at home. He amply repays such attention by the war which he makes upon the insect enemies to the crops of the field and the garden, and by his habit of returning from year to year to the same tree and associations.

At autumn the blue-bird's lively song is changed into a single plaintive note, as if he mourned the departure of summer and the necessity for seeking a

more congenial sky. Early in November he takes his departure, winging away southward in small flocks. In some cases the bird lingers even until the cold weather has actually set in, especially in those of the Middle States, which experience relentings of the au-



THE BLUE-BIRD

tumnal severity. The species known to us of the Middle States is that termed in scientific language, *Sialia Wilsonii*, belonging to the order *passeres*, or passenger-birds.

—♦♦♦—
 "FOLLOW IT UP."—The world of business is always rolling its little paper wads and firing them at passers-by; but we doubt if there are any three words which embody so much stern wisdom as those which every business man is called on to utter to his subordinates or associates—"Follow it up." They are in the air so constantly that there is no need to shout them from placards or letters of gold. The sum of rules for success is contained in them. How many an ardent beginner in a profession or business, who started on a full run, has come limping in after his fellows, because he could not follow it up. How many a capital piece of game has been lost be-

cause the hunter who beat the bush had forgotten to load his gun, and so could not follow it up. How many a servant has loitered by the way, because his master, having sent him on an errand, did not follow him up. A merchant who had built up a large business by judicious advertising, told the editor once that he had a system of dispatching circulars by messengers to the houses of possible customers. "But how," asked the editor, "could you be sure that your messengers delivered them?" "Oh, I sent a man to watch them." "And then you watched him?" "Yes." He was a follower-up. The motto is applicable to the conduct of

any enterprise. Unless it be followed up, the positions gained held securely, and new advances made, the immediate success soon becomes worthless. The man in the parable who had his one pound, was so far well off; but because he did not follow it up, he never got to be ruler over even one little city. And as we seem gradually dropping, not into poetry, but preaching, finally brethren, observe this significance of the word *up*. "Follow it up" is the text, because every persistent pursuit leads one to higher vantage-ground. No man who ever faithfully followed his work found he was following it down.—*Riverside Bulletin*.

MY RESOLVE TO BE A RICH MAN IN TWENTY-FIVE YEARS.

A STORY FOR BOYS.

I AM a middle-aged man now, and I have always lived single. I had a good bringing up, but my father being only a hard-working mechanic, with a large family, could give me nothing except good advice and a common-school education. I was the eldest born, and as I spent my childhood under the shadow of a great city, I contemplated making my fortune there, and would then make the old age of my parents rich and happy.

So my freedom suit was installed behind a counter, and my good habits and wishes to please were the best recommends I had to bring to the firm of Hunt & Ketchum. I received three dollars a week besides my board, which a score and a half of years ago was considered big pay. My clothes being new, I should need no new additions for a long time. My mother, dear, good soul, washed and kept my clothing in repair, and I had only to pay the express charges to and from my

old home. My employers seemed to be partial to me, and often asked me to stay and assist them in extra jobs, and never forgot to give extra money for the service done. So I was in a fair way to become rich. I loved my father and mother, and looked forward to the day when I could repair the old house, and add something to the interior as well. I wanted it said of me, "See how well Tim Trusty has done; he was a poor boy when he commenced." I soon learned the different grades of society, and also found out that those who were most thought of did very differently from the way I was doing. One of the other clerks said if he was in my place he would not have my mother do my washing. It was asking too much of one's own mother, besides, he could tell a bosom done up by the Stiffs a mile off. I could see the force of this reasoning, and felt ashamed of myself for putting so much on my mother for the sake of saving money.

I had been obliged to pay the express to and from my old home anyway, and the Stiffs would deliver their work free, and it was not likely the cost would be a great deal more, and if my city friends should ask me what laundry I employed, I could hold my head up and answer them, and these things do have a bearing on one's demeanor; besides, if there is one thing you are a "leettle" ashamed of, that one thing comes uppermost the oftenest. I attended a little church, and went regularly to Sabbath-school. I gave sparingly, but somehow when my first quarter's bills were settled I had but two dollars left.

The first year was passed and I had saved nothing. But then, everything was new to me, and the Stiffs were very hard on my linen, and I was forced to buy new. I sent my old clothes home, and mother told me afterward that they lasted over a year for my younger brothers. I was glad it helped them, although it was something of a loss to me. But I had one comforting thought, I was always well dressed.

My salary was raised the second year, and I was considered a favorite. The older ones suggested that it would be expected of me to go to Dr. Grand's church now. They did not take up contributions in Dr. Grand's church, and I thought that would be a saving. I hired a single sitting at the cost of fifty dollars a year, because that included all expenses, and it would further my interests to sit among the rising men. Of course, one must look to his surroundings if he expects to be a rich man. At the end of the second year I studied book-keeping, so that I could get a higher salary, and that used up my extra change; it was therefore impossible to save anything that year.

The fourth year I bought a watch, and as it was only a silver one, and

cost forty dollars, I thought I could afford a thirty dollar chain to go with it. I kept my old place the fifth year at an advanced salary; but where I attended church they called a new minister, and concluded to keep the old one on retired pay. They felt like doing this because there were so many young men in the congregation that would be glad to help to maintain a servant who had been of such great service in the world. The rest of those in my set subscribed liberally, and as I never could bear stinginess in such matters, I gave all I could spare out of my fourth year's labor.

The next year our new minister thought we ought to build a church, and as such a call might not come again in a lifetime, I pledged two hundred dollars for five years, believing that bread cast on the waters would return some day. If you don't do some good in the world, what will the same world think of you?

The next year, which was the sixth, I became dissatisfied with my employers, for every other man who had abilities like mine commanded better wages. You remember we are commanded not to hide our talents, and if we can get better pay, it means about the same thing.

Finally I left, and went to Sharp & Lookout's on two hundred a year more than Hunt & Ketchum gave me. I had always dressed in a business suit for church, but I was getting older, and it would look better to have a real black suit, something that would not show the work and wear of the week. It would not make any difference in the end, as I could wear it in the store after I left off wearing it Sundays.

I went out considerably, evenings to church, societies, concerts, etc., and one feels better to have clothes on that he

knows is a "best suit." The seventh year was a political one, and as I belonged to the biggest party, and every one knows there *are* times in a man's life that political influence may be of use to him, I wanted to keep all I could. If I didn't help, wouldn't I be considered lukewarm?

All of this time I met my church obligations, and the eighth year our minister wanted a change. It had been very hard for him, and as I was chairman of the committee to raise funds to pay his expenses for a foreign trip, I could do no less than put my name down for enough to pay the voyage over.

The ninth year my influence was such among men that I was ashamed of my silver watch; for any observing person well knows that a watch is an index to a man's standing in society. I could not get half the value of my old one, and as I had not given my parents anything but my cast-off clothes, I gave my father the silver one. The old neighbors and our folks thought I was getting rich to be able to do this.

The next year, which was the tenth, was the last that the pledges of the church were due, and as I had never had a vacation, I thought it no more than right that I should take a rest. This was urged by my mates, and our friends can tell what is best for us sometimes. Sharp & Lookout objected a little, but I had been a faithful hand, and I was allowed to go if I did not expect "back pay" in my absence. I stayed longer than I expected, and they found a man for a less salary; of course, they had a good excuse for dismissing me under the circumstances, or one that suited their pockets, rather. I was out of employment two months, but during the time I learned telegraphing, it helps a man to know more than one or two

things, and the little expense I was to in the way of board I could pay when I found work.

The eleventh and twelfth I spent as an agent. Agents do make fabulous wages sometimes, and expenses are not high in the country. It rained a great deal the first season, and I could not sell all the time, but no one was to blame for that, and, unfortunately, the next year the firm broke down. People shook their heads, and thought I had better have stayed at Hunt & Ketchum's, as the man that took my place had married old Ketchum's youngest daughter, and her father was not long for this world; but who can foresee the future? so I can not see as I was any to blame for not laying up this time. The thirteenth year I went back to the city, and luckily found a situation at almost my old prices. I was determined to put by a set sum every quarter, but it was really necessary to give myself care first. It is a little humiliating to go back among your friends in a come-down state; besides, one has some duties toward society, and I had been deprived of it for two years. It took this year and the next to get back into my former clothes and position; and when the fifteenth year of my business life came I was really prepared to lay up money.

Now, my best fellow got married, and the rest of us thought we could not afford the luxury of a wife, but we would show our friend that we could have a good time after all. Most of the fellows in our set furnished a room, kept a library of books, and had a real snuggery. Books are never considered extravagant, you know, and one can never spend his money foolishly if he expends it in books. So I bought a hundred volumes at the start, and a book-case, which I never imagined cost

so much, and felt happy. I remembered the first watch, and profited by it in buying the book-case—it was the best. I went into society the next year more than ever. I attended lectures and all the first-class concerts. I always took a lady, as people of my age (I was thirty-seven) grow narrow-minded and lose that grace of manners if they do not mingle with the gentler sex. It costs a great deal to hire a livery every time one wants to ride; besides, a person is never sure of a safe horse, and ladies are timid, and want a driver to know his horse. A good horse will bring the cash any day, and so I resolved to buy one.

Somehow I did not get out of debt until my fortieth birthday, and I had been nineteen years in the wide world. So I resolved to curtail my expenses and start anew. I am sure any one can see how difficult it has been for me thus far, but to persons situated differently the case would be altogether different.

I am sure I do not see the reason why I never saved anything up to this point. I am not a spendthrift, have no bad habits, do not drink, smoke, or play cards—but there must be a leak somewhere. But how am I to save? If a man goes into cheaper lodgings, people will think he is getting loose in his habits, and, moreover, he must be running down in business as well. I do mean to give to none but the worthiest of objects after this.

The new church was finished, and as I was a single man, and commanded a large salary, of course, I could take more than a single sitting, for wasn't I expected to help the *young* men now!

To be sure, no one ever did it for me, but things wasn't so when I was young; people that live long know that our posterity expect things different

from what we had. So I invited two younger fellows behind the counter to sit with me.

The twenty-first year I sold my horse and rig, and actually put the money in the bank. It was not much, but then it had always been my principle to make a beginning. I think as I did at my twenty-first birthday, that a man who is well and has good pay can lay up money, and it is a mystery to me why more don't. People found out I had money somehow—may be I was so proud of it that I let it out—and you have no idea how much I was consulted in all financial matters. I was president of the Society of Industrious Young Men, and belonged to sundry other ones for the advancement of young men. People said behind my back, "He's got money, has a large salary, no family, and goes into the best society." One is forced to keep the good opinion of others, and do accordingly.

Things went on in this way until my business career reached its twenty-third year. Then, within a few weeks of each other, my parents died. My sister Minnie was the youngest, and unmarried. They came to see if I could not do something about helping her into a place. She could have gone into a store, or taught school, but it would not look well for one in my situation to let a sister do that, so I boarded her in the city, and when I got too "hard up," let her run out in the country to visit. She married well after a year, so I could not complain of the expense I had been to. I wanted to do something handsome in the way of presents, especially as she was going to have so many from other sources. This compelled me to take the money from the bank to have the whole affair go off right. Certainly, I said, I can make it

up very soon, as I have nobody but myself to care for.

The next year, which was the twenty-fifth, and the last which I shall chronicle, was spent in traveling three months. I had never taken a trip but once in my life, and a person should see something of the world. I feel so refreshed that I think I shall be able to lay by a handsome sum by the time I am sixty. I can not see why I have not been able

to do it, but if—well, I do think *generally* a man can lay up something if he has a mind to. And I will stick to it, that a man with fair health and good wages can make money and have something in twenty-five years after he begins life for himself. They can do it in ninety-nine cases out of a hundred, but you see how it was with me, and so I must be the hundredth case.

LITTLE HOME BODY.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—William Penn.

PEACE-MAKER GRANGE.

CHAPTER I.

A WEATHER-BEATEN, intelligent farmer was one of the few occupants of a car on a western branch railroad one autumn day two years ago. In the next seat was a man of about his own age, sixty years, who attracted his attention. The farmer noticed that while he himself was—in common with many of his class—full of distress and worry, his neighbor, though showing no signs of wealth, was calm and serene. Looking closer, he remarked a certain dignity and majesty in the mien of the stranger, whose high-domed brow, whitening hair, large, clear, honest blue eyes, and prominent, delicately-chiseled nose made him a model of manly beauty.

The farmer, out of the fullness of his heart, began to talk to the benignant stranger upon the railroad monopolies, and stated his private grievances. He had at home a corn-crib one hundred feet long, and did not know what to do with it. His corn ought to be worth several thousand dollars, but he could

get no offers, and now here he was: his boys could not go to college, his girls could not go to boarding-school, and had "nothing to wear;" indeed, as things were going, he could not see how he was to keep his little flock clothed and shod through the winter. And didn't the stranger think that it would be right for the "Grangers" generally to take hold of politics, and compel the railroads to so lower their freights as to make it possible for the farmers to make an honest living, as they are doing now in Wisconsin.

A faint smile crept over the deep-lined face, and there was sadness in the honest eyes as the reply came. "Oh, my friend, I see not one but many causes for your present trouble, and the greater troubles that seem impending. The American people are still comforting themselves with flagons brewed by Fourth of July orators. They say, 'We are rich and increased in goods; and know not that from the crown of

the head to the soles of the feet they are full of wounds and bruises and putrifying sores.' Your present trouble is so interlaced with the wrongs and mistakes that abound in our boasted civilization, that no one remedy will remove them. Private and public, individual and national blunders, as well as intentional knaveries, have brought you where you are. The railroad men have been simply blind leaders of the blind; and they, with you, have fallen into the ditch."

"How is that? I don't see as the railroads that are finished are suffering especially."

"You will see them suffer now through the Granger movement, which is only in its infancy, and through the general depreciation of railroad securities."

"Do you belong to the Patrons of Husbandry?"

"Yes; though I live in an Eastern State, where the order is but little known as yet. But the settlement in which I make my home enjoys all the benefits of co-operation with which the western Grangers are acquainted, and many other benefits of which they have no experience. As to your railroad war, it is inevitable, and let it come; but the fault is not all in one quarter. In the late war, each party was wrong in putting all the blame upon the other; so in this case, the farmers as well as the railroads have gone astray. The Rebellion arose from the fact that North as well as South had connived at and fostered a great wrong, which crept under the shadow of the Constitution, asking leave to lie there and die quietly; and finding itself year after year without official notice to depart, and get itself buried, concluded to live and thrive. Just so with the evil under discussion. It is not caused by rail-

road sharp practice only, but also by the fact that the American mind is steeped with ideas that are contrary to the spirit of our Constitution, to true democracy, and the brotherhood of man."

"What, pray, are these ideas? I have been taught that the American nation was as near perfect as is possible for human nature, and that its programme was inimitable."

"All wrong. Our vast expanse of fertile soil, the untold mineral wealth beneath; the ease with which fortunes are acquired in trade, commerce, manufactures, politics, professional life, and literature even; our clumsy currency; our class legislation; the lack of an hereditary aristocracy, with a birthright to wealth, title, and office; the democratic good nature which leads elected officials to wink at all manner of crime; the democratic delusion that it is not stealing for sovereigns to appropriate the public property of their realm; the upsetting of old notions of religion and morality by so-called science—these, and a hundred other American peculiarities, have so debauched the nation that with one accord, almost, we have determined to be rich and prosperous at any cost. We have, as a people, welcomed to our hearts the fatal lust of possessing the fruits of other people's labor without rendering a just equivalent."

"It looks somewhat so, indeed. But what is to be done? What is the way out?"

"Our people have been following a seeming royal road to wealth, and it has landed them in a bog. I see nothing for them to do but to retrace their steps. In old times, when the Daughter of Zion fell into evil ways, she was providentially scourged by afflictions until she returned to right ways of living. This nation is, I think, being

treated, in the same way. * * * But where is this corn of yours? It is part of my mission in the west to supply the lack of corn in our settlement. I will see what you have, if it is not too far off."

The farmer named a district so remote that the eastern man said: "I could not offer you anything that would pay for raising corn there, and do justice to my people."

His companion, eager to sell at any price, named a very low figure.

"Well," said Judge Templeton, for that was the name and title of the philosopher, "I will look at it; but I am sorry for you."

Accordingly, after a long journey the farmer's crib was inspected, and a bargain made. "I will take it all," said the purchaser; "what we do not need, I can sell to our neighbors. Next year we will have enough of our own. And now, as I think that after what you have suffered you would make a good industrial missionary among your people here, I want you to go home with me. I will show you such a settlement as was never seen before."

This was acceded to, and after a few days' delay, to enable the farmer to prepare for a prolonged absence, the pair started for the east.

CHAPTER II.

It was a hazy Indian summer morning when the two travelers stood upon a pier at Washington, D. C., looking down upon a neat propeller of 300 tons that seemed, judging from the proportion of cabin and hold, equally calculated for freight and passengers. The flag, which was of a very light-golden hue, had a graceful olive branch in natural colors running diagonally across it, with a letter P embroidered beneath in German text.

"His banner over us is Peace," said the judge, looking up gratefully toward the heavens; "and we call ourselves 'The Peace-makers.'"

"Blessed are they," said Farmer Hallet, with moistened eye, "and the end of such is peace."

The crew of the "New South"—irreverently called "The New South Whale"—consisted of the captain, engineer, and two others. They were dressed in a becoming uniform of blue flannel, each adorned in a different style by some simple feminine embroidery. All saluted the judge warmly, but none boisterously.

The freight consisted of forty or fifty tons of dry goods, hardware, provisions, and such sundries as are usually bought by country stores.

"I should suppose from the odor, Martin," said the judge to the captain, "that you brought up a big load of tobacco this time."

"Yes, sir; it seems as if the whole county is shipping its tobacco by our boat."

"You see," said the judge to Mr. Hallet, "we have to make what we can on freight to and from our neighbors, as our own settlement does not furnish full employment for the vessel. So, though we raise no tobacco ourselves, we take it to Richmond and Baltimore for our neighbors; and our return cargo is always largely made up of supplies for the country stores and individual farmers. And now sit by me here on our little quarter-deck, over the cabin, and I will tell you where you are going, and whom and what you will see. We are going to the head of navigation of a small river that flows into one of the numerous bays that border on the Chesapeake. The rapids above these afford us a plentiful water-power. We have such an association

as the world can nowhere else show. We own an entire township, and some of the leading officials of our co-operative society are the political officials of the township, so that we constitute a complete small republic, with normal, or at least constitutional, relations with the ascending scale of greater republics, from the county upward. We number already 3,000 persons, from all classes of society. We are not Communists, but a congeries of joint-stock companies, associated in all the relations of life, with one chief company so organized as to maintain the leading control."

"All this is new and strange to me," said Hallet. "I know something about co-operative societies, and have visited Shaker settlements; but this place of yours, covering a whole township, and supporting 3,000 people, is beyond anything I have met or heard of in that line. How do so many people get a support there?"

"In the first place, we have made it a rule to take no more persons upon the domain than can, if necessary, be fed from it. Another primary rule is to manufacture every article needed by ourselves that can be made so as to pay a small profit over current wages. This, with soil enough beneath (all paid for) to feed all hands if necessary, and all the trades that furnish articles of ordinary use in operation, we are as able to stand any financial storm as the Shakers. We have a remarkable variety of soil for this region, including a large stretch of very fertile alluvium along the river, below the falls. We are so careful to raise a great variety of crops, that it would take a most unheard-of combination of meteorological calamities to starve us out. Of course, our large population to the acre affords us the inestimable privilege of raising a great

amount of garden vegetables and such small fruits as can not be transported for usually at a fair profit. But we rely for an increase of wealth largely upon our factories of various goods scattered along our fine water-power. We have a blast-furnace and rolling-mill, and are continually enlarging our list of smaller iron and steel manufactures. But, as I have hinted, the peculiar amenity of our situation is that we are so self-reliant that we stand ready at any time to cease producing any surplus beyond what is needed for our own consumption, and to go on for years without asking anything at all from the outside world."

"A wonderful state of things, surely," said Hallet. "But how did all this come about? Whence arose this magical kingdom within a kingdom, and who is its king? for it looks to me like the work of one master-mind."

"A prophet, priest, and king, truly, in the best senses, is our leader. The movement is fundamentally a religious one; and our spiritual guide, though not directly controlling our external affairs in a large degree is, as the Latins say, *facile princeps*, our undisputed head. The association has been brought into existence mainly by four minds—this princely pastor and his remarkably practical wife; myself, a practical world's worker, and my remarkably spiritual wife. One might say, following the idea that the truly mated pair are one, that our founders are *two*. He and I were college classmates. After forty years' separation, I found that he had, with his fine intuitions and inspirations, planned, as it were, the spiritual form of such an association as ours now is, while I had planned a corresponding material form. For instance, his general conception was of a society that should be modeled

somewhat after the great Jewish temple, with a nucleus of devout people maintaining the chief control, and surrounded by a 'Court of the Gentiles,' consisting of children, half-sympathizers, partial co-operators, and temporary assistants. My more matter-of-fact conception had been expressed in the language of the leading teachers of political and social science. These views were in each case so modified by the influence of our wives that we were thoroughly prepared to work together."

"And then what?"

"Well, we began operations in New York city. I had been a successful lawyer and a judge, and had accumulated considerable property. He had developed from the condition of an Episcopal preacher to such an uncompromising position as an independent preacher, that he had but a small following and a scant salary. But he stood firm, nourishing these ideas of a better life, and scorning to use his practical talents for money-making. He used to say—while he kept preaching that there was no true religion where the persons who strove to 'build each other up in the most holy faith' were tearing each other down in temporal affairs by competitive trade and wages slavery—'It is my business to preach the truth; if people will not listen, they will be accountable.' And again: 'No, I will not try to make money—like Agassiz—I have not time. If I am good for anything in worldly matters, it is to show those who have property how to use it. I will bide my time, and give my testimony. Some day they will heed it.'"

"But I am anxious," said Hallet, "to hear how such great results were produced as you describe at your home."

"Agreeing that in such matters, 'that is first which is spiritual,' we began religious meetings in New York, I pay-

ing expenses, and generally, since then, relieving my friend of all care concerning temporalities. This was seven years ago. His small congregation was already pretty well indoctrinated; and soon after we began to give out plans for practical co-operative living and working, the meetings increased rapidly in size. A fervid, genuine religious feeling was shown, coupled with such an exhibition of brotherhood as I had never seen. Those who met with us saw that something more than the hollow mockery of ordinary religious fellowship was intended, and entered so heartily into our central thought, that soon there was a general demand for practical association in all the relations of life. Meanwhile, we had been issuing a small weekly paper, and holding correspondence with congenial persons throughout the country."

"You have not told me yet to what sect you belong."

"That is a difficult question to answer. I might reply by telling an anecdote. Prof. Brownson, who finally became a Roman Catholic, previously connected himself with nearly every one of the Protestant sects. Once, when he was attending a communion service, before he took up with Romanism, the preacher invited the members of *all* Christian churches to partake of the emblems. Some one present remarked that the Professor was the only person in the church who could 'fill that bill.' It is a good deal so with us. We have accepted the idea that my friend has preached for thirty years, that there exists an absolute, universal religion, and that in all nations those who work righteousness are acceptable to the Creator. And, further, that whereas earlier religions have been preparatory to Christianity, *its* principal sects have been each hewing out a

foundation-stone for the 'Church of the Future' (which will be a full embodiment of the universal religion); and that they will gradually coalesce through eclectic groupings of those cognate and co-related—such as we now see taking place among the various Presbyterian churches. You will observe in our church that we are Episcopalians in occasional use of a liturgy, in fondness for stained glass, evergreens, and saints' days; Presbyterians, or rather Independents, in our organization, our communion service, and our rigid scrutiny of the spiritual condition of candidates; Baptists, where converts prefer immersion; Methodists, in aggressive zeal and energy of expression; Catholics, in receiving the idea of 'purgatory' (*i. e.*, that the soul can be purged after death), and in encouraging 'confession' to the elders (of the same sex); Quakers, in giving women equal power with men, and in many other points; Swedenborgians, in our leading doctrines; Spiritualists, in our belief that there is nothing 'supernatural,' and our determination to have a foundation in fact and science for all our beliefs; Unitarians, in our love of culture and conviction of the unity of the Creator; Universalists, in that

'We can but hope that good shall fall
At last—far off—at last to all.'"

"Surely you will be worthy of the name Peace-makers, if you thus harmonize these conflicting sects."

"This process of unification is in progress all through the churches. We are simply doing systematically, and with our eyes open, what most sects are doing in a fragmentary, unconscious way. We have undertaken to sift the chaff out of all the leading sects, and retain the wheat. As this work is largely experimental, we do not pretend to have used a perfect touch-stone

in our selection of the desirable features of the sects. But we think our eclecticism is in advance of any similar attempt with which we are acquainted."

"I suppose you are eclectic in other matters besides religion?"

"Yes. Of course every one who plans a new system from old material thinks he has chosen the desirable and left the undesirable. Time will show how far we have done this. For instance, we have closely studied all the joint-stock and Communistic associations of the past and present, and endeavored to embody only their good features in our social organization. We have been careful, also, to obtain members from all the successful Communist bodies in America, that we might have the benefit of their experience, although we do not incline to Communism. We have among us persons from the Shaker, Amana, Zoar, Economy, Brocton, and Oneida societies; and old associationists who were at Brook Farm, Red Bank, Amboy, Wisconsin, and the hundred other 'phalanxes' which came to a premature end. In short, with us Parthians, Medes, Elamites, and they of Mesopotamia, all find enough of their old gospels preached to make them feel at home."

"You have an ambitious programme, truly," said farmer Hallet, musingly. "It reminds me of the Universalist's expression, 'The reconciliation of all things.'"

"Although they sometimes disclaim any such intention, whoever offers a new programme of this sort entertains the purpose of presenting a working model for the complete reorganization of society. It remains to be seen whether the line of work and life we have struck is such as should be extensively imitated. We certainly aim to do all we can in the way of recon-

cing science and religion, capital and labor, conservatives and progressives. A favorite motto with us is 'To gather together in one all [good] things in Christ.'

With such explanations the judge beguiled the hours as the swift steamer plowed the Potomac and Chesapeake. Toward evening the waters narrowed before them, as they passed up the lesser bay into which flowed the river upon both sides of which lay the Peace-makers' domain. After passing a long stretch of low but well-drained land, with here and there an old plantation house, they found the bluffs rising to thirty or forty feet, and an attractive diversity of hill and dale, meadows and grove on both sides of the contracting waters.

It was quite dark when the propeller reached the society's wharf far up the stream, where it was not over 300 feet wide. Steep bluffs, 100 feet high, covered with tall trees, loomed up on each side, and the roar of a distant cataract could be heard.

As the travelers stepped upon the wharf, the judge was warmly greeted by a comely, gray-haired lady and a graceful girl, whom he introduced as his wife and daughter. "Excuse me a moment," he said to the farmer; and then stepping to the corner of the pier, still holding the hands of his relatives, he held a brief, earnest colloquy with them. Then leading the way toward a Rockaway wagon that was awaiting them, he said, "Now for home."

Hallet noticed in the greetings between the steamer's crew and the men on the wharf a buoyant cheerfulness, and at the same time a quiet decorum that was very pleasing. He saw that the Peace-makers were restoring some of the best features of old-time American manners, and was reminded of this

passage in the "Tour of North America," by a Mr. Shirreff, written some fifty years ago: "On reaching North America, the plainness of the people's manners appeared remarkable. In all classes there was a total absence of grimace and corporeal token of respect, with corresponding sounds of address, an expression of obligation or thankfulness being seldom heard. But, on the other hand, vulgarity, rudeness, or insolence is almost never met with in the humblest walks of life. A general propriety of deportment and softness of manner pervades the lower classes. In America every individual seems possessed of self-respect, and in the intercourse of life arrogance is seldom assumed and never submitted to. * * I never observed that democratic sauciness which I was taught to expect among the lower classes." That came in as true democracy went out, and the common people felt that their supremacy was passing away.

Hallet observed, as the vehicle crept slowly up the beautiful hill, that the grounds were neatly laid out. At one point even a group of statuary could be seen through the trees.

"Do not think that we are becoming luxurious," said the judge. "That group was sent us by a wealthy sympathizer living in Italy—one of the old school of associationists, who were always for beginning at the wrong end of the system—the music, dancing and high art generally."

And now the great red moon rising at the hazy horizon showed the stranger a remarkable series of buildings, spreading over several acres. The carriage approached a massive stone structure, four stories high, which was evidently the centre of the contiguous three-story buildings, and was connected with them by covered galleries.

"Here," said the Judge, "is the pleasant habitation of 2,000 of our people. This is the centre and key of the position; 1,000 more dwell at the extreme points of the township, in similar but smaller edifices. But on all im-

portant public occasions 'the gathering of the clans' is here. I welcome you to our new Jeru-Salem—city of Peace."

"Peace be within her borders," said Hallet, as he entered the massive portal.

SAMUEL LEAVITT.

THE LATE VICE-PRESIDENT WILSON.

THE death of Vice-President Wilson is felt to be a loss to the nation. Ever foremost in the cause of humanity, he, as a statesman, infused a tone of purity in whatever measures of legislation he participated in, and so his presence in a community where were men inclined to connive at or encourage schemes of chicane or fraud, served to check their development. He belonged to a class of men, politicians, if you are pleased to call them, now alas! very few, who are brave in the assertion of their patriotism, and keep themselves above the crowd of mercenaries by the nobility and integrity of their purposes.

During the twenty years Mr. Wilson had been in the Senate of the United States, his course was marked with a profound sense of official duty, and with an earnest fidelity to the highest moral principles. No one ever suspected him of connection with a "job." Perhaps we should except his connection with the Credit Mobilier; but that was doubtless the result of over-confidence in political associates, and not of any improper motive. He was not a statesman because he desired the perquisites or emoluments of office. Far from it. He accumulated no wealth as the result of long public service, but died comparatively poor. As a resolute, progressive champion of Temperance, he long ago won the gratitude of all good citizens, and will be deeply

mourned by the zealous advocates of this great social reform.

A few years ago Mr. Wilson submitted his head to us for a careful examination, and we wrote out the character. We here give a synopsis of the description then made. He was a man of rather large stature, and doubtless weighed at the time of his death 185 pounds. He had a fine skin, light brown hair, and a light complexion, tending to the florid. He was distinguished for general smoothness of organization, both of head and body, and the portrait we present looks very fair and young for a man sixty-three years of age. He had a predominance of the vital temperament, his chest was broad and deep; he was amply developed in the digestive department, so that his system was well sustained for labor, both of body and mind. But the sign of circulatory power is not very strong, and that really proved to be the point where he broke down. The apoplexy with which he was smitten, and the form of his death indicate a disturbed functional condition of the heart. Aside from this tendency, his prospect for long life was very fair.

The base of the brain was amply developed, as indicated by the prominence and breadth of the brows, and by the width of the head from side to side. He was combative, yet so smooth and harmonious in his general temperament, that his force of character did not mani-

fest itself in irritability or the tendency to assail. His was a defensive, not an aggressive nature.

He had a strong moral development; the top-head was well rounded and high; he was benevolent, sympathetic,

others, but he loved justice, and aimed to follow duty, though he might not be always able to take his friends with him.

That forehead indicated scholarly tendencies, the disposition to acquire



THE LATE VICE-PRESIDENT WILSON.

kind-hearted, and respectful, religious or devotional. He had a strong sense of justice and duty, and manifested uprightness in all his career. He had a fair development of self-esteem, and rather strong Approbativeness. He was so organized as to feel keenly any rereproach from his friends or

knowledge, and to remember it. He would be able to carry in his mind more facts, acquired by reading and observation, than almost any other man that could be found. His language was amply developed, but his power as an orator consisted in the plain and earnest rehearsal of his knowledge, rather than

in the graces of diction or the flights of imagination.

He had strong social dispositions, and won friends, and held them firmly. He was ardent in his attachment, zealous in the pursuit of that which he deemed desirable, and was specially endowed with Firmness to hold him to his course. He was frank, inclined to speak and to act openly. He was not a tricky manager, and was never stronger than when pursuing some honest purpose in a straightforward, open manner.

He had the power to criticise subjects and things, plans and purposes, and to read strangers like a book, hence he was rarely at fault in his estimation of men; and with his kindly spirit, with his affectionate disposition, and with that moral earnestness for which he was distinguished, he was able to lead or very strongly influence men who were really his superiors in talent. People believed in him, trusted to his motives, accepted his word, and thought him honest in the support of his cause, whether they were able to agree with the desirableness of success in that cause or not.

The following sketch of Mr. Wilson's career is derived from an appreciative article in a New York newspaper:

HENRY WILSON was born at Farmington, N. H., on the 12th of February, 1812. His parents were poor, and while a mere child he was apprenticed to a farmer. What opportunities he had to obtain an elementary education were necessarily few. The short irregular periods he attended school during the time he was engaged upon the farm, did not make in all twelve months. But his thirst for knowledge was not to be balked by the obstacles of poverty. He learned to read, and historical and biographical works were eagerly sought by him, and sedulously

studied. Every penny he could save was carefully laid aside; every moment of relaxation from toil was profitably employed. Leaving Farmington at the age of twenty-one, Mr. Wilson went to Natick, Mass., and there he learned the trade of shoemaking. With the money he saved he expected to obtain an academic education, but his little capital had been entrusted to a person who became bankrupt, and the young man, sad enough, no doubt, at thus being compelled to forego the enjoyment of a privilege which had cheered many a year of hard work, went back to shoemaking, and with even greater ardor than before, continued his course of self-culture.

In 1840, during the Harrison campaign, Mr. Wilson delivered a great number of speeches, and his abilities were promptly recognized. He was elected to a seat in the Massachusetts Legislature, in the lower branch of which he remained for four years; then he was elected to the State Senate, of which body he was President for two sessions. It was while he was in the Legislature that he began to rise as a leader in the anti-slavery ranks. He strenuously exerted himself against the annexation of Texas. With John G. Whittier he went to Washington, bearing the anti-slavery protest. The cause of his withdrawal from the National Convention which nominated General Taylor was the rejection of the anti-slavery resolution, which had been proposed as a plank of the platform. In the formation of the Free-Soil Party he took an active share; from 1849 to 1853 he was Chairman of the Bay State Free-Soil Committee, and in 1852, when the party met in National Convention at Pittsburg, Penn., he was chosen President.

The Massachusetts Legislature sent

him, in 1855, to fill the place vacated by Edward Everett in the United States Senate, to which he was re-elected in 1859. He was not long in the Senate before he aroused the anger of the slave-holding representatives by efforts to procure the repeal of the Fugitive Slave Law, and by his endeavors to procure the abolition of slavery in the District of Columbia.

When the late war broke out he raised a regiment of volunteers in Massachusetts, and joining the army of the Potomac, served as a member of Gen. McClellan's staff until Congress met. In 1861 he was made Chairman of the Committee on Military Affairs. Few, except himself, recognized the magnitude of the struggle which was actively inaugurated by the firing upon Fort Sumter, and the measures he introduced with the view to preserving the Union at the outset, were fully justified by after events. In the legislation necessary to meet the changed condition of national affairs at the close of war, the services rendered by Mr. Wilson were most valuable. His achievements in the cause of liberty and civilization have won for him a fame far beyond the bounds of this continent. During his absence in Europe, in 1871, men of eminence as scholars and statesmen delighted to do honor to the man who had raised himself from a cobbler's bench in the town of Natick to be a leader in one of the greatest events of the century.

Several of the literary works which have been produced by Mr. Wilson of late years will long be useful and instructive manuals to the student and the statesman; notably "The Military Measures of the United States Congress," "Testimonials of American Statesmen to the Truths of Christianity," "The History of the Reconstruc-

tion Measures," and "A History of the Rise and Fall of Slavery in the United States"—the last being left by his sudden decease unfinished.

On the 6th of June, 1872, Mr. Wilson was nominated to the second place on the Presidential ticket of the Republican Party, and he delivered numerous speeches in the campaign which preceded his election. It may not be out of place here to quote some words spoken by him at Natick, to a number of his fellow-townsmen, who came to congratulate him on his nomination as Vice-President. They give an insight to the single-hearted, unselfish patriotism which inspired his career. "If defeat comes," he said, "I shall endeavor to bear it as I should do; if victory comes I will simply say, I shall strive in the future as I have in the past, to serve my country with clean hands and a pure heart, to be true to the interests of my fellow-men, and always to side with the weakest and poorest of my countrymen who need sympathy."

His intense Americanism is shown in one of his latest utterances: "A man born in America to-day has more power and higher responsibility than he has in any other age or in any other land that the sun ever shone upon."

Latterly, the arduous labor of an intensely active life told upon the robust frame of the Vice-President, and he was not, as formerly, able to accomplish so much of the work in which he delighted. On the 10th of November he was affected with apoplexy in the Capitol, and although there was a strong belief—up to almost the time he expired—that he would recover, the attack proved fatal. His remains were taken to his old home at Natick, and interred with the honor befitting his national position and the esteem in which he was held by the American people.



True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

AN UNCONVENTIONAL VIEW OF HERBERT SPENCER.

IN a quiet boarding-house in London lives a lonely gentleman whose name is, perhaps, better known in America than in England, and whose multiplied volumes have as yet scarcely sufficed for an income of a few hundreds a year. He has the habits of an

reader of men on this unobtrusive gentleman would be that he is a dreamer, lacking intellectual penetration—a man to build facts into coherent and well-imagined structure, but not one to penetrate those spiritual problems of which material facts are merely the enigmati-



HERBERT SPENCER.

invalid. His forehead is large and expansive. His mouth betrays a lurking sweetness that illuminates the slow smile of the student. His eyes dream. His face is plowed with furrows of thought. But it is not, on the whole, a face of power, although one indicative of considerable constructive talent. Altogether, the criticism of an acute

cal statements. He has grayed a little with hard thinking or dreaming—little is the difference, after all—but the placid and meditative have long since taken such possession of his countenance as moonlight takes of an autumn landscape, softening rocky crags into castles in the air, and transforming turbid tarns into tossing lagoons of

silver, skirted about with fringes that by day would be straggling forests, but by night are dreamland woods. His nature is persistent and thoughtful, rather than powerful and penetrative; and he has a monomania of a mild and passive type that the explanation of the universe will perish with him, unless he should be successful in disburdening his mind of certain speculative phrases, such as evolution, heterogeneity, integration, equilibration, and so on.

This is the man of whom M. Henri Taine says: "He possesses the rare merit of having extended to the sum of phenomena—to the whole history of nature and of mind—the two master-thoughts which for the last thirty years have been giving new form to the positive sciences; the one being Mayer and Joule's conservation of energy, the other Darwin's natural selection."

Of whom Colonel Higginson says: "He has what Talleyrand calls the weakness of omniscience, and must write not alone on astronomy, metaphysics, and banking, but also on music, on dancing, on style."

Of whom Mr. Emerson says, in his dogmatic and incisive way: "He is a stock-writer, who writes equally well upon all subjects."

Of whom Prof. E. L. Youmans says: "The conviction is now entertained by many that the principles of psychology, by Herbert Spencer, in 1855, is one of the most original and masterly scientific treatises of the present century, if, indeed, it be not the most fruitful contribution to scientific thought that has appeared since the 'Principia' of Newton."

This opinion is shared by the *Saturday Review*, of London, which pronounces Mr. Spencer the philosopher since Newton, of most remarkable speculative and systematizing talent; while

Mr. W. Stanley Jevons, the eminent professor of logic, questions whether any scientific works which have appeared since the "Principia" of Newton are comparable in importance with those of Darwin and Spencer, and regards the works of the latter as revolutionizing all our views of the origin of physical, mental, moral, and social phenomena. Again, a writer in the *London Quarterly Review*, treating of Mr. Spencer's remarkable power of binding together very different and distant subjects of thought by the principle of evolution, concludes with the remark that the two deepest scientific principles now known, of all those relating to material things, are the law of gravitation and the law of evolution. These are strong contrasts of opinion.

In medias ibo.

EARLY LIFE, PURSUIT, AND AUTHORSHIP.

A general map of the life and intellectual career of Mr. Spencer is essential to the comprehension of his relations to the progress of science during the last quarter of a century, and hence to the proper consideration of his value as one of its expositors. He is now (1875) fifty-five years of age, and was educated for the profession of a civil engineer—a profession not calling for the culture of the university, and one that started him in life, without the special biases that come from familiarity with the curriculum and its professors, and from long inspiration of the classic atmosphere of the university town. Until 1842, when he was twenty-two years of age, he had written nothing but professional papers for the *London Civil Engineer*. In the summer of that year he commenced a series of papers in the *Nonconformist* on the proper sphere of government, in which he advanced the then somewhat heterodox idea that the functions of a govern-

ment should be limited to the protection of life, property, and social order, leaving to individual activities the development of all other interests. In these letters, which were published in pamphlet form in 1843, Mr. Spencer assumes the existence of laws of social progress and of natural processes of rectifying social evils, although in a rather negative manner, and without attempting to lay the foundation of a social science; but in estimating his labors in this direction, it must not be forgotten that they are prismatic reflections of the bolder and more comprehensive social speculations of Fourier, Auguste Comte, and St. Simon, who had already cleared the way for a science of man's social relations by breaking down those ancient traditions which had so long constituted the basis of social order.

From this date, with which his intellectual career commences, it is a very simple process to follow out the workings of his mind until the theory of evolution first dawns upon him as a vague dream, and finally assumes the scientific exactness of later years. Unsatisfied with the crudity and unprecision of his pamphlet, in 1848, while still engaged as a civil engineer, he commenced the scientific elaboration of the views therein laid down, after having meditated on the subject for two years; for the decision that it must be rewritten was arrived at in 1846, while he was engaged in the desultory study of text-books on moral science, with an ever-crescent dissatisfaction with the basis of morality as treated from the standpoint of professors of ethics. This work was issued in 1850, under the now familiar title of "Social Statics," and affiliates the leading doctrines of the pamphlet in which it originated, with the great general principles of morals lying at the foun-

dation of society. The fundamental conception of the work is that all social evils are the exponents of the imperfect adaptation of individuals to environing social forces, and that as such adaptation progresses in perfection such evils must necessarily disappear. He thus views social progress as an evolution, by which society is continually adjusted to the operation of individual forces, and by virtue of which such progressive adjustment must continue until the highest possible exactness of adaptation has been evolved. This, in a general way, he regards as the principle of the civilizing process, and as the scientific basis of culture and progress. One of the points of this volume was the recognition that the laws of habit constitute the basis of the progressive physical and intellectual transformations of races, and are means by which a stable equilibrium between the aggregate and its units must finally be evolved; but, along with this progressive adaptation of the mass to its units and of the units to their mass, he dwells with emphasis upon a new principle, namely, the dying out of the unfit and the survival of the fittest, which is only another form of expression for what Darwin has since rendered famous as the law of natural selection.

THEORY OF POPULATION DEVELOPMENT.

In 1852 Mr. Spencer published three essays on very diverse subjects. The first and most important of these appeared in the *Westminster Review*, to which John Stuart Mill was then a frequent contributor, and consisted in the proposal of a new theory of population, as deduced from the general law of universal fertility. The paper starts with the apparent paradox that in proportion as the power of maintaining life is small, the power of multiplication is great—a paradox which is everywhere

supported, not only by comparing the statistics of the lower with those of the higher races, but also by comparing the statistics of the lower with those of the higher classes in metropolitan cities, where contrasts are attainable. For New York, compare Mulberry Street with Fifth Avenue, or Henry Street with Murray Hill. The idea is that, as a general law, the advance toward a higher type of humanity is accompanied by lessened fertility, and that, in this manner, a proximate equilibrium between the rate of multiplication and the rate of mortality must ultimately take the place of the existing preponderance of the former. The writer argues that only those who actually advance under this law toward the higher type eventually survive, and that the survivors must, consequently, be the select of their generation. The *rationale* of this law, namely, that in proportion as man advances in civilization the ordinary processes of the lower nature are replaced by a higher group of activities, and that progress is the original cause of the lessened reproduction, not the lessened reproduction the cause of progress, appears to have escaped the scrutiny of the philosopher. He also failed to perceive the force of these influences in the evolution of new types, and their tendency to produce variations from the primitive type, thus originating new species. Had he perceived this important bearing of his theory, and worked it out as an agency in the differentiation of species, he would have anticipated Darwinism, and left to Darwin nothing except the verification of certain principles originally stated by another. He saw distinctly how the survival of the fittest may contribute to the evolution of higher forms of the same fundamental type; but, alas for his fame, he did not perceive that it must eventuate

in divergencies from the original type, and in the consequent evolution of new species and genera. His essay on the development hypothesis, of which the "Vestiges of Creation" was then the popular exponent—everybody remembers the sensation created by that little book—was also published in the *Leader* almost contemporaneously with the new theory of population; but here, again, he fails to grasp the fundamental conception of evolution, except in so far as the production of higher forms is concerned. If, as he himself states, five years intervened between the conception of this theory, in 1847, and the final publication of it, in 1852, the omission of one of its main bearings must certainly be regarded as the consequence of his failure to grasp the cardinal point of the evolution theory, and Darwin must be credited as having been the first to comprehend the idea in its only important aspect, and to elaborate it in such form as to work a revolution in biological science. In October, 1852, Mr. Spencer published his paper on the philosophy of style in the *Westminster Review*, which George Henry Lewes regards as the only scientific exposition of the subject that English literature has yet produced. As a scientific product, very little value can properly be predicated of Mr. Spencer's philosophy of literature—for a philosophy of style is really a philosophy of literary production—but, as foreshadowing an application of the theory of evolution to psychological phenomena, and as recognizing the processes of differentiation and integration in one of the highest spheres of human activity, its perusal can not be dispensed with by those who would follow step by step the intellectual processes that eventuated in the "Principles of Psychology," published in 1856.

HIS VERSATILITY — EVOLUTION IN PSYCHOLOGY.

In 1853 his leading contributions to literature were a paper on over-legislation in the *Westminster Review* for July, and a review of John Stuart Mill's theory of ultimate beliefs, which appeared in the same periodical. In 1854 he applied the leading principles of his method to the discussion of manners and fashions and to the genesis of science; and here, while trying to refute some of Comte's views respecting the classification of the sciences, he applies the two cardinal conceptions of evolution, namely, differentiation and integration, and shows how a body of general truths was gradually converted into an organism of the sciences. The paper on manners and fashions appeared in the *Westminster Review*; that on the genesis of science was published in the July number of the *British Quarterly*. In May of the same year his paper on the art of education was admitted into the *North British Review*. He treats the progress of mind under the educational question as a part of mental evolution in general, regarding education as a process of self-development, and tracing its natural course from the simple to the complex, from the empirical to the rational.

Cursory as this survey of Mr. Spencer's early literature is, it clears the way for the comprehensive application of evolution to the doctrines of psychology; and he commenced his work on this subject in August, 1854. The idea of adaptation now becomes an element in the conception of life, and the relation between the organism and its enviroing conditions dips into the very nature of life itself, and is interwoven with its fundamental processes. The action of life on its enviroing conditions; the reaction of those conditions,

in modifying and transforming its activities; the continual advances in speciality and complexity, as consequent upon the continuous adjustment of internal relations to external relations; the manner in which all the multitudinous embodiments of life have arisen out of the simplest beginnings, and the resolution of the most complex forms of intelligence into simple elements—all these are grouped together as operations of the principle of evolution, and as workings of one fundamental law pervading and unifying all the varied phenomena of nature. He had been at work on this volume not more than two months, as he informs the world through a mouth-piece admirer, when the general conception of evolution as the basis of a comprehensive system of philosophy first dawned upon his mind, and that which he had previously conceived as a universal law of transformation from the homogeneous into the heterogeneous, was identified as a fundamental principle underlying all phenomena. Thus the same kind of transformation, which Von Baer had pointed out as incident to the development of individual organisms, was traced into social and psychological phenomena, into the development of the sciences, and into the genesis of the mental faculties. This comprehensive generalization led Mr. Spencer to retrace the processes of his intellectual work, and to seek for some universal cause as its necessary basis. Full of this idea, he submitted to the *Westminster Review* a proposal to write a paper on the cause of all progress; but in July, 1855, having finished his great work on psychology, his nervous system gave way, and he was for a year and a half a confirmed invalid. It was this book, written in eleven months, that John Stuart Mill pronounced one of the finest examples extant of the

psychological method in its full power. Mr. Mill's commendation is, however, very unguarded. It is undoubtedly true that the study of consciousness had been too exclusively depended upon as furnishing the data of psychology, until the celebrated dissections of Gall and Spurzheim first laid the foundation of psycho-physiology, and demonstrated by comparative nervous anatomy that psychical phenomena must be considered as manifestations of life, and until M. Béclard, by demonstrating the high comparative vascularity of the nervous centers, indicated the correlation that subsists between the vital and the intellectual processes. Contrasted with Sir William Hamilton, it is very true that Mr. Spencer appears to have carved out for himself a place as one of the original thinkers in this department. But, on the other hand, when brought into comparison with the great masters of experimental psychology, from Descartes to Magendie and Sir C. Bell, it must be conceded that he has acted only as compiler of the data developed by men scarcely known to general literature, and has added little except a few glittering generalities to the information extant in 1855 on psychological subjects. The truth is, it is simply absurd, and betrays exceeding ignorance of the literature of psychology, to attribute to Mr. Spencer more than the co-ordination into system of the collective results developed and stated by other investigators. Even the emphasis he lays upon habit as a transforming cause had been anticipated by Mr. Murphy in his important work on "Habit and Intelligence." What Mr. Spencer did was, like a civil engineer, to build a structure out of the materials furnished by investigators more vigorous than himself.*

* It is a curious and not altogether unprofitable investigation to trace out the physical theories of mental

The article on the law and cause of progress, projected in 1854, was not written until 1857; and here, again, the transformation of the homogeneous into the heterogeneous is followed through all orders of phenomena, and finally referred to the law of the multiplication of effects. The origin and function of music came under discussion the same year. The subject is treated from the evolution point of view, Mr. Spencer holding that the general law of nervo-motor action in animals furnishes an explanation of the tones and cadences of emotional expression, and evolving music from these elements by simple exaltation of their distinctive qualities, and by ideal combination of such exalted elements. In the same

action that have been offered within the last two centuries. The problem has been to account for the phenomena of memory on a purely physiological basis. It is not difficult to understand how a molecular vibration of a given nerve may be transformed into a mental impression, and how a given molecular agitation of the sensory centers may have its equivalent in consciousness. But since this impression must be succeeded by other impressions, and so on *ad infinitum*, the question is, how am I able to recall a given mental state and a given impression years after its actual occurrence, to identify it as having occurred at a given date and place, and, finally, to retrace all the conditions under which it was generated. The first theory proposed was that impressions have certain *vestigia rerum* (vestiges of things) in the brain. Hartley proposed a very similar theory when he regarded sensations as consisting of vibrations which are transformed in the brain into vibratuncles, or miniatures of themselves, and remain as vestiges of impressions; and from Hartley to Spencer the interval is scarcely large enough to admit of any association of great originality with the doctrine of the latter. It is now fashionable to speak of impressions having certain *residua* in the brain; but all this is just as thoroughly hypothetical and unsupported by any known facts as it was when Baron Hüller propounded his first crude explanation of the phenomenon of memory. Of course, the physiologist may leap the barriers and insist that it is a property of molecular transformations to remember themselves; but the truth is, that no known phenomena exist to support this assertion, and that, in explaining the facts of memory, one has to fall back on laws of force rather than of matter—in other words, on the essential nature of the potential. The penetrative thinker will see in these vain efforts to explain mind by the laws of matter the necessity of a new science interposed between physiology and psychology, namely, a science of psycho-physiology concerning itself, especially with these relations.

year, also, in a paper on transcendental physiology, whatever that may mean, Mr. Spencer advanced another step in the elaboration of his theory by tracing the transformation of the homogeneous into the heterogeneous, not only to the multiplication of effects as an antecedent, but finally to its ultimate cause in the instability of the homogeneous; and still, in 1857, one of his prolific years, he must needs, in a paper of inquiry as to what representative government is good for, apply his theory to the governmental parts of the body politic. He has, however, in this paper, one remark so sensible, namely, that the ultimate result of shielding men from the effects of folly must be to fill the world with fools, that thoughtful men will be inclined to forgive him the transcendental generalizing of the rest.

APPLICATIONS OF EVOLUTION PRINCIPLES.

In 1858 he published four essays. One of them was on moral education, *Westminster Review*, for April, in which he contends that moral education should be regarded as an adaptation of human nature to the circumstances of life. The second was on the nebular hypothesis, *Westminster Review*, for July, and entered upon a systematic defense of La Place's views, which were just then called in question in consequence of observations with Lord Rosse's telescope, implying that the supposed nebulae of the earlier astronomers were remote sidereal systems. Spectrum analysis has since proved that the universe contains many gaseous nebulae, and has thus far sustained the hypothesis. In October he published an elaborate review of Professor Owen on the "Homologies of the Vertebrate Skeleton," and applied his theory of development to anatomy.

In 1859 he contributed four papers to

periodical literature, namely, one in January on the laws of organic form, one in April on physical education, a third in July on the value of knowledge, and a fourth on illogical geology, in which he disputed the then prevalent theory that the formation of geological strata had been nearly simultaneous. These are all dominated by evolution.

In 1860 he published five essays. One was in review of Dr. Bain's great work on the emotions and the will; another on the social organism. Both appeared in January. The article on the physiology of laughter, published in *Macmillan's Magazine*; the dissertation on Parliamentary reforms, printed in the *Westminster Review*; and the essay on prison ethics, contributed to the *British Quarterly*, completed his labors for the year. The latter applies the principle of evolution to the progressive development of better methods of managing criminals than those prevalent during the last century.

Thus progressively, in papers published anonymously, Mr. Spencer had, up to 1860, applied the evolution theory to every department of science, commencing with sociology and psychology, and ranging through cosmology, geology, biology, and banking. The points to be arrived at were that evolution is a universal principle of nature, that it consists in a process of increasing heterogeneity, and that this process is in consequence of the multiplication of effects, which is itself consequent upon the instability of the homogeneous. In unscientific English, things grow according to certain laws; and, as to the instability of the homogeneous, such a thing as absolute homogeneity has no existence so far as science can find out. It is not the homogeneous, then, but the imperfectly such, that is unstable.

It was in 1858, as we are informed, that Mr. Spencer, while preparing his essay on the nebular hypothesis, conceived the idea of bringing the sciences into such relation to the theory of evolution, as to form a coherent body of scientific truths. His pecuniary circumstances were not fortunate; he was poor, his books not having paid expenses, and his health being such that he could work only three or four hours a day. There was no hope, either, that a system of philosophy could be made to pay expenses, such a phenomenon as that having never been known since the world began. In this dilemma Mr. Spencer opened a correspondence with John Stuart Mill, in July, 1858, explaining his purposes, and asking for some post in the Indian administration which would enable him to carry on his work. Although Mr. Mill replied, the negotiation did not succeed. Mr. Spencer then applied to the Government, but although Lord Stanley, afterward Lord Derby, interested himself for the philosopher, he was unsuccessful in his application for the vacant post of a prison inspector. He now resolved to issue his work by subscription and in serial form; and under this regimen the first number appeared in October, 1860, and the initial volume in June, 1862.

In this volume the philosopher traces Von Baer's law of organic development as universal, but shows that it is only when increasing heterogeneity is linked to increasing definiteness and a certain progress from incoherency to coherency. By integration, therefore, Mr. Spencer means little more than the German idealist, Schelling, when he regards living forms as the consequence of a certain tendency to individuation. The affiliation of these so-called laws with the great principle of the conservation

of force, and with the collateral principle of the equivalence and correlation of material forces, is also clearly indicated.

The main point in which thus far Mr. Spencer differs from Von Baer (who has lately, by the way, withdrawn from his adherence to Darwinism), consists in this—that, while the latter regards the process of organic development simply in the light of an increasing heterogeneity in the evolving body, the former finds in evolution a tendency to unity as well as to diversity, and styles the first integration, and the second differentiation. But it was soon discovered by Mr. Spencer that the tendency to unity is the primary process, and the tendency to diversity secondary; and hence, in a new edition of his "First Principles," he contrasts evolution with dissolution as in eternal antagonism. In other words, the universe is the scene of an endless struggle between life and death, which are but distribution and redistribution of matter and motion.

It is needless, however, to follow the biographical order in discussing these works, which are only parts of a system, and I shall, therefore, place them in their historical order, once for all, and consider them as a system in what may follow. The publication of the system has occupied nearly fifteen years, commencing with October, 1860. In book form the work has appeared as follows: "First Principles," 1862; "Classification of the Sciences," 1864; "Principles of Biology," 1867; "Principles of Psychology" (Recast), 1872; "The Study of Sociology," 1873; "Descriptive Sociology," 1873; "Principles of Sociology, Part 1," 1874.

I have thus far condensed the leading facts of Herbert Spencer's intellectual biography, as stated by one of his par-

tisans, by way of indicating the successive steps by which the central conception of his system was gradually evolved; and, whatever may be its merits or demerits as a system of philosophy, it is a part of the man, and grew up within him as the exponent of a dreamy, speculative, and somewhat enthusiastic, but strikingly unsympathetic nature—a nature that, though dreamy, knows no beautiful, and, though creative, knows no art and no tragedy. Deficient in humor, in imagination, in emotion and passion, it has the building instinct of the engineer, unbalanced by the perception of the beautiful that would have made it artistic, and by the deep and sympathetic insight into life that would have rendered it poetic. In other words, the native bent of Herbert Spencer's mind is not so particularly to inquire into the causes of things as to elaborate clever and adroit explanations of them. He must explain, or die; he must classify and ratiocinate, or perish; and yet his multiplied volumes furnish few examples of vigorous and original investigation, and the enthusiasm of discovery is to him an unknown emotion. He can revel in arranging blocks of fact into symmetrical structures; but the deeper meaning of his facts never troubles him, provided they can be cleverly fitted into the system. If they are cleverly explained, his philosophy of life is satisfied. Ah, what is philosophy, after all, but a blowing of bubbles? And what, indeed, are philosophers but the bubble-blowers of science—saving always Plato and Kant, who, each in his way, really added a little to human thought? For what ages innumerable has man sought to solve the problem of man, and, so seeking, has been baffled, because the undeveloped life transcends the grandest dreams of

the life developed! A man is but a rough block of marble; but, ah, me, he has within him the dream and half-blinded vision of a statue! A specter in the soul is forever present, and converts his life into an eternal toiling after a shadow that lies just beyond it—a shadow which becomes unreal the moment he grasps it, and turns to ashes the instant it is embodied.

No doubt, as Mr. Spencer says, life is a continuous adjustment of internal relations to external relations. But it is more than that: it is *life*, which, after all, eludes definition. Were I, to-morrow, by some happy experiment, to produce infusoria from an infusion of hay, in such a manner as to preclude the possibility of their having sprung from pre-existing germs, the nature of life would still remain a mystic problem and its generation a mystic process.

SPENCER A MATERIALIST.

And I now come to the consideration of the materialistic attitude of modern thought that Mr. Spencer represents—for a few phrases, such as the consciousness of the unknowable, and that ultimate substratum in which subject and object are united, can not rescue views like his from materialism—and which renders him the idol of modern materialists. When the scientific man alleges that the metaphysical method has completely failed to offer a permanent explanation of the universe and of life, he alleges what is undoubtedly true. Parmenides, Plato, Spinoza, Hegel, and Hamilton did their best and died; and they were all metaphysicians, although of Hamilton it must be candidly said that, as an experimentalist in nervous physiology, and as a comparative anatomist, he knew more of the materials that Mr. Spencer and Mr. Mill have woven into their respective systems of

psychology than did either of those who regard him as exclusively a metaphysician. The simple truth is, that Sir William Hamilton had penetrated the facts of physiology, being a physician by profession, sufficiently far to comprehend that they are not adequate to the resolution of the problem. When I find by experiment that consciousness is limited to the anterior convolutions of the brain, and by microscopic examination that the intimate structure of an anterior convolution is simply that of a very enlarged and complex retina, I have resolved the philosophy of consciousness in so far as material inquiry can resolve it, and can very properly describe it as a higher vision. I can separate it as process from perception, from instinct, from intellection, from cerebration at large. This single fact of structure is fatal to all Mr. Spencer's clever philosophizing on that subject, since it establishes the existence of consciousness as a distinct faculty, exactly as the metaphysicians have always contended. But if, in the pardonable enthusiasm of discovery, I venture to affirm that by defining consciousness as the higher vision I have resolved the problem of its essential nature, and attempt to build a system of psychology upon that definition, I am at once brought to bay by the deeper facts of the subject, and forced to confess that I have simply discovered a physiological fact, that may assist me in understanding the phenomena of mind, but can not be regarded as defining the nature of mind itself. The value of this fact of structure to the science of psychological phenomena is just here, that it extirpates the main proposition upon which, from Locke to Spencer, English psychologists have so industriously builded, by proving that self-consciousness is a fundamental faculty, and not

a mere inseparable association in the terms of Mr. Mill and his coadjutors. The whole route from savagery to civilization is strewn with dead theories, and the intellectual history of man is a museum of such corpses, which were once clever and, apparently, vital explanations of how the world came to be, and why and what life is. Dreams—dreams all—nothing but dreams—some of them very grand ones! By-and-by, no doubt, some daring investigator will discover an ugly fact that is death to the evolution philosophy in the form that Spencer and Darwin have given it, and some new philosopher will build another grand synthetic system, to be punctured in its turn; for even the cleverest philosophies are not immortal except in their epitaphs. It costs a man who has dreamed his dream, and thinks he has permanently explained the universe, a great deal of abnegation of egotism to confess that his grand philosophical dream is only a little bubble of intellection that must break one of these days; but it is by such processes that mental culture advances to higher attitudes. It is good and civilizing to have had a life-dream, and to have given one's life to the realizing of it. It is the life-dream that distinguishes man from the monkey, although, perhaps, the latter may have his life-dream also; and this consideration must console the philosopher, when the conviction that he has explained the universe to the eternal satisfaction of his fellows finally vanishes.

" If there be thistles, there be grapes
If old things, there be new—
Ten thousand broken lights and shapes,
Yet glimpses of the true."

THE EVOLUTION PHILOSOPHY SKETCHED.

A map of the evolution philosophy may be given in a paragraph. It commences with the discussion of certain first

principles, among which is the assumption that, although as a consciousness of the unknowable man carries with him a vague cognition that there is a first cause, yet he can know nothing of such first cause except the unanalyzable cognition that it is. Hence, of the essential nature of things it is vanity to speculate, and how this duality of mind and matter was first established must be regarded as a barren problem. Matter and motion exist, and the endless transformations resulting from their continual redistribution are the only sources by which the universe is rendered knowable. Assuming matter and motion, the nebular hypothesis of La Place bridges the interval between undigested matter and the completion of world-systems, as a comprehensive illustration of the law of progress from the homogeneous to the heterogeneous, worlds being equilibrated centers. Commencing with this first integration of matter into worlds, the law is next traced forward through the phenomena of geology, the evolution of life-germs being regarded as one of its progressive products, and Mr. Spencer holding that there is no absolute and definable boundary between non-living and living matter—an assumption which modern inquiry into the nature of protoplasm as a universal life-basis appears to contradict. Living germs evolved, the law of transformation and integration again steps in, and establishes that progress from the lower to the higher, from the simple to the complex, which geological data so abundantly indicate—the dying out of the unfit and the survival of the fittest operating continually to the evolution of higher organisms of the same type, while the general advance in habitability from period to period operates, by evolving new sets of external relations, and new

organic types from already existing ones. Thus, finally, came the highly complex organisms of the present period. In psychology, the evolution philosophy regards the highly complex mental and moral organism of man as the sum of the experiences of unnumbered ages. That is to say, the experiences and habits of each antecedent organism, consequent upon its struggle to adapt itself to external relations, reappear in its posterity as acquired capacities and instincts, and so on until the highest and most complex psychical organism has been or shall be finally evolved. Civilization is thus humanity's memory of ages of struggle with external relations, and higher physical organisms are organic registers of the sum of the experiences necessary to their evolution, which may be traced, stage by stage, from the simple to the complex, from the general to the special. What metaphysical psychologists, like Dr. Porter, style intuitions, are thus stored-up experiences, first transmitted as hereditary biases, and finally integrated as instinctive or intuitive ideas; and thus the most enlightened human product of nineteenth century civilization, with its highly complex and intuitive moral, intellectual, and emotional life, is the sum, physically and psychically, of all the experiences, habits, struggles, and progressive adaptations that have intervened between the first antecedent life-germ, millions of years since, and the man of A. D. 1875. There is something of grandeur in this conception, which is Darwinism as applied to the most occult and difficult of all sciences—that of psychology; but let none be blinded to its utter materialism by the magnificence of the generalizing. The evolution philosophy thus commences with matter and law, traces the transformations of the former, stage by stage,

and concludes with a coherent theory of social activities. With the problem of origin that lies before, and that of destiny that runs parallel with life, it has no concern, except to claim that they are unknowable. And so they are, save as parts of man's life-dream and as the spiritual revealing itself through the material. They are transcendental issues that lie without the limits of material speculations, but not without the limits of a truly scientific psychology. All Mr. Spencer has to say is that the homogeneous is unstable, hence the universe. But when one thinks of it, how the simplest fact merges into the transcendental! I put my foot in the running water of a brook; but I shall never see that same water again, nor shall I be the same when I come to the brook to-morrow. I am in a given state of mind to-day, but I shall never be in that exact state of mind again, though my life went on forever. All these things may be explained, of course, in terms of the redistribution of matter and motion; but the explanation is nothing more than an abstract statement of the facts, and the cravings of the soul demand something deeper. "Yes, I know that," the soul replies to the algebraist of Nature; "but you have only stated the same thing in different terms; and what I want to find is the value of the x in the problem of life, not its equivalent in some other letter." And when the modern philosopher comes to answer that question, all he can say is that life is an evolution, and death is a dissolution; in other words, things grow and die; and why not express the transformation in those very simple terms?

I have presented this point in this moralizing manner simply by way of showing that transformation from the homogeneous into the heterogeneous,

equilibration, integration, the adjustment of internal relations to external relations, the consciousness of the unknowable, and so on, are mere novel arrangements of words, that really assist the vexed and buffeted intelligence very little in the resolution of its problems. The spiritual sterility of a philosophy that depends on such phrases is evident from the sterility of the phrases themselves, generalizing and material, but not penetrative. And let it be fairly comprehended that the mission of the philosophical intellect is a very different thing from manufacturing barren explanations. There is not the least scientific propriety in supposing that any philosopher can furnish an ultimate resolution of the universe, or even one that will occupy human attention for more than a few years. The value of his philosophizing is, on the other hand, to be measured by its fertility as a stimulant of thought and as a promotive of spiritual culture. It is conceded that Plato blundered in many things; that he failed to furnish a coherent explanation of the universe; that he often fell into vapory and mystic dreams. The value of his work, however, is resident in the fact that, although many of his theories have been negatived by modern investigation, he is in permanent relation to the higher spiritual cravings of man, and that ages of culture have not sufficed to impair his exceeding suggestiveness. His delicate and subtle spirit felt rather than thought its way into the innermost recesses of human life. Hence, his permanence; hence, the fertility of his literature in all that is sweet, good, beautiful, and humanizing. And in what contrast stands his work to the beefy and material theorizing that now passes current as philosophy. So, again, Hamilton failed. So did Hegel and Schelling.

So did Coleridge. But it is better and more spiritualizing, and more conducive to real progress, to have failed as they did, than to have succeeded as Comte did and as Spencer has—for neither of the latter has contributed more than a classification of the sciences and a few barren phrases styled laws, to the literature of philosophy, and both commence by confessing that the rest is unknowable, and that origin and destiny are unverifiable dreams. If you have ever, of a summer afternoon, strolled through Greenwood Cemetery as the sun went down, and, while marking the flush of sunset, have listened vaguely to the low roar of worms gnawing the dead in their graves, you know better than words can tell why material speculations are so barren and the failures of metaphysics so full of spiritual fertility. There is the sunset flush, distant and beautiful, light-giving and life-illuminating, but impalpable; and right at your feet is the transformation of the homogeneous into the heterogeneous, in billions of worms feeding on thousands of the dead—palpable, but terrible. The corollary of this is, that, as the worms gnawing the dead in their graves in no way exclude the flushes of the sunset, so Comte and Spencer, with their material theories and their laws of transformation, in no way excluded Plato and Hegel and Hamilton, with their transcendental idealism. One man's philosophy is only one man's way of seeing things and of looking at life; and as there are many men, so there must be many philosophies. It is better to keep the soul open to all truths than to shut certain of the windows, and insist that the shadows thereby created are necessary forms of thought. "Men are generally right in what they affirm, and wrong in what they deny," says an acute critic; and the moment a

man assumes to have a system, his liability to error commences; for he has shut certain of the windows and drawn their curtains down. For my own part, I find a deeper and subtler idea in the aphorism of the ancient moralist, that the very source and springhead of all music is the very pleasant sound that the trees make when they grow, than in Darwin's theory that musical notes were first developed as a means of sexual attraction, which is substantially in accord with Mr. Spencer's views. It is a higher symbol for music than the twattle of a monkey. Criticising systems of philosophy is, however, vain business, since they generally die of lack of relation to the vital necessities of human life, and are left behind in the onward progress of culture. Time, says Byron, is the beautifier of the dead, and, he might have added, the slayer of philosophies. And it is with a dead philosophy as with other dead, the tenor of the epitaph should be regulated by the question whether it has really added anything to the higher spiritual culture of man, not whether it served as an ingenious explanation of certain phenomena. When Carlyle utters that deep aphorism, "the beginning of faith is action," he has contributed a vital element to human thought, and has announced a profound law of the spiritual nature of man; after which he may be forgiven the ponderous volumes and terrible egotisms of "Frederick the Great"—more properly, perhaps, Frederick the Mad. The penetrating power of that saying might atone for pages of twattle, and Carlyle has flashes of such tremendous insight as is only given to masters in literature. So with Plato, whose sentences are often series of such flashes, in which he lives, because they are in vital and permanent relation to the deepest yearn-

ings of the human spirit. He could not help believing in innate ideas, because he had them in him, any more than Locke could help disbelieving in them, because, after a patient internal investigation, he failed to find them. The one was an exceptionally gifted product of ages of Hellenic culture; the other appeared at a date when the Englishman had but lately emerged from the animal. As in tracing Hellenic progress the present historian of culture studies Thales, with his material speculations, as a starting-point, and regards system after system as one landmark after another, so the future historian of culture will follow the English mind through heterogeneous mazes of material speculation, by way of tracing its progress to some philosophical master as yet unevolved, and the next century will undoubtedly witness the inauguration of a new and daring era of metaphysical inquiry, the physical impulse, now so prevalent and impassioned, having exhausted itself in the accumulation of vast series of facts. Even now Tyndall and Huxley, with strange self-contradiction, vacillate between the boldest materialism and the most transcendental idealism; Mr. Alfred R. Wallace has already adopted the dreams of Spiritualism; Professor Crookes has done the same; and the later utterances of Darwin conclusively show that he is verging on similar views. With Herbert Spencer this will never occur, because his mind is of the constructive rather than of the inquiring type, and because he is an arranger and classifier of thoughts and facts rather than a thinker and investigator. I grant that he is a coherent reasoner, but reasoning and thinking are very different things, the one being analagous to classification, the other to discovery. Reasoning is often a mere habit of the mind of ar-

ranging thoughts and facts into coherent sequences—a mere dialectic. Thinking implies mental fertility; it is intellectual creation. Contrast the two. In John Stuart Mill English literature had its greatest reasoner, but he added few living thoughts to the stock on hand; in Coleridge, scarcely a reasoner at all, it had a man—a thinker—who scattered seed-thoughts with every motion of his pen, and who will long stand as without peer for mental fecundity, for penetration and insight, and for sympathy with the higher spiritual nature of man in all its infinite perspective and all its varying aspects. Had Coleridge's passion for science equalled his intellectual fecundity, he would have left no basis for the psychological theories of Mill and Spencer.

I mean no disrespect to Mill and Spencer. The systematizer of thought is as necessary to his age as the thinker is. I mean only to distinguish fairly and candidly between the man who builds houses of philosophy with cards of thought, supplied by other people, and the man who manufactures the intellectual materials, and to class Mr. Spencer with the builders. And this, I apprehend, is what Mr. Emerson means when he styles him a stock-writer.

FRANCIS GERRY FAIRFIELD.

NEWSPAPER AND SCHOOL EDUCATOR.—The newspaper is, without doubt, a powerful instrument for good or ill, according to the kind of newspaper meant, but it is no part of its mission to supplant the school. It is the business of the daily journal to print the news, to comment upon the occurrences of the day, and to advocate that which its conductors believe to be the right in all matters of public and general concern. The business of the school lies in a totally different plane. It is its province to train the faculties of boys and girls into ready and accurate modes of action, and,

so far as mere information is concerned, to furnish them with a certain technical, elemental, basilar species of knowledge upon which their disciplined faculties may build as upon a foundation wall. The information which the school furnishes, the newspaper does not; that which the newspaper

gives, the school can not and ought not; and hence, even in this matter of giving information, the only one in which there is the least resemblance between the respective functions of the school and the journal, it is resemblance only, and not identity.—*Evening Post.*



JOHN EVERETT MILLAIS, R.A.

MR. MILLAIS ranks very high among English artists; perhaps it would not be too much to say that he ranks with the first. Phrenologically considered, he possesses a highly æsthetic temperament and organization. The quality of his physique is of a fineness rarely met with. He is intensely susceptible to emotional impressions—is very “thin-skinned,” as the common expression goes. The features are clas-

sically symmetrical, he is the artist expressed in facial mold. The head is very broad in the region of the temples. Ideality, Constructiveness, Sublimity are very large. He lives in the atmosphere of the grand and the picturesque. His intellect, judging from the portrait, is more of the reflective than of the perceptive cast, and as an artist we should infer that he was more given to origination of subjects for his canvas

through the impressions of his own Individuality than to acquiring them from observation of exterior matters. His paintings would embody ideas, sentiments, feelings, aspirations, yearnings, rather than be exhibitions of mere physical phases of human life or fragments of nature. His Language is evidently large, giving him facility of expression. He has clear impressions of subjects; comes to a conclusion quickly. His convictions are emphatic. He has a good degree of ambition; holds to his positions earnestly. Is not the man to be snubbed or insulted with impunity. He appreciates his position in society; is tenderly alive to calls of duty and justice. Not a headstrong man, but resolute, definite, positive; yet his large Caution prevents him from anything in action or word which is tinctured with rashness. He has a good physique, relishes good food, is somewhat dainty, however, in choice in that respect. In fine, his whole conduct is thoroughly infused with a strong sense of the beautiful and the refined. His sensitiveness is one of the weaknesses of his character, rendering him too keenly alive to the incongruities and roughnesses of every-day human life, and inclining him to keep himself aloof from the masses.

He was born in South Hampton, Eng., on the 8th of June, 1829. Very early in life his artistic tastes were exhibited and furthered by appreciative friends. At the age of nine he gained the gold medal and a position in a school of art in London; two years later he was transferred to the Antique School of the Royal Academy. His progress was very rapid; when but fourteen years old he won the gold medal for the best drawing from the antique. Three years later he exhibited his first painting at the Academy, which was entitled, "Pizarro seizing

the Inca, of Peru." In 1847 he was the gold medalist for the best oil-painting, the subject being, "The tribe of Benjamin seizing the daughters of Shiloh." About this time, as we are informed, Mr. Millais was induced, probably by the prompting of his own Individuality or special taste, to adopt the principles of the pre-Raphaelite school, of which he was one of the original members and founders. His first picture in this new style was exhibited in 1849; the conception was derived from Keat's well-known poem, and was entitled, "Isabella." In 1850 appeared his "Ferdinand lured by Ariel," suggested by the well-known passage in Shakspeare's "Tempest."

In 1851 he produced "Marianna in the Moated Grange," "Return of the Dove to the Ark," and the "Woodman's Daughter." In the execution of these he sought to embody a very high order of naturalisms. Their very simplicity at first was not appreciated by the critics, it being decried as an evidence of poverty of design and baldness of execution. But this view was evidently due to the novelty of his treatment of his subjects.

However, when the "art world" began to comprehend Mr. Millais' ideas and method of treatment, his reputation was established.

Those subjects, "The Huguenot" and "Ophelia," which have been made so familiar by the widely circulated engravings, were exhibited in 1852. In the next year he painted the "Proscribed Royalist," and "Order of Release." Among his later works are "A Dream of the Past," "The Heretic," "Vale of Rest," "Spring Flowers," and "The Black Brunswicker," perhaps his most famous picture, if the sale of the fine engraving of it on both sides of the Atlantic furnishes any basis for opinion.

"My First Sermon," also a very familiar subject, "Joan of Arc," "Sleeping," "Waking," "Jeptha." "Winter Fuel" was produced in 1874, and in the course of the present year "The Fringe of the Moor," and "A Deserted Garden." He was made member of the Royal Acad-

emy in 1863, having been an associate since his twenty-fourth year. Besides his larger works, he has contributed illustrations to various books and periodicals. He is now in the fullness of his life, and greater accomplishments may be expected of him.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.*—N. SIZER, *Associate.*

NEW YORK,
JANUARY, 1876.

1876 AND ITS MONITIONS.

THE new year has come. Again the PHRENOLOGICAL JOURNAL begins an annual course. What better can its editors and publishers say to readers and patrons in this opening of a fresh volume than, MAY THIS BE TO YOU EACH AND ALL A HAPPY NEW YEAR! The past has become historical; its events are severally stamped with a character good or bad, to remain so perpetually. We can rejoice in the good, but only deplore the bad, and hope that our present and our future performance may in some manner remedy or compensate the ill which has been wrought.

But it becomes not a brave spirit to spend much time in lamentations for the mistakes and misdeeds of his past, much rather should their appreciative remembrance stimulate him to earnest effort in whatever

direction duty and honor call him. He should be mindful to

"Act, act in the living present,
Heart within and God overhead."

The beginning of a year seems the most appropriate time for reorganizing one's self, for calmly reviewing our personal life and character, and with the balance of debit or credit fairly determined, we should now resolve to enter upon a new career, and prove ourselves more worthy of life and its attendant opportunities. The measure of difficulty with which the attempt to carry out a resolution of self-improvement is accompanied, depends upon the nature of one's organization and the strength of old habits. Some are so favorably endowed, the balance between the moral and physical organs is so nearly perfect, that they rarely get off the track of virtue and propriety; they are, as it were, "a law unto themselves," self-corrective. It may be said, however, of such that they possess little original energy or force, and are, therefore, inclined to live apart from the current of active life, and so to avoid contact with its ruder phases.

The mass of mankind are endowed with strong physical organs, which incline them to mingle in the affairs of practical life, and it may be said with truth that most people are educated, not in the quiet school, or in the retirement of home, but out-of-doors, amid the busy, jostling, contentious scenes of the store, the shop, the street—a rough training well calculated, certainly, to de-

velop the selfish qualities of human nature, but not always without strong influences for the development of the moral faculties. A glance at the history of most of the so-called "self-made" men of the day will prove that the rude training they received in their orphaned and destitute youth did not blunt their perception of the noble and generous in manhood, but rather quickened their apprehension of the sympathetic yearnings implanted in every mind. *More or less* strongly implanted, to be sure, but, nevertheless, given in some measure. Every one has at least a talent which may be put to excellent uses, and made to yield an increase—an interest in moral strength.

"The manifestation of the spirit is given to every man to profit withal."

This new year is pregnant with historical significance to us as American citizens. The Centennial of our national life, it turns the mind backward to the small and weak beginning of what has become so great a power in the world. As compared with the development of other nations, whose records remain for our study, the growth of the United States is wonderfully greater. Verily, "the weak things of earth become the mighty." In one hundred years we have been metamorphosed from a little, struggling community of barely two millions to a people of forty millions, from a few settlements scattered along the Atlantic coast, to a grand industrial commonwealth stretching from ocean to ocean. And the marvelous recital of a hundred years but inspires suggestions of the possibilities of our future. So much has been done that the daring mind scruples not to predict accomplishments in the near future which sober judgments rate impossible or Utopian. How many triumphs in science and mechanical art have been accomplished which in their inception were decried as chimeras by those who

deemed themselves learned in all the wisdom of the schools! Recall the struggles of the men who designed the locomotive, the steamboat, the telegraph, the sewing-machine, the mountain tunnel! Human genius, lit by divine fire, what canst thou not perform?

Valuable as such physical achievements are to society how much more valuable are the successes of the moral world! In this department of mental activity none are exempt. It is incumbent upon every sane member of the family of man to use the opportunities within his or her sphere for the development of his or her tripartite organization. Upon all the obligation rests to grow stronger, better, larger, physically, mentally, spiritually. What time, then, so appropriate, so replete with suggestion as this for marking out a new course of living, having for its object a higher, nobler manhood and womanhood? Young men and young women, write down the thoughts prompted by your higher selves, make them the subject-matter of good resolves for the guidance of your future. Would you acquire a better intellectual position? employ your leisure in reading and study. In this day of wide book and newspaper circulation you have no excuse for not adding to your stock of information on most subjects. Are you weak in moral tone?—there is the best standard of morality the world knows, the Bible, whose precepts are adapted to every phase of psychological experience; and there are many masters of moral thought whose pages you can dwell upon with lasting benefit.

Are you a mechanic, and would you render yourself a superior workman? There are text books in variety relating to your art. Possess yourself of some of them, and a few years' earnest study will give you advancement and profit.

Are you in the walks of professional life ? Suggestions for self-improvement lie all about you, and you have but to follow their bidding to go up higher. Whatever you are, clerk, porter, house-maid, laborer, there are possibilities of improvement before you which should quicken you to effort. "Each one is the worker of his own fortune," is a solid truth which every reader should thoroughly realize. Of individual excellence the excellence of a community is constituted. So if each seek to make the best of himself, the interests of his community must be promoted. But we would have no one be selfish in his aim. The higher manhood worth your effort has a generous regard for the welfare of others ; it loves others as it loves itself. Charity, "the very bond of peace and of all virtues," is the essential element of the best human development. Our aspirations, warmed by the breath of this element, can not lose aught that is necessary to quicken normal effort in any chosen direction, and success in all respects honorable to ourselves and beneficial to others will the more surely proceed from effort so actuated.

We address ourselves to all, for no matter how exalted one may have become, he is far from perfection ; he can go higher.

Begin now to live for nobler purposes. Let this Centennial year be, indeed, an era in your life as it is in the life of the American nation. Study your natures as you have never studied them before, and determine to subordinate in every concern of life the appetites and propensities. Learn the true uses of those faculties of the human organism called "lower," and apply them intelligently. Remember

"With these and passion under ban,
True faith and holy trust in God,
Thou art the peer of any man.
Look up, then, that thy little span
Of life may well be trod."

GREATNESS AND ABNORMALITY.

THE author of "Sex in Education," and of the "Building of a Brain," seems to be of the opinion that men with abnormal brains have exerted a commanding if not predominating influence upon the world. This remark of his implies such a view, viz. :

"How much the literature, politics, and morals of the world may have suffered from the abnormal introcranial development of some who, like Byron, Napoleon, and Loyala, have compelled the world's attention, we may guess, but can never know. Shakspeare's brain probably crowned a nervous system and a body that presented very little inharmonious growth. Doubtless the same may be said of Mary Somerville."

If by "abnormal," Dr. Clark means unbalanced, we can scarcely agree with him, as men of great powers require a balance of faculty for the facile, and efficient exercise of thought. Large development in a given direction does not imply necessarily abnormality, although it is the development which constitutes the strong characteristic of one's mental nature. Nearly every man, and woman, whose life has been marked with more than average common-place incident, will be found to possess certain peculiarities of brain development, certain strong organic qualities, in comparison with which his or her other brain parts appear small. They who lead in every community are not distinguished by perfect evenness of cranial contour ; they elicit the respect and esteem of all around them by their ability in managing the affairs of the town, the society, the church ; by their easy, serene energy amid difficulties which perplex ordinary minds ; by their patient good nature, and ready adaptation to all situations. Are such men constituted abnormally ?

We can conceive so strong a development in a certain direction, that, circumstances

favoring the undue exercise of its corresponding mental faculty, it in time becomes no longer subject to the control or counter-influence of other faculties, and a condition of eccentricity must follow, an insanity, in fine, which is, in our opinion, the true abnormality.

Because men like Loyala are filled with the sense of a mission, and aim to accomplish a purpose of good in the world, it does not by any means follow that their brains are abnormal. The successful workers in new paths have good heads, well cultured, well balanced.

Napoleon's head—if the mask which lies on our shelves be a copy of Antommarchi's, and we have good reason for believing that it is—was well developed. His career, magnificent in energy and capability, yet pernicious and destructive in many respects to the nation he aimed to glorify, was the result of popular influences. He personified the French sentiment of his time; his ambitious dreams found the too ready sympathy and fostering encouragement of his countrymen. But his ruin may have been owing to bodily disease, as some later historians claim, which developed itself toward the close of his military career, and seriously affected his naturally fine balance of faculty.

Of Shakspeare all that we know inclines us to believe that his organization was remarkable for harmony in its temperamental and organic relations. His wonderful compositions exhibit powers of memory, discrimination, ratiocination, a sympathy, and cheerful temper which could be evolved only by a well-ordered, healthy cerebral organism. The variation of characterization is so vast, the play of faculty so multifold, that the thoughtful reader is amazed by the thoroughness of Shakspeare's training. The more he examines those great dramatic

reflections of human nature, the more he is impressed that the mind of Shakspeare was full-orbed, fitly framed in all its parts—indeed, a magnificent organization.



PROFESSOR SAMUEL D. TILLMAN.

THE death of this estimable gentleman is regretted in a large circle of friends, and of scientific collaborators. The publishers of the PHRENOLOGICAL had enjoyed a long acquaintance with him, and highly esteemed him for his quiet, gentle manner and elevated culture.

He was born in Utica, N. Y.; entered Union College in his sixteenth year, and was graduated four years later; studied law in Canandagua, and practiced in that place for several years, after which he removed to Seneca Falls, and there continued the practice of his profession, taking some part meanwhile in the politics of the county. About twenty years since he came to New York, having withdrawn from his profession, and devoted himself to literary and scientific pursuits. He became a member of the American Association for the Advancement of Science, and distinguished himself for his assiduity in the work of the association, taking part, also, in the American Institute, of which he was appointed Professor of Science and Chemica. Few men were more extensively informed in the different departments of science and practical mechanics. He made original investigations in musical science, the results of which were a treatise on the subject, a "Tonometer," and a revolving musical scale. The new chemical nomenclature, which now receives the favor generally of advanced scientists, was invented by him. This has greatly reduced the labor formerly required in learning and understanding the signification of medical terms. His latest

invention was the Planisphere, a geographical device designed for the use of schools and colleges, and wherever maps and globes are employed. He had been married but about six years previous to his death. The worthy lady who had given him her hand bestowed with it an ample fortune, which enabled him to carry out many of his scientific ideas. He was not at all chimerical, but, on the contrary, distinguished for logical clearness of view and an earnest desire to promote the interests of mankind through the instrumentalities of science.

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SUPERSTITIONS.

IN another part of this number is an article on this subject, which the reader may have already seen. We venture a few side comments.

Man has a three-fold nature: an animal part, embracing all the passions which are possessed by the lower animals, such as appetite, procreation, and self-preservation; a mental or intellectual nature, which enables him to adapt himself to his physical relations, and to improve his condition relative to the arts and sciences; a moral and spiritual nature, constituted of faculties which make him at once a religious and worshiping creature. Thus man is made up; and individually such are the differences in development of the various organs, and such the variation of combinations, that he differs from other men more or less in character. Our knowledge, our beliefs, our faiths, and our modes of worship are as various as are our birth-surroundings, education, and other circumstances. No two men in all the world look exactly alike. No two think exactly alike on points not capable of proof. Hence the endless variety in our religious creeds, of which there are more than a thousand in the world, and more than three hundred among Christians.

There is a rule in arithmetic which will show the number of changes or combinations which a given number of things will admit. Thus, by applying the rule we shall find that six articles may be arranged in seven hundred and twenty different ways. We simply multiply one by two, the product two by three, that product by four, and so on to six. So the combinations admitted by a higher number are ascertained by that process. Lottery managers appreciate this fact in estimating their chances of profit, the advantage being always immensely on their side. So if one could calculate the mental combinations or phases possible to forty organs or faculties, aside from the influence of the temperaments, he would be amazed by the tremendous aggregate, and cease to wonder at the fact that every man differs somewhat from every other man.

Superstitions are the outcome of blind, unenlightened belief, belief with no definite foundation. Intelligence, as it increases, uproots baseless fears and doubts and fancies, and gives men a clearer view of the uses of their spiritual nature, and the relation of the unseen to the seen world.

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INSTRUCTION IN PRACTICAL PHRENOLOGY.

THE AMERICAN INSTITUTE OF PHRENOLOGY, incorporated by the Legislature of the State of New York, is aiming to do for Phrenology what our medical colleges are doing for the profession of medicine, and what our theological seminaries are accomplishing for students preparing for the ministry, namely, to give that definite, thorough, and extended instruction which is necessary in order that candidates may enter upon their field of duty as well equipped as possible.

Men of genius have left the plow or the anvil and gone into the pulpit, or to the bar, and by study, practice, and the ministration of mistakes and shortcomings, have struggled up through their difficulties, and attained to a commanding position in the pulpit or at the bar, without that previous course of study and discipline which to most persons is absolutely indispensable for success.

Of course, men can be self-taught in Phrenology by means of illustrated books, casts, busts, and skulls; they may work their way to a thorough knowledge of the subject, but it might require fifteen years to attain it. In a course of instruction the facts and data may be presented in half as many weeks by those who have a thorough knowledge of the subject. One may work twenty years faithfully in studying out the anatomy of the human system, and in six weeks he may, by a course of lectures and demonstrations, open the whole subject to a class of pupils.

The class of 1875, which closed on the 10th of November, numbered twenty-four, and for earnestness and intelligence was exceptionally good; and the news already received of the success of several of its members in the field is very gratifying. An extended report of the closing exercises of this class will appear in the February number, with the names of the graduates.

Now, a word for the future. For years we have had requests from teachers and students in colleges, inquiring about a course of instruction for the summer, within the school and college vacations. Clergymen have asked us the same question, saying that only within the summer vacation time could they possibly leave their parishes long enough to attend a session of the Institute. To accommodate such persons, and all others who may find it more convenient

to attend in the summer than during the autumn or early winter, we have the pleasure to announce that we have made arrangements for a summer session, which will commence on the 6th day of July. The regular autumn session will commence on the 10th of November, just after the Presidential election.

The Centennial celebration at Philadelphia will bring many people from all parts of the country to New York, and the excursion tickets which will be furnished by railways will remain in force probably as long as the Exposition is open, or a course of Phrenological instruction would continue. To those persons who may desire to avail themselves of it, a double opportunity—to visit the Exposition and to attend the Phrenological Institute lectures—is offered. All wishing to obtain a circular embracing the topics on which instruction is given, together with the terms, and the closing exercises of the last class, will receive it on application to the publishers of the JOURNAL.

THE DEATH OF WILLIAM B. ASTOR.

WILLIAM B. ASTOR, son of John Jacob Astor, died on the 24th of November, at the age of eighty-three years. Inheriting from his father an immense fortune, twenty-seven years before, he had quietly spent the time in its careful management, investing the increase in city real estate, and so adding from year to year to its vast bulk. He was little known in the public walks of life beyond the necessary relations which his extensive interests as a property-owner compelled him to have with municipal authorities. Perhaps he was best known to the public through the Astor Library, which his father founded by bequest, and to which William B. contributed liberally. In the December number of the

PHRENOLOGICAL for 1872, a portrait and detailed sketch of him were published.

It is said that he was not devoid of benevolent feeling, and dispensed much charity in ways unknown to the public. It may be that he has done much good; but it is certain that he had the means to do a great amount of good, and to rear an enduring memorial of gratitude in the hearts of thousands of the deserving. He died worth, it is said, a hundred millions of dollars, not one cent of which he could take with him to the other country. He left it all behind. What great opportunities he neglected for using the means given him in ways beneficial to his fellows!

How much spiritual enjoyment he lost by not applying his money and property to uses having in view the moral and intellectual development of the thousands around him who were lacking the necessary facilities! What a mistake for a man to pile thousands upon thousands, millions upon millions, for which he can have no need! Can it be creditable in the light of reason, in the light of the claims of his fellows, ever pressing upon him, for a man to heap up riches? Is there any real virtue in dying worth millions? We think not. Contrast the two lives concluded at nearly the same time, one of this man and the other of Henry Wilson—which was the nobler? which shall have the more enduring fame?

AGRICULTURAL HINTS.

A Bushel Box.—A writer in a recent number of the *Chicago Tribune* describes a method of constructing a cheap and serviceable bushel box. Our readers may find something of interest in it. He says:

"This picking and market box holds a bushel, heaping measure, and is of the most convenient form for the handling of apples and vegetables, for storing in the cellar, or for taking to market. The ends are made of common stock boards, twelve inches wide, planed on both sides, and sawed to the exact width of twelve inches, and then cut into lengths of fourteen inches. In these holes are cut for the hands. This is done by the use of an inch bit, boring three holes and trimming them out with a jack-knife or common chisel. The next thing is the lath for bottom and sides. These are cut seventeen and a half inches long. Six pieces are used for the bottom, spacing them so that the opening between them will be of a uniform size, and with average width lath about three-fourths of an inch each. Five pieces of lath are put on each side, when the box is complete. It will require eight lath to the box, or 800 lath for 100 boxes; while for the heads we shall need 236 feet of lumber. For the nailing on of the lath we use a common shingle or 4d. nail. The boxes may be made

without planing, but they will do much better for it. The lath is put on rough, without further preparation. The inside of a common wagon box is thirty-six inches wide, and as these boxes are seventeen and a half inches long, two of them will go into the box; and the bottom tier will hold, in ordinary boxes, sixteen to eighteen; and, as we can place one above the other, and as they hold a bushel when level full, we put thirty-two to thirty-six of these bushel boxes in the common wagon box, which is as much as we usually haul at one time in bulk."

The Colorado Potato Beetle.—In common with many western readers, I have been much amused by the learned articles that have appeared of late in many eastern publications in regard to the Colorado potato beetle. Some of them are as incorrect in point of fact as it is possible for them to be, and the learned professors might learn something from the most ignorant Bohemian farmer of Wisconsin, or, it might be, from a Digger Indian. I deem it of the utmost importance that the truth should be known, lest many farmers should take alarm and fail to plant potatoes, thereby causing themselves unnecessary inconvenience, or, having planted them, and not knowing how to deal with the beetle, they should lose their crop. This part

of the country has had the Colorado beetle, or "potato bug," as it is more commonly called, for the last eight years, and yet we do not plant less acreage, or harvest fewer potatoes than before they first made their appearance. On the contrary, did prices warrant it, we could almost supply the world with potatoes of the best quality and size, from the very portions of the west where the beetles are most plentiful. We do not regard them, as one writer says (an Englishman, I believe, and living in London), as "something that baffles Yankee ingenuity," but simply as one of the things that *be*, and are to be attended to, just the same as weeds.

I feel like criticising an article which appeared in the PHRENOLOGICAL JOURNAL of October. The drawings are correct, also the description. The writer says that the beetle is a native of the mountains, where it fed on the wild *potato*. This may be so, but it is thought by most of those who have investigated the subject most thoroughly that he is a new development of the insect world, and had no existence whatever twenty years ago. This, however, is open to dispute, and worthy of further investigation. From an experience of eight years, I do not think that it "threatens to destroy the crop entirely."

The writer recommends hand-picking. We tried that the first year, but there arose a difficulty, and I think the same will be experienced in most neighborhoods. A is a thrifty farmer, and keeps his vines carefully rid of bugs. On the next farm, just across the road, perhaps, lives B, a man who is always putting off for a more convenient season the work of to-day. A's vines are looking nicely, while B's are eaten up, and the bugs emigrate to A's patch, so that he has to destroy the bugs for his neighbor, or submit to the loss of his crop. This hand-picking was slow and tedious, is low down, and so was much given over to children. On going through the country, and noticing the small attendance in schools, you would invariably be told that the scholars were kept at home "to bug potatoes." But this state of affairs could not always last. Mr. Beetle could not always stand between Young America and the cause of education, and Paris-green helped us out of our troubles.

We are recommended to kill the bugs with hot water—or, better still, "boiling oil." We might use the hot water, though I see no reason why we should, but as it is always advis-

able to use the "best," we will try the oil. Will the writer inform us what kind of oil to use, and how much it is a gallon? and I should like, also, to inquire of him how much oil it would take to destroy the bugs of any one State, not to say of the United States? Did it never occur to you that it would be infinitely more simple and practicable to select an open space, and, building a fire of chips and rubbish, consign the troublesome insects to the flames? I think, however, I will tell you, as near as I can, how we deal with and conquer the potato beetle.

We plant our potatoes as we did before the bug seasons. (The Early Rose and Goodrich are the best, as they are the least affected—in fact the bugs will not feed on them if there are other varieties near.) When up a couple of inches, a few bugs appear. These may be advantageously picked off, as it will not take long. The larvae will also be seen on some of the leaves; these may also be picked off and burned. This will keep them down for some time, but about the time the potatoes begin to blossom the insects are too numerous to be dealt with in this way. Then comes in the Paris-green. Procure a tin can—such a one as ground coffee is put up in; puncture the lid so as to form a sieve. Fill with a mixture consisting of one part Paris-green and ten parts wheat flour. Go over your vines with this early in the morning, before the dew is off, giving your can a shake over each hill. The flour will cause the mixture to adhere to the damp leaves, and when the bugs come out they greedily devour it, return and burrow in the ground and die, having first buried themselves. Do not be afraid to use it. In seven years' experience I have never heard of its proving injurious to anything else, except in one instance a mouse was supposed to have died from the effects of the poison, but even that was doubtful. Two or three times going over the vines is sufficient, and from twenty-five to fifty cents' worth of Paris-green will insure a farmer against the ravages of the much-maligned Colorado potato beetle.

DANVILLE, WIS.

JENNIE JONES.

Save Heat.—Our economical readers should remember that the surplus heat wasted from a common stove will, if conducted through a drum into another room, warm the room as much as a small stove would, and will compel the fuel to do double the duty and give double results.

The Farming King.

THE farmer sat in his old arm-chair,
 Rosy and fair,
 Contented there.
 "Kate, I declare,"
 He said to his wife, who was knitting near,
 "We need not fear
 The hard times here,
 Though the leaf of life is yellow and seer.
 "I'm the king, and you are the queen
 Of this fair scene,
 These fields of green
 And gold between,
 These cattle grazing upon the hill,
 Taking their fill,
 And sheep so still,
 Like many held by a single will.
 "These barnyard fowls are our subjects all
 They heed the call,
 And like a squall
 On fast wings fall,
 Whenever we scattered for them the grain.
 'Tis not in vain
 We live and reign
 In this our happy and calm domain.
 "And whether the day be dim or fine,
 In rain or shine,
 These lands of mine
 These fields of thine,
 In cloudy shade and in sunny glow,
 Will overflow
 With crops that grow,
 When gold is high and when it is low.
 "Unvexed with shifting of stocks and
 shares,
 And bulls and bears,
 Stripes and cares,
 And the affairs
 Of speculation in mart and street,
 In this retreat
 Sweet peace can meet
 With plenty on her rural beat."
 —Commonwealth.

Waste of Fertilizers.—Industrious England washes most of the manure and sewage of her people into the ocean, and then hunts over the globe from Egypt to Peru for more to waste. The United States does little or no better. But the shrewd natives of Japan and China maintain the fertility of their soil by saving what those who pretend to be civilized throw away. They have, it is said, no worn out, abandoned fields.

The President's Horses.—An exchange says: Finding that his stock farm near St. Louis had been running him behind some nine thousand dollars in the last two years, the President resolved to make a clean sale of his horses and let his farm out to any responsible person who would take it at \$2,500 a year. The auction sale resulted to the surprise of everybody who knew anything of the character of his horses. Blood stallions of renown brought but a few hundred dollars; gift horses were knocked down in the neighborhood of forty dollars; matched horses that cost from eleven hundred to two thousand dollars brought but a few hundreds, three or four; the mare he rode at Vicksburg was sold for less than fifty; and all the rest of the stock at similar rates. Some of the best of it was bid in for the owner rather than submit to the sacrifice. An old horse named Joe, looking as if he might be seventy-five years old, with an undulating gait but an excellent tail "to grow to," which was the animal ridden by the President before he became known, was sold to a colored man for ten dollars. Presidential horse stock is low enough.

Fern Leaves Good for Beds.

Every country neighborhood has woods which are full of ferns and brakes, which usually die and go to seed without doing any good, save as a gratification to the sense of sight. The soft parts, if stripped from the stems and dried in the sun, retain their toughness and elasticity for a long time, and are said to be superior to straw and husks, and even to "excelsior," for stuffing mattresses. The ticks, when filled, should be stitched firmly with a mattress-needle, using strong linen twine, and making the intervals between the stitches about an eighth of a yard.

To the Reader.—It is our aim to make this department one of the important features of the PHRENOLOGICAL, as the subject is one of the greatest utility to the country at large. In the furtherance of this aim we ask our friends, especially those practically engaged in agriculture, to contribute such facts as come within the line of their experience. We wish the best thought, or rather the best experience, and we know that among our readers are farmers and horticulturists of the best stripe in the country.—ED. A. P. J.

Our Mentorial Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

MATRIMONIAL "ADS."—DEAR PHRENOLOGICAL: There are men and women whose age, character, and disposition would fit them for marriage, who may not, in the sphere of their acquaintance, meet with a congenial soul. Why can not the JOURNAL, in its advertising department, open a matrimonial bureau for the accommodation of sensible parties?

Ans. This question has been propounded several times to the publishers of the PHRENOLOGICAL. There might be money in it, perhaps, as a business venture for us. Furthermore, much good might be accomplished for those unfortunate ones, whose sphere of social activity is not favorable for their success in things matrimonial. We have considered the matter carefully since receiving the above interrogatory, and conclude that we will open such department or bureau in our advertising columns, on the conditions following: We think that at least five applications, fully setting forth the qualifications of the person seeking a partner to his or her bed and board, and also stating as fully the qualifications wished in the much-desired partner, would be necessary to make a respectable show on the JOURNAL page.

We are willing to give place to these for the benefit of whom it may concern, for a moderate recompense, and the circulation of the JOURNAL being of an extended sort, its columns being read by a great variety of people, especially by those of progressive minds—those who are appreciative of everything good in the world of thought, poetry, and beauty—we deem twenty-five (25) dollars a line, our usual agate measure, a fair rate for one insertion. Each advertisement should occupy not less than five lines (at any rate, we shall charge for that). The price and space occupied will thus be commensurately

respectable, and in keeping with the importance of the subject. We wish it to be distinctly understood that the utmost number of advertisements which we will receive for one month's issue will be six.

BLEACHING SKULLS.—How can one bleach skulls with ether?

Ans. You could get a tin can large enough to hold the skull. It may be square or round, and there should be on the inside, an inch below the top, a ledge soldered on to lay a cover on, and that cover should be of thick, clear glass. Then get clean, washed pebbles, enough to fill the skull, and to fill up the space around the outside of the skull when it is in the vessel. Then buy the ether of commerce, which is worth about fifty cents a pint, and pour it in, until the skull is covered. Then take the glass cover, and cement it in with fire-clay, laying a coat of the clay on the ledge; then imbedding the glass in it, and putting it in with the clay, as a pane of window-glass is puttled, so that it shall be perfectly tight. Then you can look through the glass and see how the process of bleaching goes on. The ether will not hurt the bone if it stays there a week, but probably twenty-four hours will be sufficient to take out every particle of the grease from the bone. There should be a stop-cock near the bottom of the vessel to draw off the ether, when it has done its work, into a bottle, where it can be kept. Then to get the ether out of the grease, to fit it for use again, it must be distilled in a retort, arranged for the purpose, and not be heated above 125 degrees, if you would avoid an explosion. The better plan, probably, for you would be to use kerosene in place of the ether, and let it be a week doing its work, and that will clean skulls almost as well as ether, and with one-fifteenth of the expense. Skulls may be cleaned by exposure to running water in warm weather, and then let them be bleached on the top of a house in the sun; but the kerosene process will probably be the most economical, and, on the whole, most satisfactory.

SENSES AND THOUGHT.—"What mental organs correspond to the three senses—taste, smell, and feeling?"

Ans. These stand related to the consciousness of the individual just as the other faculties do. They are agents of the interior nature, and carry to the mind, or soul, or inner consciousness their information at the *medulla oblongata*, or

stem of the brain where all its fibers unite. There is a connection, and co-operation, or interchange of the knowledges and sensations; and the various mental organs, like the eyes, the ears, and organs of the other special senses, are simply agents of this inner man; and in proportion to the perfection of all the mental organs, will be the appreciation of the taste, feeling, smelling, etc. A boor may smell a rose just as distinctly as the man of genius, so far as smelling is concerned; but the man of genius is made to thrill in every fiber by the delectable fragrance.

MATRIMONIAL ADAPTATION, ETC.—"A Reader of the JOURNAL" sends the sizes of his phrenological organs, and those of a lady friend, desiring an answer in the JOURNAL, since it can be answered in a "very few words"—First. "What characters do the markings of the charts indicate?" Second. "Would they be phrenologically suited to marry?" Third. "What business or occupation would the gentleman be best suited for?"

Ans. In the first place, we never write out a character from the marking of any man unless we know who he is. In the second place, it would require two full pages of the JOURNAL to describe the two persons properly; and we can not, in a "very few words," say how the persons are adapted to each other, or what pursuit he can best follow. We know our reader did not expect that we would fill two pages of the JOURNAL answering his questions, but they can not be answered satisfactorily in less room than that. We often have photographs sent us, asking us to write out the character, and publish it in full in the JOURNAL, and suppress the name. Of course, we do not do this. If the charts are marked correctly in the case before us, we think the parties would harmonize very fairly as husband and wife.

Those who desire such questions answered properly can write, asking us for a circular entitled the "Mirror of the Mind," and by that they can learn what kind of pictures to send us, what measurements, etc., are required in order to describe them thoroughly, and tell them what they can do best, and also how persons are adapted to each other for marriage.

FAILURE OF MEMORY.—Can you give me a little advice with regard to improving my memory. Until recently it was very retentive, and hereditarily so, for my father has always been remarkable for his ability to keep in mind whatever came within the sphere of his attention?

Ans. The fault is not in your phrenological organization, it is evident, but rather in your physical condition now. Not knowing what your habits are with regard to diet and everyday life, we are unable to indicate what relation they bear to your trouble. We think you have a very sensitive, nervous organization, and any marked derangement of the organs of digestion

and assimilation is felt by the mind. In many cases of poor memory we have found that it was entirely due to a dyspeptic condition of the stomach, a poor nutritive function, so that the brain was not properly nourished.

PHRENOLOGY AND SCIENCE.—Objected, that Phrenology would never become a science like anatomy, etc., because some of the convolutions of the brain are hidden from external touch and sight, or possible examination in living subjects, as where the two hemispheres fold together, etc.

Ans. Shall we therefore abandon the study because there may yet remain something not understood. If any one faculty has been located upon the head, and been wholly determined to possess functions corresponding, does not the structure become a science, inasmuch as nature always works by laws; and is it any the less true because we can not yet fully compass and expound the law in all its ramifications? Is any department of human science perfect?

LANGUAGE.—How can language be cultivated?

Ans. By talking, reading aloud, speaking in public, and by writing a statement in as many different ways as may be.

DISEASES OF THE VITAL ORGANS.—How do they affect the organic condition?

Ans. Disease of the lungs, if it become serious, ends in consumption. Disease of liver produces biliousness, jaundice, rheumatism, etc.; while disease of the heart produces palpitation, irregular circulation, and sometimes death. One needs a pretty extended acquaintance with physiology to recognize these conditions correctly.

DIFFERENCES IN APETITE.—They who follow out-of-door pursuits generally have better appetites than those who are kept employed within doors. How is it?

Ans. A hygienic contemporary answers your question, and we will copy from it: "Because out-door occupations usually increase circulation of the blood, and so improve nutrition, thus making a demand for the materials for nutrition. Whenever hard labor, on the one hand, or want of exercise, on the other, reduces circulation and nutrition, it also reduces appetite. Circulation, nutrition, and normal appetite correspond with, and are dependent upon each other.

THE STUDY OF LANGUAGE.—POLITICAL ECONOMY.—Besides the careful reading of a good dictionary of derivations, you will find the examination of such works as these profitable: "Marsh's Origin and History of the English Language," price, \$3; "White's Words and their Uses," \$2; "Roget's Thesaurus," \$2; "Crabbe's Synonyms," \$2.50. Many others might be named,

but in the course of your study of the above excellent authors, you will meet with references which would block out a very extensive course of reading. In the department of Political Economy and Government you may read, "Cavine's Essays," \$3.50; "Smith's Manual," \$1.25; "Alden's Science of Government," \$1.50; "Walker's Science of Wealth," \$1.50; "Lieber's Civil Liberty," \$3.25; "Mulford on the Nation," \$3.

ASSOCIATION OF TEMPERAMENTS. The sanguine-nervous, and the nervous-sanguine, when mixed are pretty much all of a piece; it is a little like mixing light green and dark green, for light green is made of two yellows to one blue, and dark green of two blues to one yellow, and mixed all together they will make a new shade of green, but a little different from each of the others, and in that respect it may be a benefit that they differ somewhat. But if you can mix a sanguine-nervous with a bilious-nervous, or bilious-sanguine, it would be better; still it is an improvement, though not the best combination that could be made.

P. S. There are eleven New Salems in the United States, and your letter does not show in which you live: it would be well always to give the State in which you write from.



THE MUSEUM.—I merely pen you these few lines to offer my good wishes for your noble efforts to procure a suitable building for a Phrenological Museum. The thinking minds of our noble country are endeavoring to settle everything as soon as possible upon sound, practical principles, both for the security of government and for the elevation of humanity. The theory of a glorious state of happiness through the death of Jesus Christ will be found to be a practical benefit only so far as our life-work has been that of self-denial in things of a degenerating character, and the promotion and culture of those which improve the physical, control the animal nature, and elevate the propensities to noble work for self and humanity. Both in example and work, science is showing us that God intended this for a happy world. Your noble publications of books, magazines, etc., have been the guiding stars to many a weary and discouraged wanderer through the path of life. It was with a pang of sorrow that I read the death of your noble co-worker, Mr. S. R. Welis, and I shuddered at the thought that a blow had been received which would hinder the progress of the grand scheme of purity, elevation, and confident happiness that he had labored for; but with the

next issue of your noble periodical my hopes were re-encouraged. When you are prepared to receive the signatures to assist in the erection of your Museum, you can draw on my meager store for a small amount. I wish to help some, and will be happy to have the privilege.

GEO. A. SHULTZ.

PREVENTION AND CURE.—It is astonishing, to say the least, that everywhere "cure" is recognized before prevention. The old adage "an ounce of prevention is worth a pound of cure," seems to have been forgotten, or at least disregarded by the mass of humanity. Men will search throughout the range of the whole pharmacopoea, and cast about them all their lifetimes for some chemical or vegetable compound which shall be an effectual cure for some of the "ills which flesh is heir to," while if they should spend half the time in looking for the cause and prevention of this disease, the sufferings of humanity would be mitigated to an incomparably greater degree. And when such a medicine is found, it very seldom affects a cure. Even when the cause and prevention are known, men seem to overlook the fact that the suffering consequent upon the exertion and self-denial necessary for prevention of disease is less than that which follows the neglect to apply the preventive. This substitution of cure for prevention seems to hold precedence where civilization is highest to a greater degree than among less enlightened nations. And why is this? Among barbarous nations more attention is paid to prevention, and the few remedial agents used are simple, and seldom effectual in themselves; whereas, in civilized countries the greater knowledge of science induces men to search more extensively for new and better curatives, and as more and more scientific discoveries are made, the medical field becomes wider and wider. And thus, in this rush after new medical discoveries, the laws of prevention of disease have been overlooked, and left far behind.

Yet there are a few instances where the superiority of prevention over cure has been partially acknowledged. The temperance movement is an illustration of the good that may be accomplished in this direction. Yet this operates in only one of the many channels where such influence is needed. Mankind are no more prone to intemperance in drinking than in eating, and the consequences are no more serious and destructive.

Now, viewing this matter as one of the greatest importance to the human family, the next step is to consider how it may be brought to the attention of the mass of the people. The medical men, as a class, do not do it, although it is their legitimate business, because it would not be for their pecuniary interest. But there is one

other resource, and one which is adequate to the task. Let the press take hold of the work, and after clearing its pages of all medical advertisements, in their place let it elucidate the common rules and principles of health, and point out the causes of sickness and disease and the methods of prevention, and by so doing it would lose nothing, peculiarly or otherwise. Let this be done, and the day is not very distant when the swindling practice of the multitude of quacks with which the country is swarming will be at an end, and the people, stronger, both physically and mentally, will adopt for their motto, "moderation in all things." — BEN. BENNETT.

THE NEW ORGAN. — The following communication explains itself:

EDITOR PHRENOLOGICAL JOURNAL — I have noticed in the November number the article on "An Organ for temperature," and editorial comments on "A New Phrenological Organ," and having been for some years an interested student of this department of physiology, I venture to give you a bit of personal experience, which may or may not be of any value in this connection. It occurred to me that possibly it might serve as a sort of circumstantial evidence.

I am very sensitive to heat and cold, and at times much affected by atmospheric changes, and I have frequently experienced peculiar sensations in the group of organs back of and above the ear. Sometimes on going out in a cold, piercing wind I suffer, not an earache, but quite a severe pain which seems to be seated very near *Combativeness*. Again, when much heated, I have felt a dull, vibrating sensation in the same locality. Have often wondered what it meant. I have satisfied myself in respect to the location of some of the mental functions by observing the various sensations attendant on excitement, weariness, disorders, etc. Yours, truly,
ESSEX, MASS. O. O. WRIGHT.

[Of course such personal experiences are most valuable in determining the special relations of cerebral phenomena, but they must be critically analyzed and thoroughly tested ere a definite explanation is attempted. We should like to hear again from the correspondent and others on the same or other physio-mental experiences.—Ed.]

HOLLOW GLOBE THEORY. The closing remarks of Mr. Noyes, in replying to his critic on the hollow globe theory has set me to thinking in that direction, and as theories often result in systems, and suppositions often lead to facts, I offer the following items for the reflection of investigative minds:

1st. If gravitation has its center in the center of the earth, and that center is a hollow, and the crust of the earth porous, then what is it that prevents the water of the oceans from following the line of gravitation to the center?

2d. If the reply is (be it a fact or fancy) that heat in the center is too great for water to exist there in a liquid state, and that it is converted into steam as fast as it leaks through, then what becomes of this enormous quantity of steam, seeing it never reaches the surface of the earth in quantity proportional to the boiling surface?

3d. If the reply to the second proposition is that the steam is recondensed to water again ere it reaches the surface, then *where* is the line between the heating and cooling crust?

4th. If gravitation is the standard of weight of clay, stone, iron, wood, etc., then each planet must have its own standard of weight according to the strength of its gravitating power, if so, then what is the strength or gravitating power of the universe, and what is the weight of our earth by that standard?

5th. Does not the porosity of all things prove that the earth is a porous ball, and as its own gravity has no weight or attraction outside of itself, and its universe weight is light, so that it floats in a non-atmospheric space as easily as a bubble or a balloon does in and on its atmosphere?

R. A. EMERY.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

ZEB CRUMMET says he copied the following from a bill posted in a country village: "A temperance lecture will be delivered in the *open air*, and a collection taken up at the *door*."

It was Jones, we believe, who got mad at his wife, the other night, when he thought he heard burglars in the house. She wouldn't let him go down in any more than the single garment he had on, lest, if he should get stabbed, she'd have to mend a hole in his pants.

"WHAT are ye dancing around fur?" inquired a bootblack yesterday of a boy acquaintance whose face was covered with smiles, and who was executing a double shuffle. "Glory 'nuff for one day!" replied the lad, jumping still higher. "Cow got into the garden this morning and tramped every bed flat as yer hat, and I won't have to pull a weed this summer?"—*Vicksburg Herald*.

"You would be very pretty, indeed," said a gentleman, patronizingly, to a young lady, "if your eyes were only a little larger." "My eyes may be very small, sir, but such people as you don't fill them," was the reply.

"OH! my friends," exclaimed a temperance orator, "that I had a window in my heart, that you might all look in and see the truth of what I tell you!" "Wouldn't a pain in your stomach do just as well?" asked a small boy.



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

THE NATIVE RACES OF THE PACIFIC STATES OF NORTH AMERICA. By Hubert Howe Bancroft. 8vo; cloth.

We have received volume four of this elaborate and valuable work from the publisher. Volume first discussed the wild tribes; volume second, civilized nations; volume third, myths and languages; volume fourth takes up the very interesting subject of antiquities. Scientists have for the past five or six years exhibited some special attention to American archæology, offering through the press their many valuable treatises and essays, which reveal to the wonder-struck reader that, ages ago, in certain parts of North America, and within the boundaries of what we are now proud to name the United States, there existed nations whose civilization was of a comparatively high character. That civilization is shown amply in the remains of buildings of various sorts, whose sculpture in some respects really elicits admiration. The degenerate descendants of some of these tribes are found in tribes of Indians which frequent the passes of the Rocky Mountains and the plains of New Mexico, Mexico, Colorado, California, and other Far West regions.

Mr. Bancroft, highly appreciative of the claims of American archæology to earnest investigation, and also discerning in many of the native tribes traces of past culture, as if the old refinement of their ancestors still lingered, reluctant to lose all its hold upon them, devoted himself to researches in this prolific field, and the volumes now issued are the results of many years' study.

The fourth volume is peculiarly interesting, because it exhibits, with the aid of many well-executed engravings, the monumental relics of ancient peoples, whose period can scarcely be determined. In the discussion of the antiquities which he has personally examined, he indicates a careful discrimination, making no hasty generalizations or conclusions with regard to the relations of those old American races to ancient Egypt or Assyria, or to the Chinese, as some authors have been inclined to do. Yet where the relation bears a stamp of probability,

which may not be ignored altogether, he brings the results of his experience in archæology to its clear exposition.

Those interested in the study of ethnology will find these volumes peculiarly interesting. The field is new and the developments startling in very many respects. The volumes are large, each having upward of 800 pages; the type is clear and the binding excellent.

The fifth volume has been finished by Mr. Bancroft, and will be published immediately, completing the series. The price is \$5.50 each.

EIGHT COUSINS; or, The Aunt-Hill.

By Louisa M. Alcott, author of "Little Women," "An Old-Fashioned Girl," "Little Men," "Aunt Jo's Scrap-Bug," "Work," etc. With illustrations. One vol., 16mo; pp. 290; muslin. Price, \$1.50. Boston: Roberts Brothers.

Miss Alcott's stories are enjoyed by the children, which is saying much for a book. They seem true to life, and the little girls who hear their mammas read them sometimes ask to have letters written to learn where they may visit Rose, or some other of the children introduced to their interested attention. Rose, in the story, was left an orphan at the age of thirteen; had inherited a sensitive organization, a feeble body and active brain, but by quite sensible training, under the guardianship of her doctor uncle, she improved very rapidly during the year, of which Miss Alcott's story gives the history. We like most of his treatment, but when we read of his dressing her for winter in seal-skin cap and sacque, we wondered if it could be advisable for so active a brain to be covered in that manner, and also whether the sacque would not make her more liable to take cold, and induce the lung disease to which she seemed so liable. She learned cooking, among other things, and when asked by Uncle Alec. how she succeeded in making bread so perfectly, replied, "Gave my mind to it." That is the secret of all successes. When she wished to learn for what she was best fitted, we wished she had gone to a practical phrenologist and had her characteristics portrayed by his science.

The book contains a good deal of really useful counsel with regard to the treatment of children, mentally and physically, Miss Alcott evidently aiming in the garb of a story to disseminate some excellent hygienic principles which are too much ignored by certain classes.

A TEXT-BOOK OF HUMAN PHYSIOLOGY:

Designed for the use of Practitioners and Students of Medicine. By Austin Flint, Jr., M.D. Illustrated. 8vo; pp. 978. New York: D. Appleton & Co.

This valuable work, which has been just received from the publishers, will be noticed with some degree of speciality in an early number.

ST. GEORGE AND ST. MICHAEL. A Novel. By George Macdonald, author of "Wilfred Cumberland," "Annals of a Quiet Neighborhood," etc. Illustrated. One vol., 12mo; pp. 552; muslin. Price, \$1.75. New York: J. B. Ford & Co.

Notwithstanding the fact that it is a novel, it is so interspersed with history as to make it instructive, while it is also interesting enough to keep the attention of the reader to the very end of the book, where the author says: "And however the mind, or even the spirit of man may change, the heart remains the same, and an effort to read the hearts of our forefathers will help us to know the heart of our neighbor." In the above quotation may be seen the key-note of the story, which tells us how brave one can be when trying to do what seems to be *duty*. That it is which deadens the sting of martyrdom, whether of Protestant or Roman Catholic. With that spirit in the heart, it is easy to understand and to admire the same character in our opponent. Some of the apothegms found in the book are worth remembering; as, for instance, what Dr. Vaughan said to the sick man, Sir Rowland Scudamore: "No man can rid him of himself and live, but he can rid himself of that haunting shadow of his own self which he hath pampered and fed upon shadowy lies until it is bloated and black with pride and folly. When that demon-king of shades is once cast out, and the man's house is possessed of God instead, then first he findeth his true substantial self, which is the servant—nay, the child of God. To rid thee of thyself, thou must offer it again to Him that made it. Be thou empty, that He may fill thee." In another place: "It is a nameless weight, or rather emptiness, that oppresses me. Wherefore is there such a world, and why are men born thereunto? Why should I live on and labor therein? Is it not all vanity and vexation of spirit?" Says one of the heroes, Richard Scudamore, in a momentous conversation: "And thou art of consequence to Him that made thee." "How can that be, when I know myself worthless? Will He be mistaken in me?" was the rejoinder, to which Richard replied: "No, truly; for surely He sent thee here to do some fitting work for Him." While talking with Mistress Dorothy Vaughan, Richard asked: "Dost thou really believe that a man ever did love his enemy?" She replied: "I am sure that had it not been possible we should never have been commanded thereto." The last night that the Marquis of Naglan and his household spent in the castle, not many slept, but the lord of it had long understood that what could cease to be his never had been his, and slept like a child." That is a good lesson for all to learn. "No one but he who tries to do the truth can perceive the grandeur of another who does the same," is another suggestive thought. So, too,

are worth repeating these: "There is one thing a hypocrite, even, can never do, and that is, hide the natural signs of his hypocrisy." "Thank God for the night and darkness and sleep, in which good things draw nigh like God's thieves, and steal themselves in water into wells, and peace and hope and courage into the minds of men." * * * "What a huge difference there is between having too much blood in the feet and too little in the brain."

BROUGHT HOME. By Hesba Stratton, author of "Jessica's First Prayer," "Bede's Charity," etc. One vol., 18mo; pp. 221; muslin. Price, \$1.25. New York: Dodd & Mead.

This is the story of a man and his dearly loved wife. He was a clergyman, very sincerely devoted to his people, among whom he labored so assiduously that at the end of twelve years of his pastorate his physician imperatively prescribed an absence of two years, and a milder climate; and as his circumstances would not allow him to take with him his wife and little son, he felt compelled to accept the offer of Mrs. Bolton, a wealthy aunt, the widow of an arch-deacon, to provide a home for the wife if she would send the child away to school. Mrs. Bolton used wine daily at her table, because she thought she must, in order to maintain the standing in which her husband had left her, and at that table the lonely wife and mother became so addicted to its use that she could not break from the habit, and had become so much the habitual drinker before the return of her husband that even with the aid of his prayers, example, and pleadings, she could not throw off the coils of the serpent habit. As a last measure for her restoration, he left England with his family, and went to New Zealand, taking his wife away from temptation; and notwithstanding that she was barely able to endure the change, and retain reason and life, at the end of the dreary and protracted voyage she was cured and saved. We cannot here give all the particulars, but this was accomplished only through great suffering by both herself and her husband. The lesson taught is that there is no safety in exposing oneself to danger; or, in other words, if one takes a first step toward the brink of a precipice, he is never safe again as long as that step is succeeded by others in the same direction.

It is a good book, and teaches lessons that all may heed.

POPULAR PHYSIOLOGY. A Familiar Exposition of the Structures, Functions, and Relations of the Human System and their Application to the Preservation of Health. By R. T. Trall, M.D. 12mo; fancy cloth; pp. 223. Price, \$1.25.

In a space comparatively brief the author has presented the leading principles of the important subject of human physiology. The work is elaborately illustrated, the engravings them-

selves furnishing much direct instruction. Questions have been arranged and set at the foot of the pages, so that the volume can be applied to the uses of a school-book. Parents who desire that their children shall be instructed with regard to things of vital importance in our everyday life will find this book an excellent manual for their purpose. The great need of society generally is self-knowledge, and the application of books popularizing the facts of anatomy, physiology, and hygiene are among the most useful of the publications of the day. The book whose title is given is well printed, the illustrations are clear and explicitly described, and the price brings it within the reach of people generally.

MARRIAGE: Its History and Ceremonies. With a Phrenological and Physiological Exposition of the Functions and Qualifications for Happy Marriages. By L. N. Fowler. 12mo; cloth; pp. 216. Price, \$1.25.

As the author in the preface to this work states that he offers no apology to his readers for the publication of the book, so the publishers offer no apology for this new edition of it, the importance of the subject being a sufficient warrant for its continued appearance. The information which is furnished by its pages is of such a momentous character that it can not be too widely disseminated. The precepts of physiology and of morality relating to marriage should be reiterated over and over, and that emphatically, if such reiteration shall secure their observance even to a small extent in society. The work is really one of the best which have been published upon the subject in the course of a generation. It is filled with facts in support of the principles advanced, and aside from its didactic pertinency it is really an interesting volume.

THE TAXIDERMISTS' MANUAL; or the Art of Collecting, Preparing, and Preserving Parts of Natural History. Designed for the use of Travelers, Conservators of Museums, and Private Collectors. By Capt. Thomas Brown, F. L. S., late President of the Royal Physical Society, etc. Twenty-sixth Edition. New York: G. P. Putnam's Sons.

This title conveys an adequate impression of the character of the book. The author of it is a gentleman of very extensive experience in ornithology and entomology, and general natural history. He treats the subject of taxidermy in its different departments in a clear, simple style, adapting the treatise to the use of people generally. Many of our readers have written us with regard to the preservation of fine specimens of animals and birds. To them, and others like them, such a book will furnish about all the practical information they need. There are some excellent engravings which will illustrate the principles of the art.

LITTLE FOLKS' LETTERS; YOUNG HEARTS AND OLD HEADS. By Nannette S. Emerson, author of "A Thanksgiving Story," including "Betsy and I Are Out," etc. One vol., small quarto; pp. 208; embossed muslin. Price, \$1.50. New York: J. W. Merrill.

The frontispiece is a good likeness of the author. The introduction is at once characteristic and descriptive of the book, and is as follows:

To the little people everywhere

Who are fond of frolic and full of fun,
Who are learning to read and write with care,
And always glad when their tasks are done.

To the little people who love to hear

Stories of other girls and boys,
Who are sometimes naughty and sometimes queer,

Who tease each other and make a noise.

Are you tired of play? then stop a minute,

And read as the twilight hour comes on;
Here's a book with Howard and Charlie in it,
And Midget, and Mousie, and little John.

It is prettily illustrated, and right well adapted for a holiday present.

MAGAZINES AND PERIODICALS RECEIVED.

THE LADIES' ALMANAC FOR 1876 is a neat little *vade mecum* in blue and gold, containing an abridgement of the early history of the United States, several portraits and other illustrations, with blanks for memorandas, besides the usual calendar and meteorological information. Procurable at the leading news offices.

THE HUB, for December, is an elaborately illustrated and well-printed number of this excellent monthly, which is devoted to the interests of the carriage-making fraternity. Published by the Hub Pub. Co., New York, at \$3 a year.

THE AMERICAN JOURNAL OF MICROSCOPY, and Popular Science, is the title of a new venture in the field of literature. With a gentleman of experience, Mr. John Phin, in the editorial chair, and a very interesting field as its speciality of discussion, we trust that it will find many readers and abundant support. The subscription price is but 50 cents a year. Office, 37 Park Row, New York.

GOLDEN HYGIENIC RULES for the cure of nervous debility, advice to young men. This pamphlet of thirty pages or so is admirably fitted for the purpose designed by the author, Dr. Thos. F. Hicks, of Wilmington, Del., a gentleman of high character, and well known in Christian journalism. Its careful study and faithful following would help those, both young and old, who are enemies to themselves because of unfortunate habits.

THE TRAVELERS' OFFICIAL GUIDE, for November, is at hand, with its usual amount of carefully compiled information, handsome maps, and its clearly printed pages.

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PORTRAIT OF B. H. BRISTOW,
SECRETARY OF THE UNITED STATES TREASURY.

B. H. BRISTOW,

SECRETARY OF THE UNITED STATES TREASURY.

UPON the withdrawal of Mr. Richardson from the Treasury of the United States, much concern was shown by all classes, political and commercial, with respect to the choice President Grant would make in nominating a successor to the vacant Secretaryship. His presentation of the name of B. H. Bristow, a man comparatively unknown in the east, awakened no little surprise and anxiety, the former feeling among the politicians chiefly, who had been discussing certain favorite "availables," while the latter sentiment was entertained among the merchants, financial men, and that not over numerous class who are honest and loyal in their desire to have the important affairs of the National Treasury administered with faithfulness, skill, and energy. The later incumbents of the office had shown no great amount of capability in meeting the exigencies arising in the circulation of the currency, and in suppressing the practices of smugglers, and in ferreting out the illicit distillation and storage of spirits. As a general thing, not much was expected from Mr. Bristow by the press and by the people, but in some respects he has disappointed popular expectation, and reflected a good degree of credit upon President Grant's discernment. Scarcely had he taken office when he turned his attention to the thousand conspirators against law and order, who were flooding the country with vile stuff, yeleft whiskey, the payment of the tax on which was evaded in various ways. In tracking these illicit dealers to their lairs, and fastening upon them the guilt of infringing the revenue laws, he has shown a wide-awake energy, a fertility of invention,

and a resolute persistence which has astonished and crippled the whiskey contrabandists, and compelled the admiration of all parties.

In administering the affairs of the currency Mr. Bristow has not shown any special brilliancy as an inaugurator of new methods, in fact, has not aimed apparently at more than the regulation of the national finances upon an even and harmonious basis, and to secure an economic administration in the different departments under his supervision. We think that he has done well in this, and approve his circumspection in avoiding any *coup de main* in discharging his duties.

The portrait should give the impression to the observer that the original is a strong, healthy, vigorous man. That deep chest shows vital power, and the face and head are built on the same principle. There is a massive forehead, indicating intellectual vigor, the prominence and fullness across the brows indicating strong perceptive power, and ability to attend to details, to look after particulars. His mind is not one that merely generalizes, but it gathers facts for itself; is not likely to take for granted that which may be stated by others, unless there appear intrinsic evidence of its truth. He examines for himself, takes all the facts into account, and criticises them sharply. But his mind does not work rapidly; he is more sound than brilliant, more strong than showy, more thorough and comprehensive in his mental work than graceful, elegant, or vivid. He is a good reasoner, but he employs facts on which to base his reasonings, which facts have passed in review under the light of his own criticism.

The head appears to be broad in the region of the temples, indicating ability to understand complications, as in mechanism, or the mixed-up affairs of business. He does not become confused by that which is intricate and complicated, but would be able to trace out any fact or line of facts through whatever labyrinths they may have traveled. As a lawyer he would comprehend the history of a case, though it might to most minds seem very much involved.

He is brim-full of good-natured wit, and among his intimate friends gives vent to this trait, and will bear bravely any amount of friendly raillery, for he is generally able to play his part, and likes an excuse for giving a good joke or a sharp repartee.

His head is wide in the regions above and about the ears, showing the love of gain, financial capability, earnestness, energy of character, and power to be severe, and the ability to crush out that which deserves to be put down. Though he is strong in his friendships, and disposed to stand by friends to the last—who deserve his confidence and protection—yet he has the ability to say “No,” to repel encroachment and to crush opposition. In other words, that head indicates a good fighter, as well as a clear thinker, and a strong friend. When he was a boy he might have been slow to wrath, but those of his own size and age would soon learn enough of him to know that it was not either profitable or pleasant for them to treat him unjustly or to assail him; and while he is not quarrelsome, he has a great deal of power to repel and punish aggression, and, when it is necessary, he does this thoroughly, if not severely.

He is capable of leading and persuading, and at the same time of being

the master of men. His strongest moral sentiment is Benevolence, which makes him generous, liberal, and sympathetic. His whole top-head, except Benevolence, should be higher, in order to give that softening, restraining, and elevating tone of mind necessary to produce richness and harmony in his whole mental nature. His devotional nature is not highly marked.

He ought to be a good talker, and, as a public speaker, strong and eloquent, rather than fanciful or imaginative. He has the organization of an engineer, of a constructor, of a merchant, of a financier, and of a soldier, and is also well endowed with literary ability.

B. H. BRISTOW, who, as the reader remembers, succeeded Mr. Richardson as Secretary of the Treasury of the United States, is a native of Kentucky. He was born in Elkton, Todd County, in 1833. During the war, as well as all through the troublesome political campaign preceding the outbreak of the hostilities, he was a strong Union man. He entered the Union army in 1861, and served with marked distinction in the west. He was at forts Donelson and Shiloh as Major of the Twenty-fifth Kentucky Regiment, and was afterward Colonel of the Eighth Kentucky Cavalry. During his whole term of military service he possessed the confidence and friendship of that able soldier, General Thomas. On the close of the war General Bristow was made United States Attorney of the Louisville District, which position he filled with marked ability until 1870, when he was called to Washington on the creation of the Department of Justice, to fill the responsible position of Solicitor-General. In 1872 he resigned, in order to accept a more profitable position in connection with the Southern

Pacific Railroad. During the latter half of the year 1873 he returned from Philadelphia, where his duties had compelled him to reside, to Louisville.

In December, 1873, General Bristow was nominated for the position of Attorney-General, on the understanding that his confirmation should depend upon that of Judge Williams to the Chief Justiceship. As a man, he stands before the community possessing the highest private character, while his legal attainments are well known.

On the day appointed for decorating the soldiers' graves, May 29th, 1875, Secretary Bristow delivered an address at Louisville, Ky., in the course of which he uttered sentiments which we think the reader will deem fitting to be reproduced in this connection, viz :

"Perhaps nothing more distinctly marks the degree of civilization attained by a country or community than tender regard for the memory of its dead. The monuments erected, the flowers planted by loving hands in the resting place of the dead, testify to the virtues of the living. The splendid cemeteries of great cities, and the modest graveyards of villages and neighborhoods, betoken the existence of a sentiment alike creditable to each. Our own beautiful Cave Hill, wherein we meet to-day, with its green sward, its trees and flowers, its marble monuments bearing names familiar to us all, tells how the people of Louisville cherish the memory of departed friends. But our solemn and tender feeling for the dead is here exalted by the generous spirit of patriotism, inspired by recollections which the ceremonies of this day must revive. * * *

"Speaking upon the soil of one of the late slave States, I but declare a truth, which will not be controverted or questioned by any considerable number of

intelligent persons, when I assert that a great blight has been removed from the South by the abolition of slavery. It requires no prophet to foretell that, sooner or later, the South must enter upon a career of unexampled prosperity under the influence of free institutions. Her resources are, practically, boundless. Her fertile soil, her rich mineral deposits, her propitious climate, all point to future wealth and power. Free labor must and will develop these, as it has already done in the less favored region of the North. The causes which have operated since the close of the civil war to retard the onward movement and check the prosperity of the South, might be easily traced, but this is not a suitable occasion to discuss them.

"If I am asked, When will this predicted prosperity be realized? my answer is, When the passions and prejudices engendered by the strife shall have entirely subsided; when the inalienable right of every man to equal freedom with every other man is fully recognized by society; when the laborer is not only fully protected in life, liberty, and the pursuit of happiness, but ample provision is made for the education of his children; and when it becomes known and accepted that wealth and intellectual improvement come only from individual industry and effort, and not from the pursuit of what we call politics.

"Then, and not till then, will the South have entered upon the full realization of the benefits which must eventually flow from the change. No political economist will deny that educated labor brings greater rewards, both to the employer and the employed; hence, considerations of self-interest, to say nothing of the duty required of us by the Golden Rule, demand the educa-

tion of all the people. In view, then, of what has been already achieved, and of what remains to be surely realized hereafter as the results of the war which peopled the graves that lie before us, have we not great occasion to pour out the gratitude of our hearts with the flowers now strewn on this consecrated spot? * * * * *

“The graves throughout the South, in which sleep thousands who arrayed themselves against the Government, testify to their courage and soldierly bearing. Their bravery and endurance were illustrated on many well-contested fields. It is impossible to doubt that the masses among them fought for what they believed to be right; and however they may have been misled by false theories of government, or deluded by the artful teachings of cunning and ambitious leaders, we can not fail to recognize their valor, or the tenacity and fidelity with which they adhered to the cause in which they had enlisted, so long as the conflict continued. If our own great President could declare in the midst of the strife that it was prosecuted on our part ‘with malice toward none, but with charity for all,’ how much more ready should we be now to bury the animosities that belong to the past, and concede to the men who fought against us the qualities illustrated by their courage and devotion to the cause espoused by them. * * *

“The two grand results of the war which more than compensate the country for all its sad bereavements and vast expenditure and waste of money and property, are the extinction of slavery and the recognized indissolubility of our National Union; and the time is not far distant when these will be accepted and admitted as blessings by the people of every section. Men of the South will sooner or later admit

that success in what they undertook would have been a grievous misfortune even to themselves. What they may think of their action in the past is of little moment, so far as it can affect the present and future interests of the country. What we have a right to expect and insist upon is practical loyalty in the future to the country, and cheerful obedience to its Constitution and laws. Mere historical and sentimental loyalty is of far less consequence. We ask no sacrifice of conviction, no humiliation of soldierly pride, while insisting on and enforcing every principle resulting from the victory. We may look with indulgence, if not with indifference, on the apologies and defenses that will certainly through all time be put forth by the descendants of the men who fought on the side of the Rebellion, and agree to differ with them on what is rapidly becoming a mere chronicle of record and of theory. The history of the world furnishes examples from which we may learn lessons of wisdom in this respect. The past struggles in our mother country illustrate what I mean. The great leaders on either side of the civil war of the seventeenth century—Hamden, Pym, and Cromwell, and Falkland, Hyde, and Ormond—have full justice done them by all competent historians, and their virtues and talents are the common heritage of the English people; and the historians of those times are equally loyal to the British Constitution of to-day, whether they take the side of the Cavaliers or espouse the cause of the Roundheads.

* * * * *

“May we not, then, look forward with assured confidence to the time in the near future when all intelligent men, North and South, will not only accept the results of the late conflict, but will recognize the blessings that flow from

it, and admit that any other issue would have been an irreparable calamity to both sections of the country. While we must differ from those who sought to dissolve the Union, and look from a different standpoint upon the history of the struggle that ensued, we may safely concede to them the right to hold such opinions as they like in respect of the past, and claim from them only a cheerful and hearty loyalty to the present

and future. And why should this not be so? Are we not bound together by ties of consanguinity and community of material interests? Whatever promotes discord, or weakens our common Government, threatens danger and disaster to all alike; and whatever gives strength and perpetuity to our free institutions, promises blessings to the people in every part of the country, and to their posterity."

THE POLITICAL DRIFT.

RELIGIONISTS, until but recently, have claimed to lead the battle of progress. Without saying that religion has loosened its grasp, we acknowledge that politics is in the van. Having gathered strength and momentum from the correlation of the many popularized sciences, it has developed to a multitudinous science in itself. Its list of civilizing labors and lore, in the economic and progressive relations to humanity, includes even physics and metaphysics. Its questions, or issues, present a vast and various surface, and a profound and portentous depth. Its material—religious, social, physical, and moral economy and thrift—require a telescopic extension of philosophic vision that is capable of bringing remote and obscure conditions up to the eye, even as hidden stars come forth from the gray depths of the heavens, by the aid of a lens, to show us the possibilities of the unknown.

There was a period when all men were "under age;" that is, not privileged to manage for their own best advancement—when a monarch was head and brains for his people, and they were heart and hand for their king. It was an equality of rights similar to that which the crafty white man manufac-

tured for himself and a tawny brother hunter, as they were dividing the game of the day—"I will take the turkey and you may have the crow, or you may have the crow and I will take the turkey."

But time is changeful, and plastic man has been remodeled and reinforced. At the present age, not only the mightiest intellects of the world are straining to simplify this ever-growing complexity of the great struggle for life and happiness, but we find that, in the lowliest cottages that nestle in fertile valleys, in quiet town, and mottled city, here and there, the common man, who gets his bread and butter by the sweat of the brow, has the proud satisfaction of knowing that he, too, has a voice in the manufacture of men, miscreants, and monstrosities. This elastic privilege may look like a leap in the dark, but it is a stumbling gait on the homestretch toward the promulgation of equal rights. Montesquieu, the French philosopher, says: "When God endowed human beings with brains, He did not intend to guaranty them." Like a vine in sunshine and in shadow, intelligence climbs up by the nearest thing that suggests immediate support. We have all heard

of the girl who responded to the advertisement for a "wet nurse." In reply to the interrogatories concerning her capabilities for the situation, she honestly acknowledged that she did not understand the business, "but," with commendable pride, said she, "I could learn." "During all past times," says Herbert Spencer, "mankind have eventually gone right after trying all possible ways of going wrong." John Neal, a shrewd philanthropist, writes, in a letter: "You will find that, whenever it is possible, the great unreasoning multitude is always in the wrong." Keeping in view, then, that this negative means of progression is the only method that ignorant, perverse humanity will avail itself of—seeing that man will go wrong when he can, and right when he must—we are morally bound to applaud the enthusiastic efforts which the lower classes heroically make to develop themselves to the meanest among mean men, while they aspire to be the greatest among noblemen. The lowest human passions, and the highest human attributes, upon the consideration that they are accessories to be obtained of the advancing future, are, avowedly, at par. They are eggs to be hatched in the nest of the Bird of Paradise. They are inch-rounds of the long ladder of manhood. Bear-hunters are not over modest about being hugged. "A man's a man for a' that."

An impartial government of the people, by that people, is an elaboration of intelligence that can be wrought out only by piece-meal. Even learned men—sages—are reasoning beings only now and then. They dream immeasurably more than they reason. At impulse man takes up the oars of thought, and plies them vigorously, as if he could get over the whole expanse of the ocean of knowledge with a few strong strokes,

but as he turns to mentally question some familiar landmark, and finds that he has barely changed the angles of distance, his enthusiasm relaxes its entire tension, and he passively drops back into his pleasure-seat, relieved, and lets the tide of chance and circumstance drift him anywhere away from responsibility.

To illustrate the weakness of the common mind—its tendencies to exhaust its will-power—let us quote from Sproat's "Scenes and Studies of Savage Life:" The native mind, to an educated mind, seems generally to be asleep; and if you suddenly ask a novel question, you have to repeat it, while the mind of the savage is awaking, and to speak with emphasis until he has quite got your meaning. * * On his attention being fully aroused, he often shows much quickness in reply and ingenuity in argument. But a short conversation wearies him, particularly if questions are asked that require efforts of thought or memory on his part. The mind of the savage then appears to *rock to and fro out of mere weakness*, and he tells lies and talks nonsense. It is certainly a significant insight to our republican government that we get when we take into consideration that millions of different nationalities are crowding into our land of freedom, and asking and receiving, with very slight strictures, the citizen's liberty to assist in the direction of education, to have a voice in municipal rights, and to help devise means for extensive political economies, while many, a very large many of them, and of our own nation born, too, correspond admirably to this much of Sproat's description of the savage Ahns.

"If, of ten men, nine are recognized as fools, which is a common calculation, how, in the name of wonder," asks

Carlyle, "will you ever get a ballot-box to grind out a wisdom from the votes of these ten men?" Neither grapes of thorns, nor figs of thistles, has been preached, digested, forgotten, and resurrected, in turn, times unnumbered. But, even now, amateur gardeners take scions from the best fruit trees, and insert them in branches of other family trees, obtaining superior fruits therefrom—a practical triumph of science over ancient maxims. Our very great-grandmother, Eve, when she ate the crab-apple, got knowledge out of it. She learned "evil," and, as Tabitha Tattle says, when expatiating upon the advantages gained by thrusting your inquisitive nose into your neighbor's secret blemishes, "*such knowledge is power.*"

Life—what is it? Go to the Northern Esquimaux for information: "Watching at the blow-hole of a seal for hours, in a temperature of 75° below freezing point, is the constant work of the Innuithunter. And when at last his prey is struck, it is a *luxury* to feast upon the raw blood and blubber." Ask the model statesman, What is life? and he replies: "To serve our country." The zealous Christian admonishes us to "Serve the Lord Jesus." Now turn to the banker, and note his reply: "Render unto Cæsar the things that be Cæsar's, etc., with twelve per cent. interest—this is life." It is, indeed. It does not matter that the banker is thinking only of his own income. Our vision is not so proscribed, and we can easily see that whosoever hath means to return the borrowed "principal" to the sharkish human banker, and to the Almighty banker, a'1 that He has loaned from the fund of nature, with twelve per cent. for usury, has multiplied his various talents according to the de-

mands of Scripture, and the lordly commands of the money-glutton. He has compassed the whole field of progress, from the nearest corner where man has piled the *débris* of experience to the full vintage where the wine of life "sparkles, but not inebriates."

When we have gathered together the people of all grades from the four quarters of the globe under one great commonwealth; when we have analyzed and criticised them in every light and shade as mental, moral beings, we must admit the æsthetic theory, at least, of justice, and concede to each and all the moral right of reason, imagination, conscience, and consciousness, with ample space and abundant element wherein these may obtain the growth which instinct demands for them from time to time. Of their necessities we cannot get a view too wide or too comprehensive. Our surging sea of humanity cannot afford to disregard or be disregarded by its tributaries.

The law of gravitation is fully applicable to the progressive rights of mankind. He who attempts to cheat the Almighty out of one single day's advancement of the untutored, undisciplined races, to keep a broad way clear for his own proficiency and comfort, does not approach the dignity of the knave; he must be set down as a fool. He sinks himself at the start in the inextricable mire of his own unmanly selfishness.

The great work of a nation, be it remembered, is the making of men, not of monarchs, nor of governments; and "when God turns the mill"—*humanity's mill*—"who shall stop it?" Neither a hopper-full of wise giants nor a grist of small fools. A few colossal intellects can not span this international age, for it is eminently the age of varieties, the age of divergences, the

scientific age. Progressive agitations no longer concentrate upon one great issue, or one great necessity; there is division and subdivision of question, and of positive demand. Political measures are multiplying, widening, deepening, intensifying, and systematizing. Not with any indications of an

approach to a rapid termination of difficulties, but with every promise that we could wish of a successive continuance of surprising developments and transformations that shall surpass our grandest idealities and our most profound conceptions of God, man, and nature.

R. K.



REV. S. H. PLATT, A.M.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

THIS gentleman has a temperament distinguished for fineness, susceptibility, and sensitiveness. Inheriting, as we judge, more from the mother than from the father, he is intuitive in his range of thought, and though he may

think logically, and discuss questions in an argumentative and logical manner, his intuition of the truth generally gives him the outline of thought, which logic, in its slower form of action, will demonstrate. As one who may be elevated

high up in a balloon, or on a tower, and look over the territory of a city into the streets and very chimney-tops, gets a bird's-eye view of the surroundings, and afterward comes down and surveys or traverses every way and alley, or goes to every desirable place and point; in like manner intuition brings one up to where he can see the whole field, and logic helps him afterward to demonstrate and verify it.

We find here evidences of a thin skull, also fine hair and sharp outlines of features, indicating a great predominance of the mental temperament, which gives the tendency to think, to live in the realm of imagination, emotion, and sympathy. His natural way of exerting influence is to try the finer and higher forms of influence first, and if these do not produce the desired results, to reach down lower and lower, until he can find where men's best sensibilities are, and thus get hold of them. He is most at home among people who have thought, culture, attainment, and aspiration, and who live in the sphere of the higher feelings. When he meets one of those beefy, gross natures, that are altogether "of the earth, earthy," he hardly knows how to engage with him, what motive to present, what bait, if we may use the term, to use to attract and to lead him. But with this sensitive temperament, and with this tendency toward the spiritual—not necessarily toward the marvelous—he is anxious to find a man's best and highest motive, and to lead him by that, or to influence him by means of it, if possible.

The base of this brain is large enough to give a great deal of earnestness and power. He is not one of those men who live solely in the atmosphere of delicacy and purity and high aspiration; he believes in courage, in forti-

tude, in what the English call pluck, and is naturally a great worker, and whatever his hands find to do in the way of physical exertion is pushed to the extent of his strength. If he were called to manual labors, or to duties inviting physical exertion mainly, he would be rapid, accurate, thorough, and successful in the work. If he were called to handle machinery, he would take proper care of more of it than most men of his strength and energy. There is not a lazy bone in him, nor a delinquent fiber. He is warm in his temper, is naturally capable of a high order of indignation when it is properly called for.

This feeling, when harnessed to industry, gives force; when called into danger it gives courage, and has a tendency to sustain and strengthen a man in all his moral purposes. There are men who love the truth and aspire after holiness, and would make everybody good if they had the power to do it; yet they lack the courage to look men in the face and tell them the truth; they are afraid to speak as strongly as they think. This gentleman is not afraid to speak truth strongly and bravely, nor is he afraid to tell advanced truths; and while he would conserve everything that is of the past, which is worthy of being saved, he is all the time hungry for the higher and the better. As the growing tree does not necessarily ignore the old trunk out of which it sprouts, nor the last year's wood, but builds new wood from the end of the old twigs, using the old trunk and branches as means of support and nutrition, so he is both a conservative and a radical, pushing his inquiries into new fields, and holding on to all the old truth that is not dead; but he inclines to trim off all the dead limbs. Many persons who work in the

same field with him are afraid he trims off too many of the old limbs, but it is argument enough for him to see that there is no sap in the branch, and he does not wait for it to decay before the saw is applied. In other words, he would seek to hold the truths of religion and duty, and at the same time keep pace with science, and unite the two, believing "that all truth is of God," and, as Dr. Gall once said, "true religion is central truth, and all knowledge, in my opinion, should be gathered around it."

He has invention, and if he could exercise it in the direction of mechanism, he would be an inventor of machinery, and in any direction where new methods, or a better use of old ones, can be employed, his Constructiveness helps him, even in the construction of a letter or of a sermon. The co-ordination of forces and facts and ideas are comprehended by one who has large Constructiveness better than by one of the same general intelligence without Constructiveness. Dr. Chalmers had excessively large Constructiveness, and his sermons were full of splendid mechanical illustrations, out of which he deduced higher truths.

We find here, also, a full share of the tendency to acquire. He has financial capability, power to manage financial matters in such a way as to make them as successful as may be. Hence his efforts to raise money for the promotion of the various causes which come under his administration generally secure success. Some people will go into a parish that is able to do abundantly, but everything will get behindhand, and they can hardly keep their church edifice in repair. This gentleman would find a church in debt and work it out. If buildings were out of order he would get them re-

paired; if a congregation were slack about paying their dues, he would work them up to duty.

We find in him large Cautiousness, which renders him prudent, watchful, and pains-taking, but not a large amount of Secretiveness. His frankness is a marked trait, having a clear mind to look ahead, and courage to back up his purposes; he does not feel the need so much of policy and management as some do.

His love of approbation is large enough to make him sensitive to the good and ill-opinion of the world. He is anxious to be approved; suffers if he is degraded or undervalued, and feels that a good name is something to be cherished and protected, and that a true man has no business to be considered dishonorable; that he should so relate himself to his friends and to the world that his character, motives, and conduct shall be considered favorably by the world.

The organ of Self-Estêem was naturally low, but it is improving. In early life, say before he was twenty-one years of age, he was obliged to carry himself in embarrassing situations, very much as an overloaded, spirited horse does up a steep hill; the horse goes up on a run, and our subject was obliged to key himself up, as for a tremendous effort.

His Continuity is moderate, hence he can devote himself to a variety of topics, and their multiplicity does not confuse his mind. He can give attention to different matters in rapid succession without feeling harrassed.

He has strong Conscientiousness, and loves duty and justice, and it works with Cautiousness. He is more anxious for truth, for that which falls under the term integrity, than for anything else, and would suffer seriously in feeling if

he were falsely accused of untruth or any other want of integrity.

He has strong sympathy, and suffers deeply with those who are in trouble. His Hope is not an extravagant element. He yearns for that which is high and immortal and desirable, but he is not inclined to promise himself or others very much; and generally puts a saving clause in when he is asked to promise something to-morrow or next week. His Spirituality gives him a keen sense of that which relates to faith and things invisible.

Here is large Ideality and Mirthfulness. These tend to give a sense of the beautiful, the grand, and the witty. He has a good memory of facts, and excellent Language for the clothing of thought and feeling, and if he had been educated to the law, instead of to the ministry, he would have been known for possessing the power of carrying the leading facts of adjudicated cases in his memory.

His adaptation to life's pursuits would lead him naturally to public speaking, and there is in his composition and in his efforts not a little of that which is really dramatic, and we may say that the truly dramatic has really no more exclusive right to the stage than dullness has in any other profession. Mr. Moody, with all his sturdy, physical organization, and with his lack of the graces of the schools and of culture, is full of the dramatic, and much of his power lies in it. A man to succeed in the pulpit, at the bar, on the lecturing rostrum, in the school-room, in the family, is all the better for having the power and the pathos coming from the qualities and faculties which tend to the dramatic. The power of putting the thought into such words, and the voice into such tones, and the looks into such form, as

to make men feel and believe, is dramatic, and our subject ought to have it with this head and temperament.

BIOGRAPHY.

REV. MR. PLATT,* at present the pastor of the DeKalb Avenue M. E. Church in Brooklyn, N. Y., was born in the town of New Milford, Conn., in the year 1829, and is now forty-seven years old. His father, Marshall Platt, was a farmer of New Milford, and his grandfather, on his mother's side, Orange Merwin, was some years Member of Congress, representing a district in Connecticut. His father is now living in New Milford; his mother died at that place about five years ago. His parents were both members of the Methodist Church. His family were in comfortable circumstances, such as farmers usually are. Mr. Platt was educated in the Amenia Seminary, Dutchess County, N. Y., situated about twenty-five miles east of Poughkeepsie. On account of a lung complaint he left the school, after having been there parts of three years. The tutors at the Seminary were at the time Dr. Cummings, Dr. E. O. Haven, Bishop Gilbert Haven, and Dr. Winchell, of the Syracuse University. He then went under private tuition for several years, studied medicine and theology under accomplished preceptors, and received a diploma from the Wesleyan University.

[* This gentleman has been the subject of extended comments in the public prints, and in religious circles, in regard to his being cured of a severe lameness of twenty-five years' duration. Everybody knew him as the lame preacher, who had to walk with two canes, or with a crutch and cane, and was obliged to sit during his pulpit services. The statement is, that on the twenty-fifth of July, 1875, his lameness was cured as the result of prayer and faith. He came home from Ocean Grove, New Jersey, where the cure was effected, without the aid of his canes, and dispensed with their use, stands to preach, etc. We have known him for years as a cripple; he now visits our office apparently cured. He has published the facts in a pamphlet, entitled "My 25th Year Jubilee; or, Cure by Faith," the price of which is 15 cents.—Eds. A. P. J.

The private course was adopted because of his impaired health.

He is now called the philosopher of the N. Y. E. Conference. He has written many works, among which are his "Gift of Power," "Christian Separation from the World," "Princely Manhood," "Christ and Adornments," "The Philosophy of Christian Holiness," and "Queenly Womanhood," etc. Of "The Philosophy of Christian Holiness," 2,300 copies were sold within two weeks after its issue. His "Elijah the Tishbite" is an admirable production. The "Plan of Church Work," "Princely Manhood," "Power of Grace," and the "Wondrous Name," are deemed of great merit. The *Bridgeport Daily Standard*, of April 6th, 1875, contains the following:

"We acknowledge the receipt of Mr. Platt's unequalled lecture on 'Princely Manhood,' and thank him for the soul-feast we had in reading it. A great temptation requires a great breakwater, else, surging in resistlessly, it must sweep all before it, and where should the young Christian, especially, look for succor if not to Him on whom he feels he can throw himself in all temptations? He has given, in our judgment, the only *practical* solution of this much-vexed question. Could we have read this work years ago, it would have shed much light on a dark pathway. Having had a glimpse or two at the manuscript, we knew the line of argument he would follow, but we never supposed that from temptation he would evolve strength to resist temptation. This he has substantially done. The more we think of it, the stranger it seems to us that ministers of the Gospel should so long have held their peace. This we can only regard as reprehensible in the extreme. They take upon themselves to decry dancing and other innocent amusements, as tending to draw the mind away from heavenly things, yet hear the cry of agony coming up from millions around them, 'Oh, why were we not instructed and advised where most likely to fall?' Essays

innumerable are forcibly penned to warn against shoals and quicksands, and commentary ladders are reared to help the average intellect to climb over poorly translated or obscure passages of the Scripture, yet where the most light is needed, there we find utter darkness. The subject is only touched from mercenary motives, by quacks and charlatans, who, with their illustrated works of balderdash and nonsense, if nothing worse, but pour gunpowder into a magazine already on fire. We shall take great pains to circulate this lecture, and have before called attention to it. Were we able we would place it in the hands of every young man able to receive the truth, and bid him find therein the firm yet gentle guidance his wavering soul is longing for."

But to recur to our subject. In 1850-51 he ministered in Cornwall, Conn.; in 1852-53 in Fairfield; in 1854 in the Olvinville Mission; in 1855 at Greenport, Long Island; in 1856 his health failed; in 1857-58 he was pastor of the Nathan Bangs M. E. Church, Brooklyn; in 1859 he was laid physically prostrate; in 1860 he ministered in the Ninth Street Church, New York; in 1860-61 he edited the *American Monthly Magazine*, an enterprise of his own founding, and under his management the circulation of the paper rose to 6,000 copies. He was then offered a regimental chaplaincy by Governor Morgan, of New York; sold his publication and accepted it, but by an accident was prevented from entering the field. In 1863-64 he served in Newtown, Conn.; in 1865-67 in Winsted, Conn., and then came again to Brooklyn, as pastor of the Fleet Street Church in 1868-70. In 1871-73 he served in Bridgeport, Conn. In 1874 he returned to Brooklyn.

In 1853, while stationed in Fairfield, he was married, and now has three children. Mrs. Platt is a lady of refinement, accomplished manners, and generous nature.

Mr. Platt carefully studies his sermons, takes an outline, enters bravely into his theme, with a sharply critical analysis, and prepares his hearers to launch with him into the heart of his subject. He is a lover of science in general, particularly of natural science, and uses his knowledge of surgery, pathology, medicine, and physiology, as accompaniments to his spiritual teachings in his Sunday discourses. He is a total-abstinence man, a sound anti-tobacconist, hates everything that has a tendency to provoke the appetites or excite the passions in depraved human nature. He was also once the editor of the *State Temperance Journal* in Connecticut, and was the G. W. C. of the Good Templars, and chaplain of R. G. W. Lodge of North America. Thus we have in him a man of distinction, an author of no mean worth, a

scientist, a physician, a philosopher, a preacher, and a sound disciplinarian.

In appearance and manner Mr. Platt is the type of the true American gentleman. He is rather short in stature, and swarthy in complexion; has sweet, winning eyes, and an expression at once frank, generous, and honest. He is of most pacific, tranquil disposition, and courteous in his deportment.

We do not remember ever before to have heard from the pulpit so brave, accurate, and scientific treatment of subjects, combined with ardent, earnest, and tender religious instruction. He is orthodox in his faith as a Methodist, and true to the developments of advanced and scientific learning. He seems to believe that science and religion are twin sisters, and that the God of nature and of grace is the same, and the father of both.

LET ME ALONE.

BY LYDIA M. MILLARD.

Around each soul is a sacred wall,
Enshrining and protecting all;
He breaks, who enters rudely here,
The spirit's law of atmosphere.

Each mind hath kingdom of its own,
Its castle, cabinet, and throne;
Then, though you knock till eventide,
Seek not unasked a soul's fireside.

Nor with your lecture, censure's frown,
Batter its sacred ramparts down,
Nor steal within a soul's domain
Its secret, hidden faults to gain.

Nor break its glass with critic's stone—
God's crystal you must let alone;
On each soul's door, in angel's view,
Is Heaven's deep graven hitherto.

You never do a spirit good
Breaking its royal solitude,
Persuasion's breath may reach its door,
And Reason's waves may wash its shore.

But while it shall none other harm,
None other hinder or alarm,
Let each soul have its chapel, creed,
For its own thinking, faith, and deed.

And, free as God's pure, peerless flowers,
Unchecked, unfold its noblest powers,
Till human nature's trampled field
Thought's fairest crowns imperial yield.

Through broken window, broken dome,
Through wounded spirit's broken home,
I hear the ceaseless echo moan,
"Harsh tongue and hand, let me alone."

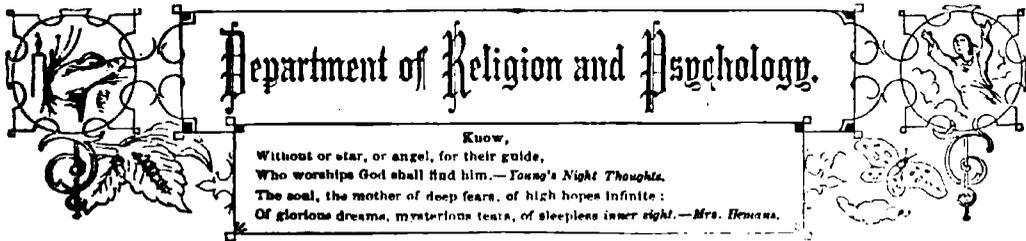
OBJECT OF LIFE.—Our business is to live
in the world for the good of the world—
for the sake of cleansing it and dignifying

it. It was not a great while ago, if even to
this day the opposite is true, that the ne-
cessity of working with one's hands for a

living was considered to be so gross and base that Plato said he would not have a mechanic live in his ideal republic. Labor was then odious in the judgment of men; but refinement and liberty and religion changed all that, until now, throughout our land — at least in large portions of it — the man who does not work, or who is ashamed to work, is disgraced. There was a time when to be a gentleman meant to be absolutely free from the necessity of doing

anything for one's support; but to-day, we may hear men using language like this: "I came into New York with all I had in the world tied up in a little cotton handkerchief, and now I am worth millions of dollars." A man is proud of himself when he can say that, and he knows that others are proud of him. I am proud when I see a rich man, if he has made his property by honest industry, and if it is a monument of his virtue.

BEECHER.



THE HUMAN SOUL,

ITS ORIGIN, NATURE, AND FACULTIES.

THE problem of our personality has taxed the powers of metaphysicians in all ages. It is many-sided, and, therefore, no consideration of it from a single standing-point will enable the solution. Just as the eager philosopher imagines that he has achieved it, he is very sure to find to his chagrin that the little sprite has escaped him; the idea which he had thought was grasped, he has failed to express. The Wunder-smith was hardly more unsuccessful.

The old Grecian legend informs us that the goddess Herè, or Juno, wishing to chastise the Phœnicians of Bœotia, sent the Sphinx to Thebes for that purpose. This singular being, seating herself on a high rock near the city, proposed to all who came near the riddle: "A certain creature has four feet, two feet, and three feet, with but one voice; but the number of feet varies at

different periods, and when it has the most it is weakest."

All who failed to interpret this enigma were unrelentingly destroyed. At last the fateful Œdipus came, with the solution: "This prodigy is Man. In the morning of life he is a child moving himself forward by means of both his feet and hands; in adult age he walks upon his feet alone; and in the decline of life a staff aids his steps." Immediately, so the legend informs us, the Sphinx leaped from the high promontory into the sea, and was seen no more.

This riddle, indeed, is propounded anew to every one, and is never solved by one person for or in the behalf of another. Till the answer has been rendered aright, he is under the mortal sentence, and the inexorable Sphinx is ready to smite. Perhaps the difficulty

is inherent in the problem. A cup can not contain another of the same or larger dimensions; and the human mind can comprehend no fact or law of vast-er proportions than itself. The negro servant of Sir Peter Parker, of the period of the American Revolution, stood aghast when interrogated, "How much water?" He could not conceive the possibility of measuring the whole Atlantic Ocean with a quart pot. How can the mind have an adequate idea of its own compass? how find out or take the measure of the Infinite? Yet man is the *apocrypha*, the Great Secret, into the knowledge of which the neophyte is to be initiated; and man, the Divine humanity, is the *apocalypse*, the disclosure or epoptic vision given by the hierophant.

BUT HOW?

Things generally appear according as we view them. Plato believed that the Mysteries illustrated supernal truths; Alcibiades thought them only a matter suitable for drunken jesting. The Egyptian deity, Ptah, the creator and revealer, or Kneph, the Good Spirit, fabricating man at his potter's wheel, was seen to be employed as a god, or contrariwise, according to the temper of mind by which the work was contemplated. In the reading of the first verse of the book of Genesis, some reverently perceive the Elohim depicted in the creation, where others observe only a salacious goat.*

In the exploring of all mysteries, those of our own being as well as those of our greater being, the cosmos or universe, we perceive what we are looking in order to perceive, and view it as foul and degrading, or divine and ennobling,

* In the Samaritan or Old Hebrew text this passage reads, "the *Azima*, or goat created." It may have been a symbolical expression, denoting that the work was done when the sign or constellation Capricorn was the throne of the autumnal sun.

according as we are ourselves groveling or heaven-toned. So, in the different schools of theology man is regarded as totally depraved, or as little lower than angels; he is exhorted to ennoble his nature even to communion with Divinity, or to crucify, vilify, and famish it—as the subject happens to be regarded.

But we do not propose any spiritual regeneration; we believe in none which does not comprehend man fairly and intelligently as he is, and aim to develop him from that condition, rather than to transmute him, into what he, from his very nature itself, his interior constitution, was designed to become. The divine paternal impulse which began him human, must perfect its work by evolving him divine.

WHAT THE SOUL IS.

We protest, therefore, against the hum-drum, old-fashioned idea that the human soul is a kind of spiritual essence which is in some peculiar sense distinct from the will and personality—a something that can suffer, apart from us, so to express it, especially in expiation or as a consequence, if we do or enjoy as we ought not—as though it was somewhat of the nature of an estate which belonged to us, which ought to be cared for and not involved, because such improvidence and prodigality would work inconvenience to ourselves and heirs.

We dissent, likewise, as fully and unequivocally from the doctrine of modern writers on psychology, or, perhaps, more correctly, mental physiology, that the soul and all psychical action and phenomena are essentially the products of the brain, evolved from peculiar arrangements of the cells and molecules, aided and modified, it may be, by other bodily conditions. We are aware that we jeopard whatever position we might otherwise hold with prominent

scientists of the present time, but it is a penalty which, under the circumstances, we elect to pay. We freely acknowledge the importance of a proper development of brain for the primary growth of the mind and psychical elements of our being; and also concede that cerebration is essential to thought and action. But, at this point, the conviction comes back upon us that there is another factor not to be overlooked or discarded in these calculations. The human idea, to our thinking, asserts itself in the entity of the soul; which, however closely allied at the outset with facts and conditions of our corporeal existence, even if apparently derived from them, eventually manifests itself as the "real presence," the person, the *Ego*—for whose advent all these were but ministers, whom it transcends and eventually supersedes.

An analogy is found in the growth of wheat. Vital and all-important is the office of the chaff, and necessary above all that we can estimate are the roots and straw; but when the grain is evolved and matured, their functions cease. The wheat is the essential thing, the actual and potential entity, of which the others were servants and precursors. It is gathered into the garner, while the others, having accomplished their use, are fanned away and left to perish. The soul is the personality, the selfhood, the entity, which is implied by the pronouns *I, thou, he, or she*. It feels with the sensory nerves, sees with the eyes, hears with the ears, smells and tastes with the olfactory and gustatory nerves, is conscious of weight and resistance, heat and cold, the auras of others, the perception of sex, through the medium of the organs which the body possesses. But because it thus feels, sees, and is otherwise perceptive, the logical sequence does not fol-

low that all these organs of sensibility constitute the soul, or any part of it.

THE BIBLE DOCTRINE.

It has been said of the Hebrew Scriptures, as also of the works of Plato, that the writers laid the whole ancient world under contribution. To our apprehension, they are often more intelligible in their utterances regarding the nature of man and its constituents than most other speculations upon the same topics, including those who have professed or endeavored to explain them. It is a curious fact, however, that they never indicate the brain as having any part in psychical action or phenomena, although the Hebrew text of the Bible is overflowing with the hieroglyphical or pictorial style. We find the nose mentioned to indicate perception and intellectual action; the eyes and ears, also, in figurative senses; the reins or kidneys, the liver, the diaphragm, the bowels, to express psychical and emotional sensibilities; the heart as the seat of everything peculiar to the human nature and disposition.

But when the person is signified, the term used is *soul*. "What is a man profited," asks Jesus, "if he gain the world and lose his own soul?" or, as the Gospel according to Luke expresses it in synonym: "What is a man advantaged if he gain the whole world and lose *himself*?" The discontented Israelites complain to Moses: "Our soul loatheth this light bread;" and Moses himself is represented as saying: "Thy soul longeth to eat flesh," (Deuteronomy, xii. 20.) With the same meaning of selfhood the Lord declares: "Your appointed feasts my soul hateth;" and in the book of Jeremiah promises: "Ye shall find rest for your souls." Also: "Eat that which is good, and let your soul delight itself in fatness,"—

that is, delight *yourselves* with fat or rich food (Isaiah, lv. 2).

In the Hebrew language, the word RUH (*ruah*) is used for spirit; NPS (*nephesh*) for soul, and NSME (*neshamah*) for breath or inspiration. In drawing the distinction between men and animals, both of which are repeatedly mentioned as being *living souls* (*nepheshim*) and having the breath or the spirit of life (Genesis, i. 24, and vii. 22, etc.), the writer *Koheleth* asks: "Who knoweth the spirit of man that goeth upward, and the spirit of the beast that goeth downward to the earth?" (Ecclesiastes, iii. 21.) The spirit of the beast is "of the earth," whereas that of man, going or reaching upward, is essentially divine. "The spirit of man is the lamp of Jehovah, searching out the inward parts of the belly" (Proverbs, xx. 27). By this spirit, and the inbreathing of the Deity, man is intellectual in the intuitional sense of the term. "There is a spirit (*ruah*) in man, and the inspiration (*neshamet*) of the Almighty giveth them understanding." The writer of the Jehovistic second chapter of Genesis speaks of this inbreathing as incident, if not causative, to the existence of the human soul: "Jehovah-Aleim formed man, dust of the ground, and breathed into his nostrils the breath (*neshamet*) of lives, and man was a living soul" (*nephesh*). Elihu, in the book of Job, also declares: "The spirit (*ruah*) of God hath made me, and the inspiration (*neshamet*) of the Almighty hath given me life" (Job, xxviii. 4).

Several of the authors of the apostolic epistles, it will be noticed, make a very careful distinction between the entities designated as *soul* and *spirit*—which very many modern religious persons overlook, and often confound. In the fourth chapter of the Epistle to the

Hebrews it is declared that the *logos*, or word of God, is capable of "piercing even to the dividing asunder of soul and spirit."* Paul, writing to the Thessalonians, uses the expression: "your whole *spirit*, and *soul*, and *body*."

Accordingly we find in four or five places the distinction carefully made of *psychikos*, or psychical, and *pneumatikos*, or spiritual. In the second chapter of the First Epistle to the Corinthians these terms are employed by way of contrast, together with figures derived from the Eleusinian Mysteries, and the Platonic philosophy. "We speak *wisdom* (the epoptic revelations) among them that are perfect [initiated]; yet not the wisdom of this world, nor of the *archons* of this world; but we speak the wisdom of God, hidden in a Mystery." Having set forth his meaning, he adds: "The psychical man receives not the things of the spirit of God, for they are foolishness to him; neither can he know them, because they are spiritually discerned. But he that is spiritual judgeth [discerneth] all things, yet he himself is judged [discerned] of no man."† James, while taking exception to the doctrine of faith without works, as the faith of demons and dead, declares: "This wisdom descendeth not from above, but is terrestrial, psychical, demon-like" (James, iii. 15). Jude makes a like distinction: "These are they who separate them-

* This was in perfect accordance with the doctrine of the Kabala, and of the Chaldean, Grecian, and Alexandrian sages and mystics, including Plato himself. The soul was the lower part of the spiritual nature: the *nous*, spirit or supernal mind, the higher.

† According to the ancient philosophy or wisdom, the psychical part of our nature was derived from the moon, and must be laid aside before the person is sufficiently pure to ascend to the higher world, or sun-sphere. Paul, by using the designation, ingeniously implied that those who had only acquired the ceoteric discipline of the ancient religion were still in the psychical, and, therefore, unregenerated condition.

selves as by boundaries, psychical, and not spiritual." The contrast is again made in the fifteenth chapter of the First Epistle to the Corinthians: "It is sown a psychical body, it is raised a spiritual body. There is a psychical body and there is a spiritual body. So also it is written: 'The first man (Adam) was made a living soul [*psuché*]; the last Adam, a vivifying spirit.' Howbeit that was not first which is spiritual, but that which is psychical; and afterward that which is spiritual; the first man being out of the earth, of the dust; the second man from the heaven, a spiritual substance."

The early Christian Fathers also endeavored to set forth the matter so as to make the idea of the Apostles more intelligible. Irenæus, Bishop of Lyons, says: "There are three things of which the entire man consists, namely: flesh, soul, and spirit; the one, the spirit, giving form; the other, the flesh, receiving form. The soul is intermediate between the two; sometimes it follows the spirit and is elevated by it, and sometimes it follows the flesh and falls into earthly concupiscences." Origen, likewise, remarked in the same tone: "If the soul renounce the flesh and join with the spirit, it will itself become spiritual; but if it cast itself down to the desires of the flesh, it will itself degenerate into the body."

It is evident that these quotations imply that that form of mental character entitled psychical or soulish, is the prior one which a human being possesses; and that the spiritual character is subsequently evolved, being engendered from the Divine nature. A man whose knowledge and motives of action are circumscribed by the exterior world and every-day views of right, is essentially what is denominated psychical, and as such is incapable of having

or apprehending a higher motive or principle. "The things of the spirit of God are foolishness to him." They are the spiritual in whom is developed the divine principle, who are born from above, who know the truth and are free, who are in law and therefore above law, who are law to themselves, and therefore "can not sin" (1 John, iii. 9).

PARENTAGE AND ORIGIN OF THE SOUL.

Whence, then, came the soul, and where does it abide? The complaint of Taliesin, the old Cumbro-British bard and sage, will apply to modern as well as to ancient philosophers:

"I marvel that, with all their books,
They do not know with certainty
What are the properties of soul—
What forms its organs have,
What region is its dwelling-place,
What breath inflowing its powers sustains."

The Talmudists taught that all souls were created at the beginning. Theologians have held that they existed in the soul of the first man, and sinned with him, or lay in the ova of the first woman, and were corrupted by the eating of the fruit of the tree of knowledge of good and evil. Jacob Bæhmen, in his "*Mysterium Magnum*," reiterated by William Law in "The Spirit of Prayer," and Edward Beecher in "The Conflict of Ages," asserted that souls are beings existing before this earthly life; that in some manner become guilty of sin, which they are compelled to expiate in a physical mode of existence. All these notions, however, are derived. The early Aryan sages, Vyasa and his disciples, taught that souls are emanations from God, portions of his substance incarnated into material bodies, and predestined to enter into intimate union with Him. This was probably the *metempsychosis* of Pythagoras, and,

perhaps, the *anastasis* of Paul. Says Chrisna to Arjuna :

“As men abandon old and threadbare clothes to put on others new,
So casts the embodied soul its worn-out frame to enter other forms.

This idea descended to subsequent periods, and incorporated in the various religious and philosophical systems, was carried to distant regions of the world. Amalgamated with Zoroastrianism, we presently find in the compound other elements. Thus the Manicheans and other Gnostics taught that matter was created by the Potentate of Evil, who desired, for the purpose of perpetuating its union with celestial natures, that the human races should be propagated by the sexes. According to it all physical delight is evil, and the sexual relation especially unholy and unclean. Nature and every human impulse were regarded as wholly depraved. Nevertheless, there is something plausible in this idea of a former existence. Thoughts pass through the mind which seem like memories, and sudden impressions come upon us that we have been in the same places and circumstances as at the present moment at one or more former periods. A feeling of loneliness often lingers about us, as though we were exiles from a distant and almost-forgotten home.

THE PRESENT LIFE NECESSARY.

Yet this idea of a former existence previous to our birth into the present mundane life, appears to us untenable. If procreation was or could be a function of spirits, of beings purely or essentially psychical, then an external world and physical conditions would seem to be superfluous. The *must*, the necessity which holds and directs all things by an immutable, if not inflexible, law, has established the fact that the cosmos, the universe of human in-

telligences, must come into existence through physiological agency. Accordingly, we are born, we live, we mature, we die. If all this was not best and necessary, it would not occur. If we did not experience all these conditions, we would not exist at all. Hence, we believe that the human soul has no individual personality anterior to the present life. It is propagated. “As the body of the child,” says Alger, “is the derivative of a germ elaborated in the body of the parent, so the soul of the child is the derivative of a developing impulse of power imparted from the soul of the parent.”

Existence begins rudimentally with the mother, requiring, however, the combination with an analogous principle essentially vital from the other parent. But the real demiurge, the creator of the future being, is the mother herself. When this new existence has commenced, a new soul has come into being. This is from the nature and necessity of the case but a rudiment or embryo; yet it is the beginning of the man, male or female—of the mind, the future divine being. Moral character is, of course, inchoate.

“Personal existence,” says Chrisna to Arjuna, “is produced by the conjunction of body and soul. He who perceives that the Most High Lord exists, alike imperishable in all perishable things, sees indeed; but he who can perceive only the operation of nature, does not recognize himself as an agent of the indwelling Divine One” (*Bhagavat Geta*, xiii).

THE PHYSICAL EVOLVING THE MORAL LIFE.

The imperative necessities of existence compel the embryo, fœtus, and infant to seek what is needful and desirable for itself. What is denominated *selfishness*, is essential to the continuation of its

existence. What could a babe accomplish by being otherwise? It is not able to serve or benefit another by any self-abnegation. Therefore, as Paul asserts, "that is first which is psychical;" but as growth advances toward maturity, the "childish thing," selfishness, should be put away, and superseded by regard for the well-being of others—"charity which seeketh not her own."

Thus, "that which is spiritual" succeeds to the childish and psychical mode of life. Moral character, Spirituality, the regenerate life, can not properly be said to have been evolved till this maturing. Nevertheless, although this perfected state is the true and proper end of human existence, many seem to remain in the infantile and childish condition, and are persistently selfish and sensual, failing to attain a high spiritual or an intellectual development. But there are those who transcend these limited and eventually pernicious conditions, and they acquire powers and faculties, as well as spiritual and moral excellencies, far superior to those of common man. They "eat angels' food," "meat that ye know not of," and possess a vitality sustained by assimilating the spiritual substances of the invisible kingdom. They are the epopts, "prophets," divine men, who often perceive by their interior consciousness the facts which others have to learn by study and research. They live not solely in time, but in "the day of the Lord," the day of ages, the æonian day. Iamblichus speaks of this second birth or maturing of the soul from out of the husk and chaff of the corporeal nature as follows: "The soul, in contemplating exalted subjects, acquires another life, operates by another energy, and no longer ranks in the common order of humanity."

THE UNBROKEN UNION TO ANCESTORS.

Not only are we the lineal descendants of our ancestors, but our interior nature is still connected with them as by an unsevered umbilical cord. The Brahman legend is an every-day truth with us all, and from the navel of Vishnu, the man now existing, proceeds the great maternal lotus-lily, Brahma, and all their universe. Thus we embody, by a law of atavism, all our ancestors, and perhaps, as Bulwer in "Zanoni," and Holmes in "The Guardian Angel," indicate, we are as a new birth of some individual progenitor. Does some such new incarnation, or our atavic inheritance, create in us those imaginings of a previous existence—those rememberings, as they seem, of persons, things, and events of a former term of life? Then, indeed, we are of, and united to, all the past, even to the Infinite. Aye, and more; every impression in our own minds, in like manner, may be perpetuated to remote futurity.

MENTAL IMPRESSIONS NEVER OBLITERATED.

Persons drowning, or in mortal extremity, it is said, often recall all the past to memory in a moment of time. Experiences and occurrences possessing some analogy to what has before taken place will reproduce to the memory the former events—often with all the vividness of recent occurring. Dreams have repeatedly brought into the mind what had long been hidden. What we have learned is never forgotten, but only laid away, to be called up at a future time. Every affection, every thought, passion, emotion, is stamped on the tablet of our being, and the impression is never removed. What we know, what we have done or undergone, will always remain a part of us,

and will never totally leave the domain of consciousness. We are like veteran soldiers scarred over with the wounds received in conflict. From the first event of our career to the last our selfhood is marked by every wound, every impression that has been made.

THE MIND AND THE BODY.

The abiding-place of the soul, critically speaking, is in no one of the bodily organs. It is distinct from them all. It will sometimes, in a degree, be separated from several of them, and they will become apparently dead or palsied; and this condition, if long continued, will induce permanent debility and paralysis of the part. Organs and muscles, by inaction, presently forget their functions, and the will is feeble or unable to move or control them. The brain may be similarly permitted to act without its gubernator, or the will may be enfeebled or paralysed by the domination or disturbing influence of others, and in such case will assume the conditions of abnormal cerebration. Mental idleness, self-indulgence, anxiety, disappointment, disease, are all promoters of insanity. Any man, almost, can be rendered insane by the undue interference of others with the exercise of his own will and free agency.

It is probable that the earlier periods of human existence are more or less employed in acquiring the control of the motor nerves and the muscles of the body. Children would doubtless be able to walk and run about at a much earlier age if they only knew how. But strength consists, practically, not only of tenseness of muscle, but also of the power to direct and restrain the motions. This is acquired by long and patiently impressing the forces of the mind upon the several parts of the organism till they become ready to respond and obey, as if one soul and pur-

pose pervaded the brain, nerves, and muscles.

Curious examples can be remembered of the different organs retaining in themselves the impression and an apparent memory of the mandate of the will, even when the mind has withdrawn its attention. If we fix the hour for awakening from sleep, we generally awake on the minute. Soldiers retreating from the battle-field have run considerable distances after their heads had been carried away by cannon-balls. Persons inhaling anæsthetic vapors will imagine and even do what was uppermost in their mind before insensibility had been induced. Men who act from habit or conviction often do and decide according to their wont and principles, without a thought of the matter.

THE MANSION OF THE SOUL.

Many and curious have been the speculations in regard to the organ or organism of the body which constitute the point of union between the psychical and material substance. We are assured that it is not, strictly speaking, the blood. An animal may be wholly deprived of the blood and yet give evident and vigorous manifestations of life for some minutes; especially an agonized but helpless struggle for breath, oxygen in the blood being the medium of vital activity. Nor can we suppose it to be absolutely in the brain or cerebro-spinal axis. It was Galen who first distinctly maintained that the brain was the organ of the mind and center of sensation and volition, a view which has been universally held by all distinguished physiologists since his time. But the proper distinction between the mind and soul should be kept in view, and, likewise, the fact that acephalous children and animals having no spinal column possess the functions of life.

Descartés suggested the pineal gland (or great central ganglion) as the seat of the soul. This idea has been combated and ridiculed, but it contains truth. This gland regulates the functions of the brain, and it has been demonstrated by experiment that sleep, nervous, and other phenomena may be occasioned by compression and peculiar injuries. A continued pressure upon it, or violence affecting it, will destroy life. So will a blow on the pit of the stomach, which inflicts violence on the semilunar ganglia, and through it on all the sympathetic nervous system. A blow on the cervical ganglia will have the same effect. This seems to evince that the life and soul are enthroned in the ganglia of the sympathetic system.

Von Helmont, by experiment upon himself with aconite, suspended the action of the brain, upon which consciousness and perception took up their abode in the region of the stomach. He accordingly declared the solar plexus to be the chief seat of the feeling soul. "The sun-tissue in the region of the stomach is the chief seat and essential organ of the soul. There is the genuine seat of feeling as the head is that of memory. The proper reflection, the comparison of the past and the future, the inquiry into circumstances—these are the functions of the head; but the rays are sent by the soul from the center, the region of the stomach."

SUBSTANCE AND FACULTIES OF THE SOUL.

Although the soul is attached to the body by a mysterious bond of union, and is made personal by it, the margin of the body by no means limits its dimensions or perceptive powers. There is something analogous to the sense of feeling which extends to a considerable distance from the surface. With our eyes closed we can feel the motion and

presence of objects, and especially of persons, several inches, if not several feet, distant. Everybody is aware of the curious sensitiveness to contact which is experienced when groping in the dark.

It appears from these facts and phenomena that the soul, instead of having its abode inside the body, is a nebulous aura, which not only permeates it, but exists outside, extending to an indefinite distance from its surface. It is as if the body stood or reposed inside an ovate of tenuous mist, by which it is held alive and made organic. This tenuous substance is vital thought, like the fabled body of an angel or god, and is capable of exercising powers and functions of which we hardly imagine the existence.

The soul has organs of its own, somewhat analogous to the antennæ of insects, or more exactly to the cilia, which pertain to those protozoic structures which exist in the fluids of the body. By their agency it becomes conscious of persons and things exterior to itself. A person approaching, and still at a distance, thus becomes conscious to the mind, and is thought of and perhaps spoken about while coming nearer. The temper of mind, the moods, the general tone and purpose of character, and especially the fitness or unfitness of the individual for a companion and confidant, are perceived almost unerringly. Trouble and misfortune betide the person who overcomes this instinctive antipathy against other individuals, which nature gave him as a safeguard against their unwholesome or malignant influence. Spiritual attraction and repulsion constitute the moral law of the soul.

PREHENSION BY THE SOUL.

Lord Bacon says: "The relations touching the force of imagination and

the secret instincts of nature are so uncertain that, as they require a great deal of examination before we conclude upon them, I would have it first thoroughly inquired whether there be any secret passages of sympathy between persons of near blood—as parents, children, brothers, sisters, nurse-children, husbands, wives, etc. There be many reports in history that upon the death of persons of such nearness men have had an inward feeling of it. I myself remember that being in Paris, and my father dying in London, two or three days before my father's death I had a dream, which I told to divers English gentlemen, that my father's house in the country was plastered over with black mortar. Next to those that are near in blood, there may be the like passage and instincts of nature between great friends and great enemies. Some trial, also, would be made whether fact or agreement do anything; as, if two friends should agree that such a day in every week they, being in far distant places, should pray one for another, or should put on a ring or tablet one for another's sake, whether, if one of them should break their vow and promise, the other should have any feeling of it in absence."

It is not difficult to adduce numerous examples like these brothers to which the noble philosopher refers; nor do we consider it out of possibility to indicate the laws by which they occur. There is something in the human soul which leads its perception in certain currents, as if it were magically, as the smoke of a just-extinguished candle will attract flame from another, and convey it to its own half-glowing wick.

In like analogy some persons have the faculty of sending the soul forth into the spiritual, and, perhaps, also, into the natural world, leaving the body

for the meanwhile comatose and seemingly dead. Emanuel Swedenborg had such periods of apparent dying, in which his interior self was absent from the body and in the society of spiritual beings. Something like an umbilical band, however, remained to prevent a permanent dissevering of the union. Who knows but that many instances of death without disease have occurred in this way—the soul going, as on an excursion, away from the body, and forgetting or unable to return?

The celebrated trance of the Rev. William Tennant was of the same character. The Apostle Paul mentions a man, doubtless meaning himself, who was caught up to the third heaven, or paradise, and could not tell whether he was in or out of the body. The Cretan prophet Epimenides, whom Paul quotes in his Epistle to Titus, also had trances and conversed with persons in the other world. He likewise possessed a superior knowledge of medicine, and in the time of Solon showed how to avert the plague from Athens. Hermodorus, of Clazomenè, as we are informed by Plutarch, could also quit his body and remain absent for considerable periods of time. He did this, however, once too often, and his wife, believing him to be dead, placed him on the funeral pyre.

It is poor logic to adduce disorder of the nerves and morbid conditions as producing these phenomena. If a wall is broken through, we can see through the breach more clearly than through a common window. When the soul is most broken from its hold and dependence upon the body, as in the decadent period of life, it may apprehend these interior things more clearly. They are not unreal. Every idea, thought, emotion, reacts upon brain-matter, disintegrates it, and sends it out from the body as excretory. Persons possessing stam-

ina of character can afford to believe and know these things, which those eager of reputation for strength of mind delight to sneer at, disbelieve, and ridicule.

We would do well to consider these subjects reverently, and, better, to ex-

amine them thoroughly. They aid us to know ourselves aright, and further our initiation into that great mystery: **MAN, THE IMAGE OF GOD, THE EYE OF THE WORLD, THE MEASURE OF ALL CREATED THINGS.**

January, 1876.

ALEXANDER WILDER.

RESPONSIBILITY IN PARENTAGE.

SERMON PREACHED IN THE DE KALB AVENUE M. E. CHURCH, BROOKLYN, N. Y., BY THE PASTOR, REV. S. H. PLATT, A.M.

"The fathers have eaten a sour grape, and the children's teeth are set on edge."—Jeremiah, xxxi. 29.

THE text is a proverbial expression, indicating the transmission of qualities from parents to children.

This transmission is now known as the law of heredity—a law by which all beings endowed with life tend to repeat themselves in their descendants.

"Heredity extends," says Ribout, "over all the elements and functions of organism, to its external and internal structure, its grades, its special characteristics, and its acquired modifications.

The subject is divided into two branches, viz: the physiological and the psychological. The first branch, the physiological, is so generally admitted as an unquestioned truth that no argument is necessary to establish it. But, in order to vivify our impressions of the truth, we cite a few notable illustrations of the law.

According to Haller, the Bentivoglios had on their bodies a slightly prominent tumor transmitted from father to son, which warned them of the changes in the weather, and which grew larger when a moist wind was coming.

In the Turgot family the fifty-ninth year was rarely passed. The man who made that family illustrious, when he saw that fatal term approaching, re-

marked, "that although he might then have every appearance of health and strength, it was time for him to put his affairs in order, because in his family it was usual to die at that age." He died at the age of fifty-three.

Edward Lambert's whole body, with the exception of the face, the palms of the hands, and the soles of the feet, was covered with a horny excrescence, or scales, which rattled against each other when he was in motion. He had six children, all of whom, from the age of six weeks, had the same singularity. One of these survived, and transmitted it to all his sons; thus it was kept up through five generations.

The Colburn family presented the curious instance of sexdigitism—that is, six fingers and toes on each hand and foot. This family peculiarity continued through four generations.

Montaigne derived from his progenitors an invincible repugnance against medicines. His father lived seventy-four years, his grandfather sixty-nine years, his great-grandfather eighty years, and never tasted medicine. The very sight of drugs was an abomination. His paternal uncle, Signeur Gerviao, was sickly from his birth, yet lived to the age of sixty-seven. When suffering from a high and protracted fever the

physician sent him word that he must certainly die if he would not take medicine. The good soul, affrighted at the horrible sentence, cried out: 'Then, it is all over with me,' for he regarded that alternative as an impossibility.

Frederick William I., father of Frederick the Great, was noted for his love of colossal men. He selected a body-guard of giants, and prohibited their marriage with women of stature inferior to their own. The result was a second generation of giant stature.

Diseases are subject to the same law of transmission, and, because of this, constitutional diseases may pass along and curse successive generations. Thus in one family, in three generations, thirty-seven became blind upon their seventeenth and eighteenth years. Life insurance companies habitually act with this fact in view; hence their careful interrogatories concerning the diseases and longevity of the immediate ancestors and blood relatives of the applicant. For this reason, likewise, is the acknowledged superior competence of the family physician, whose thorough acquaintance with taints or peculiarities of heritage in the constitution of the patient, which might not be detected by a strange physician, especially fits him to treat the case with skill.

Passing to the psychological law of transmission, the philosophy of the law is found in the fact that the mental states depend upon organic conditions of the brain. Scientific experiments with drugs would lead us to anticipate such a truth. For example, says Maudsley: "We can suspend the action of the mind for a time by chloral or chloroform, and exalt its functions by small doses of opium, or moderate doses of alcohol; can pervert them, producing an artificial delirium by the

administration of large enough doses of belladonna and Indian hemp."

If, then, the mind is subject to such physical conditions, it seems but reasonable to suppose that conditions of nativity should be likewise operative in modifying its developments. This presumption is greatly strengthened by the results of the treatment of domesticated animals by stock-breeders in their efforts to improve the quality of their stock. "Thus Lord Orford," says Darwin, "crossed his famous grayhound, which failed in courage, with a bull-dog which had an excess of ferocity. The consequence was, that at the sixth or seventh generation of descendants there was not a vestige left of the form of the bull-dog, but his indomitable courage remained"—thus illustrating the fact that not merely physiological characteristics, but mental traits are transmissible.

Physiology regards every living body as an aggregation of multitudes of cells, each of which has a vitality of its own, possessing these essential properties of life, viz: Nutrition, evolution, and reproduction. Mr. Darwin's theory is (Variation, vol. 2, chap. 17) that each cell reproduces itself. The two grand laws, therefore, of such a reproduction, are uniformity and diversity, the latter a necessary consequence of the admixture of two in the reproduction of one. This theory of physiological transmission is applied psychologically on this wise: Force or nerve-power exists in every nerve-cell. These cells, reproducing themselves, impart their own special characteristics to the progeny, and thus give mental heredity.

If this be true, it is not strange that acquired habits, as well as original constitutions, are hereditary. Indeed, acquired habits of vice are peculiarly liable to transmission, the reason proba-

bly being that we are so largely affected by impressions; an acquired vice is more apt to impress than a virtue, because usually more active and exacting. There are three periods of impression—first, that which embraces a few hours before, and the beginning of conceptive existence; second, that which intervenes from the seventh to the ninth month of pre-natal being; third, that which begins at birth and extends to death. The first two periods fix all constitutional biases, and determine the *nature* of the child, and are entirely within the sphere of the parents; the third begins, likewise, within their sphere, but gradually opens out into the area of individual freedom and independent action, and determines the *character* and *destiny*. But the influence of nature upon character is ordinarily so controlling that a heritage of acquired depravity in the first is likely to exhibit itself disastrously in the second. A striking physical illustration of the perpetuation of bodily peculiarities is afforded by the natives of Peru, several tribes of whom had each their particular way of deforming the heads of their children, the consequences of which still remain in the unnatural formation of the skulls of their children's children.

The small waists of our American women is another illustration of a transmitted physiological vice, as may readily be seen by comparison of the forms of our females with the statue of Venus, which is considered the crown of artistic perfection.

An important exception to this law should here be noticed, namely: *Varieties tend to return to the original type*. Thus, in the Colburn family, already cited, according to Burdachs, the normal was steadily gaining on the abnormal in the ratio of 1 to 35 in the first

generation, 1 to 14 in the second, and 1 to 3½ in the third.

It is doubtless by the operation of this law of variation that nature finally eliminates diseased and other abnormal types of organization, and restores descendants after a time to the normal condition sacrificed by their progenitors.

While grateful for this beneficent provision, we must not forget, however, that there is a most important modification of this rule of exception in *the law of evolution*, which tends to fix the variety, and in "the survival of the fittest" does fix it, whether that survival be by nature or art.

The precocious and unbalanced development of brain-substance and nerve-force in the over-educated children of the present generation, suggests a question of painful interest to the philanthropist concerning the probable evolution of a nervo-cerebral type of humanity, which will be affected with diseases and pains already more than foreshadowed in the fearful *nerveism* of the present.

With this point in view, we would give special emphasis to the affirmation that instinct, passions, sentiments, and appetites all may be transmitted, as illustrated in the case of a lady of Boston, who was accustomed to read everything she could secure relating to Napoleon during his triumphant career. Her son, born at that time, inherited the most decided martial tastes, and is so enthusiastic an admirer of Napoleon that he has covered the walls of his house with pictures of him and his troops. Still more suggestive is the confession of a lady, who says: "From the age of two I saw that my eldest son's restlessness would ruin him, and it has been even so. Yet he was good, brave, and affectionate. The explanation is,

I read the Iliad six months before he saw the light. He was actually an Achilles."

The victims of dipsomania, or alcoholism, are frequently such from the cradle. Says a writer: "I knew in Texas a young man who was heir to such a woful heritage. He was, physically, one of the handsomest of men, and possessed of great and varied talents, which he had carefully cultivated. Moreover, he had served his country with distinguished bravery, and was then holding a high position of trust and honor. But with a regularity that was terrible there came to him—no matter where he was, over his ledger, in the church, by the side of the woman he loved—a craving for brandy, that possessed him like a demon, and drove him from among his fellows. With set lips and despairing face he would deliver to a friend the keys of his office and betake himself to his room, not as men go to a carousal, but as they go to meet a fearful reckoning, and for two or three days drink in sullen silence till the craving was appeased. A friend was one day praising, in his presence, his vast stores of acquired information and his delicate fancy as an artist. 'Yet I shall die like a brute!' he said, sadly; and the despairing look of a hunted animal came into his eyes as he added: 'My father died drunk; my mother—God forgive her—my grandfather shot himself in *delirium tremens*. You know, boys, how poor Patrick died; it will be the same with me.' His prophecy was too soon fulfilled."

"So," says Ribot, "the gambling propensity, the sexual appetite, avarice, the thieving tendency, all may be transmitted from parent to child."

A sad illustration of these facts is furnished in the last annual report

from the New York Prison Association. In examinations of county jails the past year, Mr. R. L. Dugdale, an officer of the Prison Association, came upon one, in which were found six prisoners, under four family names, all blood relations, and belonging to a lineage that reached back to early Colonial times. These families had lived in the same locality for generations, and were universally odious and dreaded, the reason for which was soon manifest in the ascertained fact that, out of twenty-nine adult males, near relations of the above six persons, seventeen—or more than half—were convicted criminals. These significant facts put Mr. Dugdale upon continuous and careful inquiry. Aided by two resident physicians of the county, the subjoined history was brought to light.

The first generation of the family found in jail—known and named—was a man born about the year 1725. He is described as having been a hunter and fisher; a hard drinker, who became blind in after life, entailing his blindness upon children and grandchildren. He had a numerous family, some of them illegitimate. Two of his sons married into a family of five sisters, who were born between the years 1740 and 1770. Three of these were harlots before their marriage; and of one other, it is recorded that her husband was a thief. The progeny of these sons and sisters is traced with more or less exactness through five succeeding generations, giving the number of descendants registered as 540, who were directly related by blood, and 169 related by marriage or cohabitation; in all, 709 persons, alive and dead. The total number of this lineage is believed to reach 1,200. Of the families of these two sons of the old hard-drinking and lecherous hunter, and the group of sis-

ters into which they married, to and including the sixth generation, this is the record: Prostitutes, 74; cases of constitutional syphilis, 67; number of children dying at two years, about 300; paupers, 209; justly accused of crime, number unknown; convicted criminals, 76; cost of last generation to the county, at least \$50,000. And with this last generation the race of direct descendants seems likely to perish, notwithstanding the infusion of purer blood through frequent union with stranger families. Not one marriage or birth is recorded or known in the sixth generation. *They appear to have rotted out of life!*

Is it not time that parents opened their eyes to the tremendous realities of that warning Scripture: "He visits the iniquities of the fathers upon the children to the third and fourth generations?" The number of insane in South Australia is said to have been in 1861 one to 750 inhabitants, and in 1871 there was one to every 524 of the population, showing how terribly their convict heritage of crime was telling upon the perpetuity of the race.

At a meeting of the N. Y. State Charities Aid Association, Dr. Harris recently presented some of the most remarkable statistics regarding hereditary disposition to crime that have ever been collected.

His attention was attracted to a county on the upper Hudson, in which the proportion of crime and poverty to the entire population was extraordinarily great, there being about one criminal or pauper to every ten inhabitants. The recurrence of certain names among the list of unfortunates also excited his interest, and led him to genealogical investigations which have resulted in the following astonishing statement of facts. Seventy years ago, a child, having no other name than Margaret, was a vagrant about the locality. There was no almshouse, and the girl lived as a waif, occasionally helped by the charitable, but never educated and never given a home. Thus she reached womanhood, and gave birth to children, who became paupers like herself; they increased and multiplied until up to the present time nine hundred descendants of the friendless woman can be traced. Of this immense progeny, extending through six generations, two hundred of the more vigorous are recorded as criminals, and a large number as idiots, prostitutes, lunatics, and drunkards. In one single generation there were twenty children, three of whom died young, and the balance survived to maturity, but nine were sent to State's prison for aggregate terms of fifty years, and the rest were constantly inmates of penitentiaries.

[TO BE CONTINUED.]

◆◆◆
T O - D A Y .

ONLY from day to day
The life of a wise man runs;
What matter if seasons far away
Have gloom, or have double suns?
To climb the unreal path,
We lose the roadway here,
We swim the rivers of wrath,
And tunnel the hills of fear.
Our feet on the torrent's brink,
Our eyes on the cloud afar,

We fear the things we think,
Instead of the things that are.
Like a tide our work should rise,
Each later wave the best;
To-morrow forever flies,
To-day is the special test.
Like a sawyer's work is life!
The present makes the flaw,
And the only field for strife
Is the inch before the saw.



AN AUTUMN LEAF.

TO him who fervently loves her, Mother Nature, as if in partial tenderness, gives a kind of talisman, which to the callous and indifferent worldly mind seems as much a mystery as did the fine armor of proof worn by the mail-clad knights of Spain to the simple-natured, cotton-clad Aztecs.

"To him she speaks
A various language; for his gayer hour
She has a voice of gladness and a smile,
An eloquence of beauty; and she glides
Into his darker musings with a mild
And gentle sympathy, that steals away
Their sharpness ere he is aware."

Such an one is my old friend, Paul Crawford; yet you might pity him, and call him "poor," for he owns not a foot of land on this broad earth, and dwells a sojourner and dependent in the dwellings of others. You might think, too, his heart must be embittered, as in what you would perchance call his "better days" he owned a large fertile plantation, and abundance of this world's goods, which he lost through the chicanery of trusted, but, alas! false friends. You might have deemed him an object of envy in *those* days! The memory of them comes back to the old man now as he sits by the evening fireside, leaning his chin on the top of his stick, his old hound at his feet. In the curling flames he beholds the home of his manhood—the fair Corinthian columns of the long portico, gleaming through rich foliage on the green shores of the Mississippi; the noble park, in which grazed at their ease his beloved

tame deer. He sees himself walking toward that park in a glory of evening sunshine that lights up the bright hair of Mary, the beloved wife clinging to his arm, leading him, as they stroll, through her garden of roses, where seventeen hundred varieties vie in beauty beneath her culturing hand. Their children frolic beside them, three girls and four boys—happy, healthy creatures, to whom blows and harsh words are unknown, for this was a household of love, and on the lintel a gentle hand had inscribed Peace.

Under a grand old oak at the white gate of the park the family group themselves, and Mary, taking her lute, plays several Scottish ballads. As she strikes the notes of "Mary of Argyle," the sound of many hoofs is heard, and the tame deer, some thirty in number, come rushing from the woods for their evening treat of fruit. However susceptible deer-nature may be to music, they come only when the mistress plays the sweet, plaintive notes of this favorite air.

The scene fades—park, deer, and garden of roses, and there is a twilight shadow over the grave of the loved, lost wife and mother—

"A rare, white rose,
Thornless to those who loved her
Till she died."

The night of death darkens, too, about the band of children, who have passed from earth, leaving only one behind, the youngest, mildest—Mary.

The home, so picturesque and stately, the almost palace in those western wilds, the hospitable mansion on the banks of the gold-flooded river, has closed its doors on the master forever.

Do you pity his sorrows and compassionate his state? The years have flown, and many winters have heaped their snows upon his head, but to me there is a sublimity of beauty in his venerable mien. Watching him—his withered yet clear cheek, his snowy crown, his eye still so bright, yet tempered with a certain loving mildness—the tears will often spring unbidden for

“What do you do with it, Uncle Paul?”

“Why, child, you had better ask what I don’t do with it. I cut a path through the cane with it where it grows so thick that I can’t push my way through. With it I cut boughs for bivouacking. It serves in dressing what I take in hunting. I have never gone a day without that knife in fifty years.”

How bright his eyes are as he gives utterance to his quaint, humorous sayings and pleasantries, or his apt quotations from Solomon and Shakspeare!



very tenderness, and I can but wonder at the philosophy that has triumphed over trials like his, and culminated in an old age so serenely beautiful, so thoroughly lovable. I like to stand behind his chair and comb his white locks, and gently stroke his noble forehead—it is old Daniel Boone’s over again, the noblest pioneer of his day. This old man is of the same craft. He is a renowned hunter! See, here under his old velvet coat he wears a broad belt, buckled around his plaid shirt, from which, suspended in its sheath, hangs a long knife.

For these two sages he has great reverence, and his memory recalls something from one or the other for every exigency in life.

Said a lady Pharisee to me: “How can you call that old *heathen* good? Why, he doesn’t belong to any church.”

Indignantly I replied: “‘He that doeth righteousness is righteous,’ church or no church; and Uncle Paul has found and keeps alive in his heart that only genuine religion—a sublime trust in God and a loving disposition toward all creatures; a ‘charity that never faileth,’ and that has covered with the man-

tle of forgiveness those who brought his age to poverty."

"Poor old creature," says the same peevish voice, "what a time he must have living on that daughter of his, and she with half-a-dozen babies and an old gouty husband to take care of. I expect it's a *judgment* on the old infidel because he don't join the church."

"Do you think people ought to join the church if they are infidels?"

"Oh, yes; it's not respectable to be out of it."

This from one not worthy to unloose the shoe-latches of the sweet, sunny-tempered Christian, evidencing his faith by his works. It is strange how truth itself may be so perverted or misrepresented in its passage over the tongues of some people that not one of its flavors can be recognized. They have the faculty of tincturing all they touch with the venom of their own spleen. True, poor old Uncle Paul has few comforts, but he is quite content to do without them; neither longs nor yearns for fame or riches, and does not mind the noise of Mary's babies; while for Mary herself, he would freely lay down his life or cheerfully spend it in her service. But his nomad habits cling to him, and he can not stay year in and year out even with Mary. Half the time he lives in the woods with the wild creatures, whose ways he knows so well, subsisting on the fruits of his patient toil with hook and line and gun. He is the most temperate of men—a frugal breakfast about eight o'clock suffices him till the sun is low in the west, then a moderate dinner; no supper, and at ten o'clock he is ready for a night of dreamless repose; loves better a couch of autumn leaves, out under the forest trees, than the springiest mat-trass or softest feather-bed ever made. All day long he will tread the forest

aisles with step like an Indian and eye full as wary, killing often four or five deer when with a company and venison is wanted; or, if alone, merely a squirrel, to furnish his own simple repast. Nor is he cruel in following such sport any more than was the benevolent Audubon or the humane-hearted Agassiz. He is also a tireless fisherman, and follows that craft like the gentle Izaak Walton, in strict accordance with the rules his sagacious observance of the habits of fish has led him to form in regard to the best methods of catching the cunning inhabitants of lake, river, and creek. He is equally successful here, never returning without a huge "buffalo," "blue cat," or string of perch to show for his day's sport.

As he came up one evening with a beautiful spotted fawn trotting behind him, I asked: "How in the world did you *tame* it so quickly, Uncle Paul?" "I came upon it asleep in a hollow, caught it, and carried it a hundred yards in my arms, and after that it followed me like a dog. I've known them to do so often. Once put your hands on a fawn and it seems to lose its wildness, becomes mesmerized, perhaps; anyway it will follow you as tamely as a house cat."

The old hunter has been a great reader, and his memory seems as incapable of being overloaded as a camel. He is a poet in spirit, though only occasionally expressing his poetical thoughts in rhyme. The following lines I heard him repeat one day, with deep earnestness:

"If we the ocean with ink could fill,
And were this earth a parchment made,
And every single tree a quill,
And every man a scribe by trade,
To write the Love of God above
Would drain the ocean dry,
The scroll could not contain the half,
Though stretched from sky to sky."

I have never seen one more alive to the beauties of nature than this "poor old man." How eloquently, and with what a lighting up of the dark eyes, have I heard him speak of the "change-ful light upon the grass," the sunset's splendor, and the Indian summer glory! October and November always find him *at home* in the woods.

He brought me not long since a curious present. It seemed a dried, embrowned bulb, shaped like Cleopatra's golden galley, and its freight was the finest and whitest cargo of *silk*, which appeared massed within the shell, with black seeds on top of clusters of the strands of silk. "Weed of silk," or silk-weed, he called it—the fruit of a small succulent shrub, growing in moist places to the height of two feet, bearing a single pod at the apex, which ripens in October, and looks something like a cotton ball, only the pod is larger and the fiber *silk*. I am uncertain what class and order it belongs to, but think it in class *Diœcia* of Linnæus. It really looks as if it might be utilized as much as the cocoon of the silk-worm. Uncle Paul rejoices with me in these superb autumn days, which in our latitude at this time are absolutely perfect—temperature exquisite, sunshine balmy, sky of the bluest, and the woods every tint an artist could desire. He philosophizes cheerfully as he helps me gather the splendid leaves, —wine-red maple, purple sweet-gum, yellow hickory, and golden poplar. And when at evening I see the venerable hands engaged so busily upon their chosen task of basket-weaving, I think of some lines, which fit him like a well-cut garment:

"I can not count the half of dally joys
Which kindly Nature gives;
For while some homely task my hand employs,
With her my spirit lives.

"Nor these alone the pleasures that I know,
The riches I possess,
Still other things are mine, and they bestow
A deeper happiness.

"For unto me the *Past*, with all its store
Of untold wealth, belongs;
To me the singers and the saints of yore
Repeat their prayers and songs.

"To me again the long past centuries yield
The harvest of their thought;
My gleaning brings me sheaves from many a
field
Where stronger hearts have wrought.

"And for the future!—but I may not speak
Of all I hope for *then*;
The glories of that city, which I *seek*,
No tongue can tell, nor pen."

After writing the above sketch, dear reader, I found I had not conceived a title for it, and nothing appropriate suggested itself till my eye fell on the basket of autumn leaves on the table beside my portfolio, all glowing in their royal array of brilliant hues. Taking up one of these, so beautiful in the final consummation of its existence, I said to myself, This exquisitely-illuminated leaf-page, upon which the year has written its history, has accomplished the object of its being—has been a leaf in the tree's crown of beauty—a component atom in the circle of its development—a missal, praying, looking up for rain or sunshine, and now loveliest at the last! Is not all this true of Uncle Paul?—he is my glorious autumn leaf.

"Mark the perfect man, and behold the upright, for the end of that man is peace."

VIRGINIA DURANT COVINGTON.

AN angry letter never accomplishes the desired end, and an insolent one harms none but the writer. This is true of all correspondence, but more especially when applied to communications of a business nature. In this department the true gentleman is easily

recognized, and with him, above all others, is it gratifying to deal. His demands, which if couched in other language would be rejected, are often complied with, and, whatever the business, there is satisfaction in performing it.



AMELIE V. PETIT.

THE portrait of this lady indicates Order and practical talent. There is a great deal of precision in all that she does and says; accuracy is one of her peculiarities. The photograph from which this likeness was engraved shows a slightly larger development of Constructiveness than the engraving does. The temple, where the shade is thrown in near the hair, is rounded and full in the original; consequently ingenuity is one of her marked traits. She has a way, a resource for everything; and it

would be difficult to corner her up with any amount of embarrassment in affairs so that she would not be able to work out of it honorably and properly.

She has good talent for literature, and excellent memory of facts, and is adapted to acquire a knowledge of science, and to impress her mind sharply with scientific principles. She would make a first-rate physician, especially in working out an accurate diagnosis of a case. She would succeed in learning and teaching anatomy and surgery.

She has force of character, courage to meet difficulty, firmness and perseverance, uprightness, sympathy, and watchfulness, energy, executive force, and strong social affections.

She has almost too much brain for the body, and should sleep abundantly to rest the nervous system, and thus acquire as much health and harmony of organization as possible.

AMELIE V. PETIT is a native of Gorham, New York. Educated at Genesee College, Lima, N. Y., she is acquainted with both classical and modern languages, and this training in tongues has aided greatly in forming her simple, strong style of writing. After leaving college, three years were passed in teaching the upper grammar school at Fort Wayne, Indiana. Ill-health caused the resignation of that position.

During the war Miss Petit passed a year at Batavia, N. Y., pursuing her studies in music and painting. She enjoyed the good fortune of being a pupil of Miss Helen Searle, now residing at Düsseldorf, Germany, and well known as an artist of merit. Soon after, Miss Petit attended the art school at Cooper's Institute, New York city, and received lessons from an eminent teacher. Though unable to continue her studies in art, because of the unfavorable influence of the confinement upon her health, the months passed among enthusiastic students and beautiful pictures, and visits to art-galleries, conservatories, etc., helped greatly to form her taste and mold her character. Had she been able to pursue her favorite art, she might have gained a fair reputation as a landscape painter.

She had previously formed an acquaintance with, and strong friendship for, Miss Helen King, of Xenia, Ohio, who afterward married the Rev. Wm.

Morehead, a missionary stationed at Carrara, Italy, and the two friends had taken up the study of Italian, hoping to talk together in its soft tones under the blue skies of Italy; but when forced to resign painting, Miss Petit also resigned her hopes of going abroad to study.

During her stay in New York, an acquaintance was formed, through the medium of articles written for the *PHRENOLOGICAL JOURNAL*, with Mr. and Mrs. Wells, the publishers. Mr. Wells urged the development of her talent for writing; but not feeling assured that she possessed such talent in any remunerative degree, she determined upon going to Missouri to pursue the profession of teaching. This determination was carried into effect, and at Lindenwood College, at Forest Grove Institute, Georgetown, Jefferson City, and Webster Groves, she at different periods taught reading, music, rhetoric, French and German. Her pupils were generally enthusiastically attached to her, because of her earnest sympathy with them and ardent desire for their improvement.

A severe attack of pneumonia at Webster Groves caused her to relinquish teaching, and accept occasional music pupils; she has never taught since. During this dozen years the pen employed her leisure, though little was published. A failure in getting a *Carrier's Address* accepted by the *Missouri Democrat*, about this time, chagrined her considerably. The poem was not lacking in merit, but it had not the sort of merit the committee admired, and another was chosen. The rejection of this poem, and soon after of an essay to which she had given time and thought, caused Miss Petit to cease literary ventures, and during two years she wrote nothing, but studied diligently:

After leaving Webster Groves she

returned home to reside with her parents, where the dullness of a dead country village, and the loss of the cultivated and brilliant society so long enjoyed, turned her to music, books, and writing for pastime and society; and her articles and poems in different magazines soon began to attract attention and command a price. Two years ago the Temperance revival led her to take the rostrum as a speaker, and though very sensitive and retiring, the thought that duty called her to exercise her "one talent" in helping up the fallen and warning those upon the brink of ruin, sustained her in the beginning, and custom soon made speaking in public easy. Having something worthy to say, and a voice clear and musical in which to give her thoughts utterance, possessing a good figure, and a calm, expressive face, she pleases every audience which has listened to her teachings.

Mr. Wells said to her, "Your tongue is more powerful for good than your pen, though you write well." Rev. Mrs. Hanaford said, "You speak well; go forward and win success;" and similar cheering, encouraging words have been given by very many others whose good opinion was of value. The readers of the *JOURNAL* are familiar with her terse, pithy sentences, but we subjoin an extract from her last lecture, "Character, Culture, and Genius:"

"The culture of our race to-day is not simply the product of the thought of to-day; it is the as yet last term of an infinitely progressing series of causes. To its perfection Hebrew and Greek, Latin, Druid, and Anglo-Saxon have each contributed. We enjoy the long results of centuries; we inherit, as it were, the patrimony of the Antediluvians; we have title-deeds to lands built by the coral insect, and enriched by the bones of mastadon and megatheri-

um; the very insects of the Pre-Adamite would have been our benefactors. Common household necessities of modern times were the rare luxuries of the past. We may congratulate ourselves that we are the heirs-at-law of ages buried when our coal-fields were baby pines rocked by the wild winds that swept above a world just emerged from chaos. That we might wonder at their massiveness, the Egyptian builded his Pyramids. For us the Venetian acquired his wondrous skill in fragile glass; the Hebrew wrote his immortal poems and histories. For our rights, privileges, and immunities, men stanch and brave have contended, fought, and died since the world stood. For our luxuries, inventions, and knowledge, men skilled, learned, talented, have thought and wrought since the knowledge-seeking Eve ate the apple in earth's first garden.

"We may loudly and with high-sounding words proclaim our independence as individuals or communities, yet we lean for support upon the grass and herb of the field. The winged creatures of the air and the motionless bivalve of the sea help us to our food; the toiling worm, the glowing plant, and the wild-leaping inhabitant of the woods yield us clothing; we are bound by ties of interest or gratitude to every wild sailor who harpoons a whale upon the wide waste of ocean; to every storm-gnarled fisherman who hauls his nets heavy with the harvests of the sea; to every grimy miner who buries himself, living, among the remains of ancient forests in the dark, pestilent bowels of earth; yea, to each and every hedger and ditcher, woodman or waterman, teamster or ragpicker, who by any honest industry helps on the world's work.

"These workers constitute the uncul-

tured classes, the 'great unwashed' portion of humanity. While we are up out of earth's mine, we are doing the clean work of the world, that keeps us arrayed in spotless attire. We hold ourselves above these smirched toilers; we hold them in a sort of pitying contempt, fancying they choose these dark, groveling toils because they are congenial, or because they have no ambition higher. Ah, how many of these same toilers, for the sake of some duty, some other kindred life, have trodden under

their feet as unworthy of them, aspirations that would dwarf any Alps of our ambition!"

Besides the lecture from which the preceding extract is taken, Miss Petit has delivered, "Temperance, the Question of To-day," and "Woman in Olden Times and Now-a-days," to many interested and appreciative audiences. She reads well, and has given her drama of "The Fatal Wine-Cup," selections from Shakspeare and other poets, with fine effect.

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"JUST SIXTY-TWO."

Just sixty-two! Then trim thy light,
And get thy jewels all re-set;
'Tis past meridian, but bright,
And lacks one hour to sunset yet.
 At sixty-two
 Be strong and true;
Clear off thy rust and shine anew.
'Tis yet high time; thy staff resume,
And fight fresh battles for the truth;
For what is age but youth's full bloom—
 A riper, more transcendent youth?
 A wedge of gold
 Is never old;
Streams broader grow as downward rolled.

At sixty-two is life begun;
And seventy-threes begins once more;
Fly swifter as you're near the sun,
And brighter shine at eighty-four;
 At ninety-five,
 Should'st thou arrive,
Still wait on God, and work and thrive.
Keep thy locks wet with morning dew,
And freely let thy graces flow;
For life well spent is ever new,
And years annointed younger grow.
 So work anew—
 Be young for aye,
From sunset unto breaking day.

—*The Palladium.*

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"A BAD BEGINNING."

CHAPTER I.

POOR ADAM LACROSSE.

ADAM LACROSSE came down the stairway with a slow, sly, cautious step, head bent, eyes drooping but furtive, as though he felt himself a marked, suspected man.

"You are going out, Adam," his wife said, in a bright, confident, assuring way, delicately oblivious to the strangeness of his manners, any observation of which she instinctively understood would be offensive and irritating to him in his present mood.

"Ye-s," he mumbled, hesitatingly, and with averted look, "I want to get out of sight and sound of human kind for a little while. I hate the din and thunder of the town and of the prosperous enterprises of fortunate men. Is there anything strange in this?" he added, bitterly, turning round with a quick flash of defiance.

But the woman only laid her cheek against his shoulder and answered, softly, "You will not be gone very

long, Adam. I am not happy when you are away. And it is not good for you to be so much alone, brooding over your wrongs and disappointments. Come back soon and let us talk over our prospects, and lay new plans for the future. There is much to hope, and no end of things to toil for."

He shoved her away with a gesture of disdain and impatience; then, with as sudden a revulsion of feeling, caught her hand and pressed it passionately to his heart.

"You are too kind and forbearing with a poor devil like me," he said. "What does it matter whether I go or stay? Do you think by any such sweet hypocrisy or ambiguity of speech to convince me that you are happy when I am with you?"

He dropped the hand he had seized and would have hurried away, but smitten by the tender reproach and entreaty of the eyes that held him with magnetic power, he turned again and drew his wife with swift impulse to his bosom, kissing her half wildly on lips and brow.

"Dear one," he said, gazing intently into her troubled face, "whatever comes, remember that I love you better than my life; that I have known and appreciated more than I have ever expressed, more than I ever can express, your angelic goodness of heart, your divine patience and forbearance with all my faults and weaknesses, your generous and disinterested self-sacrifices in my behalf. You were worthy of a better fate than marriage with a dog like me; and when I think how I have worried and worn your life out with my stupid follies and wretched mistakes, I feel as if the least I could do would be to cut you loose from your shackles, and set you free from your burden."

"Hush! Do not speak in that way, I can not bear it," whispered the woman, with a shudder. "Have I ever hinted at 'shackles' or complained of 'burdens?'"

"No, no—you are too magnanimous for that," the man answered, quickly straining her again to his heart; then, with swift changing mood, pushing her almost rudely aside, he strode toward the door.

As Mary Melrose looked sadly and anxiously after him, her eye caught the knotted end of a strong cord dangling from the pocket in which his hand had been nervously fumbling before he turned to take her in his arms.

"Stay, Adam; what is that?" she asked with an affected carelessness, which did not, however, conceal a tremor of excitement in her voice.

He looked annoyed as he stuffed the offending article back into its hiding place.

"I thought possibly I might go as far as Dunning's woods before I returned," he explained, "and as there grows in that vicinity an abundance of the trailing evergreen and exquisite mosses that you so passionately love, I slipped the cord into my pocket with the idea of tying up a quantity, and bringing home to you."

"Oh, that was a kind thought, Adam; but why not take a basket?" his wife said, with a breath of relief, yet seeming only half satisfied.

"That would be cumbersome," he answered, shortly; but, as if irritated at her suggestion, he pulled the strong hempen leash from his pocket and threw it on the floor. "I am not particular about bringing home such spoils since you are critical as to my methods," he added, with childish petulance.

Then, with seeming recollection of something forgotten, he wheeled and

ran back up-stairs, coming down presently with a pretence of having gone specially after the clean handkerchief, which he was crushing into his breast pocket, but with an air of stealth and a look of conscious guilt about him that suggested a concealment of his real motive and errand.

"Good-by, Adam," his wife whispered, with a stifled sigh, as he marched past her without a word or sign of recognition.

"Good-by, Mary," he responded, gruffly, not even turning his head as he strode through the door, and hurried on to the street.

People called Adam Lacrosse a fool. That is to say, he differed from the rest of us by the excess of some qualities or by the deficiency of others, which threw his character out of balance and warped his natural impulses in false directions, isolating him in thought and feeling from the great mass of humanity toiling and seeking and reaching after other ends.

The difference was not of his creating nor of his choosing, though none may have thought of holding him less responsible on that account. Years ago, when his existence had been only an idea, it had received the morbid tone and dismal coloring of the life from which it was evolved. Years ago, when his heart first began unconsciously to beat, it had fed at fountains bitter and poisonous with the gall of envy, hatred, jealousy, and discontent. Years ago, when his soul was folded as a bud within the mother soul, it had been dwarfed and blighted by brooding dissatisfactions, and a sense of wrong and injustice had been inwrought in the very fiber and constitution of his being. Years ago, when the woman who had borne him toiled with dark-knitted brows and rebellious heart at the hard

tasks of her lot, and thought of her meager rewards, he had been impressed with a dumb feeling of resentment at the terrible inequalities of life, and fired with a still, slumbering feeling of antagonism that would break out in vengeful flames when, born into worldly experiences, his partial and prejudiced vision should take in the sad contrasts of human conditions. Years ago, when he lay on the mother breast that was his stay, and comfort, and support, he had felt it thrill and swell with indignation, sorrow, and reproachful pain at sight of the pampered children of wealth and luxury, and his little form grew to respond with quick sympathy to the swift, passionate pressure of her arms at such moments, and his keen intelligence to gather the meaning of the words that dropped like pelting hail between the tender kisses rained on his baby face: "My darling, my precious, my poor pauper baby; how are these better than you that they should wear the purple and fine linen, feed on the dainties and sit in the high places of the land, while you, my love, my king, must dangle the rags, gnaw the crusts, and crouch in the kennels of poverty and want?"

So, born in bitterness, nurtured in strife, growing up in a morbid atmosphere of gloom, discontent, distrust, and melancholy, living in perpetual shadow, hating his fellows for their successes, and doubting always the sincerity of their virtues, he had come to this day on which we find him a morose, irritable, unhappy, ill-conditioned being, out of harmony with himself and with all the world.

He had been from the beginning peculiarly unfortunate in his business relations with men, as if, indeed, suspicion had excited in them the very qualities denounced, and his complaints

of treacherous and dishonest dealing were not without foundation. Inheriting a fine inventive faculty, he had made some valuable additions and improvements in the department of mechanics, but his work had either failed of recognition and appreciation, or it had been appropriated by unscrupulous capitalists, who had ingeniously contrived to drop him out of the partnership of interests when it came to the reckoning of profits; and this circumstance had contributed in no small degree to poison and embitter still more a nature suspicious and misanthropical at its best.

The world wondered, as it is given to wondering concerning those things, how it happened that a churlish boor like this could win the love of any woman, above all of a woman so sweet, tender, hopeful, and believing as Mary Melrose. How could natures so utterly opposed blend together harmoniously? How could hearts, with so few sympathies in common, drink together at the fount of love? People wise in the lore of the affections asked these questions with an air that said plainly no satisfactory answer could be given.

But perhaps hearts might even draw from the same fountain that which would feed and stimulate the growth of the individual in his or her own special province of use, while there would be no assimilation or fusing of the elements peculiar to each. It might be that natures too utterly diverse to blend would yet so act and react upon each other that both, without loss of individuality, would attain to a higher development and a broader expansion of power than either could have reached under different associations and relations. The sun and the cloud do not blend, but the cloud tempers the

fervent heat and softens the dazzling splendors of the sun, and the sun brings out the bold or graceful outline and touches with marvelous beauty the cloud that were otherwise sullen and dismal, shapeless and cold. The day does not melt and mingle with the night, but each retaining its own distinctive character, lends to the other a charm and a power which they could not possess if merged in one.

And this man, so gloomy, melancholy, sour, morose, misanthropic; this woman so bright, cheerful, sweet, hopeful, loving, and believing, did not harmonize in fact, yet, held together by the strong attraction of opposites, might they not have served each other more truly even than if their lives had run in one current? More truly, but not more happily. There were strifes and raspings, pains and longings, revulsions and rebellions; but they who understand the working of secret forces of nature and of spirit—if there be such—may tell us how far these were necessary to the best development of characters whose very difference made them more dependent on each other.

Life wore such dismal lines for Adam; men were so base, treacherous, black-hearted, watching at every turn to take advantage of the weaker brother, ready to malign, traduce, bear false witness, and drag down those in exalted positions, instant himself to believe all manner of evil and intention of wrong on the part of his fellow-beings, therefore quick to accuse them of believing the same, and, true to his nature, seeing in God the impersonation of arbitrary power, delighting in exactions, punishments, and penalties.

But Mary Melrose lived perpetually in the light, and her day, wearing incessantly on her husband's night, gilded its gloomy edges, though it

could not pierce the depths of its blackness and transfuse it with the whiteness of light. Seeing goodness where he saw guile, loving where he hated, believing where he doubted, hoping where he despaired, working while he wailed over the fruitlessness of all labor, there could indeed be little harmony between them, and there were seasons when the jar of discord manifested itself in a depression of spirit that would have been grievous except that it had its mission of use, as in truth, what grievous thing has not ?

CHAPTER II

FOR GOD AND ETERNITY TO ADJUST.

Such depression weighed with unusual heaviness upon Mary Melrose on this morning of which I write, as, having watched Adam sadly out of sight, she turned with a sigh and went back into the room where her boy Ariel sat brooding over some problem in history, which was his favorite study, his clear, analytic mind, even at that tender age, tracing intuitively the subtle relations between cause and effect.

"Tell me, Ariel, dear," she said, with that appeal for sympathy and assurance of hope which the strongest will sometimes crave, "tell me, is there not infinite good in life?" And she reached out her hands to him as though stricken with sudden blindness, and walking in night and doubt.

The lad leaped up, and putting his arms about her, drew her down to a seat, and kissed her tenderly, with a protective sort of fondness that made her smile.

"Mother, love," he responded, "I am here to prove it. I can hardly wait for manhood to right the wrongs that I see, and develop the infinite good there is in life."

The words, and the clear, confident, earnest manner of their expression were indices to the character of this thoughtful-browed youth; to whom the father had given his own deep sense of the wrongs, inequalities, and unjust distinctions of society, and the mother had imparted her sublime hopefulness, charity, patience, and faith in human kind.

He had in him all the elements of a brave reformer; and already his young brain was busied with schemes for the amelioration of evil and wretched conditions, of which he had a quick and intuitive perception, with a swift instinctive understanding of underlying causes. For him life had but one end, and labor but one object—the elevation of human kind by the development of that universal principle of brotherhood which would lead to the equalization of rights, and the general diffusion of happiness. Very likely he could not have expressed in so many words the purpose and principle that animated him, nor was he yet wholly conscious of the aim and scope of the work to which all his aspirations urged and all his impulses tended him. Better than he, the mother, who understood the secret of his nature, divined the measure of his power and comprehended the greatness of the mission to which he was born; and, much like the Mary of Scripture, she watched with faith the unfolding promise of her son, and treasured in her heart the tokens of his Messiahship.

No word of his, however, could comfort or strengthen her wholly on this strange, oppressive day following Adam's moody leave-taking, nor could she, by any reasoning or philosophy, shake off the nervous dread of some unknown but threatening calamity which seemed about to drop upon her. This mysterious, boding sense of evil,

so foreign to her hopeful, healthful nature, and therefore having greater significance, grew upon her more and more as the slow, painful hours wore themselves out, and the sun began to cast long shadows to the eastward, and, possessed by an uncontrollable spirit of restlessness, she gave over at last her wretched attempt to keep quietly at her task, and hurried out into the street, with the vague hope of meeting Adam on his way home.

Unconsciously, as she drifted along like a leaf, driven by the gale of her emotion, she found herself—why, she could not have told—on the outskirts of the town, taking instinctively the lonely country road leading out to Dunning's woods; but she had advanced only a little way toward her destination when she was met by Ariel, walking rapidly from that direction.

"Mother, darling!" he cried, pale and agitated, "what are you doing here? Let us go home at once."

"Oh, Ariel! have you been looking for him?" she asked, breathlessly. "Have you seen him? Is he safe? Where is he?"

The youth put his arm about her, kissed her tenderly, and turned her gently, yet resolutely, back from the direction in which he had found her hurrying.

"He will be at home presently. Let us hasten," was the evasive answer to her rapid questionings.

"Ariel, how cold your hand is! Your face is white as death! Something—oh, Ariel!—something dreadful has happened," she gasped, seeing the heavens grow dark, feeling the earth spinning dizzily under her feet.

He drew his arm closer around her with loving expression of sympathy, and, half bearing her light weight, conducted her back over the way she had

come with such strange dread and fear of—she knew not what.

Now the calamity, whatever it might be, she felt had fallen; the black, haunting shadow of evil that had brooded over her all day had settled down like a close, suffocating pall upon her soul, and with the submission of one stunned and bewildered by a heavy blow, she leaned upon the valiant young strength that had come to her support, and suffered herself to be led without question to the home where she dumbly understood that the full truth, like the lightning which rives the cloud, must pierce her heart with pain.

"Mother, love," Ariel said, when he had seated her in her room, and standing beside her with soft, magnetic touches was smoothing her hair and pressing her head closely against his breast, "I felt your anxiety and trouble so strongly this afternoon, that I left my work and started out in search of father, and I found him—don't shrink so, dearest mother."

"Go on," she whispered, faintly.

"Alive—but—dangerously wounded by a pistol-shot, fired by his own hand," the boy faltered.

The strained nerves of the woman gave way, and she flung both hands to her heart with a cry of agony, as though she, too, were struck by the death shot.

But suddenly she started up, a-thrill to her finger-tips with love's impulse of helpfulness.

"*Alive*, you said! Where is he? My son, you should have taken me to him at once."

"They are bringing him home, mother; he will soon be here," was the quieting answer of the youth, who, with characteristic thoughtfulness, carefully repressed in himself, as far as he might, all manifestations of emotion.

The words were hardly spoken when

the tramp of men bearing some heavy burden sounded without, and with pallid faces, but with manners measurably composed, the two made ready to receive the shattered, blood-stained, and insensible form of the husband and father, who had gone out from them in the morning in the flush of life that should have been at its meridian of power and usefulness.

There was no help. A single glance at the ghastly face of Adam Lacrosse sufficed to show that he had made his work of self-destruction as sure as it was shocking. There was no help, and having done all that was in human power to lessen his scarcely conscious suffering, Mary sat down with aching heart to watch out the last hours of his crossed and ill-starred life.

It was somewhere in the dead stillness of midnight that, bending over him with bated breath, she saw his lips move, and with a faint tremor and a quick-drawn sigh his eyes slowly unclosed and looked into hers with a strange, sad, seeking expression.

"What is it, dear?" she questioned, softly.

"I have seen my mother," was the slow, faltering, faint reply.

"Yes, Adam," the wife acquiesced, with tender trust and sympathy, smoothing gently his damp masses of hair.

There was a long silence, in which he secured gathering strength to speak.

"She said,"—Mary bent low to catch the broken words—"Poor Adam! Poor Adam—it is not your fault—it is—mine.' She looked wan—and shadowy—and sad—and she told me—"

He paused again, overcome by some strong wane of feeling that seemed about to sweep the soul utterly away from its frail earthly moorings.

"She told me," he went on, when he could once more speak, though with

the greatest effort, "that had I—overcome the evils—implanted in my nature—the shadow enveloping—both her life and mine—might have been earlier lifted,—that she has been rendered unhappy—through my perpetuation of—her sins."

Mary kissed his forehead through fast-falling tears. "Dear Adam," she whispered, "God will make it right."

His hand closed upon hers with a death-like grip, and he sank away into gray unconsciousness, from which he did not rouse until the breezy morning began to roll its waves of light over the land. As the first shaft of sunlight struck through the room, he started up, caught the pallid, watchful wife in his arms, and, with the last effort of his ebbing strength, strained her convulsively to his breast.

"Forgive me, my good angel," he breathed, as his soul went out, and with hold relaxing forever upon earthly things, poor Adam Lacrosse fell back—dead.

Ariel, who had been silently sharing his mother's sad night vigil, came around to her side, and stood supporting her while they watched the worn, white, hopeless face settling into final repose.

"Ariel," the woman said, at last, with a dry, shuddering sob of anguish and regret, "lay your hand upon this poor dead heart."

The boy obeyed.

"And swear that you will redeem from its wrongs and errors the thwarted and unhappy life that is drifting out to eternal seas."

"I swear!" was the low, solemn, and fervent response.

"That you will take warning of the rocks on which it wrecked, and guide yourself with more reverent faith in the wisdom and justice of Divine law."

"I swear!"

"And that you will strive to forget your own wants and wrongs in love of, and care for, those weaker and more unfortunate than yourself, working always with strong faith and courage for the improvement and elevation of human nature."

"So help me God!" devoutly re-

[TO BE CONTINUED.]

sponded the youth, kissing the dead man and the living woman.

Now, a vow derives all its sacredness and significance from the character of him who makes it, and it will be the aim of future chapters to show the possibilities of our young hero for fulfilling this one, given with all the solemnity of earnest purpose. A. L. MUZZEY.

UNFULFILLED.

FLOWERS shall blossom fair some day,

For you and me;

Birds shall carol their sweetest lay,

For you and me;

The softest breezes shall round us play,

Sorrow and sadness shall flee away,

And all the darkness be turned to day,

Some time for you and me.

Thus sang to me a bird one day,

Long, long ago;

Close in my ear he piped his lay,

Long, long ago.

Eager I listened, the song to hear,

Deep in my heart sank those words of cheer,

And ever its accents linger near—

That song of long ago.

Sorrow hath dimméd my bright hour,

And, day by day,

Thorns have thickened, but scarce a flower

Gladened the way. [sweet,

But the song which then was whispered

Still cometh my waiting soul to greet;

And I think not of my bleeding feet,

Or lonely, weary way.

There is no rose without its thorn

For you and me.

After the night cometh the morn,

For you and me.

Though sorrow hath our heartstrings riven,

Perchance the golden promise given

Shall find fulfillment sweet in heaven

Some day, for you and me.

OLIVE A. DAVISON.

HOW TO PICK HUCKLEBERRIES.

[To those who are inclined to wander, to those who lack application, the following interesting sketch will be useful. Dictionary men may criticize the spelling, and would write the word "whortleberry," instead of "huckleberry," which seems more natural to average humanity. —ED. A. P. J.]

WHEN I first knew Mr. John Horseley he was an old, white-haired man, and very rich. As he seemed never to have been in any great business, such as merchants and speculators now engage in, and as he was never accused of being a dishonest man, it was always a mystery to me how he came to be so rich. I knew that his father was a poor country clergyman, and that John could have received no property from him. Meeting my friend one day, when our con-

versation happened to turn on the subject of gathering property, I ventured to ask him how it was that he had been so successful in life.

"When I was a boy," said he, "my father was a poor minister. We lived very plain and dressed very plain, but that never troubled us. We always had enough of something to eat, and my mother was one who would contrive to have her children dressed neatly, if not richly. One day, when I was a little fellow, several little boys and girls came along on their way to pick huckleberries. They invited me to go with them, and when I saw their bright faces and their little baskets, and

the bright afternoon, I wanted to go with them. So I went into the house and asked my mother. I saw she sympathized with me, but said I must go and ask father.

" 'And where is father?'

" 'Up in the study, of course.'

" Up I bounded, hat in hand, and gently knocked at his door. He bade me come in.

" 'Well, Johnny, what is your wish?'

" 'I want, sir, to go with the children and pick huckleberries.'

" 'Where are they going?'

" 'Only to Johnson's hill, sir.'

" 'How many children are there?'

" 'Seven, besides myself. Please let me go.'

" 'Well, you may go. Be a good boy, and use no bad words.'

" Away I scampered, and had just got to the bottom of the stairs, when my father called me back. 'O dear, it's all over now. He's going to take it all back,' I said to myself. Trembling, I again stood in the doorway, expecting to have the permission withdrawn.

" 'Johnny,' said my father, with a peculiar smile, 'I have a word of advice to give. You will find the berries growing on bushes standing in clumps all over the lot. The children will pick a few minutes at one place and then go off to another, in hopes of finding better picking, and thus they will spend half of the afternoon in roaming from one place to another. Now, my advice to you is, that *when you find pretty fair picking stick to that spot, and keep picking there.* Your basket at night will show whether my advice is good or not.'

" Well, sir, I followed my father's advice, and though the children would wander about and cry out: 'Oh, Johnny, here's a world of them,' and 'here's splendid picking,' and 'here you can

fill your basket in less than no time,' yet I stuck to my 'fair-picking' place. When we got through at night, to the astonishment of every one, and my own no less, it was found that I had nearly twice as many berries as any other one. They all wondered how it was. But I knew. And that was the lesson that made me a rich man. Whenever I have found 'fair picking,' I have stuck to it. Others have changed occupations and business, and have removed from one place to another. I have never done so, and I attribute all my success to the lesson by which I learned to pick huckleberries."

I have recalled this conversation, and the form of my old friend, who has long since passed away, to impress it upon the parent, and upon the teacher, that a single sentence of instruction may shape the course of the whole life of the child now under his care. Not only did property and success hang on the old minister's hint, but the shaping of his son's whole character for life, and perhaps forever. How much wisdom we need to be able to say the right thing at the right time!

And no less urgently do I want to impress the lesson on the child, that if he is doing pretty well where he is; if his teacher does well by him, don't change, or try another class, or another school. If your advantages are less than you could wish, stick to them, and make the most of them. The stone that rolls the least gathers the most moss. What was wise in picking huckleberries, is wise in every attempt to learn and gather what is valuable.

[Direction, rather than restraint, is what children require. Parents should study their characters, and know how to advise them wisely. Children can detect false reasoning in others, although they may not at first comprehend the reasons. Put them on the track, with the brakes well in hand, and they will usually work the human engine successfully.]

Our Country and Its Resources.

That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*



TOBEY RIDDLE (WINEMAH),

THE HEROINE OF THE MODOC WAR.

HAVING an opportunity for a personal examination of Mrs. Riddle, or Winemah, whose portrait is given, the following remarks were made and taken down by our reporter :

This woman has an excellent constitution, and more endurance than is vouchsafed to many men or women ;

and especially has she great breathing power. She has a solid muscular system and excellent digestion, and if she will avoid eating food which tends to promote undue fatness, she will be likely to live to a good old age.

The base of her brain is large enough to lay the foundation for vital power.

She has more **Combativeness** than **Destructiveness**, while her people generally have more **Destructiveness** than **Combativeness**. She has more of the spirit of indignation than of severity; she would take offence, and talk back, and openly and bravely redress herself, rather than lie in wait and hurt her foe secretly when the moment should arise. She is naturally inclined to manifest openly as much displeasure as she feels.

She has **Cautiousness** enough to give her prudence and guardedness. She has strong love of **Approbation**, which gives her ambition, a sense of honor, and a strong desire to be approved and take the lead. She has **Self-Esteem** enough to give her dignity and strength of character, and she is more likely to manifest her **Self-Esteem** in the direction of dignity and honor than in the disposition to be domineering, but she would carry herself with that dignity which would indicate that she was master of the situation, and she can govern others by a wave of the hand.

She has very large **Firmness**, and this gives her uncommon power of endurance and steadfastness and persistency. When her mind is made up that anything ought to be done, she does not rest till it is done, nor does she give up if she is defeated, but waits for a chance to try again.

She has large **Conscientiousness**, and loves justice as well as honor; believes in truth because it is true, and understands truth a great deal better than most people who have had more advantages for instruction than she. Her **Hope** is large; she anticipates whatever is favorable and desirable, and if defeated in one attempt to carry out that which she wishes to do, she does not despair of doing it the next time she tries.

She has **Spirituality**, a sense of the

higher life, and a fair degree of **Veneration**. She has respect for power, but she respects justice more. Her **Perceptive** organs are uncommonly large. Nothing escapes her attention or her memory, and she is able to explain her thoughts clearly, pertinently and plainly, and when she talks, people who know her believe that she is sincere.

She has talent for figures, for natural science, and especially for talking; could learn to be skillful in the use of tools or in the management of machinery, and having the natural talent to succeed in almost anything that is mechanical or artistical; and we judge she would do well even in music.

The pressure which has been applied to the forehead in infancy has depressed the upper part of it, and perhaps widened the head somewhat, throwing the organs of **Comparison** and **Causality** a little out of place, but the **Perceptive** organs are untouched and undisturbed, and they show a powerful development. She has a great deal of what we call common sense, and the necessary talent to gather and hold the facts to back it up.

She has very strong social feelings. She is true to her friends, and would be a devoted lover. She is fond of home, friends, and society, but her marked characteristics are those which relate to practical knowledge, mechanical judgment, love of justice, perseverance, ambition, prudence, dignity, courage, and general force of character. She has more open bravery, but not so much severity or cruelty, or artfulness, as most people of her race.

The following sketch, prepared by another, will be found to possess many features of deep interest.

The **Modoc War** of 1872-3 presented a series of most revolting tragedies, re-

lieved and made worthy of record by deeds of personal heroism which deserve a permanent place in history.

During the past winter Col. Meacham, late chief of the Modoc Peace Commission, has visited the eastern cities in company with a number of Modoc and Klamath Indians, among them the remarkable woman whose portrait is here given. He represents her as a true heroine, and credits her with having saved his life by her courage and adroitness upon the occasion of the assassination of Gen. Canby and the Rev. Dr. Thomas, Co-Commissioners in the lava beds of Oregon, in April, 1873, a tragedy that would never have occurred had the warnings of this woman been heeded.

Winemah is a pure-blooded Modoc, cousin of the famous Captain Jack, and a lineal descendant of the chief Moadicus who, about the time of the American Revolution, led his people in a war of independence against their kinsmen and rulers, the Lalacas, or Klamaths, and who thus became the founder of the present Modoc tribe. When Winemah was twelve years of age, her father, the "medicine man" of the Modocs, disposed of her, at her own request, to Mr. Frank Riddle, a Kentuckian, an enterprising hunter and miner of Yreka, California. Under his instructions she became skilled in all domestic employments, and her faithfulness and devotion were such that he made her his wife, and by him she has a son, an intelligent lad of twelve years. Although thus removed from her own people, she has never lost her attachment to them, but has ever maintained an interest in their welfare. She is gifted with the qualities of a leader, and is often called by the Indians "the woman chief." In every great emergency it has been their custom to send

for her and her husband, and thus upon several occasions serious strife has been averted. In 1864, mainly through her influence, a treaty of peace was made between three tribes, the Modocs, the Klamaths, and the Shastas, which still continues.

The part taken by Winemah in the Modoc war will best appear in connection with a brief sketch of that remarkable struggle, the particulars of which are taken from Col. Meacham's "Wigwam and Warpath," supplemented by personal interviews with the author and with Winemah and Mr. Riddle.

In 1865 the Modocs and Klamaths were placed by Government upon a reservation in Southern Oregon; and although at peace, this contact proved too close, the recollections of ancient strife causing frequent controversy. In consequence of this the greater part of the Modocs, under the leadership of Captain Jack, suddenly returned to their former hunting-grounds at Lost River, near the lava beds, the latter consisting of irregular rocky formations of volcanic origin, and affording a defensive position of extraordinary strength. Here they were permitted to remain, although in violation of treaty arrangements, until 1869, when, in consequence of frequent collisions between them and the whites in that region, it became necessary to compel their return to the reservation. In pursuance of this, Col. Meacham, then Superintendent of Indian affairs in Oregon, visited the Modoc camp and made known the determination of the Government.

During this interview the Indians became greatly excited, and threatened violence to Col. Meacham's small party of twelve men. Weapons were drawn on both sides, and a conflict seemed imminent when Winemah, who was pres-

ent with her husband, rushed between the two parties, exclaiming, "Wait! wait! Don't shoot!" Then exhorting her own people to moderation, she calmed the storm, and, with her husband, persuaded them to return to the reservation in peace.

But the difficulties with the Kla-

Modocs are the bravest of the north-western tribes, and though few in number determined upon resistance.

When Winemah, in her home at Yreka, heard of this she hastened at once to her own nearest relations who were separated from Captain Jack's band, and brought them quickly to the



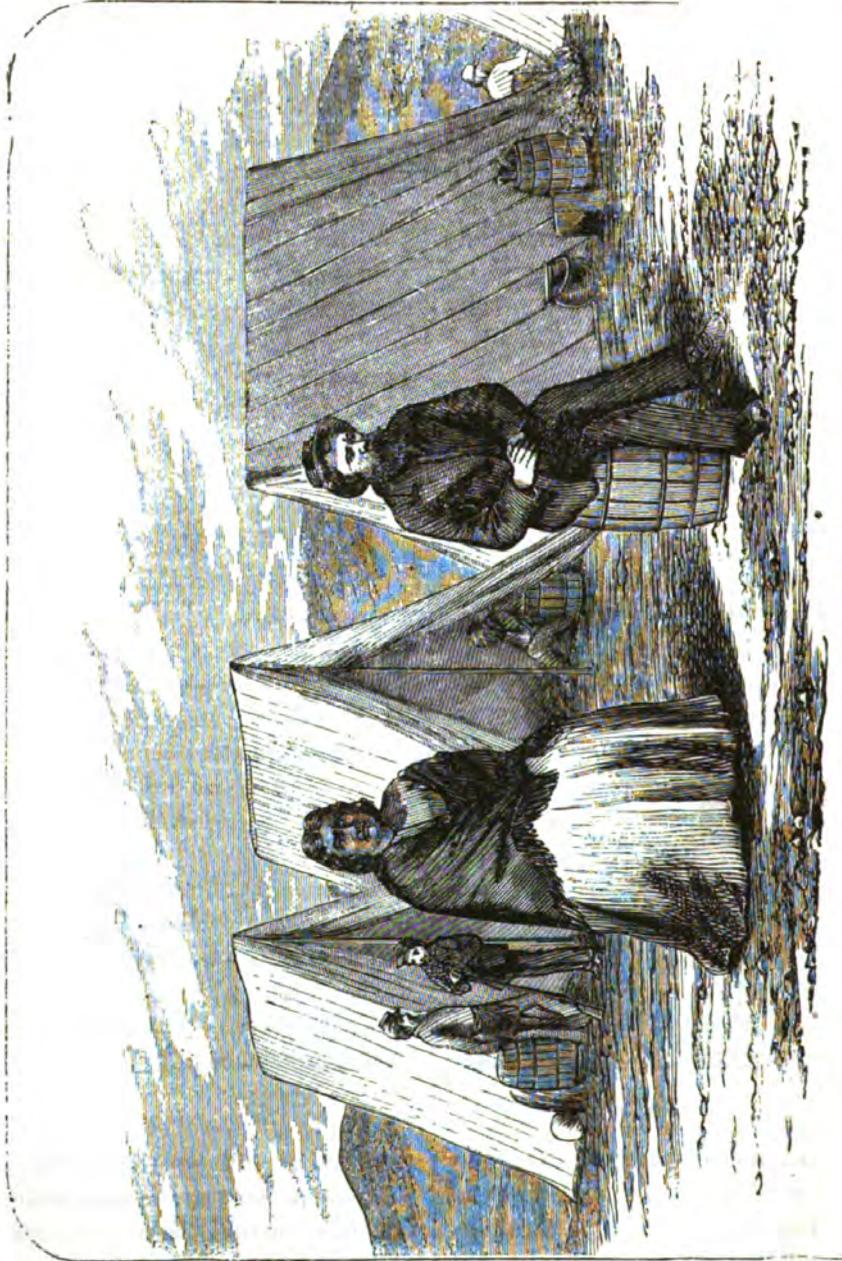
PORTRAIT OF ALFRED B. MEACHAM.

maths were soon renewed, and Captain Jack, longing for the freedom and independent authority which he had bargained away, led his people back once more to their old home; but here again there was trouble with the settlers, and the Government resolved, at all hazards, to compel the Indians to remain upon the reservation. But the

reservation, where they escaped the ruin which she saw approaching. She and her husband were soon after employed by the newly constituted peace commission to act as messengers and interpreters. The attempt to remove Captain Jack's party led at once to war. Col. Meacham was no longer Superintendent, and his successor, with-

out seeking a personal interview, sent a company of soldiers to the Modoc camp. These were attacked and defeated by an inferior number of the In-

at this time but thirty-two able-bodied men and twenty-one boys fit to bear arms, and they were soon surrounded by a Government force of 400 men,



TOBEY AND RIDDLE.

dians, who followed up their victory by a massacre of some twenty unoffending settlers, and then retreated with their women and children to their stronghold in the lava beds. They numbered

consisting of 250 regulars, 100 volunteers and fifty friendly Indians, all under command of Gen. Wheaton of the Regular army.

On the 17th of January, 1873, the

white troops marched into the lava beds, confident of an easy victory, but retreated after a ten hours' fight, leaving thirty-five of their number dead upon the field. Col. Meacham, who is good authority, asserts that not an Indian was killed in this battle. Firing upon the approaching troops through the crevices of the rocks, they remained themselves invisible and unharmed. It is almost incredible that after such disasters, two defeats and a massacre, any other terms than those of unconditional surrender should have been offered to this band of outlaws, but the President had adopted a peace policy, and the Secretary of the Interior was determined to carry it out.

Col. Meacham, as chairman of the peace commission, accordingly opened communication with the Indians, and several conferences were held. Winemah was allowed to pass to and fro between the hostile camps, and she thus learned of a plot to assassinate the peace commissioners during a friendly council soon to be held. This information she communicated to her husband and to Col. Meacham, both of whom credited her assertions, but the other commissioners could not be convinced that treachery was intended.

The difference of opinion thus arising led to the practical suspension of Col. Meacham's authority, the three other commissioners voting to transfer the management of the negotiations to Gen. Canby, the department commander, who had recently arrived, and who had great confidence in the good intentions of the Indians. Arrangements were accordingly made for the proposed conference, the Indians having represented that they were ready to surrender, but wished the commissioners to show their confidence in them by meeting, five upon each side, unarmed, for a

friendly talk. Against this Winemah protested by every means in her power, her husband and Col. Meacham joining her, but without avail.

Through one of the commissioners it became known to the Indians that Winemah had given the warning, upon which they boldly sent for her to come to their camp. At the peril of her life she went, saying to the commissioners as she departed, "When they kill me for this, then you will believe that I told you the truth." The purpose of the Indians in sending for her was to compel her to tell who had betrayed their plot, but this, though threatened with death, she refused to do. She was permitted, however, to return in safety.

Notwithstanding this exposure, the Indians had the audacity to come boldly into camp to hasten the meeting, and by professions of friendship to allay suspicion; and in this they succeeded so far as Gen. Canby and the Rev. Dr. Thomas were concerned. These gentlemen felt that to decline going on account of threatened danger, would not only be an act of cowardice, but would destroy all hope of a peaceful solution of affairs. Dr. Thomas was a man of faith, and he believed that no harm could come to him while in the path of duty. Gen. Canby's inflexible courage and high sense of honor kept him also to his agreement.

Col. Meacham, after exhausting every argument, deemed it his duty as a member of the commission to accompany his associates, though he fully believed, as he had declared to them, that they would never return. "That squaw has frightened you," said one of the commissioners to him, and he confessed that she had; nevertheless, he felt impelled as a man of honor to go. His influence was great with the Indians.

He had braved them alone in their retreats when they were thirsting for blood, and his presence now might avert the threatened calamity. At the last moment before his departure, when all hope of preventing the meeting had been abandoned, he hurriedly wrote the following letter to his wife, who was at their home in Salem, Oregon:

"LAVA BEDS, April 11, 1873.

"MY DEAR WIFE—You may be a widow to-night; you shall not be a coward's wife. I go to save my honor. John E. Fairchild will forward you my valise and valuables. The chances are all against us. I have done my best to prevent this meeting; I am in no wise to blame. Yours, to the end,

ALFRED.

"P. S. I give Fairchild six hundred and fifty dollars, currency, for you.

A. B. M."

Having delivered this to Fairchild, Col. Meacham exacted from him a pledge that if he should be killed, and his body brought back to camp mutilated, it should be buried there, and not sent to his wife and daughters to torment them by the cruel sight. With this assurance, he was about to mount his horse, but Winemah was resolved to prevent his going. Seizing the bridle, she exclaimed, "Meacham, you no go! You get kill! You no get your horse! The Modocs mad now! They kill all you men!" But all in vain. The brave man must go, though it be to meet a certain death. Yet still the woman resists. Winding the horse's halter around her body, and throwing herself upon the ground, she wildly repeats her terrible warning.

Thus moved to make one more effort, Meacham hastened to Gen. Canby and Dr. Thomas, who were already on the

way, and solemnly laying a hand upon the shoulder of each, he said: "Gentlemen, my cool and deliberate opinion is, that if we go to the council-tent to-day, we shall be carried home to-night on stretchers, all cut to pieces. I tell you I dare not ignore Tobey's warning. I believe her, and I am not willing to go." But the commissioners were inflexible. They were not men to be turned back by warnings of personal danger. Col. Meacham then begged that John Fairchild might also go, and that they two might be permitted to take their revolvers with them; but this proposition was also rejected. The agreement to go unarmed must be sacredly kept. As Meacham finally started, however, some one quietly slipped a small Derringer pistol into his coat pocket, and he allowed it to remain. Mr. Dyer, another commissioner, also took a small pistol. Winemah and her husband went as interpreters.

At the appointed place of meeting, a secluded spot within the lava beds, they found eight instead of five Indians, by whom they were received with that extreme cordiality which among red men often betokens mischief. The danger of the situation was at once realized. Meacham hesitated to dismount. His thoughts were with his wife and children, and with the orphaned family of a deceased brother away in Oregon. He frankly confesses that he was tempted to put spurs to his horse and dash away toward the camp. But it was only a momentary weakness. With apparent unconcern he springs from his horse and joins with the others in the council.

The Indians at once assumed a bold and defiant tone. Captain Jack demanded that the troops be removed, and that his people be permitted to remain where they were. It was appar-

ent that he was prepared for any act of violence, and considerations of policy would have prompted a temporary assent to all his demands; but Gen. Canby would make no promise that could not be religiously kept. The soldiers were there, he said, by command of the President, and could not be removed without his consent. The Indians would be well cared for by the Government, but they must submit to the laws, and abide by their treaty obligations. The discussion became more and more exciting, until suddenly broken off by the Indian war-whoop, and by the signal to commence the work of death. At the same time two other Indians, hitherto concealed in the rocks, appeared, each bearing several guns to assist in the preconcerted massacre.

Gen. Canby and Dr. Thomas were the first victims. Their bearing throughout the interview had been calm and courageous. They were wholly unarmed, and they attempted neither escape nor resistance. It was Captain Jack himself who killed Gen. Canby. His pistol at first missed fire, but the old hero stood unmoved. In another moment a bullet pierced his brain, when, running a few steps, he fell upon the rocks, where he was mercilessly dispatched, his body being stripped and his throat cut while he yet struggled in death. Dr. Thomas, whose dying words were those of prayer, was taunted and made sport of as a "Sunday doctor, who could not make good medicine." His body also was stripped and mutilated. Riddle and Dyer, having placed themselves behind their horses before the attack, escaped by running, although pursued and repeatedly fired upon. Dyer, with his pistol, kept his pursuers at bay as he ran, and Riddle probably owed his safety to an Indian who, before the massacre, de-

clared to his own people that if Frank Riddle was killed he would avenge his death upon the slayer.

Col. Meacham's escape was wholly due to the heroism and devotion of Winemah, who owed to him a debt of gratitude which she now well repaid. Rushing between him and his assailants, she shielded him with her own person. "Don't kill him! Don't kill Meacham! He is the Indians' friend!" she cried, as she struck the weapons aside which were aimed at him. For her the savages had a superstitious reverence. They dared not shoot her, yet she was only able to break the force of the attack. She could not dissuade them from their purpose.

Standing his ground, and wounding one of his assailants—the old chief Sconchin—with his single shot, Meacham received in rapid succession seven bullet wounds, under which he fell insensible, and would have shared the full fate of Canby and Thomas but for the protection still afforded by his heroic defender. Resisting and expostulating by turns, she heroically defended his body, which had been stripped of its outer garments. The scalping-knife was actually applied, and a gash cut in the back of the head, but she prevented by main strength the accomplishment of the act, and finally carried her point by a stratagem. Crying out suddenly that the white soldiers were coming, she frightened the savages away. Gathering up their spoils, they fled to their hiding place in the rocks, while Winemah returned to camp, where her husband and Mr. Dyer had already arrived, conveying intelligence of the massacre. A company of troops hastening to the spot, found Meacham still alive, and bore him, with the mangled bodies of Canby and Thomas, back to camp.

The number and nature of Col. Meacham's wounds left but little hope of recovery. "If you were a drinking man," said his surgeon, "there would be no hope." Pure blood and a vigorous constitution carried him through, but he bears upon his person the indelible record of that desperate conflict.

The remaining incidents of the war may be briefly told. Soon after the massacre an attack was made upon the Indians by a force of one thousand troops, with cannon as well as small arms, and after a three days' bombardment they were driven out into the open country, escaping, however, with small loss.

The Government and people were now thoroughly aroused, and a cry for the extirmination of the Modocs was heard throughout the land. A series of battles followed, in which the Indians, though constantly pursued and fleeing from place to place, displayed wonderful courage and skill.

The battle of the 26th of April, near the lava beds, was one of the most remarkable ever recorded in Indian warfare. Sixty-three U. S. troops, with fourteen friendly Indians, under command of Maj. Thomas, while hunting the Modocs, were suddenly attacked by them and defeated, with a loss of more than half their number. Every officer except the surgeon was killed, and but twenty-three men escaped to camp unharmed.

Col. Meacham credits the statement of the Modocs afterward made that there were but twenty-four men in the attacking party upon this occasion.

Gen. Jeff. C. Davis now assumed command of the U. S. forces engaged in the war, amounting to about 1,000 regulars and volunteers, assisted by 73 friendly Indians of the Warm Spring tribe. Pursued night and day, and exhausted

both by incessant fighting and by violent dissensions in their own ranks, the Modocs were scattered and defeated, and were finally captured in detail, or came in and voluntarily surrendered. Four of those who had participated in the massacre saved their own lives by turning traitors, and giving information of the hiding places of their own people. The surrender of Captain Jack, June 1st, terminated the struggle.

The final scene occurred at Fort Klamath, in Oregon, October 3d, 1873, in the execution of Captain Jack and three of his companions in the assassination. Two others were condemned to imprisonment for life, while the four traitors were pardoned. The remnant of the tribe was conveyed to a new reservation in Indian Territory, where they now remain.

Winemah and her husband were employed after the massacre on a mission of conciliation to the Klamaths and other disaffected tribes who had threatened to join the Modocs. They thus rendered an important service to the Government, for they did much to avert the calamity of a general Indian war. This mission accomplished, they returned to their home at Yreka, where they remained until invited by Col. Meacham to accompany him on his eastern tour, the chief purpose of which has been to call public attention to the importance of a wise and just treatment of the western tribes, whom he thinks capable of a gradual and complete civilization.

The future life of Winemah is likely to be simply that of a quiet and industrious housewife, for such she really is, but the part which she played in the drama of the Modoc war will live in history, and her name will be honored when the red man shall have passed away.

EDWIN F. BACON.

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

CHAPTER III.

FARMER HALLET, entering the great door of the central building, found himself in a large reception-room, the main hall of the floor being widened at this end for this purpose. Unlike most grand city houses, this Grange home does not stop visitors at the door by a servant, who stonily examines them and considers whether they are likely to rob the hat-rack or the parlor mantle before venturing to leave them long enough to carry their messages. Peace-Maker Grange receives all decent-looking callers in this room, which is shut off from the hall by a door with a spring catch. Any evil-disposed person would scarcely attempt to carry off the cane-bottomed settee and chairs which constitute the furniture of this outer reception-room.

Judge Templeton did not leave his friend at the threshold, but took him at once to a big wash-room and barber shop, like that of a hotel, and then to the main dining-room. "You will observe," he said, as he passed along, "that we have built plainly but substantially. Such edifices in the far future will doubtless be made massive and highly ornamental. We have been satisfied with well-seasoned lumber and brick. We will not whistle till we are out of the woods."

The dining-room was found to be in a large, square building back of the main central edifice, and connected with it by a covered passageway. Hallet noticed rooms for various public uses as he passed through the main hall, and everywhere were busy, cheerful men, women and children, dressed comfortably, but not showily, and not without regard to the prevailing fashions.

"I see that your people do not adopt any uniform dress, and that they follow the fashions somewhat," he said to the judge.

"Yes; we ask not to be taken out of the world, but to be kept from the evil of it. Yet you will see no trailing skirts here, or any other avoidable trace of the subjection of woman. In fact, a sort of Bloomerism is in vogue among us in situations wherein long skirts are troublesome."

Hallet noticed some fine pictures and busts, and one or two statues as he walked the 200 feet and more between the front and rear doors, and also various appropriate mottoes, many of them Scriptural. Prominent in the dining-hall was this: "I am instructed both to abound and to suffer need."

The outlying building, the first floor of which is used as a dining-hall, is 100 feet square, with an inner court 40x40 feet, so that the building proper is 30 feet wide on each side. But the central court is covered with a glass roof, and thus the lower floor (there are four) can, when necessary, be thrown into one great hall. On ordinary occasions, the court is not used during meal-time except for the accommodation of the waiters, who are all women. The tables used are round, and mostly large enough to accommodate ten persons. A novel feature about them is, that while the outer rim, eighteen inches wide, is stationary, the center works on a pivot, and supports by slender rods a "second story," corresponding to itself. By this means half the usual table-service and passing of dishes is saved. The waiters put the dishes used in common by the little

company on the center-tables, and all can help themselves by moving these around. Family groups are made up to occupy the large tables. Where the family is not large enough, single persons are invited to join the group, and the turning of the center-tables is a continual source of amusement. There are smaller tables for those who prefer more seclusion. The kitchen, etc., occupy the basement beneath, running even under the court.

At one corner of the building, outside of it, is the great chimney, a hundred feet high, which furnishes the draft for the four large subterranean boilers which supply the steam for cooking, heating, and laundry purposes for the whole series of buildings, and for a powerful engine that stands above ground in a pretty engine-house. The upper floors over the dining-hall are used as the lodging-rooms of those people engaged in the shops, mills, etc., who are in no way connected with the Society. Three sides are occupied by men and the other by women. The two sexes can only meet on the first floor, for there are no doors connecting the sections.

As Judge Templeton, his wife and daughter quietly seated themselves at one of the tables, the judge said: "You will observe that we are rigidly consistent in carrying out the idea of co-operation rather than Communism. The difference between our organization and a Commune will strike you at every step. There is something grand in the basic idea of Communism that is expressed in the sentence, 'From each according to his ability; to each according to his necessity.' But though Communists charge us with being selfish, because we are content to strive at the promotion of bare justice, we think that we shall have accomplished

much if we set a fair example of that virtue."

"How do you manage this food department?" said Hallet.

"An experienced New York restaurant keeper, who made a fortune in the business and retired, runs this department for us on a salary. He became dissatisfied with idleness, and visiting us was charmed with the general plan, invested largely here, and took up his favorite branch of business. He runs it acceptably, on nearly the same plan he pursued in New York. The east half of this floor is furnished, served, and supplied in a more expensive way than the west side; and though there is no restriction, the higher prices charged on this side produce all the selectness of company desired by the fastidious, just as happens in a city."

"What is the method of payment?"

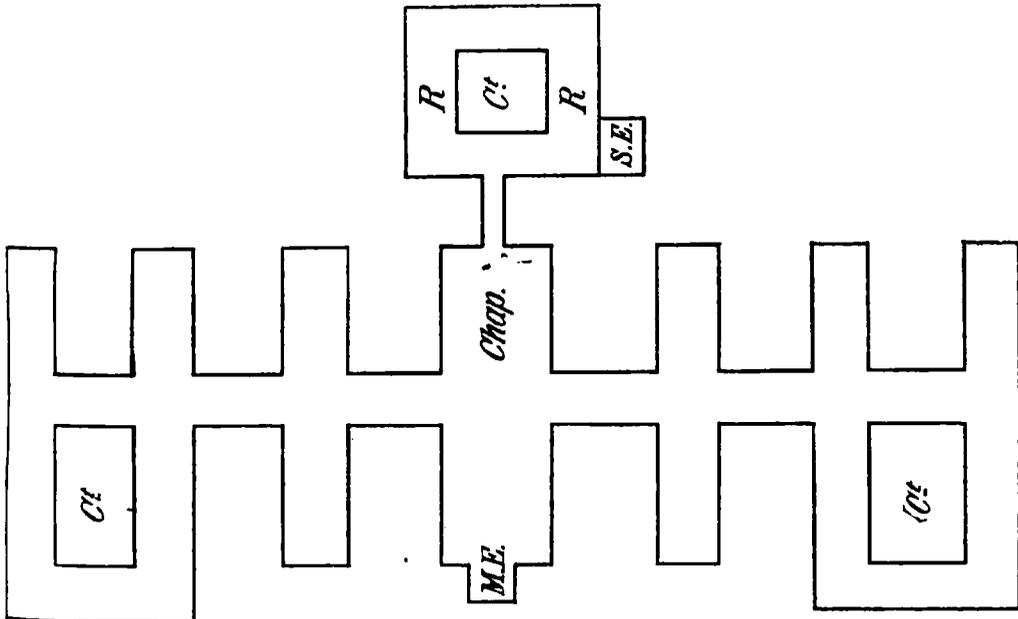
"Pasteboard checks, in amounts of five dollars, are bought from the cashier; the waiters distribute the proper amounts of these to the customers, who hand them to the clerk on leaving the hall."

After supper Hallet stepped into the central court and looked up. He saw the stars shining through the glass roof and noticed that access to the lodging-rooms, many of which were lit up and looked quite cosy, was by iron galleries running around the interior of the building, which made the usual dark central hall unnecessary.

Being weary with his long journey, he only took time before retiring to ascend to the top of a tower reared over the center of the main edifice. From this outlook, by help of the still hazy red moon, he saw the lay of the land and the outlines of the buildings. He observed the river gradually widening into a bay, though the Chesapeake was too far off to be discerned. The

high bluffs of the river came to an end a quarter of a mile west of the group of houses which constituted the Home; for there a steep wall of rock had stemmed the river back so that it rose nearly to the level of the upland, and, upheld by this natural dam, formed a broad, smooth, lake-like sheet of water, stretching some two miles back to the next rapids. In the quarter of a mile

made ladders formed by nailing a half a dozen pickets across a scantling, except that a double-width picket (the central building) was put in the middle. In other words he saw a building about six hundred feet long and thirty wide (answering to the scantling), and seven other buildings about two hundred feet long and thirty feet wide—except the double one—laid across it, as it were,



(Plan of Main Building—Peace maker Grange.)

between him and the lower fall were a number of large mills on both sides of the river. Far off in two directions he saw the lights of the large unitary dwellings at two extreme points of the township, where he was told the third thousand of the inhabitants had their dwelling-place. Near one of them he observed the perpetual volcanic flames of a blast furnace.

Directing his eyes toward his immediate surroundings, he saw that, apart from the structure with the glass-covered court in which he had supped, the general plan of this "home of two thousand" was like one of those home-

at right angles—with sixty feet spaces between them. Or, to be still more explicit, seven wings eighty-five feet long, and sixty feet apart, stretch out on each side of the long building which forms the back-bone of the system. The only departure from this outline was at the two extreme corners, on the side facing the river, which projected thirty feet beyond the others—the open spaces there having been built across—forming hollow squares, with glass-covered courts like the one described. The main buildings were of brick, except the front of the central wing, which was of stone. The French roof

afforded a fourth story, and a garret over that.

Scattered on all sides were numerous smaller buildings, including a number of really beautiful villas, owned, subject to some restriction, by wealthy sympathizers, who preferred, while taking advantage of the general economies and social amenities, to have their dwellings isolated.

CHAPTER IV.

Our farmer of the inquiring mind slept that night in a comfortable room, not pretentiously furnished, that adjoined the suite occupied by the judge. This was on the third floor of the extreme northeast wing. He was awakened by the whistle of the steam-engine before mentioned at about six o'clock, and was soon joined by the judge, who said, "I trust that the scream of the steam-whistle did not seem to you like the scream of a demon calling for its morning meal of human slaves, as the factory whistles of civilization always sound to me. We are mostly early risers and hard workers. We have our battle to fight yet with the outside world. Though believing that if the workers had their due everywhere, two hours of hard toil per day on the part of all the able bodied would accomplish all that is now done, many of us work as much as sixteen hours a day in our zeal for the cause in which we are engaged. As to this whistle, you see that it is in the center of the buildings, where the household activities are necessarily most active and prolonged. On these extreme outer wings, the wealthy and the infirm among our members naturally locate themselves; those who can afford or who need great seclusion and quietness. People sleeping in these outer wings—especially on the south side—seldom hear the whistle

after having neglected its summons a few times. It is in this respect like conscience. The main line of our buildings, as you can see from that vane, is southeast and northwest. This affords an opportunity for the sunshine to penetrate into nearly every nook and cranny, and presents the smallest possible surface to the northwest winds. You will see that the gardens between the wings show the good effect of this.

"And now, if you will, join my family-circle in our morning devotions. In our sifting out of shams and humbugs and useless ceremonies, we have not sifted out 'family prayer.' We are like the great Baron Bunsen, who 'sifted all systems of philosophy, but could not sift out Christ.' We hold that one of the most lamentable signs of the times and causes of demoralization is, the neglect of this duty and privilege. There are public devotional exercises open to all in the chapel, at seven o'clock, generally led by the Pastor, as we very properly call our spiritual guide. He is the shepherd of this people in a truer sense than any of the much-respected old Puritan preachers ever were, because he has so much to do in guiding us in temporal affairs."

They found the judge's wife, two grown daughters, and son in their private parlor. The father read a psalm, all joined in a song of thanksgiving, and then, as they knelt, the mother, in a low, musical voice, uttered a prayer so full of loving-heartedness and pathos, that tears came to the eyes of the visitor.

All then walked toward the chapel. As they went the judge said, "You will see everywhere proof that we are, before all other things, a religious body—a church. We make moral and spiritual growth the first desideratum—'seek first the kingdom of heaven,'

though very grateful for all the temporal blessings vouchsafed. We few who started the movement, and still constitute the controlling nucleus, determined that we would suffer defeat and ruin rather than allow ourselves to be swept into the ordinary currents of the world."

The chapel, with its one great stained-glass window, and its oak finishings, much resembled that of the New York University. It can seat 1,500 people. Hallet found 500 of all ages there. The devotions, which are led by various members in the absence of the pastor, are much similar to those of union prayer-meetings; and a powerful organ accompanied the singing. Toward the close, the leader invited the judge's wife to pray, her spiritual ministrations being much sought after.

"I invite you, rather, to join me in a deep silence," said she, rising.

All other heads were bowed, while she remained standing with rapt, upturned face for several minutes.

The unwonted scene, with the one graceful, gray-haired woman standing in the midst, in that dim religious light, brought the stranger nearer to "the eternities and the silences" than he had ever been before.

This mute, eloquent appeal to Heaven, and to all that was highest in the assembly, was succeeded, when this true priestess sat down, by a benediction, and all passed quietly out, most of them going to breakfast.

As Hallet sat with his friends at one of the large, round tables, the judge said, "Our adoption of the restaurant and hotel style of eating enables us to accommodate this multitude in a small space. Breakfast is served here from six to eight, dinner from twelve to two, and supper from five to seven. This system relieves us of the necessity of

having a great many attendants, and a large kitchen, with many dishes and utensils. We have a high-priced French cook, but he is quite jealous of and stands in wholesome awe of the cultivated and wealthy American lady who has co-ordinate authority with him. She is, as Fourier would say, so *passionné* for cooking, that is, so passionately fond of it, that, though capable of adorning the most elegant saloons, she puts nearly her whole mind on this work. She spends her salary in adorning and improving our domain, and receives the gratitude of the numerous life-long dyspeptics, who have been cured by the cunning of her art. Neither she nor the Frenchman often handle the food. They have a pleasant office right beneath us, at this corner, where they can watch the whole basement, and give their orders."

"Do these girls who are waiting upon us belong to the Society?" asked Hallet, watching the trim, cheerful damsels tripping about.

"Yes; but you will see no meniality about them. They know that they are performing a useful service that is duly appreciated. We do not indulge in any cheap buncombe about all work being alike honorable, and every one's hour alike valuable. But, on the other hand, we never countenance any snobbishness. My daughters take their place as waiters, or in any similar work, when occasion requires, though they are usually busy in higher departments. Our principal dependance now for taking the edge from the less attractive kinds of work is continual change of employment. Girls that you will see waiting upon tables here in the morning, you will find teaching mathematics and chemistry in the afternoon. The pay of all occupations is gauged pretty much by the scales used in the

outside world; but we seldom keep any one more than two hours at the same work. This also prevents all jealousy between trades. The blacksmith is not vexed at the better pay of the teacher and musician, because during a part of the time he is engaged in those pursuits. The man who makes but an indifferent show in the carpenter group, is cheerfully obedient to the skillful head of that group, partly because when the painters are called out he finds himself their leader, and has the carpenter leader under his command and instruction."

After breakfast the judge took his friend to the tower over the chapel again, saying, "In one respect I am like the wicked one. I always take newcomers upon that high mountain to tempt them with a view of our possessions. I am so used to describing the place from that standpoint, that I can do it better there than elsewhere."

When they had reached the tower, the judge, after casting a look of loving admiration over the domain, said, "I tell you we mean business here, and have no such word as fail in our vocabulary. In our 3,000 there are about 200 such men and women as I think the world never before saw together. They are gathered from all parts of the land, and, truly, 'these are they who have come through great tribulation, and have washed their garments and made them white.' We who started this thing knew that our reliance must be upon the religious but liberal middle-aged people, who had been chastened by suffering, and fully seen the hollowness of the current civilization. We could rely upon none others, for instance, to stand firm in this corrupt time, and here in the close contacts of the unitary home, in maintaining the purity of the family relation."

"I have wondered," said Hallet, "how you managed that matter."

"It will take you some time to see all the points. I will state some of them. Our principal lines of action in this, as in all other matters, are those which we pursue as a church. We make church membership as important and almost as difficult to attain as it ever was in New England. We rigidly examine candidates as to their spiritual condition, though we have less need to than most examining committees. Some one wisely said, when asked, 'Is Mr. Blank a Christian?' 'I do not know; I have never lived with him.' We never accept any persons unless they have lived here six months. But our tests are rather such as those of the Swedenborgians would be if they followed their teacher, than such as are employed by orthodox Protestants, though the best of theirs are analogous to ours. We consider that Swedenborg is right in claiming that regeneration is like the genesis of creation, a gradual work—beginning with rock bases, mosses, lichens, protoplasma, and working up to the complete new man. So we only demand what he calls 'a change in the direction of the will'—a change from the natural state of serving oneself to a beginning of service to God and the neighbor; but we require this to be very marked.

"So much for our religious tests as to states. As to doctrine, we can fellowship with a really devout Brahmin or Boodhist. It was necessary to have some doctrinal touchstone; and for convenience we use the first half-dozen verses of 'the Sermon on the Mount.' Any one who can heartily say Amen to the 'Beatitudes,' and live accordingly, we can receive as a brother or sister.

"Now as to the relations of the sexes. As a co-operative business society, we

take no notice of the moralities, except to see that we neither cheat nor are cheated. But as a church, a grange, and a regularly organized township—having all township officers, including justices and constables—we deal rigorously with offenders. We suspend culprits from the church or from the grange, if they belong to either, until they evince repentance by the works thereof. Offenders not belonging to either of these organizations, are dealt with in various customary ways. There are occasionally boys and girls so malformed that they are fore-ordained marauders upon society in this regard. We have had to relieve ourselves of a few such.

“But we have wonderfully little trouble of this sort. Our life is so healthy and natural, there is such perpetual variety of occupation and amusement, and such watchfulness of the elders—such a healthy moral tone in the place—that even the viciously inclined curb themselves extraordinarily. Then, we make virginity up to eighteen years exceedingly honorable. Virgins, as such, are selected for many positions of trust and emolument. After that age in girls, and twenty-one in young men, we encourage marriage. The supposed difficulty of controlling this relation in association has been too much of a bugbear. Charles Nordhoff’s new book on ‘Communitic Societies’ explodes the theory of the Shakers and the Oneidans that integral association is not compatible with the maintenance of the old family relation.

“But I brought you up here to show you some of the points. A large part of the buildings you see have been erected within three years. For the first four years we rather dragged. But when solid religious folks throughout the land saw that we actually meant to carry soul and body both

along through the world, in a really heavenly way, the proffers of persons and property became very numerous; though often ‘Satan came also,’ and had to be repulsed.

“For three years we had only this central building and these two wings, and but two of the factories you see. Now we feel ourselves a permanency, and have to reject many who wish to join us. I can not begin to enumerate the industries we carry on. It is not probable that in the world elsewhere there are 3,000 persons who produce so much raw material, and at the same time engage in so many different pursuits. We have carefully obeyed the injunction of the world’s master in political economy, Henry C. Carey, to ‘diversify our industries.’ Suffice it, that besides the articles made for export to outsiders, there is very little in the way of food, clothes, shoes, hats, rough hardware, stoves, pottery, furniture, carpets, agricultural implements, leather, harness, wagons, etc., used on the place, that is not of home manufacture. We own, also, a coal mine in Maryland. Iron ore we have on the place.”

“Of what use is the Grange to you with all these productions, and your facilities for buying at wholesale at bottom prices?”

“Oh, we felt it our duty to affiliate with the Grange, as the most hopeful movement of the time. It will need all the strength it can muster to conquer its internal and external foes. I fancy the worthy National Secretary scratched his head and wondered ‘what had broken loose in the Old Dominion,’ when I sent him last year the 300 names of Peace-Maker Grange with the fees. We are the banner grange so far.”

SAMUEL LEAVITT.

[TO BE CONTINUED.]

HOW IT CAN BE ACCOMPLISHED.

As earnest phrenologists and active reformers, we should evince greater effort, be more prompt in granting personal aid, and set about vigorously obtaining whatever assistance is possible for the proposed Museum.

Allow me therefore briefly to throw out a few hints and suggestions, which in my opinion, if seriously considered, acted upon, and energetically pushed, will soon achieve grand results, and ere long we shall speak and write of the Museum, not *how it can be*, but *how it was accomplished*.

In my recent appeal which appeared in the columns of the JOURNAL I dealt mainly with the necessity, grandeur, and inestimable beneficence of the noble undertaking. I approach now the practical, or, rather, substantial talk—nay work, individual work, which ought to be promptly and earnestly wrought, if our hearts and sympathies are awake to the crying needs of our time—the spiritual good and moral reform of society. I desire in the outset, then, to suggest as a most important and eminently practical mode of help, that all the subscribers to the PHRENOLOGICAL JOURNAL and to the *Science of Health*, in fact all the friends of Phrenology and the kindred sciences, in every section of our country, set to work immediately, organizing among themselves a National Phrenological Association, which can be readily effected by the help and through the mediumship of the JOURNAL and *Science of Health*. Once started, guided by necessary by-laws, and officered by some of our representative phrenologists, a powerful organization will be at once created, whose path and duties being clear, must render valuable and signal service. Each member would feel a personal pride and responsibility, giving not only personal assistance, but with very little well directed labor, secure handsome returns in countenance and contributions, not only from phrenologists (who perchance may have failed uniting with the association), but from hundreds of those who look favorably, not only on Phrenology, but who stand ready to lend a helping hand to

all true reformatory movements having for their object the moral elevation and spiritual advancement of our race. With equal prospects of success, also, we might appeal to the various literary, educational, and social organizations in our behalf, of one or more of which many of us may be members, and all the better if so for the object in view.

A field powerful and inviting, where we doubtless will meet with favorable recognition and assistance, is that of many temperance organizations, upon whom I am certain our claims will not require urging, as the Institute and its Museum will devote no inconsiderable labor and space to the great cause of Temperance reform in our land.

Again, why may not every subscriber to either of your two journals open his or her heart (and pocket, too) by doubling his yearly subscription for one year, assured as he will be of a safe advance and a sure return. It will not, as at first sight, be so very burdensome if we stop to reflect. There are various methods whereby this advance will be allowable. Many of us are, perhaps, subscribers to several periodicals; if so, might we not dispense with one or more of them for awhile, and credit the amount thus saved to the account of the Museum fund?

None of us, I am persuaded, would hesitate submitting to this trifling deprivation, if doing so renders substantial and powerful aid to the great work in view. Resolve to do so at once, require no further urging, be enthusiastically liberal in beginning the new year, and in sustaining two most useful magazines.

Our efforts might be directed to interesting and instructing the community wherein we reside in the proposed Museum. We should talk about it, write about it, and by every means at our command endeavor to enlist their sympathies, and, as far as possible, their co-operation. Lectures might be given by some prominent phrenologist, or other qualified persons, whose services should be gratuitous, and the proceeds go toward increasing the Museum fund.

These lectures or discourses, on various subjects derived from the sciences of Anatomy, Physiology, Phrenology, and Psychology, being instructive, attractive, and entertaining, good audiences could be relied upon. No better time than the approaching lecture season could be wished for, in which lectures of the above description would be likely to prove successful and profitable. I, for one, am sanguine of good results and ready and willing to lend my aid, personal or otherwise, in the field. Let us inaugurate the Museum fund lectures in the cities of New York, Brooklyn, and adjacent towns. Abundant willing and able talent, I am confident, will be forthcoming when once acquainted with the project in view, its aims, purposes, and present needs.

The work of enlisting volunteer lecturers and other auxiliary aid, should be at once

commenced. Our other plans and fields of operation should be decided upon also, and as early as possible matured, so that when the proper season arrives, having marshaled the forces at our command, we can set out fully armed and equipped, and with the great cause of humanity at heart, we will have soon accomplished our purposes, and rejoice in the founding and early completion of a work doubtless near and dear to all of us—The American Museum of Phrenology and Allied Sciences.

And now I have done for the present, aware of the inadequacy of my pen and ability to do the subject full justice. My heart and sympathies are in firm accord with the great work, and gladly extend it earnest support and aid.

Let us see, then, what a fine exhibit we can show of our zeal and untiring effort in its behalf.

B. I. BURNETT, M. D.

THE OLDEST THINGS NOT THE BEST.

A WRITER in the November number of the PHRENOLOGICAL JOURNAL puts great stress upon *authority* and upon *age* as a test of excellence. In his criticising article which previously appeared in the same magazine under the title of "Paul or Apollos—Which is right?" are several incorrect statements, which I will merely notice. He says man "can comprehend a God." What! can the finite comprehend the Infinite? The supposition is too absurd for argument. He says, "There was no Brahma until about 3,000 years ago, and no Buddha until about 2,000,"—a great misstatement. The great Christian scholar and linguist, Sir William Jones, says the Bhagavat-Geeta was written 8,000 years before Christ, or nearly 5,000 years ago, and that work was a part of the Hindu writings which glorified Brahma. The Gautama Buddha, according to M. Barthelemy St. Hilaire, died 543 B.C., and his remarkable code of ethics and religion, so similar to that of Jesus, must have been written over 2,400 years ago.

The article goes on to state that the Bible "began over 4,000 years ago," but Moses

wrote only about fifteen centuries or less before Christ, and Job perhaps a century earlier, so that the Bible must have begun something like 3,500 years ago. Is not Christianity strong enough to stand without turning the diminishing end of our telescope toward other religions, and the magnifying end toward our own? Then it had better fall. "He who begins by loving Christianity better than truth," says Coleridge, "will proceed by loving his own sect or church better than Christianity, and by loving himself better than all." The only safety is in truth, for all truth is of God. The writer then, supposing that he has proved the superior age of the Bible, goes on to state that "this must necessarily take precedence of any made after 4,000 years ago by any one, and historically excludes all other religions." But now that I have proved that part of the Hindu sacred writings were written nearly 5,000 years ago, on his theory he will have to yield up the Bible, which will be "historically excluded." I do not agree to anything of the kind. Another strangely untrue statement is that "the Book Jchovah has given states

plainly that Christ instituted an organization which He called His Church, and left rules and directions for its perpetuation and proper government." That is exactly what He did *not* do, and, consequently, Mr. Brincklœ should not put so much stress upon *authority* and mere church organization as he seems to do. Jesus had more to do with tearing down existing church organizations of His day than with building up new ones. He built up what was far grander than the mere man-made external organizations, namely, the everlasting glories of truth and love, and the bodies and souls of men. He condemned forms, and taught men to worship God in "spirit and in truth." "The oldest," says our writer, "all other things being equal, must be the one that is entitled to precedence. The Episcopal Church is a part and parcel, both in institution, doctrine, and practice, of the Ancient Church." This looks a little as though our writer was in danger of getting to Coleridge's second step, and loving his sect better than Christianity. If age is merit, Catholicism is superior to Episcopalianism, and the Apostolic Church to Catholicism, and Buddhism to the Apostolic Church. Let us see if Episcopalianism is a "part and parcel both in doctrine and practice of the Ancient Church." The Ancient Church, which was not organized until many years after the death of Christ, lived and worked in the most simple style without forms and ceremonies, healed the sick, had marvelous outpourings of spiritual power, and was considerably unlike most of the one thousand sects of the Christianity of to-day, all of which presumed that they were following Jesus, the Christ. Here is the test of Christianity, as laid down by the Master himself, Mark. xvi. 17: "And these signs shall follow them that believe: In my name shall they cast out devils; they shall speak with new tongues; they shall take up serpents; and if they drink any deadly thing it shall not hurt them; they shall lay hands on the sick and they shall recover." Will the churches now-a-days be tested by these signs, or have they not rather lost much of this spiritual power which the early Christians possessed? There is

nothing in the Bible to show that these spiritual gifts must necessarily cease.

But I wish to say a word about the heresy so prevalent among what are called conservatives that the oldest things, the oldest faiths, etc., are the best and most authoritative. Christians will not admit that Judaism is superior to Christianity because older, and Jews will not admit that either the Egyptian or Brahminical beliefs are superior to their own because older. So in nature and man, geological and cosmological science shows that all the primitive conditions of matter were crude, and the law of development has ever been from lower to higher, from the crude to the more refined as the ages pass away. The fruits of to-day are more luscious and the flowers more beautiful than they were a century ago. Educational systems, Sunday-school work, mission work, and work for humanity are on a greatly improved plan over what they were fifty years ago. When the early Church fathers lived they had no printing press, and almost no generally distributed education and science. Superstition was very prevalent, and ideas were narrow. The law of movement is upward though through cycles, but these cycles are in spirals rather than in circles, as the top of each cycle is generally in advance of the preceding one. Let us enlarge our conceptions, then, and, aided by the inspirations of the past, still look upward for God's inspirations for the living present, and seek for all truth at all points of the compass. I fear our writer puts too much stress upon mere *authority*. Our prisons are swarming with members of those churches who build upon authority, and leave their own reason and conscience to become barren by inaction. Why ignore reason and conscience and the other human faculties? Who made them, God or the devil? If God, then let us not blaspheme His name by slighting the works of His hand and calling them unimportant. Phrenology shows how beautifully God has planned the human brain and given it faculties for the needs of this world and the next. Any church which pretends that its priestly *authority* is sufficient, and that reason should not be used simply because it

sometimes makes mistakes, is fighting against God himself, as revealed both in inspiration and man. Our mistakes are often our best educators. If we had been formed as mere machines, incapable of committing errors, the whole moral system of free-will agency would have been destroyed. How sad is the theory of our writer that "Mohammedanism is a lie," and that Swedenborgianism and Buddhism, and all the world excepting one small nation called the Jews, have been left without any Divine inspiration to go down to ruin! How terrible to think that God is thus, after all, a "respector of persons," and has left most of His children to perish! But St. Peter takes a larger view when he says that "in every nation he that feareth God and worketh righteous is accepted of him;" and so does St. Paul when he says, "Not the hearers of the law are just before God, but the doers of the law *shall* be justified, for when the Gentiles which have not the law, do by nature the things contained in the law, these having not the law are a law unto themselves." How blessed, then, to think that people may possibly be a law unto themselves. Is not all truth, whether of nature or inspiration, luminous with God's own light, and must it be sanctioned by some clique or convention of men in order to make it Divine? As well might they forbid men to take the sunlight until they had bottled it and handed it over. This toadying to *authority* has rolled the dial of human progress back for centuries. The bugbear of high authority kept Galileo, and Harvey, and Gall, and Spurzheim, and a thousand other reformers and scientists in the back-ground as long as possible. What men need is to come out of their shells, so that they may grow large and cosmopolitan. Let me end this letter with two sentences from Confucius, and a couplet from Tennyson:

"The superior man is catholic, and no partisan."

"The way of heaven and earth is large and substantial, high and brilliant, far-reaching and long-enduring."

"Ring out the old, ring in the new;
Ring out the false, ring in the true."

E. D. BABBITT, D.M.

A SINGULAR OLD SONG.

THE following appeared not long since in the Boston *Advertiser*:

This double-entendre was originally published in a Philadelphia newspaper a hundred years ago. It may be read three different ways: first, let the whole be read in the order in which it is written; second, read the lines downward on the left of each comma in every line; third, in the same manner on the right of each comma. In the first reading the Revolutionary cause is condemned, and by the others it is encouraged and lauded:

"Hark! hark! the trumpet sounds, the din of
war's alarms, [arms;
O'er seas and solid grounds, doth call us all to
Who for King George doth stand, their honors
soon shall shine; [join.
Their ruin is at hand, who with the Congress
The acts of Parliament, in them I much delight,
I hate their cursed intent, who for the Congress
fight;
The Tories of the day, they are my daily toast,
They soon will sneak away, who Independence
boast; [and heart,
Who non-resistance hold, they have my hand
May they for slaves be sold, who act a Whiggish
part; [sings pour,
On Mansfield, North and Bute may daily bless-
Confusion and dispute, on Congress evermore;
To North and British lord may honors still be done.
I wish a block or cord, to General Washington.
P. H. M.

BARBARIC HYGIENE.—The savage, not much by virtue of what he knows, but more by virtue of what he does not know, is, in some respects, superior to the cultivated man as a producer and conservator of life. From below crowd up steadily the inexhaustible preserves of humanity to which we look for a supply of the raw material of man and womanhood. The legitimate object of cultivation is to take the stolid, half-conscious human brute and develop his dormant faculties, unsheath his wings, inflame his susceptibilities, open to him a wider range of pleasure and pain. Superiority must be paid for; refinement weakens; cultivation, carried far enough, means extinction. However, of new, fresh, savage souls to be informed, there is as yet, fortunately, no lack. Barbarism is a kind of natural method of hygiene; with inexorable kindness it wipes out those individuals who are incapable of thriving on its harsh regimen. To nurse along a pack of diseased wretches, keep them alive as long as possible, wring out the last attainable pang, that is not wild nature, that is philanthropic man. G. E. T.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.*—N. SIZER, *Associate.*

NEW YORK,
FEBRUARY, 1876.

HOLIDAY MUSINGS.

THE Christmas festival has come and gone. To the well-to-do it brought occasions for merry-making; they gave gifts to each other; they piled their tables with the good things of life, articles of luxury mingling in the cheer, and many of them made the season a period of revelry and jollification.

To the poor, the season was not without its light and pleasure, as somehow or other Christmas possesses a radiance in its very self which imparts a warm glow to the human spirit, even though previously depressed by sadness. There is a peculiar significance in it which is opposed to everything gloomy, dark, and melancholy. The poor, in cities especially, receive much attention from the well-to-do at Christmas-tide. Public institutions and societies established for the distribution of charity then receive the attention and contributions of the rich and comfortable, and the inmates of Home, Hospital, etc., are made to feel that the world has brightness even for them.

We approve heartily of Christmas festivity, its good cheer, cordial greetings, and good-will. The season should be redolent with peace and good-will, even as He, of

Whom it is commemorative, was the very incarnation of peace and good-will toward men. But there are some features connected with the festival which we deprecate. Many of our very intimate friends and acquaintances are warmly interested in certain churches, Sunday-schools, benevolent societies, etc., and now that the season has passed, we find most of them ill, exhausted, quite unfit for their daily common duties, because of their zealous interest in, and work for, their respective connections. Some of them for weeks previous to the holiday time had been laboring days and nights to procure the means and to prepare the material for a grand dinner, supper, or festival, which should do credit to their church Sunday-school or society. We can not but regard most of the time and strength which they expended as thrown away, wasted; and we are pretty sure, in our own minds, at least, that they, now that time is given them to reflect, look upon the matter in a similar light.

We shall say nothing about the vast amount of over-feeding and gluttony which has characterized, as usual, the festivities just past. Nor is it intended to say aught particularly with regard to the numerous forms of illness which have resulted from such inordinate exercise of the appetite. We leave this part of the matter to the sick ones, and to their physicians—who may be pleased with the harvest of business. We would reflect mainly with regard to the better uses to which the efforts and the money which have been expended could have been applied.

It has been the fashion of keeping the Christmas holidays by a general mode of present-giving. Not only does father or mother select some article as a gift for son or daughter, but son or daughter must needs select some article to give to father

or mother. All very well in its way, were it considered on the part of each giver what sort of an article would be acceptable because meeting a real want. But as the thing is done, the great majority of those making presents pay very little attention to the proprieties which should enter into the procedure. With those who have money in abundance, the value of an article is considered rather than its application. Among the poor, the pinch of want to a great extent compels the consideration of utility, but far too many among them purchase gifts simply as gifts, with but little regard to their application. There is no merit in conferring a favor upon another, whatever may be its money value, unless that favor conduce to the physical or moral benefit of the person favored. Estimating, then, the recent grand season of gift-making by this standard, it may be declared to be a grand farce so far as society generally is concerned.

When we think of the immense benefit which the money expended so prodigally, willfully, wastefully, and carelessly by people of all classes would have yielded had it been wisely applied, we can not repress a sentiment of keen sorrow.

There are so many suffering in the out-of-way walks of penury and sickness, whose circumstances would have been greatly ameliorated by a trifling part of the money wasted upon gew-gaws; so many excellent enterprises could have been permanently set on foot by a little of the means used for the purchase of things altogether unnecessary and unappreciated, that its mal-appropriation can not be regarded as less than wicked.

We believe in giving joy to others; to our children, whom a few well-selected toys will delight far more than a profusion of expensive trifles; to the needy, whose hearts

will well up with gratitude for the practical consideration of their state; but to those in comfortable circumstances what more grateful can we give than our cordial, sympathizing, friendship or affection, which, if a gift be deemed essential to represent it, needs no extravagant or over-costly representation in that character!

GOOD AND BAD ORGANS.

A CORRESPONDENT, who does not take a lugubrious view of human affairs at all, but is disposed to regard the condition of society as progressive and improving in all worthy respects, intimates that he does not quite understand the terms occasionally used by traveling phrenologists in designating some of the organs at the base of the brain. For instance, he hears Destructiveness, Combativeness, Acquisitiveness, Secretiveness styled "propensities," the "lower organs," the "lower nature." This designation he excepts to as indicative of an endowment in human nature of elements low and vicious, and hence that man is made up of *good* and *bad* qualities in certain proportions. He argues that if this be true, a man is bad or good of necessity, according to the predominance of the bad organs or of the good organs.

But we do not admit such a comparison. When man came first from his Creator's hand he was pronounced "good"—*i. e.*, all the constituents of his body were appointed for high and noble ends. And to-day his organization is as well, if not better, adapted, we think, to subserve good objects as then. He has only to strive to "act well his part in life" to do well.

The moral teachings of Phrenology, aside from their physical basis in the nervous organization, are of inestimable value, affording, as they do, definite and comprehensive instruction for the control of strong

"propensity," and for the development of weak sentiment, first, by indicating the reasons for the predominance of undesirable qualities, and, second, by determining the course to be pursued for their suppression or counterbalance.

Phrenology holds that all the qualities, physical, intellectual, emotional, passionate, in the human mind, are good, and essential to the complete man; that inequality or vice proceed from the excess of some organs over others, or from lack of correlation between faculties, or from a perversion of function. A knowledge of the special office or function of each organ is a prerequisite to the accurate analysis of mental action, and the resultant determination of the nature of one's weakness or strength in any given case.



EDUCATIONAL PROGRESS BACKWARD.

DURING the past ten years efforts have been made by those having charge of our public school system in cities and larger towns for the improvement of methods of education, and measures of a really meritorious character have been introduced by discreet officials: but we are inclined to think that in the majority of cases school directors have labored without a substantial basis or aim, in that they have sought to make a show of scholastic accomplishment rather than to place the work of educating the young in such relations as to secure wholesome results. In very many towns the school commissioners or trustees have introduced text-books of the classical languages, and of the advanced sciences like geology, mineralogy, political economy, botany, and of music, drawing, etc. Perhaps, in many instances, such action has been brought about through the influence of teachers, men or women having a pen-

chant for scientific or artistic accomplishment, and who aim to increase their own knowledge in such lines, not caring particularly for the improvement of the youth committed to their charge.

An article in the *National Teachers' Monthly*, brings out somewhat strongly the wisdom of such a course. The writer states at the beginning:

"Practical elementary knowledge was unquestionably the simple idea of the common school system. That simple idea has become a very complex one, and instead of thorough instruction in reading, writing, spelling, arithmetic, grammar, geography, and the history of one's own country, and political institutions, children are coaxed, wheedled, dragged, or driven over every division of science, into which knowledge, speculation, or experiment has been formulated. The course which pupils from six to sixteen years are now expected to pursue with intelligence and profit includes: reading, spelling, writing, drawing, music, German, history, zoology, Latin, botany, geology, astronomy, optics, hydraulics, dynamics, physiology, Greek, geometry, algebra, chemistry, mineralogy, political economy, rhetoric. The mental energy of the child is thus distributed over an immense field, comprising all the accumulations of investigation which mankind has made since the beginning of time. Instead of being concentrated on the chief elements of all knowledge, viz: language and arithmetic, without thorough familiarity with which, honest progress in secondary studies is impossible. The result of the distributive system of instruction is that the children of the comparatively poor, who constitute the large majority of every community, leave the common schools entirely unfit to earn their living with the intelligence and efficiency which might have

been reasonably expected from the number of years they had spent there, and the cost of instruction assessed upon tax-payers."

Those of our readers who reside in towns of large population will not deem this an overdrawn statement; our own experience confirms it. Not long since we were a resident of a progressive little village within thirty miles of New York city, whose public school was the boast of the township. The excellent superintendent, who had given his efforts to the school for several years, not being deemed sufficiently progressive, was superseded by a gentleman from a distant and larger place, to whom a salary of \$4,000 was offered, as a bait, we presume, for his acceptance of the place. With his assumption of the situation a more extensive curriculum of study was proposed and put in practice; not long afterward we were informed that the youths of the school had the advantage of high academic training. Not only the classics were studied, but there was instruction given also in the various "ologies," drawing, and music, and it was expected that the school would turn out youths and maidens of such high scholarship as would do credit to the town and State. At any rate, public exercises were given, during the years we lived in the town, which celebrated the close of a year's session, and on those occasions the young men and young women, styled graduates, aired their reflections upon questions in morals, and science, and literature, through essays or orations, which, of course, were deemed very clever by doting parents and friends. The ambitious youths, doubtless, were puffed up with the notion that the road to wealth was opened before them, but the facility, however, with which they subsided into the ranks of average young people was remarkable. The expectations which had

been raised by their delivery upon the platform appeared also to lapse from public cognition.

Of course, we do not ignore the need of some knowledge being imparted by a school on scientific subjects. Indeed, it is essential to the well-informed man that he possess correct views with reference to scientific questions which have a direct bearing upon our every-day life, in one way or another. The fundamental principles of such departments of science as chemistry, geology, astronomy, may be learned without great consumption of time, but it is not well that even important branches of science be forced upon the attention of a pupil before he has acquired a good knowledge of those branches which are indispensable in every-day affairs. Children should be taught to read well, to write well; they should be instructed in geography, arithmetic, history, and biography, which are important not only as vehicles of information, but also as contributing much to the development of the mind itself. The elements of physiology, also, should enter into the training of a child as soon as he is old enough to understand logical relations. As for ancient and modern languages, some knowledge of them may be desirable, and will be gained by the student who endeavors to obtain a thorough knowledge of his mother-tongue; but they should not be permitted in any way to embarrass the child's acquisition of what is more important to the practical business of his future life. We have a little girl bordering on nine years of age. She is deemed by her teacher "smart" above the average. She comes home from school from time to time, with announcements that Lizzie, or Johnnie, or Sadie, or Minnie has taken up drawing, or music, or French, or German, and she or he is no older than herself, and then follows the

question, very earnestly put: "Why can't I?" and she is not yet out of fractions, not able to write a well-composed sentence, not able to write the geographical relations of the State she lives in. Nevertheless, the teacher would have her study in some æsthetic line, whose fascinating variety would naturally draw the mind of the little one away from more sober subjects. We think that during the first five or six years of a child's school-life the serious attention of the teacher should be directed to instructing the child in what it is important he or she should know. Incidentally a good teacher can not help imparting a great deal of æsthetic instruction. There are intervals in the conduct of every school which furnish not only relief for the child-brain, but turn its attention to things of a refining nature. We believe that a few minutes given to music—singing, is of value in the daily studies; but as for making music a special department, we think it unwise in our common school system, unless a young man or young woman has shown special aptitude for musical accomplishment, and has passed through the common branches.

As the writer quoted states: "Children should be trained for business, not art. If any artist in embryo be among them, he will naturally develop into his intended state," And, further down: "The lack of adequate knowledge of grammar and history has blunted the life of many an able and ambitious mechanic." * * * * "In the United States the children who become mechanics go to the common schools at least for some years, and instead of being taught language and mathematics, with a persistent thoroughness, their precious time is frittered away upon a list of sublime sciences, not one of which they learn anything of that can render them substantial assistance."

THE MUSEUM FUND.

IN another place will be found a communication on the ways and means to obtain contributions to the building fund of the Phrenological Institute. The writer of the article is thoroughly in earnest, and does not permit his friendliness to exhaust itself in mere expressions of good will. His suggestions are of practical importance, and deserve the consideration of all who advocate the principles of Phrenology.

Thus far upward of two thousand dollars have been sent in or promised, so that the undertaking may be said to have a substantial basis. At present the fund is deposited in the hands of the publishers of the PHRENOLOGICAL JOURNAL, subject to the control of the officers of the Institute. They act in co-operation with a Board of Trustees, and, of course, are responsible to that Board in their administration of the affairs of the Institute.

Should the friends of the building movement prefer that their contributions be placed in a different relation, we should be pleased to hear from them in that behalf. The Institute is organized to subserve the purposes of no individual, but to meet a great public need; and it was the aim of its originators, and is the settled aim of its officers and trustees, to make it such an institution that every one feeling a serious interest in the subjects to which it bears special relation might participate in its educational and benevolent work.

To Mrs. Wells, widow of the late proprietor of the JOURNAL, properly belongs the credit of giving the impulse which has set in motion the project of a museum building, and the fact that she will contribute the large and varied collection which enriches the Phrenological Cabinet, besides the valuable and unique library which has been accumulated through a long series of

years, is indicative of her earnestness in the undertaking, and should encourage the ready co-operation of all the friends of the science which makes the elevation of man its study.

The Institute, since its incorporation, has done good work. Under its auspices lecturers and teachers in Phrenology, Physiology, and in other departments of anthropology, have been constantly employed in disseminating a knowledge of their principles. Annually a class has been instructed with the special view to prepare men and women for the field as teachers and lecturers. Free instruction has also been given, and the Museum has ever been open to public inspection.

The reader will find by an examination of the closing exercises of the late session of the Institute, which are given at length in another place, that there is no abatement in the interest shown by the intelligent toward mental science. In fact, the career of the American Institute of Phrenology for usefulness has but just begun; the people have begun to realize that the cause of true Phrenology is as much their own as it is of those who keep its banner unfurled to the view of the world.

We are encouraged by the signs of the times, and are hopeful of an early consummation in the matter of a permanent establishment of a public museum in connection with the American Phrenological Institute.

HOW TO LEARN PHRENOLOGY.

WE made some attempts at instructing people in the principles of Phrenology thirty-five years ago, giving a few lessons to such as would attend, and many to-day express thanks for the opportunity they had so long ago as 1840 to attend a private class in Phrenology. One man writes to us: "It

has shaped my whole life, and given me a power and ease of accomplishment, especially in my intercourse with men, which I never could have obtained otherwise; in fact, it has doubled my power, and more than doubled my happiness."

But those brief courses, and that limited method of instruction, though they have served the purposes of many, do not cover the ground and till it so thoroughly as those desire who wish to make Phrenology a life-pursuit; and, indeed, all professional men who have the human race as the factors upon which and through which they are to work, find a superficial knowledge of Phrenology, though useful, inadequate to the full requirements of their daily life.

For years prior to 1866 there was a continuous call for more thorough instruction. And in response to that call a charter was obtained from the Legislature of this State (New York) in that year, and "The American Institute of Phrenology" was established; and from that year to the present, one or more courses of thorough instruction have been given. The eleventh term closed its session on the 10th of November, 110 lectures having been given. All our facilities for the extended illustration of Phrenology were brought into use. The large collection of busts and casts of heads, representing all grades of intelligence and virtue, from the philosopher and theologian to the idiot and the criminal, and the skulls of animals from the largest to the least, were brought under criticism and review; we had anatomical maps and charts, models and manikins, skeletons, and the human brain itself. The lectures were given not only on theoretical and practical Phrenology, but careful instruction was given on the manipulation of heads and the study of the temperaments. Besides this, we had lecturers who were able to go critically into

the subjects of anatomy and physiology, and our students, twenty-four in number, were intelligent, industrious, zealous, and in a high degree appreciative.

The next session of the Institute will open on the sixth day of July next. We appoint this summer class because teachers have expressed a strong desire to attend a course of instruction within their summer vacation, not being able to attend in the fall or winter. Some ministers could obtain a summer vacation who could not attend at other seasons; students in colleges desire to come, but can not attend college and THE INSTITUTE OF PHRENOLOGY at the

same time. Many thousand persons will be coming to the Centennial celebration next summer on excursion-tickets, at about half-price. During the life of these tickets they can attend THE INSTITUTE OF PHRENOLOGY, and thus accomplish two desirable objects under the expenses of one trip, and that expense at only half rates.

Those wishing information on this subject as to the topics taught, and the books most desirable to be read before entering the Institute, or those who would learn Phrenology at home, will receive a circular on this subject, including the Closing Exercises of the last class, by addressing this office.

AGRICULTURAL HINTS.

Advantages of Drainage.—What are the effects of drainage? Thorough drainage deepens the soil. Of what use is it to plow deep and manure heavily, while the soil is full of water? The roots of plants will not go down into stagnant water; the elements of plant food are not all on the surface, many of them have been washed down by the rains, some of them are found in the decomposing rocks themselves. Take away the water and the roots will find them.

Drainage lengthens the seasons. In our climate this is an important point to be gained. If by drainage, one or two weeks could be gained, it would be quite a relief in our backward Springs, when there is so much to be done in so short a space of time.

Drainage increases the effect of the application of manure; the soil being dryer, is more easily worked fine; the manure is also more evenly distributed. The water also passing through the soil, carries fertilizing matter down to the roots of the plants. When there is stagnant water, manure must decompose slowly, if at all; but let the water pass off, the air is admitted, and decomposition takes place.

What observing man is there who does not know that his crops are improved in quality by drainage? Sweet English grass and clover take the place of sedge and rushes.—*Mass. Plowman.*

A Correspondent of the Philadelphia *Times* says: "New Jersey raises one-half the cranberries in the country. The area under cultivation is about 5,000 acres. The crop for 1873 was some 125,000 bushels; for 1874, 90,000 bushels, and this year the yield is estimated at 10,000 to 20,000 bushels less. This steady decrease in the face of the increase of area is due to the devastation of the rot and scald, which is still uncontrollable."

Official Weather Signs.—In response to a circular sent to all the station observers by the chief signal-officer, asking for the signs preceding storms, Signal Service Observer Dumont has recently sent to Washington a report for his locality, based upon his own observations, and the weather notes which Major Ingersoll has kept for several years, and Foreman Allin's record. After detailing the action of the instruments before storms, the report gives the weather signs by which the approach of a storm is heralded, and these, by the way, are considered more reliable than the instrumental signs. Old weather prophets will be interested in comparing these rules with the maxims which they have drawn from their own observations. We append the signs:

1. As a rule, if the wind touches northeast or east for two or three days, it is a sure indication of rain.

2. Dense smoke and haze in early morning portend falling weather.

3. Summer showers of light character often follow two or three days of smoke or haze.

4. Fog, frost, and dew precede rain twenty-four to forty-eight hours, except fog at close of storm.

5. Wind veering from north or west to south and southeast precedes falling weather.

6. Halos, lunar and solar, also fairly defined and brilliant auroras, precede rain twenty-four to sixty hours.

7. Barometer rising or falling considerably away from its mean, forebodes falling weather, subject to modifying influences of the neighboring ranges of mountains and hills.

8. Precipitation generally follows a rapid influx or reflux of atmosphere.

9. If wind is in the southwest and rain sets in, the rain is of short duration and light yield.

10. Banks of watery clouds or heavy haze on south and southeastern horizon indicate rain.

11. An area of low barometer at or near Fort Monroe and running up the coast surely reaches here as a northeaster.

Length of Roots.—According to that excellent authority, the *Country Gentleman*, Prof. Beale, of the Michigan Agricultural College, furnishes the following interesting facts, mostly the result of his own examinations, in relation to the length of roots in plants and trees:

The soil has to do with the length and number of roots. In light, poor soil, I find roots of June grass four feet below the surface. People are apt to underestimate the length, amount, and importance of the roots of the finer grasses, wheat, oats, etc. Some roots of clover and Indian corn are large enough to be seen by every one on slight examination. A young wheat plant, when pulled up, only shows a small part of its roots. They go down often four to six feet. It needs very careful examination to show that clover and Indian corn have any more weight of roots than June grass. They probably do not contain more.

The roots grow best where the best food is to be found. They grow in greater or less quantity in every direction. If one finds good food, it flourishes and sends out numerous branches. Many of the smaller roots of

trees die every autumn when the leaves die, and others grow in spring. Near a cherry tree in my yard was a rustic basket without a bottom, filled with rich soil. On removing the basket and earth, cherry roots were found in large numbers near the top of the soil. They had grown full of small branches where the soil was good. Roots in soil will grow up just as well as down, and do this.

The hay crop of New Hampshire is estimated at \$10,000,000; the corn crop, 2,000,000 bushels; oats, 1,500,000; garden crops, \$1,000,000; butter, 6,500,000 pounds; milk sold, 3,000,000 gallons.

The Crops of 1875.—From the agricultural reports we learn that the corn crop of 1875 was one of the largest ever grown in the country, probably equalling the very large crops of 1870 and 1872. It is at least a fourth greater than the crop of 1874, and about a third larger than the crop of 1869, reported in the last census. Every section of the Union reports some increase. The potato crop is extraordinary, in both product and quality. The total yield in the district reported is made fully one-fourth greater than last year. In the rainy sections the sweet-potato crop suffered in yield and quality from excessive moisture. In the Gulf States and west of the Mississippi, the yield largely exceeds that of last year, and the quality is about average. The cotton crop is estimated at 4,000,000 bales, and will possibly slightly exceed that amount. Tobacco, we regret, shows an increase of 75 per cent. over that of last year, which was a partial failure. Fruit of nearly all kinds is reported a light yield. There is an extraordinary increase in the sorghum crop in the Southern States, and especially in the Mississippi Valley.

One of the cardinal principles of the Grange is to buy nothing you don't want, and nothing you can't pay for. No man, always living up to this principle, ever died in the poorhouse.

Mr. Vick says in his *Floral Guide* that ten drops of carbolic acid, to be obtained from any of our druggists, put in a pint of water and poured on the earth in flower-pots, will destroy all earth worms, which do so much damage to the plants. A trial will satisfy all of its beneficial effects.

Our Mentorial Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

GETTING FAT.—Please inform a devoted reader of your valuable JOURNAL what I can do to stop getting so fat. I am twenty-four years of age, five feet six inches tall, and weigh 160 pounds. My parents are fat, and I have always been; I am engaged mostly in mental labor?

Ans. All animals which live on grain get fat if they are healthy and have enough to eat, because the grain is full of starch, which is converted into sugar. On the other hand, all the animals that live on flesh meat, from the lion to the weasel, from the eagle to the smallest hawk, never get fat, no matter how much they may have to eat. If you will avoid starch-bearing articles mainly, making your diet mostly of lean beef or mutton, with a little Graham bread, or potato, turnip, or other coarse vegetable, with tart fruit, avoiding the sugar, butter, or other fatty matter, you will become as lean as you ought to be.

J. L., NEW ZEALAND.—The temperaments as stated, and the organs as marked in your letter, indicate favorable conditions for a conjugal union. We will put on file the letter containing the marking of the organs, and if you choose to order the "Mirror of the Mind," it will tell you what likenesses and measurements of head, etc. are required to write out the character of each in full, and decide confidently as to conjugal adaptation.

IT CAN BE DONE.—A correspondent inquires if he can obtain an examina-

tion and description of his character by means of likenesses, measurement of head, etc., which will be nearly or quite as reliable as would a personal examination, in regard to the true disposition, adaptation of parties in marriage, choice of occupation, etc. To this we may say, that quite frequently we receive the strongest indorsement of our success in these respects. From among several letters on the subject, now before us, we select one from the Far Northwest, as follows:

WINNIPEG, MANITOBA, Dec. 1st, 1875.

S. R. WELLS & Co.—*Gentlemen:* I received the description of character Nov. 10th, which you made from my likeness, and will state with confidence, as far as I am able to judge of myself, that your description of me is wonderfully correct and satisfactory. I am fully convinced of your ability to describe character from photographs, and feel very much pleased with mine. I believe every one who intends studying for a professional career would do well to consult you. I have two brothers who are studying professions, and I advised them to consult you, which, by the by, they intend to do.

Yours truly,

N. F.

WINE AND TOBACCO.—"I know a minister who boasts of being a fanatic in temperance, and gives from the pulpit and from the rostrum terrible scathings to those who drink wine, even in sickness, yet he uses wine at the sacrament, administering it to men whom he knows to be reformed drunkards, with the old appetite not dead, but simply sleeping. At the same time this same minister uses tobacco excessively, so that his presence is very offensive to those who do not use the weed. What is your opinion of the consistency and influence of such a man?"

Ans. If that minister or any other person of similar belief and practice were to consult us on the subject, we should approve his temperance principles, though we might suggest to him a gentler way of stating his case. We would advise him, also, and all other ministers and churches, to use wine for the sacrament which had not been fermented. The juice of the grape could be canned the same as strawberries and peaches, and be kept for years in a cool place for sacramental use. Thus it would be the pure juice of the grape without fermentation, and it would not set on fire the appetites of those who had reformed, nor create an appetite in those who are liable to become intemper-

ate. And as to the use of tobacco by a minister or a parishioner, we think it is a very bad habit, detrimental to health, a libel on cleanliness, and a great offence to a large number of decent people who have never learned the habit, and every day we professionally advise men to quit its use, or if they have not adopted it, to avoid it.

PLEASE inform me through your JOURNAL whether John Bovee Dods, who wrote some of your works on magnetism, electrical psychology, is still alive?

Ans. Mr. Dods is not among the living; he departed this life a few years ago. We are not aware that he altered his views with regard to the nervous fluid. We presume, as he made no special effort to revise his work, that he did not deem it necessary or expedient to modify his utterances.

PEACE-MAKER GRANGE.—We have received several inquiries from readers who appear to think that this series of sketches relates to a real organization. The writer has certainly striven to make real his views on the proprieties which should enter into a true co-operative body; so far he has succeeded well. The views expressed are by no means Utopian, and we know no reason or obstacle why an organization should not be formed embodying just such principles and practices.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

SAYINGS FROM THE CHINESE.—1. Dig a well before you are thirsty.

2. The ripest fruit will not fall into your mouth.

3. Great wealth comes by destiny; moderate wealth by industry.

4. The pleasure of doing good is the only one that does not wear out.

5. Water does not remain in the mountains, nor vengeance in great minds.

6. Let every one sweep the snow from his own door, and not busy himself about the frost on his neighbor's tiles.

EVERY to-morrow has two handles. We can take hold of it by the handle of anxiety or the handle of faith.—*James Freeman Clarke.*

THOUGHTFULNESS for others, generosity, modesty, and self-respect are the qualities which make a real gentleman or lady, as distinguished from the venerated article which commonly goes by that name.—*Prof. Huxley.*

THERE are errors which no wise man will treat with rudeness, while there is a probability that they may be the refraction of some great truth still before the horizon.—*Coleridge.*

MASTER books, but do not let them master you. Read to live, not live to read.—*Caxton.*

FIRMNESS, both in sufferance and exertion, is a character which I would wish to possess. I have always despised the whining yelp of complaint, and the cowardly, feeble resolve.—*Burns.*

FLATTERY is an ensnaring quality, and leaves a very dangerous impression. It swells a man's imagination, entertains his vanity, and drives him to a dotting upon his own person.—*Collier.*

I THINK I restrict myself within bounds in saying that so far as I have observed in life, ten men have failed from defect in morals where one has failed from defect in intellect.—*Horace Mann.*

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

IN a Broadway shop window is displayed this notice: "Boy wanted; that has fully rested himself, and is not too intellectual."

"SAID a distinguished politician to his son: "Look at me! I began as an alderman, and here I am at the top of the tree; and what is my reward? Why, when I die, my son will be the greatest rascal in the city." To this the young hopeful replied: "Yes, dad, when you die—but not till then."

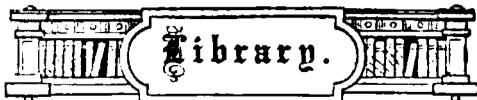
BOIL IT DOWN.

[There is a well-known poem, by Darby Dodd, on "Boil it Down," of which the following verses are worthy of being read carefully:]

"When writing an article for the press,
Whether prose or verse, just try
To settle your thoughts in the fewest words,
And let them be crisp and dry;
And when it is finished, and you suppose
It is done exactly brown,
Just look it over again, and then
Boil it down.

"For editors do not like to print
An article lazily long,
And the general reader does not care
For a couple of yards of song;
So gather your wits in the smallest space,
If you want a little renown;
And every time you write, my friend,
Boil it down."

"WHAT's the matter, Uncle Jerry?" said Mr. —, as old Jeremiah H. was passing by, growling most furiously. "Matter!" said the old man, stopping short; "Why, here I've been lugging water all the morning for Dr. C.'s wife to wash with, and what d'ye 'spose I got for it?" "Why, I suppose about ten cents," answered Mr. —. "Ten cents! She told me the doctor would pull a tooth for me some time."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

THE BERTRAM FAMILY. By the author of "Chronicles of the Schönberg-Cotta Family." One vol., 12mo; pp. 336; muslin. Price, \$1.50. New York: Dodd & Mead.

It seems written from the heart, and has many heartsome sayings that would do to adopt as guiding proverbs. It is a very simple story, and simply told, beginning with "Chapter I.," with no introduction or preface or table of contents, and closing with "The End." It purports to be the story of a family, and taken from note-books of the different members, each telling something of their own history and something concerning the different individuals forming the family and their relations, as well as people with whom every-day circumstances bring them in contact. Maurice is a parochial pastor of the Church of England. Grace is his wife. Their children Margaret, Austin, Eustace, Walter, Monica, the twins Dorothy and Dora, and May, make a large family for a minister who is poor in worldly goods, and constantly brought in contact with the poor of his flock, who often made great drafts for sympathy upon his responsive benevolent nature, as well as taxed his wisdom when in need of advice and assistance. Grace assisted him, and at the same time revered him, and brought all knotty questions for his solution. Father's views were always accepted unquestionably by the children, who held debates, discussed such subjects as presented themselves, whether on ethics, politics, polemics, or religion, in a room called the "Long Parliament," thus fitting themselves to take positions of influence when they became men and women. After twenty years of happy life together, Grace was called to the trial of living without Maurice. He fell a victim to cholera after watching with, and laboring faithfully for, his poor people, till the terrible scourge had made its havoc and nearly subsided. Then came the necessity for the different members to scatter, to go and assist in other families as teachers, or to various businesses, all of which tended to exhibit in its true light the characters they had been building up, and in all they did not forget the wise counsels received from their father, nor the mother who had lost

her companion. Walter went to the Indies, and became a magistrate. Dorothy and Monica became wives of men of wealth, position, and education, had homes and children of their own. Grace lives with and assists Winifred, sister of Maurice, who opened a small cottage for orphan girls, then one for boys, then a convalescent home, then a home for those who gave themselves up to do the work for these homes, and so on, the work grew and had branches, and trained nurses, teachers, deaconesses, who went to help in other positions, hospitals, and the like.

FASCINATION; or, The Philosophy of Charming, illustrating the Principles of Life in Connection with Spirit and Matter. By John B. Newman, M.D. 12mo; cloth; pp. 176. Price, \$1.25.

The demand for works furnishing information with regard to those mysterious influences which are exerted by one mind upon another appears to be on the increase. Mystery is ever attractive, especially when it relates to the evident control which some men have over others, despite the unwillingness of the others to be swayed. With regard to the causes which underlie this power, the book above entitled claims to furnish much information. Ten chapters or conversations cover the field which the author had in view. The volume, it is needless to say, is very interesting. Numerous illustrative incidents from life contribute much to its readable as well as instructive character.

HOUSEHOLD ELEGANCIES. Suggestions in Household Art and Tasteful Home Decorations. By Mrs. C. S. Jones and Henry T. Williams. Large 8vo.; pp. 300; fancy cloth. Price, \$1.50. New York: Williams.

Our lady friends, and all who are given to avocations tending to gladden their homes, will welcome this new book. Abounding with careful descriptions and precise directions relating to hundreds of beautiful devices from transparencies on glass, the preparation of autumn leaves, the cutting of wooden brackets, the manufacture of picture frames, to the weaving or knitting of mats, tidies, etc., it is capably adapted for a holiday gift. A glance through its pages has astonished us, showing, as it does, how much can be done by one of taste with a little leisure from time to time toward decorating the interior and exterior of a house, and with but a trifling outlay of money. The plainest room may be lightened and brightened by earnest hands aided with this book. Nearly all the recipes and suggestions are accompanied with excellent illustrations.

LADIES' REPOSITORY, for January. This is a good beginning for Volume XXXVI. of a veteran magazine. Our Methodist friends may justly take pride in the manner of getting up exhibited by this monthly.

MR. MACKENZIE'S ANSWER. By Faye Huntington. One vol., 16mo; pp. 361; muslin. Price, \$1.25. New York: Nat. Temp. Pub. House.

This is a story representing a family of wealth, intelligence, and high social position, also church members, and leaders and supporters thereof, while at the same time they are leaders of fashions, and the younger members attend balls, parties, and the theatre; and all the accompaniments of such a life make it necessary for Mr. Mackenzie to "grind the face of the poor." The frontispiece represents that kind of a scene. At their receptions of friends, New Year's calls, and so on, the best of wine is offered to their guests, some of whom have not sufficient self-control not to be injured thereby, and this story tells the results in a lively, appreciative manner.

At vacation the son, Dudley, brought home a chum, Lewis Fenton, who lived with, and was being educated by, two maiden aunts, they three being the only survivors of a good and noted family. The elder daughter, Emily, is to be married in a few weeks to Mr. Richards, who begged his *fiancée* not to offer wine to callers New Year's, but she did it without knowing his danger. At first he refused, but being urged by her he took it. Having tasted it he could not deny himself, and having fallen into his old habit for one day, she would see him no more. The effect upon her was very serious, terminating in her death before the year passed. Her younger sister, Delia, brought with her to spend vacation the daughter of a clergyman. She was a very serious-minded young lady, but became so accustomed to frivolities while in the family of reputed Christians, that she could not easily rise above their influences. Several young gentlemen visiting for a day or night deemed it improper for them to refuse wine at dinner while accepting the hospitalities of the house, and neither were they able to rise above its effects. One of the young men fell or was thrown from his carriage and killed while on a fishing and hunting excursion with other young men, all of whom were so drunk they did not know how it happened. But even this did not prove enough of a warning to prevent their continuing their career. Dudley, being a Mackenzie, was more sensible and self-controlling, but incurred his father's lasting displeasure when he announced his conviction from what he had seen of wine drinking and its effects that he should sign the pledge and preach total abstinence, and finally became a Gospel minister.

MAGAZINES AND PERIODICALS RECEIVED.

VICK'S FLORAL GUIDE FOR 1876. Published quarterly by James Vick, of Rochester, N. Y. Price, twenty-five cents a year. This beautifully prepared and printed pamphlet deserves the hearty welcome of every household. It is full of

matter interesting to those who pay any attention to the growth of flowers. It is profusely illustrated, and that, too, in an exceedingly artistic manner.

NEW YORK SCHOOL JOURNAL, and Educational News, edited by Mr. A. M. Kellogg, has much improved in matter and style, and represents well the important interests to which it is professedly devoted. Teachers generally should give this paper a cordial support, especially as the editor has had a long experience in the school-room, and understands the subject of American education in its various phases. Published at \$3 per annum.

NEW YORK ALMANAC FOR 1876. Edited by James M. Hudson. This neatly-printed and handsomely illustrated almanac is issued by the authority of the N. Y. Life Insurance Co. The astronomical matters are full, and adapted to the customary uses.

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS FOR 1876. Prepared by Luther Tucker & Son, publishers of the *Country Gentleman*, Albany, N. Y. As usual, this new agricultural annual is replete with interesting and valuable matter. It includes an almanac with full astronomical calculations. Illustrations are numerous. Price, thirty cents.

THE UNIFORM TRADE LIST. An Annual Embracing the Full Book-Lists of American Publishers; with alphabetical indexes to the principal books of each publisher represented. This extensive work is indispensable to the book-trade. It contains the American Catalogue for 1875, in itself a very important feature. Issued from the office of the *Publishers' Weekly*, New York.

THE HARVARD UNIVERSITY CATALOGUE FOR 1875 AND 1876. We have received a copy of this voluminous and really interesting document from Mr. Cheeley, a graduate of the Phrenological Institute, now at Harvard. It is the evident aim of the officers and faculty of this university to advance its standard of scholarship and usefulness. The curriculum of study is elaborate, and its list of professorships long, and fully commensurate with the curriculum.

AMERICA'S ADVANCEMENT. This is the title of a new work announced by Messrs. Virtue & Yorsten, in preparation by C. Edward Lester, a well-known writer who has been engaged for some time back upon publications of a somewhat similar character. The aim in publishing this work is stated to be: The setting forth of an appropriate phraseology, and with appropriate illustrations, the progress of the United States during the past hundred years or more. The advance sheets certainly promise an admirable affair so far as typography and illustrations are concerned.

American Institute of Phrenology; Class of 1875.

Closing Exercises, Wednesday Evening, Nov. 10.

THE Eleventh Course of Instruction in Phrenology, Physiology, and Physiognomy concluded its sessions on the 10th of November. More than one hundred lessons were given to a class most industrious, zealous, and appreciative. All our facilities for the extended illustration of Phrenology, human and comparative, were brought into requisition; our large collection of busts—casts of heads of every grade, from the philosopher to the idiot, the highly moral to the most depraved, with human skulls from every part of the world; the skulls of animals, from the bear to the weasel, from the eagle to the humming-bird; also anatomical maps and charts, manikins, models, and skeletons were in constant use as sources of instruction and illustration. Dissections were made of the human brain, the organ and source of all mental power. In no other place, and in no other way, can there be found so much material and such ample facilities for acquiring a practical knowledge of anthropology as in this collection.

We give, below, the concluding proceedings of our late session, which were of a most pleasant and interesting character, as reported by Joseph Plaut, Phonographer.

MR. SIZER'S ADDRESS.

STUDENTS of the class of 1875: We meet to-night for the 110th time, and we meet now to separate, bodily at least, though we trust not mentally. We have been earnestly laboring to learn all that belongs to the history, the power, the hopes, and the destiny of men. We have not been studying mere insect-life, nor animal-life, except so far as it may illustrate the science of human life. Our special field of investigation takes hold of the best and highest realm of God's creative wisdom. We have not been contemplating some partial, some fragmentary subject, unimportant in its drift and scope, but we have been studying that which ranks, or ought to rank, as the highest topic of human inquiry. Our subject is comparatively a new theme, yet it is a very old one. Men have groped for many centuries after a knowledge of human nature, for some means of studying and knowing it, but for the most part they have groped in darkness, and the results of their investigations have served to mislead rather than to lead men in the right path.

Less than a hundred years ago, the first lecture was given on the brain, as the seat and source of human thought. Less than a hundred years ago men did not deem it true that the mind is located in, and employs as its center, the organ called the brain. Some claimed it was in one part of the system, and some in another; and even to-day we hear learned men using terminology that has outlasted its significance. Occasionally we hear assertions from the pulpit that the heart is the seat and source of thought, and they tell us that the heart, and not the head, should be investigated if mind and character is to be learned. When Dr. Gall proclaimed to the world that the brain is the seat of mind, that every human thought, every affection and passion, every fear, and hope, and aspiration, finds its root in the brain, there was a vast step made in the progress of inquiry, in regard to human character, knowledge, and power. And from that day to this the world has been yearning after more truth in regard to men.

We have endeavored in this course of instruction to spread before you all that is laid down in the books on the subject, and all that we have found to be true re-

specting it in a somewhat long experience. More than a third of a century has passed since some of us, your instructors, have been laboring in this great realm of inquiry, and we have endeavored to pour out before you, and explain in detail all that we have been enabled to learn in regard to mind as it is connected with human and animal development. You start to-day on a plane higher perhaps than any other similar class of students. Systematic instruction in Phrenology is a new thing. It is but a few years since a mere smattering in the way of instruction was attempted to be given. It is now the eleventh time we have had a class of students who would sit down, and for more than a hundred consecutive lessons listen by the hour, or two hours at a time, to the minutia of organic development and its relation to mind. You have followed us through these investigations faithfully, and listened to us with an attention and a criticism which does you credit, and thus we have attempted to give you systematic instruction, and to cover the whole ground, to plow the field, and to cross-plow it, so that you may know whatever we have been able to teach you with the aid of all the material we have gathered, and all the experience we have acquired.

When we commenced, we had few books and very little material to aid us in studying. We had to work our way, as it were, in the dark. We had a few volumes, to be sure, from the learned masters, but we had no instructors, and were obliged to find out the practical part as best we might, and we must have made a great many mistakes, and stumbled in our endeavors to learn that which is true of man according to Phrenology. We hope that the mistakes are fewer than they used to be, and we are sure that yours will be few compared with ours, for you start to-day on a plane very much higher than that which witnessed our early efforts in this path of knowledge.

In view then of the opportunities which you have had to enter this great field, you may well stand and survey the ground that lies before you, and look back and see the ground that has been passed over by others. You are to-day equipped with information on Phrenology, on Physiognomy, and Physiology, not only that which relates to man, but you have also been instructed

in comparative Phrenology. We have shown you skulls, casts, portraits, and drawings of animals and of men; of animals of rank and power from that of the great polar bear down to the weasel, and from the eagle down to the parlor song-bird. We have invited your attention to all that goes to illustrate this subject, not only in men, but in the lower animals, and we have seen that, so far as Phrenology may be studied in reference to them, in their several gradations, as we rise up toward the more intelligent, the science is proved in every instance. When we come to the study of man the same law holds good; we examine the lower tribes of the earth, and the lower types of each nation, and so gradually ascend to the highest ranges of human development. The same law of organization and faculty follows even from the lowest reptile up to the highest human intelligence. Not that one is developed out of the other, but there are infinite gradations, each grade occupying its own place, each grade manifesting its own intelligence, according to its own organic structure; and thus, when we reach human life, we find the low Bushman, the Hottentot, the African, the Indian, and the varied types of white men running up grade after grade, exhibiting a beautiful harmony in their development of brain and character, according to the spirit and principles of Phrenology.

As organization can, by culture, be improved in volume, in quality, and power, our subject lays the foundation for education, reform, and progress, by which all tribes and individuals may be steadily elevated in intelligence and virtue. This profession, then, is an important one, and you need not feel abashed when you stand erect, and say, "I am a Phrenologist!" There may be some who, finding that they have been educated without obtaining a knowledge of this subject, it not having been included in the curriculum of their studies, may look up and inquire whether "any of the rulers or the Pharisees have believed" in it. Old men are slow to accept new truths. We have to engraft new and choice scions on young stocks, not because they are "green" or ignorant, but because they are full of vitality, and not loaded down with worthless limbs that they can not afford to lose. It is not expected that learned grey-heads who occupy positions of honor and profit in our colleges and seminaries of learning, are going "to step down and out," and willingly permit young men to come into their places to teach mental philosophy. Gentlemen, you are able to teach mental philosophy. There is not a mental philosopher in any college from Maine to Texas who, except through Phrenology, knows half as much of human nature and the laws of mental action, as you to-day understand. And though they may turn the cold shoulder upon you, you can turn for willing and eager pupils to the young men. People under forty years of age will listen to you. Occasionally a man is wise enough when over forty years of age to appreciate a new truth and adopt it. But remember, that you, unlike these teachers of mental philosophy, are able to take a stranger, or take the skull of a stranger, and reveal his character and the workings of his mind. All the mental philosophers, from the earliest days down to the present time, have not been able to do that, have not dared to try to do it. But you can do it. You are able to read the stranger, or the stranger's skull which has been in the catacombs for a thousand years. Its signs of character live still in this empty dome which once contained the living soul. When you look at that skull, you are

ready at once to estimate the forces of his mind, the strength of his aspirations, and the depth and outreach of his intellect. Phrenology enables you to do this. That in this you stand alone in the world. As Phrenologists we have a system of reading mind which is based on nature. And in this we have no rivalry.

Therefore we ask you to stand erect and look the world squarely in the face, whether it smile or frown, and remember that you must stand by the truth, that you are to teach the truth, that you are to spread and disseminate this truth throughout the land.

We rejoice to know that our students of the present class represent the length and breadth of the country, that our cousins of the North annually send their representatives across the St. Lawrence, and we give them a warm welcome, and expect that the time is not far distant when every State in the Union, as well as the British Provinces, shall be represented in every class we instruct. We have no doubt you will do credit to the subject, to yourselves, and to those who have had the honor of contributing to your education in this important branch of knowledge.

Finally, we do not and would not forget the affections and courtesies which are due to the past. We have before us the bust of our old, beloved friend, Mr. Wells, and it is pleasant to think his gentle spirit broods over these proceedings with sympathy and listens approvingly to our words.

DELIVERY OF DIPLOMAS.

I am instructed by the Officers and the Faculty of the American Institute of Phrenology, to present to each of you a diploma indicating your membership with us, the course of instruction and training you have passed through, and the approval you have earned from those who have been your teachers. May it be to each of you an introduction and indorsement wherever you may go.

I hold in my hand a diploma for Elijah M. Adams, of Missouri. His first name and his last are certainly not without honor and distinction. Elijah is a good old name, and Adams, if we may drop the S, is as old a name as any in history, but with the S, it is an honored name in America; and we present the diploma with the hope that he may not shame the name of Elijah, the name of Adam, or the name of Adams. Mr. Adams, we welcome you, and bid you "God-speed."

Miss Eliza Constantine of New Jersey, not the first woman who has been with us in these investigations—we trust it will not be the last, and we hope her name may suggest the constancy and steadfastness, with which she will labor in this cause, and we may hope with confidence that her success shall be eminent.

A. A. Constantine, of New Jersey, a minister of the gospel, a missionary, a man who has been more than half around the world to preach the truth to the people who needed it, we welcome him (we will not say at the eleventh hour), at the age of sixty-three years, who seeks to add to his stock of learning the knowledge that relates to Phrenology. Though he comes partly to be company for his daughter, and to assist her in the work, we hope to hear his voice as an able advocate of the new mental philosophy.

Benjamin Gillis, of Missouri, a native of Germany, a country which likes Phrenology, and has not forgotten her honored son, the discoverer of Phrenology, who is our pioneer in this great work. Mr. Gillis is not the first of her sons who has favored us with his presence. The German mind is metaphysical; it likes study, and seeks to find out the truth and prove all things, and, we

doubt not, our friend having proved the truth as it is represented in Phrenology, will hold fast to the end and make himself a master worthy of his great countryman.

John Boyd Espy, from the good old State of Pennsylvania, which is eager to learn about Phrenology. Her broad expanse is a good field for lecturers. Her sons and daughters are interested in the subject of Phrenology. Mr. Espy, we trust you will be able to make your mark, and show us that the name you bear has to do with peace on earth, quite as much as with the "storms" in the heavens.

H. J. Olney, of Michigan, a man young in years and strong in health, with a vigorous brain and compact constitution, comes to us representing that young State of Michigan, which has before given us four students, including Duncan Macdonald who has become widely known in the West and Northwest as a very successful Phrenologist. Your name belongs to the realm of education. Olney, of geographical fame, was known to us in childhood, and we trust that your name may be as widely known as his by devoting yourself to a different field from that of the Geography of the Earth, viz., the Phrenology of Man.

R. J. Duncan, of Texas, earnest in purpose, well-read in the lore of Phrenology, clear and sharp in mind, we doubt not he will deserve and win success.

Henry Young. Ohio has done wonders for herself in more than one respect. She has sent several hard-working, strong young men to take instruction in Phrenology. Ohio is an excellent place to lecture and we hope that it will be left pretty much to the Ohio students. If that field be well-tilled, it will as readily yield a harvest in this as it does in many others.

David F. Bacon, of New Hampshire. He may be less philosophical than his great namesake, yet he has a sharp, practical mind, an ardent love for Phrenology, and a spirit of industry worthy of success.

Benjamin F. Pratt. A significant signature. It suggests research, progress, investigation, and world-wide honor, and we hope he may render to his fellow-men his full share of these benefactions, that they may give him their benedictions.

James Ackland. If he can bring that intellectual, logical, critical mind of his, full of wit and imagination as it is, to bear strongly on this subject, we expect he will be well and widely-known in his native country, Canada. Mr. Ackland, we bid you welcome.

E. E. Candee, of Central New York. A faithful student in the Class of '73, he is with us for a second term to re-impress the subject, and prepare him the better for his life-work.

William Muogrove, of New Hampshire, born in England, but adopting the United States as his home, we welcome him to this field of effort. Not a foreigner in the investigation of truth, but a brother, we hope he will help to gather the harvest which is already waiting the reaper's hands.

Howell B. Parker, of Georgia. Thus, at a single leap, we come from New Hampshire to Georgia, the most Southern State when the Union was formed. We welcome Mr. Parker, young in years, ambitious, earnest in mind, with pride, self-reliance, energy and force of character, and with a long and blessed life before him. We know how much opposition he has overcome in order to be here, and therefore we give him both our hands in cordial welcome, and wish him to remember that we stand behind him hereafter, as well as we may to back him up, as we do the rest of you, in all that is

good, in all that is true and noble, in support of this great cause.

Elva P. Gause of North Carolina, not the first friend who has taken up Phrenology. Lucretia Mott is a good friend of Phrenology, and was a warm friend and supporter of the late George Combe while in this country. We welcome one who is a preacher, a friend by religion and a friend by social ties. Especially do we welcome woman to this glorious cause, and beg to say here that no man can teach Phrenology so well as woman. We want to see a hundred women, strong in intellect, strong in body, teaching and practicing our noble science, wherever there are mothers struggling to guide wayward sons and daughters to honor, success, and a blessed immortality. As woman is the best nurse and the best teacher, so she may be the best Phrenologist. We hope that in preaching Phrenology, you will have all the blessings of a beneficent providence.

H. E. Hambleton, of Ohio, another scion of that noble State. We hope that you, as well as the other Ohio brethren, will so plow that field that it may bring forth a harvest that shall do honor to yourselves, and confer blessings on the people.

Ezra Wiest, of Pennsylvania, of German stock, with a sturdy strength of mental development, indicating power. We trust you will be able to secure such success as shall rejoice you and your friends to the latest day of your life.

Ralph Rogers, of Tennessee, with a firm and compact organization, and a head rising high enough in the region of the moral sentiments to give him status among men of thought and high moral purpose, we expect he will do honor to science, that he will work to lead men upward and leave them better than he found them. We shall hear good news from Tennessee.

M. W. Alderson, of Montana. The geographies and atlases of this country have been often revised, and the Great West which was in our younger days a *terra incognita*, has become a beautiful garden. She sends us a son with a pleasant countenance, and winning disposition. He will, with his long life before him, undoubtedly win position and high success. Mr. Alderson, the son of a minister, you are now to become a preacher yourself.

Charles Holt, of New York, is able to speak for himself. We bid him a cordial welcome, and assure him, and the class, that we expect to hear a good report from him, wherever he may go. Clear-headed, fine-grained, enthusiastic, intense, he has no business with anything but success.

Elisha E. Bonham, of Illinois. We recognize him as a good thinker, a sharp observer, ingenious, persistent and as having talent to succeed in almost anything to which he may devote his attention. He has succeeded in his scholarly endeavors so far as he has had opportunity. Now he comes to take up a new topic, and add it to his other acquisitions.

Wallace Davis, of Pennsylvania. That name has a strong smack of the Scotch and Welsh. The Scotch and the Welsh are among the best people that come to our shores. They are very fond of Phrenology, and wherever you find a Jenkins, a Davis, a Jones, a Thomas, or an Evans, you may expect a good patron. Mr. Davis, we welcome you, coming from Pittsburgh, where people work and think. Success will attend you.

Oscar D. Wood, of New Jersey. We trust, Mr. Wood, in changing from the trade "the Great Master" followed, will find his efforts will be worth more to mankind, than any other vocation could have been.

Montague Brettell, of Ohio, a man of fifty years having had the experience of study, and thought, and labor in various good causes, comes and joins hands with us in the promulgation of Phrenology. He is well-informed and has an organization that deserves success. Deeply imbued with the spirit of this subject, he takes upon him its labors, and our hope gives him its emoluments. And thus we close this interesting part of our entertainment.

ADDRESS OF MRS. WELLS.

"God established all laws, and it is for us to find them out." Thus wrote to me a lady of thought and high moral tone. It is for you to learn these laws, and "to prepare the way of the Lord and make His paths straight." We do not know what is before you any more than you do, but some day when Mr. Sizer and I are here no longer, Mr. Drayton may wish to call some one or more of you, to assist him in carrying on this institution. Who among you will it be? I want you to preserve your health, cultivate your talents, make the most of yourselves, and be ready for the call. Learn all you can, not only of Phrenology, but also that worldly wisdom which is needed in this life. As I told you the other night, if this work is of God, as we believe it is, it will succeed, and it will be better to be found laboring to promote His objects.

Owing to the fact that Gall and Spurzheim were driven from Germany on account of their new views upon the brain and mind, they did not publish as much as one book in their native tongue. Instead of that, all that they published appeared in French and English, Spurzheim came to America to disseminate Phrenology, and gave an impetus to the reading of phrenological books in this country, and this was the remote cause of our being assembled here to-night. That which seemed an evil to them was made a blessing to us, and widened their fame and the sphere of their usefulness.

As you go out from here, improve every opportunity to teach these beautiful truths, and thus help people to live higher and truer lives than they otherwise would—help to elevate them, and especially help women. Teach Phrenology to mothers and teachers, and tell them how they may use it in training children. For there, in the families and in the schools, is where it is most needed, and where it can be made most useful. Encourage even children to learn it, for they learn it more easily than adults.

You have been with us so long that we feel you are a part of us, and belong here, and it is hard for us to give the parting hand, and say farewell; yet we realize you must be up and away on your mission. Put all your power and energy into the work; do not falter, do not stop to be discouraged. As lecturers, you should learn to acquire a personal magnetism over your audiences, and those with whom you come in contact, and thus attract them to you and to your subject. Do this by constantly thinking of others, and how to benefit them—think of yourself last.

As you travel and lecture, there will be always one or more who will attach themselves to you, to listen to every word and lecture, trying to gain all the knowledge they can, and they will do almost anything for the sake of being near and being permitted to learn. When traveling with my brother, there was always some one who liked to be around to make himself useful, and pick up the crumbs of knowledge that were constantly dropping. Adopt such, for the time, and give them something to do. They may sell books, obtain subscri-

bers, hunt up patrons, and talk up the subject, especially if they have large Language.

Mrs. Wells then read letters of former students respecting their welfare and success as teachers and disseminators, and their continued love for the science; also some encouraging newspaper notices concerning them.

ADDRESS OF MR. DRAYTON.

Members of the Class of 1875! Fellow alumnae and alumni: The session of the Institute for this year is about to close. Not many weeks ago you assembled at evening for the purpose of commencing your attendance upon the lectures, and we deemed it, and doubtless you all deemed it, a very happy occasion. We trust that the experiences of the past weeks have served to confirm the impression then made, that now when about to depart from this scene of mental contemplation you feel that you have been benefited; that the varied influences which have been brought to bear will be good, permanent influences, helping you in your onward way.

You go out into life with perhaps some new impressions; perhaps the lectures to which you have listened, and the experiences which you have had in this City of New York, have served as an awakening in many respects—your consciousness may have been aroused to an appreciation of higher and nobler purposes.

We think that Phrenology shows a man in his true light; that Phrenology is the only science which comprehends and interprets man, objectively and subjectively. Therefore, we hold that only those who have learned Phrenology, its principles, its methods, its practice, understand themselves in their manifold realities. If you would accomplish much as Phrenologists you must have some purpose clearly and firmly in view. It must be an honest purpose, not merely a sordid aim to make money. If you would make converts, Phrenologists, of those you come in contact with, you must be earnest. You must not only carry in your hands, and on your lips, the manipulations and the truths of these doctrines, but you must also speak from the head and from the heart—in other words, from your whole natures. You must magnetize people, and, in fact, show them that your whole soul is in arms, and eager for the moral fray. The poet has said:

"Life is real, life is earnest,
And the grave is not its goal,
Dust thou art, to dust returnest,
Was not spoken of the soul."

So this Phrenology which you have to teach has a life as immortal as the soul of man.

Now, in treating the subject of Phrenology, you must of course have some standard of judgment. You take with you for use in your work perhaps a plaster cast, which exhibits the map or diagram of the organs; that is all very well in its way, that contains certain essential truths, but after all it is not sufficient. It is not the living, breathing essence, it is not the reflection of the inner light; it is not the reflection of the true man—not the standard you need when treating the subjects under your hand. But where shall we find that standard, you ask. Go back two or three thousand years, even to the oracle of the Pythian Apollo, and what do you find? The simple legend, "Know thyself!" so replete with admonition. First, then, before you judge others, you must know yourselves, and the only true standard applicable in our judgment of others is a perfect understanding of one's self.

But it is not an easy thing to know one's self. It

requires much thought, much labor, and much love for the methods of investigation by which you may attain that knowledge. In knowing your selfhood, you will be more generous to the subjects who come under your hands distinguished for certain traits of character which are counted vicious. It is not for you to exhibit a feeling of sharpness, harshness, severity, in such cases, but from the standard of your own conscience, knowing your own human weaknesses to treat the man or the woman kindly, charitably, showing him or her how to live so as to acquire a better manhood or womanhood. This is the aim which I would have you bear ever in mind, to make men more manly and women more womanly.

Phrenology is deserving of credit for one or two accomplishments in this country. Thirty or more years ago, when lecturers went through the land, advocating the principles of their science, the "popular lecturer" of to-day was unknown, and I am of the opinion that it is to Phrenology that he owes his existence. Phrenology introduced a new era in the way of popularizing science. You can remember when science was confined within limits, when seemingly only those who studied in special departments as professionals, could acquaint themselves thoroughly with the principles of their specialties. Science was to the common mind an unknown region. Phrenology broke down the barriers and rendered general science no longer the privilege of the few. The PHRENOLOGICAL JOURNAL, the pioneer journal of human science in this country, led people in town and village to welcome the lecturer. The traveling Phrenologist was a missionary in his way. He compelled the people to listen to him, went in among them and instructed them, and started their minds into new lines of thought; led them to know the study of the inner, deeper life.

It has already been remarked to you that Phrenology is respectable to-day, that those who go out from this hall are not going to encounter the scorn and disdain of the public. To be sure there are some "fossils" to be met here and there, but you will find in nearly every case, wherever you may go, that you will be received favorably by the masses of the people. This is not now a new system; it has been incorporated into the teachings of every-day life. There are very many in the pulpit, on the bench, there are physicians, teachers, and others, who practice the principles of Phrenology, many indeed because they can not help themselves, because they have found its methods so essential to their success. Such men will generally accept you cordially, although some may not wish to be known publicly as your earnest supporters.

In your lecturing, your earnestness may show itself perhaps in establishing phrenological centers. If you go into a field which is comparatively new, you may establish there a nucleus which will be permanent. You will never lose by so doing. Visit a certain town, do as much as you can, awaken as much interest as possible in the people, and do not think that you are going to lose thereby, that another shall reap the harvest you have sown, for in after years, if you should be led in that direction, you may find a rich harvest awaiting your hands. In all your labor keep in view the injunction of Polonius:

"To thyself be true,
And it must follow, as the day the night,
Thou canst not then be false to any man,"

and success certainly of the noblest and most enduring sort will be your final attainment.

ADDRESSES BY MEMBERS OF THE CLASS.

MR. BARTFELL.—Teachers and members of the class: During thirty years of my life I have been interested in the science of Phrenology. My attention was first called to it by an article in that excellent periodical, "Chambers' Information for the People." Having my interest aroused by that article, which gave an outline of the whole system, I immediately commenced to read the works of Mr. George Combe and Dr. Spurzheim, and then took up O. S. Fowler's, and read all that he had published at that time, and I have tried to keep myself posted ever since by reading the works of other Phrenologists. The works of our lamented friend, who is with us in one sense to-night, and whose memory we shall cherish with great respect, I read with particular interest. My reason for coming to this class was to get all the practical information I possibly could upon this subject. I had obtained an idea from my reading, and from what I heard, that there was a man in New York who was eminently practical, and I wished to learn what I could from him. I am speaking of our Professor Sizer, and am happy to say that I have not been in the least disappointed in my expectations, and am sure he is the most practical man and the most practical teacher I ever listened to. And as our lectures are now closed, and we are about to depart, I entertain a feeling of great respect for all our teachers, and for all my class-mates, and thank them for the honor they have conferred upon me in calling me to preside over their deliberations during the intervals of the lectures, and hope now, as we go into the field as Phrenologists, we shall take with us the motto ascribed to Cæsar: "Consult wisely, resolve firmly, execute your purposes with an unwavering perseverance, undismayed by the petty difficulties that may oppose you."

REV. A. A. CONSTANTINE.—Ladies and gentlemen: I have often been asked by clergymen and students in theology what I think of Phrenology. My reply to all such inquiries is, that I regard it as one of the most important branches of science. Every theological student should be a thorough, practical Phrenologist, for his own improvement, and for the good of those among whom he may labor.

MISS E. CONSTANTINE.—As a member of the class of '75 I desire to express my gratitude for the kind and able instruction I have here received. May it be impressed upon our minds as truth from Him, from whom cometh all good. The subject of Phrenology is very near our hearts, and doubtless my brothers will go forth and eloquently proclaim its teachings. All of us will hold up our hands in the furtherance of those principles which bear upon their wings blessings for all. Phrenology is so closely connected with the education and training of the young, that parents and educators are welcoming it as a friend in the realm of science. Through its teachings, mind and body are trained, cultivated, and developed, defects pointed out and remedies suggested; hence it has to do with the intellectual, moral, and physical improvement of man. In what way can teachers better qualify themselves to present the subjects they teach most effectively to the comprehension of their pupils than by acquiring a practical knowledge of this subject?

My best wishes are tendered for our beloved teachers who have labored so earnestly and successfully in this

care. May they press onward until victory is won, and a voice from the shining shore, where dear ones have already gone, bids, "Come up higher."

God speed my friends and fellow-students in all that is for the good of humanity and for His glory! As we go forth to our work, let us remember we may chisel some monument more enduring than marble, and impress upon some memories truths which will reflect a lustre upon our crown of glory. With parting hand,

Welcome, then, our field of labor,
Strewn with thorns or flowers rare,
Angel forms will hover o'er us,
While for Truth we do and dare.

MR. HOLZ.—Respected teachers, and beloved classmates: six weeks ago we met as strangers; to-night we part as friends. With a friendship, that I trust and believe will linger with us not only through our earthly pilgrimage, but through eternity. To you, my teachers, I tender my heartfelt thanks, for the earnestness, zeal, and ability which you have displayed in guiding us through the pathway of science, and teaching us the great science of man. You have labored earnestly, you have labored well. The victory is yours. To you, my classmates, permit me to say, the future lies before you. It has been well-said that "the proper study of mankind is man," and the science which we have been taught within this hall, leads to a higher appreciation of man, and followed strictly in accordance with the instruction which we have received, we ought to be enabled to reach down into the lower depths of humanity, and lift them to a higher and better life. When Phrenology is known and appreciated, when it is as well understood by the great mass of humanity and practiced as thoroughly as it is understood and practiced by our teachers, and by you, there will be no longer need of prison-bars to shut out the sun-light from poor human souls; no longer will gibbets be raised to strangle mankind into another life, no longer will poor-houses be built, for the poverty-stricken; but peace, prosperity, happiness, and intelligence, will be the lot of the human race. Go forth, then, my brethren and my sisters; if success do not attend you, it will be no fault of those who have acted as your instructors. I predict for each and all of you success, and when you shall have passed to the eternal world, may your pathway be ever onward and upward—Excelsior."

MR. OLNEY.—Respected teachers, and classmates: A few weeks ago we met as strangers, but I feel that since then there have been made ties of friendship and sympathy which neither time nor distance can sever. The field from whence we come, is broad for us to work in. From Old New Hampshire's granite hills, from Tennessee, from Georgia, from Carolina's sunny clime, and the prolific plains of Texas, out to Montana's golden peaks, we sweep out into the world to teach Phrenology, and scatter the good seed over the land, telling mankind how to live, and what to live for. Let us remember that on our conduct before the world depends the success that we look for. Undoubtedly, we shall have opposition, but let us remember that "truth crushed to earth, will rise again." To Professor Sizer, Mrs. Wells, and all those connected with this Institute, I wish to extend my heartfelt thanks, for the deep interest they have taken in the welfare of this Class, and I feel that in after years, as we look back to the Class of 1875, its associations will be dear to our memory.

MR. ADAMS.—Teachers and classmates: The first information I received in regard to Phrenology was

through "Chambers' Information for the People," but that was not much; so I read the Journal, and some books which I managed to get, and then I determined that if it was possible I would join this class. And I wish to say that I have not been disappointed in the nobleness and ability of our teachers, and I take pleasure in giving my hearty thanks to all, especially to Mr. Sizer for the patience and earnestness which he exercised toward me.

MR. CANDEZ.—Teachers, friends, and fellow-students: The time has nearly arrived when we shall separate and depart to our several homes or fields of labor, and it becomes us well to exchange a few friendly words. I am indebted to my mother for an introduction to Phrenology, and she should have the praise for the many new lights that this subject has shed on the mysteries of this world for me, and for the good I may accomplish through it in future. It is sufficient to say that I have given attention to the Science of the Human Mind for the last five or six years, and that I attended the Class of '73 and am with you now. Two years ago I was delighted with our successful term, but am more so this year. Professor Sizer, our principal Lecturer, has all the vivacity, clearness, strength, and power that we expect in the prime of life, although he has reached the advanced age of sixty-three years, and is even more interesting than he was two years ago. Mrs. Charlotte Fowler Wells has kindly given us a view of the early struggles of Phrenology in this country, which is a treat I did not enjoy when here before. Dr. Nelson B. Sizer has improved with years, and gives us additional valuable knowledge in Anatomy and Physiology. The other instructors are new to me and will be remembered with gratitude. They have proved themselves men of ability in their particular fields. We have now received the instructions of the Phrenological Institute, and have wider and better views. Language cannot express always the depth, intensity, or vastness of some of the emotions of the mind. There seems to be a certain inspiration which speech cannot portray. That is the feeling of this moment. May God bless and prosper all who extend the glorious cause of Phrenology and its kindred subjects!

MR. DAVID F. BACON.—I feel it my duty to return my sincere thanks to my teachers. The instruction you have given us is derived from many years' experience and profound reasoning. I did not realize before that it was in the power of man to impart so much scientific knowledge in so short a time; and while I think of this, I am forced to exclaim what a serious loss it is to medical students who have not attended this course of lectures! I hope we may all live to see the time when every medical student will know and abide by the principles of Phrenology. May the students of this Class sustain themselves in the cause of Phrenology; and teachers, I feel that there is a reward for you.

MR. PRATT.—Dear teachers, friends, and beloved classmates: Neither tongue nor pen can express my feelings on this occasion. The study of Human Nature has been mine as long as I can remember. My attention was first called to Phrenology by the PHRENOLOGICAL JOURNAL. Had I known five years ago of this subject what I know now, I feel that I would have been a better man. We must look at the past and its faults and endeavor to correct them in future. Professor Sizer, I consider has done perhaps more than any living being to lead me toward my Creator. I feel, as I stand here to-night, that I am "Near, my God, to Thee." My

dear brethren as you go out from here, you take with you my longings and my hopes that you will so practice this great science that you will be an honor to yourselves and to the world.

MR. WINSR.—Beloved teachers, friends, and classmates: The time is at hand when we shall depart and enter the great realm of Phrenology. I would not return what I have learned in this course of instruction for twice the amount which I have expended.

MR. WOOD.—Teachers and classmates: I had heard Phrenology spoken of in different ways, but never as a science until 1872, when I attended a lecture on the subject which did me a great deal of good. I felt it one of the happiest moments of my life when I was enabled to enter this Institute, and hope to be able to make good use of the instruction which I have received.

MR. YOUNG.—Teachers, classmates, and friends: The first Lectures that I ever heard on the subject of Phrenology were delivered by Mr. Duncan Macdonald, a graduate of this Institute. Since that time I have been a believer in the science and an advocate of its truths.

The Lectures on Anatomy and Physiology by Dr. N. B. Sizer, and the Lectures on Practical Phrenology delivered by Nelson Sizer, have left a lasting impress upon my mind. To me it has been an intellectual feast and I have been greatly benefited thereby. I hope the Institution will continue this glorious and noble work until the influences which Phrenology exercises shall be more widely diffused throughout the world, that all classes of society may be convinced of its truth and feel its moralizing effects. What we need, what the science needs, is men of integrity, men of honor, men who are willing to encounter difficulty in the search of truth. I think we should not only follow Phrenology as a livelihood, but that we should make proselytes to the science.

MR. PARKER.—I received my introduction to Phrenology through O. S. Fowler's "Human Science," and on reading that I was so pleased that I went in with a will, and studied day and night. I was teaching school in 1874, and nights while the rest were asleep I was sitting up, studying Phrenology. I attribute my success as a teacher more to Phrenology than to anything else. Since then I have studied earnestly, to find out the principles of the science. I expect to go out and meet opposition like a man and win success.

MR. GILLIS.—My introduction to Phrenology was due to a copy of the PHRENOLOGICAL JOURNAL which I read with great interest, and was led to become a regular subscriber. I soon formed clubs, and took my premiums in books treating on the science. I read them carefully, but they did not satisfy me. I resolved, therefore, to come to this Institute and see what I could do; and here I am to-night, well satisfied with the time and money spent. To my teachers I return my sincere thanks, and especially to Professor Sizer for his untiring efforts to teach us the science. To Mrs. Wells and all the attachés of the Institute, I tender thanks for their kind treatment, and their efforts to make our stay pleasant. I do not remember in my forty years, that I have ever spent six weeks so pleasantly, and regret that we must part. Teachers and classmates, may peace and prosperity attend you through life, and when you shall arrive on that other shore, be able to say that the world is better for your having lived in it.

MR. HAMBLETON.—In 1861, while attending school, I took from the library a book called "The Self-Instruct-

or," and read it with great interest. About 1869 I sent for the PHRENOLOGICAL JOURNAL, and was greatly pleased with it. After that I was eager to read more on the subject, and sent for "New Phytognomy," "How to read Character," and other works. I now feel satisfied with the instruction I have received, and think that this course has done me a great deal of good. I return my sincere thanks to my teachers for the kind interest they have manifested in all of us as a class, and hope that they may live long to do good in the world.

MR. BONHAM.—In looking at the beautiful Science of Phrenology, we would naturally think the subject need only be presented to the public in order to be immediately accepted. To the teachers and friends of this Institute I express my greatest regard, and the students have my best wishes.

MR. ACKLAND.—My sentiments have been pretty well expressed.

As through the world we shall pursue
Truth in all phases old and new,
We'll ne'er forget our rendezvous,
Golgotha.

Coming from all parts, we have had a free interchange of thought, and a very pleasant time indeed. In the last twelve years I have spoken both against and for Phrenology, and so shall be able to sympathize with objectors. Last Spring, in view of coming here, I sent for a copy of Mr. Sizer's book, "What to Do and Why." As I scrutinized the author's portrait, I thought there is a man who understands his business; large perceptive, ample reflectives and morals, and withal a genial, manly expression. As I looked through the book, I said, "He'll do," and after six weeks' personal acquaintance I can reiterate with emphasis, "He will do—he has done."

On hearing one evening Mrs. Wells' account of the history of Phrenology in this country, I felt in a wider sense my attachment to the fraternity, and my thoughts took the form of a tribute to Mr. Wells, which seems appropriate to this occasion:

SAMUEL R. WELLS.

Brother, we would fain have listened
To the teachings of thy voice,
Fain have met those eyes that glistened,
Bidding all around rejoice.
As we gleaned the favorite science,
Far in city, field, or cot,
We had hoped a long alliance,
With the friend of man and thought.

But thy tenement was mortal,
And the "human face divine,"
Smileless, waits within the portal
Of death's somber, mystic shrine.
Angel faces throng around thee,
Spirit voices greet thine ear,
But the cherished ties that bound thee,
Know not limit, time, nor sphere.

Oft through memory's sweet dominion
Has thy kindly spirit roved;
Still, our thoughts with upward pinion
Mourn a friend too soon removed.

Should the Babel-like commotion
Of a mammoth city's strife,
E'er obscure the deep devotion
Of thy purpose, of thy life:
Truth shall triumph—God and Nature
Yet shall hold benignant sway,
Healthful minds of Christ-like stature
Shall illumine the future day.

Then the life-words thou hast scattered
 To the West-wind—to the North,
 Rousing lone hearts er. or-fettered,
 In the myriad homes of earth;
 Shall appear in rich fruition,
 Truth and progress, health and power,
 These will vindicate thy mission,
 Ripening each millennial hour.

Rest thee, brother, from thy labor,
 And as with the world we cope,
 May thy heart-phrase, "Love thy neighbor,"
 Be our motto and our hope.

MR. ROGERS.—Faithful teachers, and fellow-students, my experience in Phrenology is of late date, and not until 1872 was I able to procure a book on the subject, namely, "New Physiognomy." I was at that time working hard on a farm, but ever since have read works on Phrenology, and have bought at least fifty dollars worth of books from this firm. My first inspiration to become a practical Phrenologist was received by reading "Constitution of Man," by George Combe. Some ten months ago I found out that I could obtain instruction in Phrenology and kindred sciences, in New York, and I am here to-night, and leave you all with sad regret. My best love to all my teachers, and to each one of this class.

Mrs. GAUSE.—Teachers, classmates, and friends: My heart is filled with gratitude that it has been my privilege to attend this class, and to listen to those who have come before us as our teachers; that it has been my privilege to form the association and acquaintance of the classmates and other friends who listen to us. I remember a few years ago, in the West, that the doctrines of Phrenology were said to be opposed to the doctrines of the Bible. Thereupon I sent for different works on Phrenology, and was convinced that Phrenology and the Scriptures were in entire harmony, and it seems to me now more than ever that Phrenology is the handmaid of religion, and that education and religion must receive its impress before they can confer upon mankind the highest benefits.

MR. MUSGROVE.—Teachers and fellow-students: Ten years ago I was struggling against Phrenology as a skeptic. I belonged to a night-school then, and they formed a class in Phrenology, and I joined it, not to benefit myself, but to find fault with it; but found myself converted, and after that listened to lectures by Mr. L. N. Fowler. I have fought the battle of life alone to some extent, and never knew what a father's instruction was until I came here to Professor Sizer. We have to fight a battle now, so let us buckle on the armor. We need not wish for luck; what we need is pluck. I will only add that I shall always cherish the kindest feelings for the class of '73.

MR. ALDERSON.—Beloved teachers, classmates, and friends: At this age of the world most of the people endeavor to build themselves up at the expense of others, and to meet with a class of men who are as kind-hearted, and who work as earnestly for the benefit of their fellow-men as our teachers and classmates do, has been both a surprise and a pleasure to me. Before leaving Montana, a gentleman friend told me that nothing else would contribute so much to my enjoyment as to join this class, and his prophecy has proved true beyond my most sanguine expectations. We are now about to go forward into the field. Some of us may never meet again, but wherever we are we will look back to the time when we were assembled

here, to listen to our respected teachers, and think of the many sound, practical lessons we have received from them. God grant that they may all live long to carry out the noble purposes they are engaged in, and that we who are about to go forth may take courage and be an honor to our teachers and to the science we advocate.

MR. DAVIS.—The first knowledge of Phrenology I received was from the work, "How to Talk, How to Write," etc. I found that there was truth in Phrenology, and in 1864 I bought some books and began to study its principles. I have also read the PHRENOLOGICAL JOURNAL. So I am here to-night. I should have been glad to meet Mr. Wells; he is not dead, he still lives, and I can not express the deep gratitude that I owe to him and to Mrs. Wells. To Professor Sizer I would say, there has been no instruction that I ever had that was so clear, practical, full of common sense, and so much calculated to make a man of me. With all in the firm I have the deepest sympathy, and cherish the most heartfelt thanks, and I hope that every one of us who have Phrenology in our hearts will do the best we can in the best of sciences. I thank you all.

MR. E. J. DUNCAN.—Respected teachers and fellow students: My introduction to Phrenology was in 1871. I found a book on the subject, and its matter was so interesting that I could scarcely find time to eat until I had thoroughly read the entire volume. I obtained a copy of the PHRENOLOGICAL JOURNAL, in which I found a list of many works on the subject. These I ordered, and read as best I could, considering my chances for reading. Being in the employment of a railroad company as locomotive engineer, I was compelled to read when I should have been resting and sleeping, and this enthusiasm so reduced my health that I was compelled to discard the subject for nearly two years, until the latter part of 1874, when I took it up with the expectation of not only making it useful to myself, but to my fellow-men, and accordingly made my arrangements to come to the class of '75. And I have had the good fortune to avail myself of its many useful lessons. I heard it stated on good authority, before coming here, that Professor Sizer was the best teacher, and one of the best examiners that ever graced the science of Phrenology, and I wish I had the words to express my feelings commendatory of the happy, earnest interest that he takes in one and all of his students. A father could not be expected to work harder for his children than Professor Sizer does for his class.

We have had some soul-inspiring talks from Mrs. Wells, who has been to Phrenology what the rudder is to the ship, and may God bless her with health and long life to pursue her good work, and I, in common with the class, leave here with the very best feeling towards all the persons connected with the Phrenological establishment; and I will say here that if I never intended to practice Phrenology, and my tuition had exhausted all my past earnings, I should feel much better for the exchange.

J. BOYD ESPY.—Worthy instructors and fellow students: The pleasant ties of the past few weeks must now be broken. About eighteen years ago my attention was called to Phrenology by the perusal of some books by Mr. O. S. Fowler, and the impressions they made were vivid and lasting. It thus opened to me a new world of thought, and I comprehended enough to

have me from a premature grave. I followed its teachings as best I could, and though predisposed to pulmonary disease, I stand before you to-day able to do sixteen hours of mental and physical labor each day without apparent inconvenience. Thus I am able to testify of the usefulness and truth of the science. This led me to other considerations of the subject, and I accepted its teachings, uniting matrimonially in accordance with its precepts, and from this union am able to present to the world those whom God has given me, in every way, morally, physically, and mentally, superior to either parent.

I trust we may appreciate the earnest positiveness of Mr. Sizer, as he has presented this subject for our consideration. I would recommend to all the perusal of the works of this establishment. May we then, fellow-students, go forth into this field of reform with loving hearts and willing hands, and dropping the mantle on other shoulders only when God shall say: "It is enough; come up higher!"

RESOLUTIONS BY THE CLASS.

Resolved, That the members of the Class who have attended the Eleventh Annual Course of Lectures of the American Institute of Phrenology, regard Phrenology, and its kindred Sciences of Physiology and Physiognomy, as eminently calculated to advance the cause of education, and to elevate the condition of mankind.

Resolved, That our relations with Mrs. Charlotte Fowler Wells have ripened into a profound respect for her as a lady of excellent character, and of fine intellectual abilities; and from what we have learned of her history, we think that America is largely indebted to her for the indomitable energy and unwavering perseverance she has manifested in placing Phrenology upon its present basis; and we tender her our hearty thanks for her courtesy, and for the valuable information she has given us in her lectures. May she yet live many years to labor in this noble cause.

Resolved, That we regard Professor Nelson Sizer, who has been our principal teacher, as a man of very eminent abilities, thoroughly acquainted with the sciences he teaches, possessing a happy faculty for making his instructions plain, impressive, and interesting, and the best of all, pre-eminently practical. We are at a loss for words with which to express our sense of obligation for the unwavering and earnest interest he has manifested in our advancement in knowledge and goodness, and for the valuable information he has imparted to us. We take great pleasure in thus tendering an expression of our feelings towards him, and in adding our most hearty wishes for his personal happiness, and for his long continued usefulness to his fellow men.

Resolved, That the Lectures on Physiology and Anatomy delivered by Dr. Nelson B. Sizer, have been highly interesting and instructive, evincing on the part of the lecturer, an extensive as well as minute knowledge of those branches, and meriting the gratitude of the entire Class.

Resolved, That in Mr. H. S. Drayton, the Editor of the PHRENOLOGICAL JOURNAL, we recognize the scholar and gentleman, and that his excellent lectures on the

history of Phrenological Science are fully appreciated by us.

Resolved, That the Lectures of Mr. Wm. Fishbough on Mesmerism and Psychology, have been very interesting, and we regard the subjects as of great importance.

Resolved, That Mr. J. B. Richards' Lectures on the treatment of Imbeciles and Idiots are regarded as of great utility, and containing much valuable information and advice; and that his method of treating this unfortunate class of human beings meets with our hearty approval.

Resolved, That the thanks of the Class be tendered to Dr. Ordineaux, (State Commissioner of Lunacy,) for his interesting Lectures on Insanity.

Resolved, That Mr. B. F. Pratt, as the teacher of the class in Elocution, has labored earnestly to impart his knowledge of that branch, and we would tender our thanks to him for his sincere efforts in that direction.

Resolved, That we appreciate the gentlemanly behavior of Mr. Austin and Mr. Turner, and also the respect shown us by all others connected with the Phrenological institution, and we congratulate Mrs. Wells on the admirable system and harmony which pervade all departments of the business.

Resolved, That we cheerfully commend the American Institute of Phrenology to the notice and patronage of all who feel interested in the important sciences which are embraced in its teachings, and to all who wish to study human nature in all of its manifold relations. Also, we cordially indorse the project proposed by Mrs. Wells to establish a Phrenological Museum, and thus place this noble science on a "solid and self-perpetuating foundation," and we unite in calling the attention of all the friends of Phrenology to this important work.

Resolved, That a copy of these resolutions be presented to Mrs. Wells and Professor Nelson Sizer, and to all of the Professors of the Institute, soliciting their publication in the PHRENOLOGICAL JOURNAL.

MONTAGUE BRETTLE.....	Ohio.
(REV.) A. A. CONSTANTINE	New Jersey.
ELIZA CONSTANTINE	"
ELVA P. GAUSE	North Carolina.
CHARLES HOLT.....	New York.
BENJ. GILLIS.....	Missouri.
RALPH ROGERS.....	Tennessee.
JOHN BOYD ESPT.....	Pennsylvania.
OSCAR D. WOOD.....	New Jersey.
HENRY J. OLNEY.....	Michigan.
RANSON J. DUNCAN.....	Texas.
ELIJAH M. ADAMS.....	Missouri.
MATT. W. ALDERSON.....	Montana.
ELISEA C. BONHAM.....	Illinois.
BENJ. F. PRATT.....	Ohio.
WALLACE DAVIS.....	Pennsylvania.
HOWELL B. PARKER.....	Georgia.
DAVID F. BACON.....	New Hampshire.
HARLAND E. HAMBLETON.....	Ohio.
WILLIAM MUGGROVE.....	New Hampshire.
HENRY YOUNG.....	Ohio.
JAMES ACKLAND.....	Canada.
E. E. CANDEE.....	New York.
KEEA WIEST.....	Pennsylvania.

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DR. SAMUEL GRIDLEY HOWE.

DR. HOWE had a large brain and a very wiry and enduring temperament. His mind was not only ac-

tive, but intense. There was a kind of continuous persistency and persevering earnestness manifested in all his opera-

tions. With him there was no such word as "fail," no such thought as "give up." From the opening of the ear backward the head is long, showing a strong tendency to be friendly, to cherish and pet that which is weak. This feeling, working with Benevolence, led him toward the helpless, the blind, the idiotic, and the imprisoned; and for those who were struggling for liberty, and those who were oppressed, he formed very strong attachments. Strong men learned to like him, and though they might not have harmonized with his intellectual plans and purposes in all respects, and though his strong will and theirs might conflict, still they liked the man personally; and with his strong fraternal spirit he was able to hold on to men who had different ideas from himself on important topics.

He had large Cautiousness, which rendered his mind watchful, anxious, and guarded. He had uncommonly strong Firmness, which rendered him steadfast and unyielding. His large Approbativeness gave him a desire for the good opinion of the world, and his large Self-Esteem led him to feel that he deserved it. Consequently, he always carried himself with dignity, and was always susceptible to the praise and censure of his fellows.

He had reverence for whatever was great and sacred. His Hope led him to look on the promising side; and though he might not be able at once to attain the ends desired, his Firmness and Continuity, and faith joining in with his Hope, led him to expect ultimately all that was desirable. Such a man plants in the hope that, if he can not, somebody will reap the harvest.

His sense of justice was strong, and in many respects he would be exacting. Sometimes his discipline would seem too

positive. He felt that he must be absolute where he had a right to rule, and this is one of his strong traits, which did much to secure for him success. No man can stand at the head of an institution successfully who does not possess enough of self-reliance to be self-poised in his opinions and purposes, and he needs a great deal of individualism, with justice and self-reliance, to enable him to govern, and he needs, to a great extent, these elements to be a good instructor.

He had the administrative ability, knew how to organize and co-ordinate affairs around him so as to carry out his designs successfully. His large side-head gave him enough policy to enable him to keep his thoughts under proper restraint, and he had large Acquisitiveness, which gave him skill in administering finance. He was careful in reference to property, guarded and prudent in the expenditure of money, would require everybody to bring verified, countersigned bills before he felt at liberty to pay them; thus evincing a positiveness and accuracy which sometimes seemed like selfishness, but he would do it just as sharply for the public as he would for himself.

He was a good thinker, sound in his judgment, capable of appreciating reasons and arguments, qualified to understand abstract subjects, and was constantly inclined to invent, to lay out new plans, and then to find the men to carry them into execution, and, with his strong Self-Esteem, he could absorb the power and skill of others and avail himself of these advantages.

His Language qualified him to be a good talker, and his perceptive faculties enabled him to gather facts for himself. He was keen in his appreciations of facts and things, and knew how to judge and model character in others.

In form he was tall, lithè, wiry; he was enduring and tough; was clear in his thoughts, very positive in his purposes, dignified in his bearing, graceful, polite, respectful to age and things sacred, had a keen sense of wit and a fine appreciation of whatever is beautiful. His most conspicuous qualities were reasoning and planning talent, firmness, dignity, ambition, sociability, and administrative economy.*

of manhood. He had, as a writer has expressed it, "the stern conscience of the Puritan and the ardent love of liberty of the northern races. He was a cordial hater of wrong in every aspect."

He was born in Boston, Mass., on the 10th of November, 1801; was highly educated, graduating at Brown University in his twentieth year, and then pursuing a course of medical



PROFILE OF SAMUEL GRIDLEY HOWE.

Another man of reputation truly national has passed away, and we are called upon to give him that evidence of respect and of regret which may be shown in an obituary notice. His career is full of interesting incident, and distinguished, too, by certain relations to the State indicative of a character nobly true to the best instincts

* Our portrait is from a cast of the head of Dr. Howe, taken while he was in the full flush of energetic manhood. The profile is also from the same authentic model.

study. It was while a medical student that the occasion offered which brought him into some prominence. In 1824 the Greeks rose in rebellion against their Turkish oppressors, and, though weak in numbers, performed those prodigies of patriotism and valor which drew the attention of civilization, particularly of the American people. The cause of the suffering Greeks inflamed young Howe with an uncontrollable sympathy, and he at once left his med-

ical books and sailed for Greece to join the heroic people in their struggle for liberty. He remained in that land so historic, sharing the vicissitudes of a sanguinary and unequal warfare for six years, serving in the capacity of an army surgeon or as a volunteer, with the exception of a short interval when he returned to the United States to obtain aid for the devoted nation whose cause he had made his own. At the close of that struggle, which resulted in the independence of Greece, Dr. Howe remained for a time for the purpose of introducing some of the arts common to western civilization. We are told by the *Adams Transcript* that "the first cart ever made in modern Greece was built under his direction," and that "twenty years afterward, when he rode along into Greece on horseback, he was seen and recognized by a peasant woman, who spread the intelligence of his arrival. He was immediately surrounded and borne upon the shoulders of the people into the neighboring city, upon the site where he had founded a village."

But the cause in which he achieved the highest moral triumphs is of a different character, and will probably give him the more enduring fame, viz: the education of the blind and of the idiotic. It was after his return from Greece that he became interested in the subject of founding an institution for the blind, and in pursuance of this purpose visited Paris for information and examination of their methods of treatment. While on this mission he made the acquaintance of Lafayette, who was chairman of a committee acting for the relief of the unfortunate Poles then struggling against the brutal despotism of Russia. The Poles were driven across the frontier into Prussia, and were in a starving condi-

tion. Two efforts had been made to render them aid, but they had failed, when Dr. Howe volunteered to carry them money. He succeeded in eluding the vigilance of the Prussian spies and reached the Poles with the money, with which they procured supplies and made their escape. But Dr. Howe was arrested and confined in a dungeon, and was only liberated after great exertions by Mr. Rives, the then American minister at Paris.

Dr. Howe was also in Paris during the revolution of 1830, which dethroned Charles X., and placed Louis Philippe upon the throne of France; and again he met Lafayette at the barricades, who, recognizing him, said, "Young American, this is no place for you," to which the doctor responded, "This is just the place for every friend of liberty."

As late as 1843, it is stated, on the authority of Horace Mann, that Dr. Howe's name stood upon the proscribed list in all Prussian frontiers, but subsequently the king relented and sent to him a gold medal in token of his appreciation of his laudable interest in the education of Laura Bridgman, the deaf, dumb, and blind girl. His efforts toward her training, and its singular mental results, reveal the kindness, gentleness, and enthusiasm of his character.

He married Julia Ward, daughter of Samuel Ward, a banker of New York, on the 18th day of April, 1843, and the union was blest with four daughters and two sons, all of whom, except the younger son, survive him. Mrs. Howe was one of a group of five ladies sketched in the January number of this JOURNAL. She is twenty years younger, but at the time of her marriage was given to literary avocations. The married life of Mr. and Mrs. Howe was said to be peculiarly harmonious.

Akin to his work in behalf of the blind were Dr. Howe's efforts to redeem the imbecile from a life of dependence and mental darkness. He was the founder of the Massachusetts school for idiots. He had persisted for years in appeals to the Legislature for aid. In 1846 a committee of the Legislature made a report favorable to the object, which recommended the appointment of a commission to ascertain the number of idiotic persons in the State, and to inquire what could be done for their relief. The commission consisted of five persons, and was at once appointed by Governor Briggs. Dr. Howe was chairman, and offered all the reports. That submitted in 1847 was brief, but in 1848 a full and exhaustive report was made to the Legislature, full of facts respecting 574 idiots, their parentage and condition, and embodying philosophical conclusions, both as to the causes of their low mental, moral, and physical development, and the special treatment which their peculiar condition required. Twenty-five hundred dollars were appropriated for an experimental trial in teaching ten idiotic children to be selected by the Governor and Council. Dr. Howe undertook the task, with the assistance of Mr. J. B. Richards, a gentleman remarkable for his capabilities as a teacher, who performed the practical part of instructing the children selected, and whose long and tedious efforts resulted in so much success as to lead to the establishment of a permanent institution for this unfortunate class of society.

In this place it may be in keeping to state that in Dec., 1839, Mr. George Combe, then making a tour in the United States, visited the Asylum for the Blind, which was located in Dorchester Heights, overlooking Boston harbor,

and was warmly received by Dr. Howe, who had charge of the institution. Mr. Combe speaks in terms of high praise of the methods used for instructing the sightless inmates, and expresses his admiration for the success which had been achieved. Laura Bridgman was then about nine or ten years of age, and had already made considerable advancement in learning to read and converse with her fingers, and to sew and care for herself. In Mr. Combe's "Notes on the United States" we find it expressly stated that Dr. Howe and his assistants, guided by the principles of Phrenology, had obtained their wonderful success in her education.

To quote directly from the "Notes :"

"Dr. Howe openly acknowledges that he owes whatever success has attended his exertions in improving the education of the blind to the light derived from phrenological views of mental philosophy. 'Before I knew Phrenology,' said he, 'I was groping my way in the dark as blind as my pupils; I derived very little satisfaction from my labors, and fear that I gave but little to others. Our upper classes are all instructed in the general principles of intellectual philosophy, and we explain to them both the old and the new systems; but I never knew one of them who did not prefer the latter, while I have known many who have taken a deep interest in the philosophy of Phrenology, and heard them avow that they were made happier and better by understanding its principles. Some of our teachers are persons of considerable intellectual attainments, and all of them have adopted the new philosophy since they joined the institution; not because they were induced to do so by any request of mine, or any consideration of extrinsic advantage to themselves, but solely because their duties led them to

examine all the theories of mental philosophy, and the new system recommended itself most forcibly to their understandings and appeared most susceptible of practical application.' ”

This strong testimony in favor of the then new philosophy of Phrenology was put in writing by Dr. Howe, and Mr. Combe was authorized by him to use it as he thought proper in his advocacy of truth.

The school for the training of idiots was organized on the same basis, and it and others of its kind which have been established in other States, are conducted in accordance with the system of mental development defined by phrenological science.

During the civil war he was prominently interested in sanitary movements for the welfare of soldiers in

active service. In 1871 he served as one of the commissioners appointed to visit St. Domingo, and examine that island, and report with reference to the expediency of its annexation to the United States.

Dr. Howe was also active in all the movements for prison discipline, reform of general offenders, the training of teachers, the improvement of schools, and popular education generally, which have given Massachusetts special prominence among the States of the Union. An organizer of work, rather than a writer, he published but a few books, viz., “An Historical Sketch of the Greek Revolution,” in 1828, and “A Reader for the Blind,” in 1839.

His death occurred on the 9th of January last, in the seventy-fourth year of his age.

CHARACTER AS SHOWN IN ADVERTISING.

THEY who read newspapers may need a little counsel on the subject of character as revealed by business men in the composition of their advertisements. Our honest friends in village and town distant from the large emporiums of trade are dependent, to some extent, upon the advertising columns of their weekly newspaper for information with reference to where an article much desired, but out of the line of the country storekeeper's dealings, can be obtained. If they have a bad opinion of a merchant's character, country people are likely to refrain from giving him an order, even though the merchant offer to send what they want C. O. D.—unless the article is deemed of high value to them, and it can not be procured from another merchant. Some observing individual has been “studying up” advertisements, and gives us the following as his con-

clusions, the most of which are sound on their face, as the bankers say of good promissory notes:

“The modest man never says ‘I,’ seldom ‘we,’ and courts only the custom that can appreciate modest worth.

“The quiet man wants no heavy display, and contents himself with telling of his wares in plain Roman. He indulges in no spasmodic overflows, but quietly works and bides his time.

“The bold advertiser may be seen at a glance. He wants the half, or whole, or positively a double column, and means to have no one glance at his side of the paper without at least seeing his name and business.

“The defiant advertiser deals in huge blank spaces, heavy cuts or colored ink. He seeks the margins of newspapers, or bedaubes the face of nature with glaring pigments. If he can not challenge your admiration, he is ready to challenge you.

“The impertinent advertiser details the information imparted by one simple young

lady to another concerning the virtues of his particular merchandise, and how simple young lady No. 2 was convinced, how she purchased, and rejoiced over its exact fitness.

"The impudent man prefaces his advertisement with 'Tremendous Crash,' or 'Shocking Revelation,' when he only desires to inform you where you can buy gingerbread and peanuts at the lowest market rates.

"The insulting advertiser inverts his card, or causes the words 'Money to Loan' to stand out prominently in the body of his advertisement, his purpose being anything but philanthropic. He perpetrates sells upon his readers, and outrages human nature by conundrums concerning his business. He offers to give away time-table cards, and when you call inveigles you into buying some burlesque medicine as an equivalent for the favor he does you.

"The indecent advertiser is such because

such is his character. He should be booted out of all public prints without hesitation.

"The hypocritical advertiser attracts your attention to an interesting statement of some scientific discovery, which, it presently appears, is nothing at all compared to his efficacious 'Toe-nail Restorer.'

"The spasmodic advertiser believes in carrying things with a rush. He showers heavily for a week or two, and then lies by for the effects.

"The pertinacious advertiser never takes down his sign. He will have all men read of his merchandise, turn which way they will. He believes in 'Holdfast' rather than in 'Brag,' and in his *dogged* way determines to have your custom, and no thanks to you either.

"The flashy advertiser offends you with slang, reminding you of the mock-auction style, where brass jewelry commands a positive premium over gold.

"The rascally advertiser is not simply the man who vends spurious wares, but who also cheats the printer. The comfort is that such men get quickly passed around."

THE PSYCHOLOGICAL BASIS OF RELIGION.

CONSIDERED FROM THE STANDPOINT OF PHRENOLOGY.

PRIZE ESSAY II.

IN attempting a comprehensive and stable adjustment of the issues involved in the existing controversy between a large class of inductive thinkers on the one hand, and the exponents of orthodox theology on the other, it is essential, by way of introduction, that certain facts should be thoroughly apprehended by the reader; and to this end, in order to put the reader in possession of a general definition of the term *religion*, I shall briefly state the latest results of historical investigation as appertaining to its resolution. As a general law of historical criticism, it may be observed that the classification of the primitive religions is applicable to the classification of the primitive languages. In other words, although the Aryan race has developed three separate forms of religion, namely,

Brahmanism and Buddhism by the Hindus, and Zoroastrianism by the Persians, there was a common Aryan religion before the separation of the Aryan races commenced, and this common religion is preserved very nearly in its primitive simplicity in the Vedas. In a similar manner, although the Semitic family has developed

THREE FORMS OF RELIGION, namely, Mosaism, Mohammedanism (as an Arabic development), and the higher form dating from the life and death of Jesus, there was a common Semitic form previous to the dispersion of the Semitic races, which is represented in its primitive aspect by the book of Genesis, considered apart from the remainder of the Hebrew Scriptures. Again, the Turanian stock (Mongolian) may be regarded as having originated.

two religious systems, namely, the religion of Confutse and that of Laotse. Each of these religions, eight in all, has its sacred code; and thus the student of comparative theology has to deal with eight religious codes—three of them in Sanskrit, Pāli, and Zend, three in Hebrew, Greek, and Arabic, and the remaining two in the monosyllabic Turanian. The important fact is, however, that an historical survey of the subject presents three ancient centers of religion, corresponding to three ancient centers of the languages; or, to render the idea in terms more intelligible to those who are not philologists, the three primitive religious centers were coextensive with three ancient ethnological centers. To these primitive centers are traceable all the various forms of religious culture that have been since evolved. There seems, however, to have been a still more primitive stock, that preceded the Aryan migrations in Europe, was superseded by the Semitic races in Asia Minor, and probably had its highest civilization in the ancient Egyptians and Phœnicians, to which the Greeks and Romans, the primitive Celts of France, and the Goths of Germany and Scandinavia were materially indebted, not for the radical and elementary ideas that entered into their religious structures, but for the special myths with which those elementary conceptions were interfused.

A GREAT PREHISTORIC RACE.

It is now conceded that the historical races of Europe did not generate the mythologies that bear their names, but, on the other hand, absorbed them in the process of absorbing and obliterating a preëxisting and homogeneous race that once occupied the whole continent of Europe. This race, which was, no doubt, identical with the ancient

Egyptian, theologians have consented to style the Hamitic, and scientific men the prehistoric. At special centers it had risen to a kind of sensuous civilization. Along the Mediterranean it carried on a considerable trade with Egypt and Phœnicia, and waged not wholly unsuccessful wars with those mighty dynasties, whose names, carved in strange hieroglyphics, learned men have not yet completely deciphered. It was a race of city-builders, of hewers of mighty monuments in stone, and of erectors of vast mausolea. Its religion was ancestor-worship, the great generative principle of mythology. Lastly, in addition to the historical religions, comes fetichism, with its worship of the supernatural in the commoner objects of nature, a form prevalent among the African races of the lowest type and among the outlying races of Polynesia, and one that differs very little from the ancient Turanian. It should be added that the ancient conception of the under-world, as it appears in Homer and Virgil under the designation of *Hades*, and in the Hebrew as *Sheol*, is an undoubted survival from this so-called prehistoric race. This conception in a form still more primeval than that of the Hebrew Scriptures or of classical literature, written on tablets of stone, was exhumed in the year 1873 by Mr. George Smith, of the British Museum, in the course of his Assyrian excavations. Thus, in the religion of that primitive race that once inhabited the whole known ancient world, and vanished or was absorbed during the early migrations of the existing historical stocks, occurs one of the great underlying convictions of the religious life, namely, the immortality of the soul and its destiny hereafter as a psychical entity; and if, as there is no rational

doubt, the ancient Egyptians belonged to this primitive stock, it had risen in other respects to the fundamental conceptions that underlie the more modern and distinctly historical aspects of religious culture, mixed, however, with a fetishism taking the distinctive direction of a worship of the generative energy of nature, and particularly of Phallic emblems, of which, by the way, the modern custom of dancing round the May-pole is a curious survival.

PRIMITIVE RELIGIOUS CONCEPTIONS.

But to return to the three historic centers of religion. In the earlier Turanian or Mongoloid stock, previous to the reformation of Confutæ, the student finds himself in the presence of a colorless and very unimaginative development, corresponding with the monosyllabic state of the Turanian languages, which consists of the worship of a host of single spirits, synonymous with the most prominent energies of nature, supposed to have a determining influence for good or evil on the life of man. Among the ancient Aryans these primitive conceptions or spirits of nature have been agglutinated into a single spirit, and the resultant religion has assumed the consistency of a worship of God in nature; that is to say, as revealing himself through natural phenomena. This agglutinated form of the underlying spiritual potentiality corresponds with a group of languages in which the process of agglutination into polysyllabic words has already taken place. Finally, among the ancient Semitic races, including the Hebrews, occurs a development of an exceedingly individual type, as compared with the other two, which may be described as a worship of God in history and as affecting the destinies of individuals and of races, rather than of God as revealing himself in the phe-

nomena of nature. This is the fundamental idea expressed in the Hebrew *Jehovah*, the eternally revealing in life and history; but that there was a period of Semitic religious culture, in which this conception had not yet been developed, and when the potencies of nature were still leading ideas, is comprehensively evidenced by the word *Elohim*, the more primitive Semitic name, which may be rendered as the potentialities, and is unquestionably a plural form, that, so far from having arisen as a *pluralis excellentiæ*, is undoubtedly representative of the primitive agglutination of many spiritual potencies into one omnipotent potency, which preceded the higher development of Hebrew religious literature. There are, also, in the earlier fragments of Genesis, and particularly in the legend of Eden, traces of a primeval tree and serpent (nature) worship that vanish with the higher religious development initiated by Abraham, who must be regarded as the father of the Semitic system.

But while, with Abraham, the prevalent Jewish conception of Jehovah as the eternally revealing in connection with the human spirit—that is to say, in history—assumed a permanent form, and Elohim, except as a very general designation, was superseded, the same agglutination took a somewhat different type with the Aryan races, as well as with the Turanian. This type was common to both stocks, and the infinite potentiality was thus in both primevally represented by the term *Sky-Father*, as an image, perhaps, of that incessant and unutterable yearning of the human soul for a protecting and creating God. Thus, in the Vedas occurs the primitive invocation *Dydyus pitar*, which appears in the Greek as *Zeus pater*, and in the Latin as *Jupiter (Dies pater)*. The

Greek *skia* (sky) and *Theos* (God), the Sanskrit *deva* (God), and the English *sky* are all derivatives from one radical, which, as in Hebrew, primarily means the living. Our word *God*, identical with the German *Gott*, is an exception to this general law of Aryan philology, being a survival of the ancient *Woden*.

It is, however, unnecessary to pursue this aspect of the question beyond the few paragraphs essential to develop the general theory of the evolution of certain fundamental religious conceptions; and I will only observe, in passing to the special consideration of the subject, that the true investigator of psychological phenomena will find in the Hebrew Jehovah a deeper and more subjective cognition of the Infinite in its relation to the human soul than in the Aryan and Turanian terms; while, on the other hand, in the more objective and essential nature-worship of the Aryans, he will not fail to discern the germ of that spirit of investigation and turn for inquiry to natural phenomena which first eventuates in the scientific method as developed by the Greeks, and, although temporarily overwhelmed by the wave of religious awakening set in motion by the spiritual energy of the final Hebrew impulse, has reappeared after many centuries in the modern passion for physical investigation. This remark is more especially true of the European Aryans than of the Hindus and Persians, in which the tendency has been to metaphysical speculation rather than to physical inquiry.

With this running review of the ethnological aspects of the various types of religion that have had their origin with the three great historic races, I have intended to put the reader in possession of the two leading doctrines that have been placed beyond dispute

in the course of that brilliant series of investigations, principally at the hands of German *savans*, which has resulted in establishing

A SCIENCE OF COMPARATIVE RELIGION, as Cuvier and his coadjutors established the science of comparative anatomy. These doctrines are as follows:

1. That certain fundamental conceptions underlie all the various types that the religious instinct has historically developed. First among them stands the conception of an infinite spiritual potentiality, self-existent, and active in natural phenomena, which, however, presents in an agglutinated form the still more primitive conception of many spiritual potentialities, each presiding over special series of phenomena. As its natural correlative, the conception of the human soul as a spiritual entity, having a destiny after death and existing as a potential personality, or as absorbed into the Infinite, is coextensive with the former. The relation and responsibility of the soul to the Infinite constitute the constantly recurring theme of all ancient systems of ethics and all antique forms of faith. Parallel with these three, and more distinctly developed in the Semitic races, but common to the three, runs an anthropomorphic element that exhibits itself in prophecies and legends of incarnation, and is regarded by Rationalists as the myth-generating principle, and by Supernaturalists as the *ultima ratio* of miracles. Lastly, as the constant exponent of the preceding, the gift of inspiration is accorded by general consent to certain persons, under certain conditions; and this constitutes an organizing element and eventuates in sanctuaries and oracles, prophets and priests. The psychological basis of these fundamental ideas will be investigated in its proper place. It is enough,

at this juncture, to observe that they are constant and universal before the period of agglutination has set in, and thus constitute a group of ideas coextensive and coeval with the human race.

2. The special forms under which these fundamental conceptions occur are determined by the special structural and psychical types of organization incident to the several trunk races, in the first instance, and are still further diversified by tribal and national agencies. This constitutes the morphological element of the science of religion, under which, while the fundamental conceptions are constant and invariable, the artistic structure with which they are interwoven is as various, as flexible, and supple as human nature itself. Similarly, in the science of philology, while certain fundamental conceptions underlie all languages and are common to them, entering alike into the theory of word-building and into the general doctrines of grammar, the organic structure varies according to the trunk-race, in the first instance, and according to the special derivatives of that race in the second; so that, intimately connected with each other, and interwoven in many of their special aspects from the beginning, the two sciences, comparative philology and comparative religion, are to the last mutually illustrative. Again, while in comparative anatomy, as applied to the nervous organization of the different races of men, certain fundamental points of nervous structure are constant, there are important points of difference in the more subordinate aspects, extending even to the internal structure of the brain to the number and distribution of the lesser ganglia, and particularly to the distribution of the spinal nerves, as well as to the number and distribution of the cerebral convolu-

tions; and these variations may be observed between races of equal culture and civilization, without going into the more emphatic contrasts of Hottentot with German, or Mongolian with European, popular with anatomists in the discussion of these questions. The point is, that, while certain leading religious conceptions are as large and as universal as humanity, strong morphological differences are exhibited in the organic religious structures developed by the different races, thus establishing a series of striking but superficial diversities, interpenetrated by one controlling and vital group of ideas.

RELIGION FUNDAMENTAL IN HUMAN ORGANIZATION.

Induction from the literature of religious systems thus clearly establishes the general fact that the primary conceptions, underlying all forms of religious faith, are as really fundamental activities of human life as understanding and imagination are. It would be scarcely scientific to affirm that these ideas are of themselves innate, but it is strictly within the limits prescribed by the inductive method to say that they are the invariable exponents of a psychical activity that is fundamental and instinctive, and that they imply as their psychological basis the existence of an instinctive cognition, which may be conveniently designated as the cognition of the spiritual or of the Infinite; although, in point of fact, it would be more strictly scientific to style it the perception of being, using the term *being* in its antique metaphysical acceptance. As a form of matter, and embodying in my own person an epitome of its activities and laws, I have an instinctive cognition of myself as a material phenomenon, having given relations to other material phenomena; and this cognition, so far from being a

product of sensation and consequent generalization, is the spontaneous exponent in consciousness of the organic fact; that is to say, of the fact that I am a material organism, with processes of nutrition and assimilation, and have a fixed and unalterable physical dependence upon a material substratum, into which I am physically resolvable, and of the forces and laws of which I am the conscious register. But parallel with this runs an instinctive cognition of myself as a subjective being and as a conscious entity; and this, again, is the spontaneous exponent of the fact that I am a subjective and psychical entity, and, as such, have a definite relation to the ultimate subjective potentiality. In final analysis the idea of causation is an equivalent in consciousness for the dualism instinctively conceived as existing between subject and object, potentiality and phenomenon; so that, from whatever standpoint the problem is viewed, effect is synonymous with phenomenon, and cause with force; and this instinctive cognition of the dualism of our own natures, as subjective potentiality and objective organic phenomenon, is not only the source of our conception of cause as potential and of effect as phenomenal, but also penetrates to the very basis of volition; an act of volition being fundamentally an act in which the mind conceives itself as causative potentiality, and organism as the means through which, as such, it produces a given effect. The idea of moral responsibility in acts of volition is, therefore, one of the many results that flow from the fundamental form of consciousness designated as the notion of cause and effect. Expunge from human nature this conception of ourselves as a duality of mind and body, therefore, and moral responsibility ceases to have any intellectual basis,

the idea of causation is extinguished, and our acts assume to ourselves the complexion of mere automatic movements. Professor Huxley is strictly logical in his sequences when, in his criticism on the Cartesian view of consciousness, and in his more recent paper on the automatism of animals, read at the August, 1874, session of the British Association, he contends that a man is simply a cunningly-constructed clock, and that matter and law have cast out spirit and spontaneity.

THE PSYCHICAL AND PHYSIOLOGICAL UNLIKE.

I have pursued this incidental aspect of the subject at some length in order to indicate distinctly the intellectual and moral sterility that necessarily accompanies all material hypotheses of the soul and all attempts, however ingenious, to explain the higher psychical aspects of life on purely physical principles; although it is quite true that, for the purposes of physiological investigation, and in pathology, particularly, it is necessary to consider the neurility of the nerve as synonymous psychic force, and instinct and intelligence as activities of nervous tissue, and the physiologist can not in propriety be censured for employing the terminology essential to his science, except in instances in which he attempts to apply it to questions not legitimately within his jurisdiction. The nervous system being the special seat of the psychic potentiality, between which and it exist an intimate mutual relation and dependence, in so far that degeneration of nervous tissue is accompanied with mental perturbation, a thorough study of nervous organism and function is absolutely necessary to scientific psychology. But, in accordance with the higher philosophical principles laid down in the preceding para-

graph, the fundamental discrimination between mind and body, potentiality and tissue, must be firmly observed; and in direct proportion to his neglect of this vital necessity of his science, the psychological inquirer falls into vague metaphysical vapping, on the one hand, or into barren physical theorizing on the other. Having thus put the reader *en rapport* with the spirit in which this paper is written, and in possession of certain necessary facts appertaining to the science of comparative religion, the way is opened to the consideration of the issues pending between physicists and theologians.

THE DOMAIN OF PHRENOLOGY.

As distinguished from the cerebral psychology expounded by Dr. Bain, while regarding the brain as the material substratum of the psychical potentiality, Phrenology is that science that concerns itself with the study of nerve-centers as the special seats of special faculties, and considers the cortex of the brain (or lamina of consciousness) as differentiated into nervous centers, exercising special and very diverse functions. In its more comprehensive aspects it assumes that, through the distribution of the special nerves, co-ordinating and innervating the purely physical functions, there is a reciprocal relation and interaction between the purely organic and the specifically psychical activities, in such a manner that every organ of the human body and every species of tissue have each an appropriate influence in giving direction to the central activities of the nervous system, but that these organic influences, so far from inexorably determining the psychical activities with which they are interwoven, may be voluntarily disregarded or voluntarily indulged. In other words, they are the exponents, in the first place, of the relations of the

organism as a whole to the material substratum from which it draws its nutrition, and, in the second place, of its relations to general environing conditions, and are subordinated to the higher ends of the psychical life. Presuming the integrity and sanity of all these functions, Phrenology assumes that the individual organism, considered as a whole, represents the sum of all those influences styled hereditary, and of all the interactions between the psychical life and the purely physical activities which have taken their places as elements of culture or retrogression, from the first ancestor down, and that given type of cerebral organization, presented by the particular person under study, is the nervous register of all the aptitudes and biases thus acquired. Thus, structurally, functionally, and physically, a man may be said to remember every act, emotion, sentiment, passion, and idea presented in the organic, emotional, and intellectual life of the long series of organisms that have come before him, and to embody them all as potential influences and biases. In regard to the distribution of the nervous centers, Phrenology holds that the anterior lobes of the brain are ganglia appropriated to perception, intellectual cognition, ratiocination, and so on, the congeries constituting a group of intellectual centers. The coronal lobes include the moral and imaginative centers; while the posterior lobes are centers of the social instincts in general, and the cerebellar lobes are appropriated to the generative function. But while all these centers are appropriated to special psychical activities, they are also centers of the innervation of various departments of the organic structure and of the physical functions, and have thus a direct though unconscious influence in all those transform-

ations and modifications of the physical organism that take place in the progress of civilization and culture.

CENTERS OF NERVOUS LIFE.

Although the great motor ganglia of the brain are interior in their situation and independent of the convolutions, the latter are, many of them, motor centers, and this is particularly true of the anterior lobes, which include the principal centers of voluntary motion, and especially co-ordinate the muscles concerned in articulation, in facial expression, and in the external manifestation of intelligence. Indeed, all voluntary movements are, it may be comprehensively stated, propagated from the anterior lobes by way of the great superior ganglia known as the corpora striata. The involuntary and associated movements are, on the other hand, due to special activities of the motor tract, and have no distinct connection with consciousness. Thus, when I involuntarily turn to glance at something, the movements of the eyes and those of the exterior muscles of the head, trunk and legs, are all co-ordinated by the optic lobes, and I am conscious of the act as doing it, without the intervention of volition.

With the various associated movements the present investigation has no concern; but the attention of the reader may well be called to the one important fact that the intellectual and perceptive centers are also centers of volition, by way of emphasizing the special connection between causation and volition, pointed out in a preceding paragraph, and of showing that that connection, so far from resting upon metaphysical grounds alone, is a necessary result of cerebral structure. The anterior lobes may, therefore, be regarded as the ganglia of the understanding and of the will—that is to say,

as having the double office of cognition and volition. They are groups of ideovolitive centers.

These positions as to the function of the anterior lobes are demonstrated both by experiment and observation, and are, so far as I have experimented, common to all animals. If in a frog the anterior division of the brain is cut away, and the section is skillfully performed, the physical functions may remain in their full vigor for years; but the animal will sit unmoved, neither sees nor hears, and must be carefully fed at intervals. It will swallow when nutriment is introduced into its mouth, but has no perception of nutriment placed directly before it. On peripheral irritation, it will jump and walk. On contact with water it performs the associated movements concerned in swimming. But if left wholly to itself, it sits motionless, and would sit so until it perished of absolute starvation. Yet, when it is placed upon the back of the hand, and the hand is very slowly turned, so as to create a tendency to slip off, it adjusts itself to the inclination by shifting the position of its fore paws; and if the turning of the hand is continued, it mounts upward, with regular movements of the limbs, until it has adjusted itself on the edge of the hand with the precision of intelligence. By this experiment, carefully conducted, the animal may be made to circumnavigate the hand without a single accident. A full description of it occurs in Göltz's "*Beitrage zur lehre von den Functionen der Nervencentren*," published in 1869. In the summer of 1870, during a somewhat protracted residence in the country, I repeated and verified the experiments of Göltz with toads, squirrels, rabbits, kittens, and puppies, with these general results to scientific and experimental psy-

chology—that, first, in the anterior portions of the brain are invariably situated the centers of ideo-volitive action and of consciousness; secondly, that the spinal cord is one of the great centers of instincto-motor and associated movements; thirdly, that the cerebellum has distinctive properties of the same type, though of a higher order; fourthly, that in the middle and posterior portions of the cerebrum are situated centers in which the instinctive impressions of the spinal cord are agglutinated into imaginative, moral, and spiritual conceptions, on the one hand, and into social instincts on the other. In a recent dissection of the brain of an idiot, who had lived a life of nearly perfect absence of ideo-volitive action, I was enabled to verify these conclusions. The anterior lobes appeared to be merely rudimentary, the pyramidal bodies were comparatively undeveloped, and the striated bodies had less than three-fourths the usual volume. The coronal centers were also apparently rudimentary in their development; but there were no special deficiencies of development in the spinal cord, in the olivary bodies, or in the cerebellum, except that a section of the former showed the anterior white cord to be considerably smaller than usual. I subjected thin sections of the cortex of the brain and a thin transverse section of the spinal marrow to examination under the microscope, at 300 diameters; but although its structure was comparatively coarser, the nervous tissue presented no pathological indicia. The idiocy was in this instance inherited, and in other members of the family, and even in those of apparently high intelligence, on glancing across the face from a lateral point of observation a little behind, that exponent of the hereditary taint, the idiotic contour,

was distinctly visible. Without any distinctly morbid condition of nervous tissue in general, this man was an idiot simply from deficiency of the anterior lobes of the brain, and exhibited scarcely more consciousness or ideo-volition than an animal in which the anterior lobes have been removed. It is necessary, therefore, before proceeding further, to correct the view of Dr. Ecker, that the cortex of the brain is the lamina of consciousness, and to limit consciousness to the convolutions of the anterior lobes.

FUNCTIONS OF NERVOUS TISSUE.

This unquestionable fact may now be stated, namely, that, as between the two species of nervous tissue, the gray and the white, the former generally styled cineritious, and the latter (though incorrectly) medullary, the first has, in whatever situation it may be placed, distinct excitor properties, while the second is invariably annunciative. In the brain and spinal cord the former is invariably aggregated into masses or laminæ, while the latter consists of minute white fibers. Under the microscope, at 300 diameters, the gray tissue is resolvable into primitive spherical cells, interwoven with each other by means of very minute caudate and stellate processes. These cells have nuclei, fluid contents, and membranous wall, in the same manner as other fully developed protoplasmic cells, but depart somewhat from the spherical type in some quarters in consequence of pressure or of other exigencies of situation. In all their aspects these little bodies are primitive life-cells, in which, as in all other nucleated protoplasmic cells, the germinal center is the seat of the nutritive and reproductive activities, while the fluid contents between the germinal center and the external membranous wall are the seat of the

specific property designated as neurility. The white fibers consist, in a similar manner, of a minute interior filament termed the axis cylinder, wrapped about with a cylinder of white fluid, exterior to which is the thin membranous cylinder known as the nerve-sheath. If, starting from any muscle in the human body, one of these filaments is traced to its final termination in the spinal cord or the brain, this universal fact of anatomy will be illustrated, namely, that, although often gathered into larger filaments, and finally into the cylindrical bodies termed the spinal nerves, these primitive filaments never anastomose with each other, and always end in a nerve-cell, either in the brain or in the spinal marrow, the axis cylinder being invariably a continuation of the caudate process of the cell. The fundamental conception of a nervous system is, therefore, a cell with its caudate process continued as a nervous filament; and this primitive type is very frequent in insect life. The nervous organism of a man, with all its complexities, consists, in ultimate analysis, of innumerable repetitions and combinations of the cell and filament. This leads me to the correction, both on anatomical and experimental grounds, of

AN ERROR

that has been productive of no little confusion in psychological science, viz., the hard and fast division into sensory and motor nerves, and sensory and motor tracts, initiated by Sir Charles Bell, whose observations and experiments, valuable as they were in their day, have resulted in establishing an untenable distinction between the motor and the sensory activities. In point of fact, there is no difference between a motor and a sensory filament, except in the manner in which it peripherally terminates. Both commence in nerve-

cells, but the motor filaments end in peculiar bodies penetrating the muscle sheaths with a nervous influence, while the sensory end in cells or papillæ, having excitor properties and capable of receiving and propagating impressions—in other words, in minute brains, only perceptible under the microscope, in the cutis vera, in the retina of the eye, on the nasal membranes, in the ear, on the tongue, everywhere where sensory impression is possible. The only difference is that a motor-nerve commences in a cell and ends in a loop, while a sensory filament commences in one cell and ends in another; and the difference between their respective functions is no doubt due to this single fact of terminal structure, not to the suppositious existence of two special types of nerve-cells or of nervous centers, the one motor the other sensory. Thus, although the gray tissue of the spinal cord is a center of sensation, it is also a center of reflex movements; and when the anterior and posterior roots of a spinal nerve are traced under the microscope, some of the filaments of the two roots are observed to make an intertexture with each other, and then to merge into the cineritious cells of the spinal tissue, while others ascend to the brain, and there merge themselves into cells of the same type. The conclusion from these facts is, that there is no propriety in ascribing to certain portions of the gray tissue excito-motor properties, and to other portions excito-sensor properties, as, since Bell, physiologists are in the habit of doing, but that, on the other hand, all nerve-cells have excitor properties of the same general kind, and are capable either of sensory impression or of motor action, or of both. In the single microscopic nervous vesicle that constitutes the brain of the active, intelligent, indus-

trious, social, and order-loving ant, a rudimentary nervous system—exercising alike motor and sensory activities—is furnished, it appears to me, an unquestionable demonstration that when

the view of Bell is pushed to the extremity presented in modern physiology, it is carried considerably further than the facts justify, and complicates rather than simplifies.

[CONCLUSION IN APRIL.]



THE JOY OF INCOMPLETENESS.

If all our lives were one broad glare
Of sunlight, clear, unclouded;
If all our path were smooth and fair,
By no soft gloom enshrouded;
If all life's flowers were fully blown
Without the sweet unfolding,
And happiness were rudely thrown
On hands too weak for holding—
Should we not miss the twilight hours,
The gentle haze and sadness?
Should we not long for storms and showers,
To break the constant gladness?
If none were sick and none were sad,
What service could we render?
I think if we were always glad,
We scarcely could be tender.
Did our beloved never need
Our patient ministration,

Earth would grow cold, and miss, indeed,
Its sweetest consolation;
If sorrow never claimed our heart,
And every wish were granted,
Patience would die, and hope depart—
Life would be disenchanted.
And yet in heaven is no more night,
In heaven is no more sorrow!
Such unimagined new delight
Fresh grace from pain will borrow—
As the poor seed that underground
Seeks its true life above it,
Not knowing what will there be found
When sunbeams kiss and love it.
So we in darkness upward grow,
And look and long for heaven,
But can not picture it below,
Till more of light be given.

—*London Sunday Magazine.*

A CAUSE OF FAILURE IN LIFE.

ONE great cause of failure is that there are not enough fools in the world. Yon lazy hireling fails, loses his place, because his employer is not a fool. Generals have failed because the opposing generals were not fools; farmers, because there were no fools to buy thistles, which could be raised without labor; lawyers, because there were not enough fools to go to law; and publishers, because there were no fools to subscribe for a small, trifling paper, when a larger and better one

could be had for the same money. There is an artist who has not succeeded for the reason that those able to employ him were not rich fools, but competent judges of works of art. Many an aspiring author has failed because there were no fools to buy and read his senseless productions; while poets have been kept out of the temple of fame because there were no fools to go into raptures over poems which would not raise a man's thoughts higher than a child's nonsense.

The moral is, that whoever does anything, must, in order to succeed, do it as well as others can do. No matter whether he works with hands or his head, no matter whether he works for himself or in the employ of others, no matter what his trade or profession, it is only in this way that he can be truly successful.

It may be added, that many a fashionable coquette has failed to get married because the man whom she admired was a sensible man, and, consequently, would not marry a few ribbons when he wanted a wife. Many a fortune-

hunter owes his failure to the fact that the lady possessing the fortune was not an idiot, and, therefore, would not give him her money and become his slave for the pleasure of providing him a living. A physician fails when there are not enough fools to swallow improper medicine; a merchant, when there are not enough to buy his wares at 125 per cent. above cost.

The good earnestly hope that at some future time every vender of whiskey will fail because there will be left not one fool to buy death at ten cents a glass.

W. E. C.

THREE SUABIAN CHARACTER HEADS.

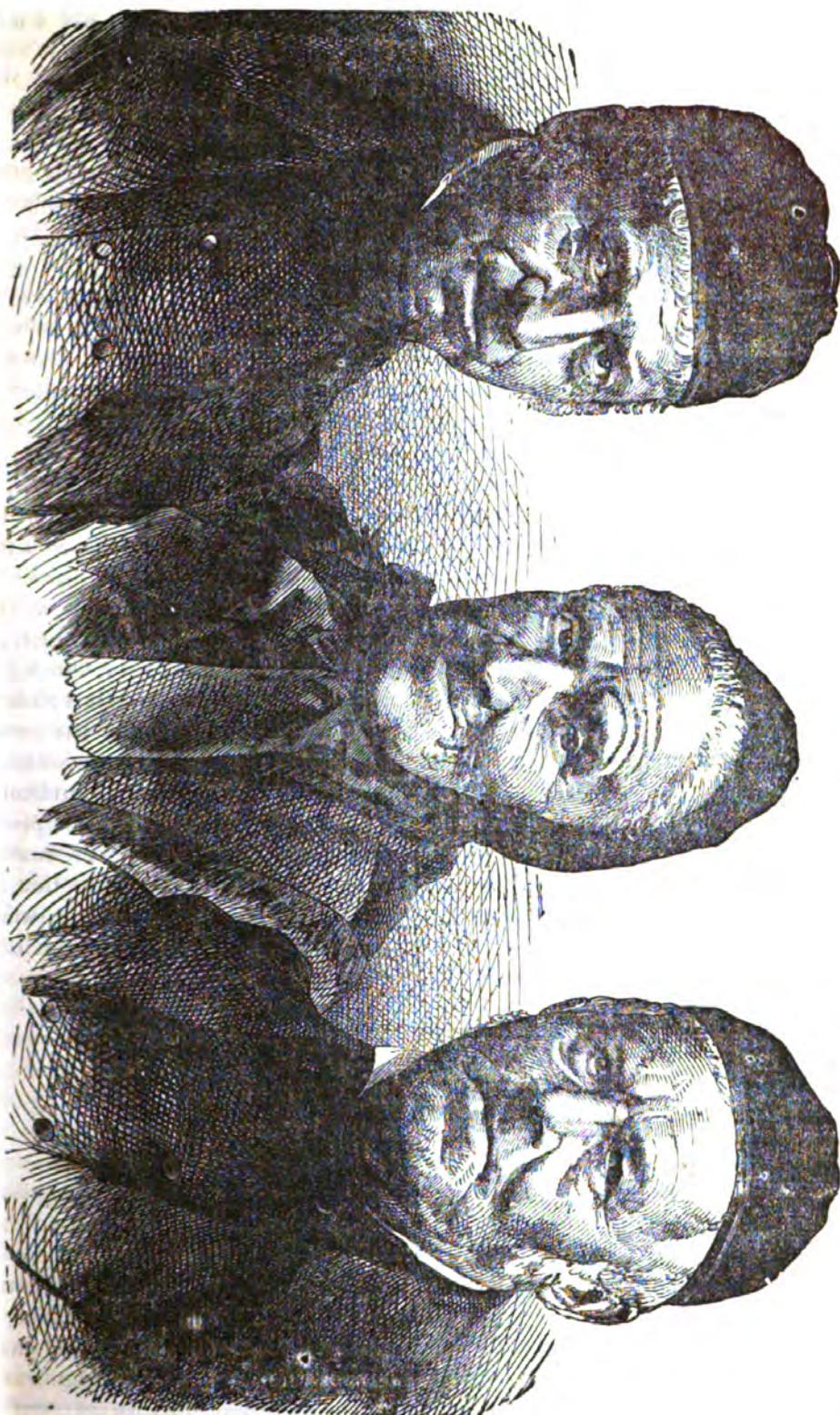
HERE are three portraits of the members of a family living in the little village of Obertürkheim, which lies on the river Neckar, close to the Rothen Mountain. For many a year the grape-vine has here found a specially genial spot, and the carefully-tended vineyards extend way up the mountain slope. The neat white dwelling-houses, with their green shutters, are seen above; grape-vines are tastefully trained to the wall, and in the fall the golden-colored maize may be seen near by. When the time for gathering the grapes has come, everybody is busy from early dawn to night. The men carry the great baskets, often holding two hundred pounds of the luscious fruit, on their backs down the slope, empty them into large vats with holes in the bottom, and tread out the juice of the berries with their feet. Joy and song celebrate the "harvest home."

This is the occupation of our friends of the pictures. They are vineyardists of the above-named village; man, wife, and brother-in-law, who live, work, and pray lovingly and peacefully together. The men attend to the vineyard, the wife

and daughter to the dairy and a small piece of land, the meadow.

Prayer-meetings are held regularly in the large room of their house. On Sunday, and twice during the week, a sermon is read and discussed; singing and prayer open and close the service. A large circle of friends belonging to the same creed, the—in Württemberg—numerous society of the Micheli-ans, congregate at these meetings. They derive their name from that of a pious yeoman, Michael Hahn, who, at the beginning of this century, in numerous writings, laid down his peculiar views on the reappearance of Christ; and his followers read and discuss the same. On Sunday morning they go to church with their conforming neighbors.

At these religious meetings the brother-in-law is generally the leader. He is an old man—over seventy—but still healthy and vigorous, who can perform all his work without difficulty, and looks upon his children and children's children with a great deal of satisfaction. He is a widely-traveled man, for, many years ago, he and sev-



THE MEMBERS OF A QUIET SUABIAN FAMILY.

eral others went to the Holy Land to examine the country, with a view to forming a colony, whose members were to work and await the return of Christ. But he found the country unsuited to grape-growing and agriculture, and came to the conclusion that his own fatherland was the best home for the present. His talks give evidence of the new and deep impressions the land of the Bible made upon one who had studied Holy Writ ever since his youth. The "Silent," as the people of his sect are called, have, on this account, made the house of this old gentleman their meeting place.

The three portraits are interesting subjects of study in themselves, but would be much more serviceable for our purposes if the head-dresses had been omitted. The man on the left has in his face an expression of shrewdness and tact which, under some circumstances, would ripen into suspicion. His intellect is not very largely developed, and what he has is of a practical cast. He has the sign of Language, and the wideness of his head in the region of the ears shows a good deal of energy, economy, and power of concealment. He has a good memory of words and facts, is a sharp observer, but not a broad thinker.

The woman, his wife, is the abler "man" of the two. She has a noble forehead, considering that she is uncultivated; she has a grand face, which would well have become a general or a senator. What dignity, passive power, persistency, thoroughness, and endurance! That nose and chin indicate fidelity, affection, courage, dignity, and strength of character. A knowledge of all that pertains to her daily life will be so carried as to be useful on the instant, and if that head had been well cultivated it would have adorned any circle, or attained to eminence in any line of thought and study.

The brother-in-law, on the right, has a womanly face, as if he resembled his mother, while we judge the woman to have resembled her father—hers is the most masculine face of the three. This man's head is broad through the region of the ears, indicating self-reliance, power, and force; the forehead is well developed, not only in the lower part, where perception and memory are manifested, but also in the upper portion, indicating the power of analysis and comprehensiveness of thought, and great common sense. What a sincere face! how free from guile, yet how strong, patient, thorough, amiable, truthful, reliable, and religious!

"A BAD BEGINNING."

CHAPTER III.

CHOOSING PROFESSIONS.

WE talk about choosing a profession as though it were a thing deliberately accomplished, but, strictly speaking, the great mass of us do not choose, we simply accept the work of hand or brain which the necessities or the peculiar circumstances of our lot force upon us. If we are happy and

prosperous therein, we moralize piously on the guiding and controlling hand of Providence in the affairs of life; but if unsuccessful, and pulling perpetually against the current of inclination, we fail of satisfaction and reward in our pursuit, there is no such recognition of Divine direction, but inward rebellion

and revolt against the cruel and compulsory fate that binds us to hard and uncongenial tasks.

What it would be to choose, under wise and intelligent instruction, a vocation exactly in harmony with our nature and precisely adapted to our powers, and to pursue it untrammelled and unimpeded by the clamoring claims of duties and relations falsely imposed upon our individual thought and care—what this would be we may none of us know, experimentally, until that favored day when the laws of mind are more perfectly comprehended and regarded, and our social life is organized upon a plan less artificial and complex in its demands.

But the young man of our story had, with the rest of us, no better fortune than to live in the faint early dawn of that beautiful era, and with all his youthful enthusiasm and burning aspirations for a life of power and usefulness, he had neither the wisdom to elect, nor the freedom and opportunity to execute, the work peculiarly his own. For the iron hand of poverty held the boy in its hard grip, and his young strength had been early turned to account in the cotton mills of his native town, where Adam himself, between his fevers of invention, had worked for the supply of the family necessities.

Thus, to the age of sixteen, at which period he is commended to your favorable notice and friendly regards, our ambitious youth had had little chance to discover, and less to follow, the true inclination of his genius for labor, though his passion for knowledge and zeal for dispensing its practical benefits were characteristics which no stress of circumstances could extinguish or repress so far that the most meager opportunity for their manifestation was not eagerly appropriated and made to

serve their ends. To what degree these traits of his nature owed their strength and availability to the fostering care, encouragement, and direction of Madame Lacrosse could no more be estimated than the thousand other nameless and unappreciated influences which go to make up the sum of human life and character; yet it is certain she conscientiously resisted all temptations to impose upon her boy any definite plan of future work that should represent her ideas of beauty, dignity, and utility, and not also his, which, being yet in the tender and impressible state of growth, she desired not to mold or fashion, but simply to develop and direct.

A little incident, occurring not long before Adam's death, had contributed, as such seemingly insignificant trifles often do, to give shape and coloring to his intangible dreams, and point and definiteness to his nameless aspirations. One of those mental philosophers and students of human nature, who sometimes do, and who oftener might, drop a gratuitous word of instruction, advice, or encouragement for the enlightenment and advancement of an ignorant and hesitating fellow mortal, had one day passed through the department of work in which he was engaged, and, pausing observantly for a moment's speech with him, had uttered, half unconsciously, as it appeared, some reflections or suggestions which had fallen as ripened seed in the fallow soil of his mind. "That is good," the stranger had remarked, noting the lad's absorption in his task, "faithful in the least, faithful in the greatest. That is well. But you will not always spend your strength in work like this," he added, standing off and viewing the boy in profile as he might critically have viewed a fine work of art.

"Power there," he went on, as though discoursing with himself; "grand moral qualities—absorbing love of his kind in intense desire to right wrong, to confer benefits, to enlighten ignorance—intuitive perception of character and motive—keen analytical faculty, and an instinctive, almost supernatural, sense of the relations of cause and effect—swift observation and an eager, restless seeking after the truth of things—great persistence, courage, daring, force, executiveness. Boy, you are born to leadership."

"Aye, sir, I feel it," was the quick, breathless response of the hungry listener; "but how, where?"

The stranger smiled. "Youth sees all ways open, and has but one perplexity—which to choose," he said, kindly. "But your dominion, my lad, is clearly in the realm of ideas. It is spiritual rather than material forces which you are formed to lead. You would make an orator of exceptional power, swaying the multitude at will by the pure fervor of your earnestness; but there is that in your nature, I think, which would be unsatisfied with an influence so evanescent in its character, and which would impel you to seek a broader and more permanent basis of power. You have a certain quality of Constructiveness—an ability for organizing and magnetically drawing into the line of your own mastering purpose the undirected forces of other minds; and this peculiar faculty, combined with your unflinching bravery and independence of thought, would constitute you pre-eminently a successful leader in any branch of reform requiring the championship of a staunch, true, valiant, broad-visioned, unprejudiced, uncompromising, and incorruptible spirit. Think of journalism, young man. It is a field affording ample

scope for the exercise of your gifts, and it is destined to become the ruling power in the land—one of the grandest moral agencies in human control—mightier in its influence, wider in its dominion than the precepts of the pulpit and the edicts of thrones. Think of it."

And our aspiring youth thought of it, you may be sure, and thought of little else, in fact, for days preceding the shock of the domestic tragedy which had filled for the time the whole compass of his life, and left no space for present reflections, save those giving pain and trouble.

But with the lessening of the strain on heart and nerve, and the inevitable return to the every-day duties and uncongenial tasks which were his portion, the future, with her sphinx-like face, rose again before him, and the question as to how he should solve the riddle presented to him became once more an absorbing subject of thought. Talking the matter over one evening with his bosom friend and confidante, they came to the conclusion that to act upon the suggestion which had taken so strong a hold on his affections would be the wisest thing to do since it gave infinite promise of satisfaction in employment to mind and heart. But with this decision arose the consideration of difficulties in the way, of obstacles to be overcome, of advantages to be secured, of requirements to be honestly and squarely met.

"You should have the thorough drill and preparation of a college course to give you confidence and skill in such a profession," the mother said, thoughtfully studying the situation."

And a little silence fell upon the two, the greatness of the thing desired for a space overshadowing all other considerations, and assuming a

magnitude out of all proportion to its merit.

"I think it can be managed," Madam Lacrosse resumed, after due deliberation. "There is the small amount of your yet unappropriated wages for the past few months, and as with your departure I shall be freed from home duties I can make my time and labor some way available in sustaining you through your course of study."

Ariel, sitting with his face in shadow, and his head bowed negligently upon his hand, did not at once reply, but after a few moments he arose, came over to his mother's side and kissed her tenderly, as though in acceptance of her plan.

"How is it, mother, love," he said, sitting down upon the arm of her chair, after an old habit of his boyhood, "how is it that you women look upon it as a matter of course that you are to spend your life for the advancement of others?"

"Well, perhaps, because we find our happiness in so spending ourselves," was the smiling response.

"But have you no personal ambitions or aspirations that you would like to realize?" pursued the loving questioner.

"If we have, we commit them to our husbands and sons to gratify and fulfill," came the reply, still smiling, but with the least perceptible tinge of sarcasm.

"We think," said Ariel, turning the mother's face to his, "we think, do we not, that there is small chance of their fulfillment as the world goes? Well, I shall strive always to do credit to my mother, but I shall never hope to represent her. Can she not better represent herself? I should shrink from having all her hopes and ambitions centered in me. I should hate to have to

struggle against the spirit of selfishness which her entire devotion to absorption in my interests would be sure to develop and foster. I should like when I talk over my plans and progress to have her report her's also, for so we would form a mutual admiration society of two for the encouragement and support of each other. Now, then, mother heart, unbosom yourself and give me a glimpse of your own aspirations for the future."

"My dear boy, what aspirations or ambitions can I have for myself, with these silver threads daily thickening in my hair?"

"Lovely silver threads! they but add to your beauty, not to your age," the boy responded, dropping a kiss upon the slandered locks. "Your heart is as young as mine, and will be when your head is white as snow. Indeed, I think your face is little older. Let us see." And he brought a small mirror, and laying his cheek to hers, held it up to catch the reflection.

"What do you mark, mother, mine?"

"The bright young moon on the edge of the shadowy old one," she answered, smiling.

"Now, that is not a fair simile, for the young moon slowly absorbs the old one," complained Ariel.

"In accordance with a fixed law of nature," added his mother.

"I do not like it," persisted the youth. "Now, to me these faces suggest two stars—one with the softened radiance of wisdom and experience, but both shining with the same high hopes, and exulting in equal possibilities. I never observed before that we bore such a striking resemblance to each other—the same eyes, lips, chin; but I have a somewhat bolder front and a more audacious nose. By the by,

mother, dear, how came I by this aggressive nose of mine?"

"It is a new departure, I think," smiled Madame Lacrosse.

"I like that," returned Ariel, "I shall found a new family of noses—a race of conquerers. But we were talking about your future, my mother, and how we should make it beautiful."

"Let us first settle your plans, Ariel, and decide on your educational course," said the mother.

"I am not sure that I shall take any other educational course than such as I may receive in the school-room of the world," was the stout rejoinder. "There would be greater prestige and some advantages in a college training which I might always feel the lack of, but, on the other hand, in making vast sacrifices to obtain those advantages, it seems to me that I contract my aims, and apply my time and force very indirectly to the end in view. I shall study none the less severely, but by such methods as best suit me, and under such tutors as the University of Experience shall provide, and I think I shall graduate very creditably to myself and to the world's unchartered institutions of learning. But, mother, I know what *your* life has been—one long sacrifice and repression of the aspiring impulses which move me to action that was forbidden you; and now that you are free from the obligations of your earlier years, I don't want you to feel that you must devote the remnant of your strength to the promotion of my interests wholly. You have given me my share, and it is now my privilege to return in some faint measure the good received—at least the interest on my principal; so tell me, you sweetly reticent and obstinate mother mine, what may be your ambitions?"

"Well, whatever ambitions I may have had in my youth I have transmitted to you, my son, for fulfillment," Mary Lacrosse thoughtfully replied. At my time of life there can be but one worthy aim—to minister to the welfare of others. This I feel I could satisfactorily do by the cultivation and scientific training of an almost unconscious habit I have of dwelling on and seeking to penetrate into the hidden mystery of diseased conditions of body and mind—of studying the nature and searching out the underlying causes of the woes and pains and sufferings which appeal to my sympathy, and which are treated often in so empirical and superficial a fashion that I long to aid in the diffusion of a better knowledge of the laws of life, health, and happiness, physical and spiritual."

"In a word, you would be a physician to souls as well as bodies, administering truths in place of physic," said Ariel. "Well, what shall hinder? So, so—it is you that will take the college course now, and the unappropriated wages, and the—"

"Stay!" interrupted Madam with a gesture of pride; "I am as brave and self-reliant as my son. Study, and the advantages of scientific research and experiment I will have, for I would be no charlatan, but I ask of you no aid, only freedom to work my own way and to accomplish my own purposes."

"Bravo! the worthy mother of a worthy son," laughed Ariel. "But come, now that we have openly and mutually confessed our choice, let us get down to the practical details of the work of preparation before us."

But the power that controls and determines the length of our reports will not allow us to protract the record of this conversation, and we must leave to the future the portrayal of its results.

CHAPTER IV.

DEMANDING JUSTICE.

A tremor of dismay shook the hearts of the little band of toilers in the Woodburne Calico Mills at the failure and suspension of the works, which was announced on the day following the Sabbath evening talk of our friends in the last chapter.

It was not an event that need to have surprised any of them, since rumors of such a calamity had been whispered about from time to time, and muttered predictions had passed from lip to lip even among themselves; yet, when the fulfillment came it stunned them like the blow of unexpected misfortune, and produced, for the day, in the little community as great a panic as though the foundations of the universe itself had been shaken. For it was not only the loss of present employment and means of subsistence, but the larger number of those engaged in the mills had been working for several months on promises to pay, and had exhausted their small stock of savings and credit in view of the increased rate of wages and general prosperity which were to accrue from the profits of the prudently delayed sale of a class of manufactures for which, it was said, negotiations were pending in a new and richer market.

They confessed to each other now, in chagrin, mortification and self-derision, that they had been the weak, submissive dupes of a base, cunning, scheming speculator, that in their hearts they had never really had faith in this man—Ralph Staunton—yet they had trusted him with the bread of their children's mouths—aye, and would have trusted him again if he had asked it. For in his bland presence they were inspired with a kind of confidence which they could not satisfactorily

have explained, or, perhaps, have proved to have any foundation in reason, but which, nevertheless, impelled them blindly to follow his guidance, to accept his propositions, to accede to his demands. Withdrawn from the sphere of his immediate influence, and of his personal magnetism, they would experience often a feeling of inward dissatisfaction, of uneasy self-reproof, of uncomfortable doubt and suspicion, against which they reasoned and resolutely struggled as a thing indicative of evil in themselves rather than him toward whom the mental impulse was unconsciously directed.

Even upon this day, while their hearts were burning with a sense of wrong and injury which they swore they never could outgrow, the power of the master manifested itself when at the call of the factory bell the operators were brought into his presence to receive their formal discharge. They had assembled with sullen, downcast looks, with reproaches, denunciations, and execrations in their mouths; yet when the offender made his appearance with his sadly regretful and sympathetic face, his tenderly considerate and conciliating manner, only one faint solitary hiss greeted him, and for this every individual cheek reddened with a sense of shame.

As he came into their midst, grave, silent, sorrowful, giving each hand as he passed the fraternal grip of fellowship in misfortune, any close student of human nature would have read in every lineament, gesture, and accent of the man an absorbing love of approbation, a quick perception of character, a magnetic power to draw, fascinate, and control, yet with these qualities in such entire subjection to the predominating selfish propensities of his nature that they could be exercised only with

a view to his own pleasure and aggrandizement, though exercised so cunningly in accordance with his intuitive judgment of the pleasing thing to do and say, that the mystery of confused impressions, and the conflict of faith and doubt respecting his sincerity was clearly explainable by those who held the key to his character.

"My dear friends," he said, after he had separately greeted all, "this is a sad stroke of fortune for every one of us. I sympathize deeply with you in your disappointment and losses, and suffer as one bound with you. For I, too, am in the bitter straits of poverty, without power to discharge my indebtedness and without knowledge as to how the means for to-morrow's sustenance is to be obtained. What I hold I leave in the hands of my creditors, and strike out penniless to find such work and make such provision for my family as is possible. For you I can but hope that brighter days are dawning, that the suspension of the mills will be of brief duration, and that my successor, with his superior skill in the administration of affairs, will inaugurate a reign of prosperity in which you will be the happy participants. In taking leave of you I ask you humbly to overlook my mistakes and shortcomings as far as you are able, and to forgive the mismanagement and lack of foresight—if such it was—that brought upon us this disaster; for, believe me, however widely I have missed my mark, I aimed simply and honestly at results which were to improve the condition and better the fortunes of all."

The sadness and humility with which this speech was delivered, brokenly and briefly, as though the heart were too full for words, was not without its calculated effect on the sympa-

thies of the assembled listeners, many of whom, among the women, wept—perhaps not less in pity for the man than for themselves—and all bowed their heads in respectful acknowledgment of regrets that seemed sincerely felt and manfully confessed.

All but one. A single workman, with lowering brow and mouth compressed, stood aloof and made no demonstration other than silent contempt. He was a troublesome fellow—Jarl Darley; that is, troublesome in respect to the independence and singularity of his opinions, which were antagonistic to the accepted and conventional modes of thought, and, therefore, confusing and disturbing to the degree that he might enforce or make them subjects of consideration. More than once Ralph Staunton had been tempted to dismiss the man, but his superior skill as an operative in his special department, not to mention a certain unaccountable fear of offending him, had checked the impulse, though he had taken care to encourage the prevailing notion among his employes and community in general that, outside of his peculiar province of work, Darley was crazed and shattered in mind—a harmless, ranting kind of lunatic, whose ideas were too odd and ridiculous to merit attention, save as a matter of amusement.

For all that, with his thirst for universal approbation, the sullen aspect of the workman under his frowning gray eyebrows irritated and rendered him uneasy on this occasion, and he passed over to his side and put forth his hand again with a sad, appealing smile. "Have you no word at all for me, Jarl, old friend?" he plead, laying the unaccepted hand upon Darley's slightly bowed shoulder.

"Aye, sir," was the prompt response,

"but this is not the place to speak it. By your leave, I will call at your house some time during the day and—talk certain matters over."

Staunton's countenance changed. This air of superiority in an inferior was extremely irritating. "I shall be glad to receive you," he said, with a slight accession of coldness and hauteur, "but as I shall be very busy with my arrangements for departure on the morrow, it may happen that I shall not be able to grant you a protracted interview."

"Very good; I hope not to detain you long," the other answered, with a significant look, and walked away without further parley, leaving the retiring master of Woodburne with a disagreeable sense of chagrin and regret at having observed the mood of the fellow.

It was in the dusk of evening that Jarl Darley strode up to the main entrance of the elegant family mansion of Ralph Staunton, and boldly applied for admittance.

"No visitors received to-night—the master has given strict orders," was the prompt message of the maid who answered his summons, and the door was slammed unceremoniously in his face.

"Very well, I can wait," muttered Jarl, descending the steps; and passing by a side path to another walk leading up to a projecting wing of the building, he carefully scrutinized the fastenings of the low French windows opening into the half office, half library, where Ralph Staunton, when at home, was most frequently to be found; then pulling his slouched hat further over his face he sauntered out into the pleasure grounds adjoining the house, and flung himself down in a garden chair commanding a view of the point he had marked.

He had sat there, silent as a statue, for, perhaps, two hours, when a light, shining through the crevices of the shutters, which the excessive heat of the evening would not suffer to be closed, announced the occupancy of the room, for which he had been doggedly watching. Still, as though in no haste to accomplish his purpose, whatever it might be, he sat waiting until all sounds about the house had ceased; then rising and cautiously approaching the one unguarded window, carefully adjusted the opening in the shutter to his line of vision.

Ralph Staunton, sitting before his great iron safe, turned his head nervously at the slight sound, but probably thinking it a false alarm returned presently to his occupation of assorting and filing away in a small casket beside him papers of evident value.

Suddenly the shutters were flung back and Jarl Darley stepped boldly in at the open casement.

Quick as lightning Staunton was on his feet, and, seizing the loaded pistol lying at hand, aimed it at the intruder's head.

"Stay," commanded Darley, coolly eyeing his threatening antagonist, "I heard you say to-day you were a pauper. What has a pauper to fear from a supposed burglar? It would not look well of you to shoot a man for attempted robbery."

"I may guard—it is my business to guard the property of my creditors," Staunton returned, lowering his weapon as he recognized his offensive visitor.

"That is kind of you, but the greater number of your creditors would, I am sure, prefer the privilege of protecting their property themselves. Here they are right around you, men with families reduced to the last straits of poverty, some of them with sick, suffering,

and utterly helpless ones upon their hands, and without the prospect of a day's work and recompense in store. One of those packages of bank-notes which you are trying to hide from sight would go far toward satisfying them for months of unrequited service, and relieve them of their most pressing necessities;" and Jarl Darley put forth his stout walking stick and tossed right and left the heap of papers which the other had been carelessly rumpling together with an evident view to the concealment of some object which the interloper's keen eye was quick to discern.

"Jarl Darley, you deserve to be shot like a dog," Ralph Staunton burst forth in a rage. "How dare you come into my house in this brigand fashion and brave me with such insolent language?"

"Sir, a man made desperate by wrongs seen and suffered dares anything that promises redress," Jarl answered, with dignity. "Had I betrayed my knowledge of your knavery to my fellows, who suppose you a victim of unfortunate circumstances; had I shown to them the proof of your treachery and double-dealing, they would have plundered your house and burned it over your head with yells of execration and shouts of vengeance."

"What do you mean, villain?" demanded Staunton, haughtily, yet with growing pallor.

Jarl drew from his pocket and slowly unfolded a letter bearing in bold characters the address of the late owner of Woodburne Mills, who gazed, open-mouthed and spell-bound with the surprise of swift-coming recollection.

"How came you by that?" he questioned, breathlessly, with hands instinctively searching his own pockets.

"Aha! you had not missed the tell-

tale, then," Darley said, smoothing out the rumpled paper. "It speaks plainer to those who understand, but here is a passage that needs no interpretation beyond that offered by your action. Let me refresh your memory."

"Get off to Europe as soon as you are able to make requisite arrangements. The traveling agency for the rich house of J. W. is a capital idea, and will serve to disarm suspicion. Take care of the bonds. Will find receipts from last sale awaiting you in New York. Come on as soon as practicable—will talk over the mill business and decide on future operations. Suppose it is not necessary to caution you about destroying communications of this kind. It would be a devil of a joke if they fell into other hands.

"Yours, * *"

Ralph Staunton's face was white as death, and his hands shook violently as he reached out to seize the paper from Jarl's strong hold. "Give it to me!" he commanded hoarsely. "I know nothing of it! It is a forgery—the work of some foul enemy; let me see!"

"Not till you have righted the wrongs to which it attests," Darley answered, firmly crushing the letter again in his pocket.

"By Heaven, you shall not go out of this house alive unless you yield that paper up," Staunton said, fumbling with his shaking hands for the pistol which he had dropped at recognition of a man whom, fearing, he yet trusted.

"Here," responded Jarl promptly, picking up the weapon and placing it in the trembling grasp of his threatening *vis-a-vis*. "If you choose to add murder to your other crimes perhaps the law will sustain you."

"Nonsense!" Ralph Staunton laid down the pistol which he vainly strove

to hold with steady aim, his manner changing at once from bravado and intimidation to friendly persuasion and entreaty. "Jarl, old comrade, let us be reasonable. I swear I know nothing of that letter, but it is capable of doing me great injury, and it ought to be in my possession. Give it up, Jarl, and name the consideration. Anything in my power shall be cheerfully conceded."

"I yield this proof of your guilt upon one consideration only—that you make open confession and restitution to the last farthing of all that you have dishonestly wrested from those whom you have held at as great disadvantage as the highway robber holds his helpless, unarmed victims," Jarl Darley an-

[TO BE CONTINUED.]

swered with the unflinching firmness of steel.

Ralph Staunton stood glaring at him a moment in ungovernable rage, then with a sudden bound sprang at his throat, clinching it with the strength and fury of a madman with one hand, while with the other he sought to gain possession of the coveted paper.

With a movement as swift, Jarl snatched at the pistol lying on the table, and brought its cold muzzle to his assailant's forehead in warning which he could not speak. But maddened, and intent on his object, Staunton did not relinquish or loosen his hold until, at a sharp report, he flung up his hands and fell heavily to the floor.

HOW OUR ANCESTORS DRESSED.

THE subject of dress or costume is one of the most interesting which engages the attention of society at large. This statement is evidenced in one way by the great number of periodicals devoted expressly to the explanation and illustration of the new inventions in, or adaptations of, dress. With the advancement of time the methods of clothing the person have changed, and the changes may be deemed, in many respects, indicative of the progress of civilization.

Especially is this the case with the fashions in the apparel of men. Looking back two or three thousand years we find the Greek and the Roman wearing garments whose style was far less convenient than the closely fitting coat and trowser of to-day. The costumes in vogue among the gentlemen three or four hundred years ago were by no means so neat and well adapted to ease of movement as those now in common use.

To be sure, we may regard with poetic admiration the flowing toga or tunic of the ancient, but for practical, every-day purposes, for physical movement and real work, such garments were totally unfitted.



Fig. 1—NORMAN GENTLEMAN 800 YEARS AGO.

It is our purpose at this time to give a brief review, with a few illustrations, of the dress of our forefathers. We present first an illustration of a gentle-

man's costume in the year 1,100, or about the time of William Rufus, the second Norman King of Britain. A



Fig. 2—A CAVALIER OF A. D. 1350.

short frock or blouse-like coat was worn, as appears in the picture, a belt around the waist, a long pair of stockings reaching from the feet to the waist, and a pair of long cloth or leathern shoes ending in a point; over the coat was thrown a rather strange outer garment or gown open at the sides, united at the shoulders, extending upward and forming a close hood for the head.



Fig. 3—LADY OF A. D. 1400.

This outer garment was of considerable length, reaching to the ankles. The colors of these different articles

of dress varied. The inner coat might be blue, the gown and hood striped alternately brown and yellow, and the stockings red. This was a Norman fashion, introduced by the Conquerors into England.

In the time of Richard the Second a gentleman was robed very differently, as may be seen in the second illustration. The frock coat fits the form better, buttons closely up to the chin, and is spangled over with small tassels of gold thread, the coat itself being of a light green. The girdle is worn around the waist, from which hangs a purse or bag of cloth. Long stockings are



Fig. 4—A COURT LADY IN 1520.

worn as before; they extend, however, to an extravagant length, and terminate in a point. The gentlemen of that early time deemed it necessary to array themselves in bright and conspicuous hues. They wore a cap made in a somewhat fanciful way; usually with a jewel set in the front.

Between the time of the Norman invasion and the time of the Plantagenets a considerable change had occurred in the constitution of the royal court. It had become the scene of gallant, brilliantly-arrayed knights and of daintily-adorned ladies; luxurious habits had been taken on. But we

can not say that their garments were altogether inconsistent with the great development and growth of the English



FIG. 5—A LADY OF QUEEN ELIZABETH'S TIME.

people since the rough and crude Norman time. According to a writer in the *Youth's Companion*, there were laws in the time of Richard the Second which regulated the dress of all ranks of society. Servants were forced to wear low-priced clothes without extensive ornamentation or embroidery. Shepherds, laborers, and merchants, unless they possessed a certain amount of property, were required to wear



FIG. 6—COSTUME OF THE PROTECTORATE.

a blanket or russet, with linen girdles. Tradesmen worth five hundred pounds might wear silk and silver ornaments,

and their wives and daughters could put on furs and silken veils. Knights could wear what they pleased, excepting, however, ermine.

In the time of Edward the Fourth ladies of rank were accustomed to dress themselves much after the manner shown in the next illustration; in fact, the ladies' dress in 1460 had many points of resemblance to the dress of the ladies of to-day. The long, stiff cap, which extends back from the head, and the long, white veil sweeping down from its crown, are the chief characteristics of difference. This lady we can suppose to be attired in a rich silk, with



FIG. 7—A QUEEN ANNE SWELL.

a wide border of ermine. She wears jewels around her neck and on her breast.

In the time of Henry the Eighth the ladies of his court dressed very differently from the style shown in the last illustration. The costume was richer in color and more conspicuous and imposing. The head-dress had greatly altered, was usually of white material, trimmed with golden flowers, and their robe was studded with rubies and emeralds. The expansion at the sides shown in the picture is due to the extreme fullness given to the lower part of the sleeves, a very peculiar feature in the dress.

Fifty or sixty years later, we find that the ladies had adopted other styles from what they favored in the time of bluff King Hal. During the reign of Queen Elizabeth, who was exceedingly fond of "fine feathers," the women of wealth, as might be expected (taking their cue from their royal protector), indulged in many extravagances. A close-fitting bodice was worn, fitting low in the neck. The skirt or dress was very voluminous, held out by enormous hoops, with puffings at the waist. An immense fan-like collar, known to-day as Elizabethan, rose high behind the head; a comb of considerable dimensions was worn in the back part of the hair. Jewels in profusion were common. In the case of Queen Elizabeth herself, every ornament which caprice or vanity could devise was lavished upon the decoration of her tall form. We should expect some modification of the excesses in dress which characterized the maiden queen in the time when stern Cromwell governed. It is said that he abolished many things, but did not suppress all desire of display.



Fig. 8—LADIES' DRESS IN 1760.

The gentleman who next appears is a representative of the Protectorate, but is arrayed fanciful enough, we think,

for any time. The high, richly-laced collar, the gauntlets embroidered with gold, the jaunty jacket decorated and



Fig. 9—A LADY OF TO-DAY.

slashed, the wide breeches, top boots with capacious legs, plumed hat, and drooping wig, all would betoken the man of fashion and preferment.

In Queen Anne's time the courtier dressed with but little more pretension, but, we think, with more taste and comfort in some respects. Long and richly-embroidered vests were then in fashion. These vests reached nearly to the knees, with pockets on each side; a coat fitting rather closely to the form was worn over the vest. In trimming and embroidery these coats were somewhat elaborate, especially the sleeves at the wrists. The breeches stopped just above the knees, stockings joining them. Swords were commonly worn, the hilt being more or less jeweled and ornamented. Canes, too, were in vogue. The long, flowing wigs were very highly esteemed by men of rank. At this time the ladies combed their hair into a

pyramid on the tops of their heads, monning it with high laced caps, the strings of which fell to the waist. They dressed very extravagantly. It is said that their petticoats were too wide to enter any coach. About this time they began to wear small black patches on their faces, which were regarded as contributing to their charms.

About 1760 the ladies decked themselves after the style shown in our eighth illustration. The most prominent points which strike the reader here are the rather close-fitting bodice and the enormous height to which the hair was combed and fixed. Having been thus raised, it was powdered and surmounted by caps of odd shapes. The dress otherwise is what we of this time would deem quite sensible, being, in the main, graceful and well arranged. At that time the men had adopted the absurd white wigs of horse-hair, or powdered their own hair, and wore it in a *queue* at the back, and also put on the short clothes which are seen in the portraits of gentlemen of our Revolution

era. They wore gold or silver buckles on their shoes, ruffles on their shirt-bosoms and wrists.

All that has been shown must suggest comparisons with costumes in vogue now-a-days, and lest the fair reader should draw a conclusion too favorable to the wisdom of the modern modiste, or of those who support her, we have had a copy made of an illustration which we saw in a recent well-known fashion paper. Its moderation must be admitted, for we meet daily on the street exhibitions which are not a degree short of ridiculous, as well as shamefully extravagant. There are in this view of our modern lady several features which show superiority in a marked degree over the costumes of the earlier days. Still there are certain points which strike the practical observer with a sense of the need of economy and sense, especially with regard to her hat. Indeed, it has always been a question with us whether a lady wears a hat or merely carries it in her out-of-door excursions. D.

TO THE BOYS AND GIRLS—HABIT.

I WISH to speak to you about *habit*, for it is a sort of account-book or register within us that puts down every word and thought and deed we do, and means to tell on us in the "Judgment Day," to say nothing of the time coming when every person will understand Phrenology, and will be able to read all our habits in our faces and figures, just as you read an open book. It will not be pleasant then to have anything wicked or ugly or silly in our account-book; and I will tell you something about keeping this "register" straight. It is much easier than one would suppose, a deal easier than getting it

wrong, for when a child does very badly, everybody dislikes him, and he gets all in a tangle. But if he is the right sort of a child, everybody loves him, and his life is plain sailing.

Just being accustomed to doing a thing, whether it is right or wrong, makes it easier to do; so do not be discouraged when you try to exchange a naughty habit for a good one; the one you give up you will learn to dislike, the one you try to adopt will grow easier all the time, until you can not tell it from your nature; it will seem a part of you, while the same is true of an evil habit. If you should to-day pick

up story-telling, stealing, irritability, or any bad way of acting, and persevere in it, it would soon be so easy to do that you could scarcely keep from it—but how dangerous and disgraceful!

I will give you some instances of handsome boys and girls who spoiled their good looks just through habits. I knew a pretty little girl who had a rose-bud of a mouth, but who formed a habit of twisting and pulling at her lower lip. The more her mamma checked her about it, the more she seemed to persist in it. She is just grown now, and people often say, "She would be a handsome girl if she had not *such a thick lower lip.*" You see there are little muscles about the mouth that grow larger with use; if you continue to use the mouth or any other feature—the eyes or nose, too—in a wrong way while you are young, it will become distorted and out of shape.

I once saw a boy of about eleven coming toward me on the sidewalk, and he had a most horrid nose. The tip of his nose had gone up and the bridge of it in, so that the entire nostrils showed as plainly as his eyes; and though he had good eyes and mouth, he was very ugly. I was just wondering if he did not have some habit that had ruined that nose. While I was pondering he, meaning to wipe his nose, took a swipe—I can not call it anything else—right up his nose with such force it would have laid a respectable nose for the time being in the same shape as his. Now, if he had had that habit for even a few years, as I have no doubt he did, it was enough to account for the ugliness of that feature; for remember, the nose is mostly of gristle, or very tender bone, and can be spoiled with a rude way of handling it. Many children have some ugly practices with the nose, which thickens

it, turns it up, or spreads the nostrils. Holding the face habitually in a sullen, pouty, dogged, or spiteful way will throw that cast over the countenance, and it is decidedly ugly. But sullen, pouty, dogged, or spiteful habits make one that has them show themselves in his countenance before a body knows it, and I don't know of any way of getting rid of these bad expressions in the face except by laying aside the disagreeable ways that make them, and taking in place of them cheerful obedience and respect to parents and teachers, even if we can not see the good of it. My word for it you will see the good of it when you are grown, and be a happier, more pleasant-faced boy or girl all through childhood.

We can not *put on* a sweet face when there is a bad, willful heart behind it, or hypocrisy, a still worse expression, comes through.

In this paper I want to speak of some habits that spoil the figure. How we all admire a boy or girl, gentleman or lady, with a straight figure, broad chest, erect head, graceful walk, and the health that accompanies these! Now, let me tell you what will prevent you from acquiring them, or spoil them even if you already have them. Children in town are not so liable to spoil them as country children, because their teachers remind them about it so often, but wherever I have been in the country this is more or less what I see among nine-tenths of the children: shoulder-blades out at the back, I was going to say like wings; a hollow where the chest ought to be; chin nearly on the breast, and the stomach thus thrown out so as to make a bustle before them. This position, of course, puts the limbs away—in fact, they are generally carried too far apart, and their toes in. Could you imagine any attitude more

uneasy and ungraceful! and yet they really have held it so long that it is easier to them than a change. But a teacher can soon drill them into shape by imitating it, and showing how ugly it is, and then by reminding them constantly to straighten the shoulders, hold the chin up, toes out, etc., until they outgrow the habit, and look as

nice as other children. Simply a stooping posture, that is, bending forward at the shoulders, throws the figure out of shape from head to feet, and continuing the practice makes the muscles and bones grow in that shape until it is very difficult to overcome it. I shall have more to tell you another time.

KATE KAVANAGH.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

“The age culls simples;
With a broad clown’s back turned broadly to the
Glory of the stars.”—*Mrs. Browning.*

CHAPTER V.

“WELL,” said Judge Templeton to Hallet, as they left the tower, “shall we take a buggy and go through the whole domain systematically, or shall I show you through the main buildings, or have you a plan of your own?”

“I’m singular about such matters, Judge. Everything is so new and strange here, and is to be, apparently, so full of pleasant surprises, that I have a fancy for toying with so much pleasure—taking a sip here and there. Thus I shall prolong the novelty of the place. When one receives a letter from some dear friend, which is sure to contain important news, he will lay that aside until all the rest of the mail is read. Then he will linger over the opening of the envelope, and stop often in the perusal to prolong the delight of anticipation. So I wish to make the most of your enchanted castle and its en-

chanting surroundings. I know that you will have much to do after your journey; suppose you let me wander awhile at my own sweet will?”

“Agreed; and you can meet me at night in my parlor. Do not get dazed, and think you are like Gulliver among the giants; and that when you get tired you have only to ask one of our men to put you to sleep in his vest pocket. You will find us ordinary mortals, after all.”

Hallet’s first impulse was to wander forth toward the highest part of the bluff overlooking the river. He sat there on a rustic bench, as the Indian summer sun shone warmly through the sere and yellow leaves. He looked down upon the river, then toward the mills and the cascade, then toward the unitary buildings. Then he said, “Well, Old Dominion, this beats all. I can hardly believe my senses. Yet

here is mother earth, and this is an ordinary landscape of my native country."

Then he returned and walked all around the central buildings, and in and out of the gardens between the wings. In them the dahlias, chrysanthemums, and asters were doing their little best to lend adornment to the scene. Passing a wing adjoining one of the covered courts he heard the voices of little children in a school. On the first floor of another, classes of larger children were in session. As he passed around he muttered, "Walk about Zion; tell the towers thereof."

Reaching the basement under the dining-hall he was about to enter and study the busy scene, but stopped to observe the dumping of several carts of bituminous coal into the vault of the engine-house. "Coal from our own mine, sir," said the engineer, proudly. "It can't be beat. I've worked there, and it's a fine property."

"Did you make plenty of money?"

"More than here. We got regular rates by the ton, and a dividend on the net profits in proportion to the wages we earned. I took part pay in stock. Of course you know we do not believe in big dividends on stock, or much interest on capital. But we seldom put our money in anything outside of our own companies. We consider that they are safer, and feel a pride and sense of duty in sustaining our institutions."

Hallet now entered the basement under the dining-hall. He saw here more domestic labor-saving machinery than he had ever encountered before. A belt brought steam-power from the engine, and everything that could be done by that force was given over to it. The imprisoned monster was made to wash dishes, scour knives, and turn spits. The dish-washing machinery

especially interested him. All processes of frying, broiling, and roasting he found were done in one room upon great ranges, the sheet-iron canopies over which carried most of the smoke and heat to the chimneys. But to entirely remove the smoke, that great nuisance of all large cooking establishments, an open shaft twenty feet in diameter had been built from the ceiling clear up through the central court, at the north side, and through the roof. It had its own glass roof above the other, with ventilating slats at the side. As the whole floor was not needed by the cooks, a portion of the laundry work was done there, and the rest in a building just back of this one.

When Hallet got into the great wash-room it looked like a flour mill, with its rotary washing-machines spinning like mill-stones. Next he visited the ironing-room, with its ponderous mangles and other new-fashioned smoothing apparatus. In the steam-heated drying-room, used only in damp weather, he saw that the perpendicular racks, or clothes-horses, reaching from floor to ceiling, were placed a few inches apart, and each on its little railroad track like a sliding door, so that one could be pulled out at a time to receive or give up its load.

Turning now to the west, or rather northwest side of the basement, he came upon the bakery, with its ovens looking like the boilers of a steamer, and having almost as many dial-plates and other machinery indicative and regulative of heat. Another department was found occupied in producing pastry and confections. In one corner was a complete grocery store, from which went forth to the different sections all the smaller groceries—a regular account being kept of everything.

Looking from a western door he saw

that a wagon road had been dug out to give access to the cellar beneath. Descending steps outside he came to a two-ton scale just at the outer door. Here a clerk was weighing a wagon-load of cheese; and he found that every particle of food entering the building had to go over this scale or the smaller one alongside. Passing through the cellar, he found it full of such provisions as call for storage places of even temperature. On all sides were hogs-heads, tierces, barrels and kegs of beef, dried and salt fish, molasses, butter, lard, etc. The bulk of such provisions as do not need to be kept warm or cool, such as coffee, sugar, flour, and soap, are in storehouses above ground.

After visiting the "base of supplies," Hallet was introduced to Mr. Marston, the chief of the agricultural "series;" and as that executive-looking person was in his buggy, starting out for a tour of inspection, the visitor accepted his invitation to take the vacant seat.

"I never thought to ask yet how many acres you have in your little township kingdom?" asked the Western Yankee.

"About 20,000. The township lines run nearly eight miles one way, and the territory averages four miles in width."

"You have, then, just half what Mr. Sullivant, of Illinois, has in his great farm."

"Oh, you've heard of him. Why, do you know I was one of his farm captains, and that is why I am here?"

"How so?"

"Well, I saw by the way things worked there, that agriculture, like all other human work, was to be hereafter carried on mostly on a large scale, with expensive machinery; and that the common run of men would either have to work in co-operative farms, owned by themselves, or become the serfs of

great plantation owners. Of course, small truck farming may always be possible around cities. But especially since the advent of steam-plows and similar machinery the drift is inevitably toward large farms. The grasp of capital is in the same direction. What is singular, Mr. Sullivant was always preaching that same thing to us. He said that we and farmers generally were a parcel of fools, when we could do so much better in large co-operative farms."

"How did he happen to go into farming so extensively?"

"He did not happen to, but deliberately planned the scheme for years. He at first took up 100,000 acres from the Government, at \$1.25 per acre, determined to keep 'land poor' until he could sell off a portion at a great advance. In 1868 he had run down to 40,000 acres, his 'Burr Oaks Farm,' his latest sale having been the 'Broadland's Farm,' at \$250,000. That year he put in 1,000 acres of corn at 'Burr Oak;' in 1869, 5,000 acres; and in 1871, 11,000, having at the same time 5,000 acres in other crops. He had 300 miles of Osage hedge and 150 miles of ditching. He is a whole grange in himself—never buys less than fifty plows or cultivators at a time; so he gets bottom prices. Then, in sending off corn, he charters a whole freight train through to New York, and thus saves several commissions, besides elevator rates and charges."

"How many men did he employ when you were there?"

"About 300. He had his brigadier-general, Mr. Miner, twelve captains, each with three lieutenants, each lieutenant having charge of a squad of men. I have something of the same arrangement here, only our philosophers use different names. They call my

whole army a 'series,' and the gangs are 'sub series' and 'groups.' Mr. Sullivant had, of course, always a large force of carpenters and masons, and kept four or five smiths busy—also men constantly engaged in repairing machinery, and in the harness, wagon and paint shops. The stock included 350 mules, 50 horses, and 50 yoke of oxen. The people were a rough crowd—mostly Swedes—but he made them very comfortable, and they had jolly times, dancing at night in the groves in summer, and in the barns in winter."

"What was the immediate cause of your coming here?"

"Mr. Sullivant had spoken so much in praise of this kind of life, that when I heard of the new settlement I hastened to visit it, and was so much pleased that I sold my farm and came here."

"And how do you get on with the philosophers?"

"Well, it seemed strange at first to be changing the men's work so many times a day; but I soon got used to it. Such a style would be impossible on a big corn farm. But here, where we raise such an immense variety of products, it is usually easy to shift the groups, even when they are too far from the mills and workshops to take a turn in them. I tell you we've got living and working down to a science on this patch. But here is a specimen of one of our repair shops and tool and machine depots."

Hallet looked in and saw machines and tools enough to stock an agricultural warehouse, and a number of men at work repairing them.

As they rode out between fields of grain stubble Hallet said, "I see no fences; you seem to divide fields only by ditches."

"What do we want of fences? Our pasture fields are fenced, of course, and we take care to have strong barriers to

keep off the cattle of our neighbors. One of the thousand benefits of our system is this fact, that we do not spend half our time and money on such relics of barbarism. If our plan was adopted in this country generally, the saving of fence money alone would soon amount to a sufficient sum to pay the national debt."

They rode on for two miles through wheat and corn stubble, apple, peach, pear, plum, and cherry orchards. Every few moments they would come upon a group of men engaged in clearing up the fields, and preparing for winter.

Marston would stop and confer with the chiefs of the groups. No isolated worker was anywhere seen. As they approached the eastern end of the domain, they entered fields which showed the withered vines of potatoes, white and sweet, peas, beans, tomatoes, and all the small fruits—strawberries, blackberries, raspberries, and currants. Flourishing vineyards were also met, with merry parties gathering grapes. There were many acres of peanuts, and some groves of fig trees, which did not look very well.

"Figs," said Marston, "do not amount to much about here. But in the low, hot region, about the mouth of the river, they succeed well."

"A wonderful country," said Hallet; "extremes seem to meet here."

"You've hit it exactly. Just about here there is a more complete mixture of northern and southern products than anywhere else in the country. At the mouth of the river fig trees produce two crops a year, while every fruit grown in Maine flourishes here, if properly planted and cultivated. The cotton of the south and the timothy of the north find with us their respective boundaries, and can both be raised to some advantage. Commodore Barron

said that 'he had traversed the best portions of the earth, and after a careful examination of their agricultural merits, he had arrived at the conclusion that some six or seven of the tide-water counties of Eastern Virginia could contribute more to the luxury and comfort of man than any other portion of the habitable globe.'"

And now, as they rode by the edge of the bluff, the sound of voices came from below, and presently the chief of a fishing group of one hundred men, came clambering up a steep path before them, leading his party, who carried choice fish in baskets, and some small nets and lines that needed repair.

"What luck this time?" said Marston to the chief, as he rode by them.

"Not so well yesterday. About 3,000."

"What sort of fish have they been after?" said Hallet.

"Mackerel. We found that the biggest fishing in the world is done in these waters, viz: with seines a mile long, drawn by steamboats, and taking mostly mackerel. Of course, with 3,000 people to look after, we could not afford to neglect such a chance. So we were right in having our steamer to start with. We bought a strip of sand beach, and put up our long barreling sheds; and it would do you good to see the tug come puffing up with the mile-long net, and the fish bobbing up all over the water; and then to see the boys, after the tug has hauled a few thousand mackerel ashore, under the shed, tossing them right into the brine, and heading them up. That's the way to get fresh salt fish."

The next thing was to head for the cluster of buildings. Hallet now learned that instead of being, as they seemed from the tower, at the extreme eastern point of the domain, they were a mile

from it. As in the case of the western cluster, they were placed so as to be as easy of access as possible for the agricultural workers. Each was about midway between the north and south boundaries—consequently two miles from them. Then the direct roads made them about three and a half miles from the main central village, by the river side. Therefore there were few points in the eight-mile length that were more than a mile and a half from one of the homes. The principal exception was at the middle of the north side, which was mostly in timber.

"Our three principal villages or groups of buildings have been christened East Haven, West Haven, and Mid Haven. Our wags have got in the way of using the word Heaven instead of Haven, and they are not far wrong. It is always well, anyhow, where there is a multitude of ordinary minds together, to have a few innocent, but inexhaustible stock jokes like this."

As farmer Hallet will have future occasion to visit East Haven, with its glass-roof palatial home, and its various work-shops, etc., I will not rehearse what he saw and heard there on this occasion. He arrived at Mid Haven in time to take supper with the judge.

CHAPTER VI.

After arising from the hearty meal, for which his long ride had given him an appetite, Hallet wandered into the chapel, hearing organ music there. A select party of singers were practicing, with a few auditors. It was a rehearsal of an oratorio, and seemed very grand to him. He had seated himself in a pew in an obscure corner. Somewhat weary, he stretched himself out and laid his head on a pile of hymn-books. So it naturally occurred that, during a

lull in the performance, and just before its close, he fell asleep, and was not noticed by the few who passed out by him.

When he awoke, the light of the single lamp, always left burning in the chapel at night, falling upon the clock, showed him the hour-hand pointing at the figure 2. As he lay wondering what course to take, he saw a singular figure pacing up and down the middle aisle. It was a man, tall, and of a most serious, but benignant aspect, and was muffled in a long cloak. Hallet had once seen Henry Bergh, founder of the "Society for the Prevention of Cruelty to Animals," and he observed that this night wanderer resembled that eminent philanthropist. There was the same look of deep compassion on his face, though his appearance was more majestic and intellectual than that of Mr. Bergh.

Hallet knew that this man must be Pastor Daniel Hartwell, who had returned the previous afternoon from a journey. He gazed with intense interest upon this chief founder of Peacemaker Grange. Here, indeed, was "a man of sorrows, and acquainted with grief"—"one of the burden-bearers of a new dispensation." "His face was more marred" than that of most men of sixty years. It was furrowed with care, grief, anxiety—not for himself.

The pastor was evidently wrestling uncommonly with his sorrows. His lips moved in prayer, and he uttered fervent ejaculations of entreaty and self-abasement. "My leanness! my leanness!" was one expression that came to the ears of the other watcher. There was another exclamation in French, which Hallet afterward learned was the dying utterance of that Prince of Orange who fell by the hand of the assassin. It was "*Dieu*

ayez pitié sur mon ame. Dieu ayez pitié sur cet pauvre peuple." (God have pity upon my soul. God have pity upon this poor people.) Thus ever does the true soul, even in direst extremity, "love his neighbor as himself."

The recumbent watcher dared not make his presence known, and was, therefore, forced to be a witness of this wierd midnight scene. The pastor seemed sometimes in an agony, and beaded sweat came upon his brow. Anon he murmured, in tones just audible, that beautiful apostrophe, "O Jerusalem! Jerusalem! that stonest the prophets." And when he came to the closing expression, "but ye *would* not," the tender mournfulness of his tone brought tears to the eyes of the listener.

It was plain that the shepherd of the flock had heard some unpleasant news; some of the sheep had erred and gone astray. Hallet did not catch, from the occasional exclamations, what the nature of the trouble was; but from the talk about "Ephraim" and other refractory Scripture characters, he judged that the pastor thought that human nature had not changed much since those old days when Israel's prophets found it necessary to utter very frequent lamentations over them.

As the pastor poured out his grief in the old familiar words, Hallet noticed a change coming over him. Whatever evil influences had been oppressing him, they now were beaten off, and his words assumed a tone of triumph, viz.: "He hath brought me up out of the horrible pit, out of the miry clay. He hath set my feet upon a rock and established my goings. Thou hast turned for me my mourning into dancing. Thou has put off my sackcloth, and girded me with gladness." While he was earnestly uttering this thanks-

giving, a lady was approaching him from behind. She was a fine, healthy, lively, practical looking dame, and she thus addressed him:

"Well, Daniel, if that's so, this is a good time to put in 'continued in our next.' So you'd better put off that cloak and dance off to bed." He smiled

pleasantly upon his prudent spouse, and followed her to their rooms. Hallet, after meditating upon the explanation just afforded of the fact that David's penitential psalms always end with rejoicing, went into the hall, explained his accident to the watchman there, and was guided to his own room.

[TO BE CONTINUED.]



THOMAS DICKSON,

PRESIDENT OF THE DELAWARE AND HUDSON CANAL COMPANY.

THE portrait of this gentleman indicates a smooth and harmonious organization, one that inherits more from the mother's than from the father's side. That smoothness of form and delicacy of

outline, and the signs of affection and sympathy, point to the mother as the one he inherits his qualities mainly from. The head is amply developed, giving great general power and de-

cided force of character, but the force is modified by smoothness, by balance, and harmony. Many men are more angular, seem more positive and emphatic in their words, who have really no more power for a strong, steady pull than he. He is persistent, yet he has in him the elements of patience, prudence, circumspection, guardedness, not to say policy; and he would carry his power in such a way as not to hazard his cause by rashness on the one hand, or incur the displeasure of those who co-operate with him on the other hand. He generally has the friendship of those who are associated with him, and also the friendship and respect of those who are his subordinates. If he wanted twenty men to work at some disagreeable job all night, he could get volunteers in abundance; men work for him freely, the pay not being the only consideration. Let him be one of ten contractors engaged on some continuous line of work, each having his section, each paying similar wages for similar branches of service, at the end six months this man would be able to select his help from all of the gangs. It would get noised about among the men that he was fair in his dealings, and just and kind in his treatment of men; that he knew what a good day's work was, and when a man had rendered the proper amount of service; that he expected to be obeyed quietly and implicitly, but that his requirements were reasonable, and that he was not backward in recognizing cordially whatever service or extra effort might be rendered; and the men would rather work for him than for most men who hire.

He has intellectual grasp, is comparatively quick in learning facts; but his power lies in his ability to combine facts, and co-ordinate all the forces

within his reach. He criticises, analyzes, and then generalizes largely and liberally; and it does not seem to hurry, worry, or disturb him to have a multiplicity of cares or responsibilities; he seems to take them all in, appreciating that which is best under the circumstances, and so can do the right thing at the right time, with the least possible friction.

He reads men with remarkable promptness and accuracy; he would be able to select men for positions as fast as they could be paraded before him. His power to judge of disposition and capacity is excellent. He is generous, kind-hearted, sympathetic, liberal, respectful toward superiors, and also reverential toward all that is sacred. He is orderly, systematical, accurate in his plans and calculations, ingenious, readily understands mechanical operations, can work a large number of men in a small place, and make everything go smoothly. He is a good financier, appreciates the value of property, of time and effort; is persevering, ambitious to excel, cautious in his plans, and energetic in their execution, and inclines "to be there" himself, and to see that everything is done which needs to be done, and not to delegate to others that which properly belongs to himself. If he had a thousand men working for him, it would be a standing joke, that nobody ever knew when he would "turn up," or when he would appear among his men.

He does not make as much talk as some people do; he has the happy faculty of making other people talk, and thereby show their plans while he reserves his, if necessary, or modifies it, as occasion may require. He would have made a good lawyer, and an excellent judge on the bench. In the social circle he is much beloved, in busi-

ness circles respected ; men do not fear him, yet they are not willing to disobey or disoblige him. There is scarcely an important field of effort in which he might not take a worthy and successful part. Among the professions we would first give him the law ; second, engineering ; medicine third ; in the business world, the general management of men and affairs, rather than to be shut up in a commercial house, would be the best.

The biographical notes which follow are taken mainly from Appleton's *Railway Guide* :

Mr. Dickson was born in Berwickshire, Scotland, in the year 1824. When he was but twelve years old his father emigrated to America, and settled at Carbondale, Pennsylvania. He early evinced strong intellectual powers, and also developed great executive abilities. As a merchant and manufacturer he was eminently successful. He was but little over thirty years of age when, in connection with his brothers, John and George, he established the "Dickson Manufacturing Company," which, with its extensive works, not only at Scranton, but at Carbondale and Wilkesbarre, has become the leading manufacturing company in that part of Pennsylvania. In 1860, at the urgent request of the Canal Company, Thomas Dickson entered its employment in the important department of its mines, taking charge as Superintendent. He had been familiar with the great coal interest from his boyhood. He had seen that a great company could not stand still, that it must advance in order to keep up its success. It had expended millions in its canal, railway, and other improvements. Its mines were in the northern extremity of the coal field. The richest mines lay to the south, and there were to be found the important feeders

for railway and canal. The Delaware & Hudson Canal Company, in 1860, owned no mines below Olyphant, about ten miles south of the extreme northern end of the basin.

The first great effort of the new Superintendent was to extend the area of its coal fields. This was energetically and successfully done. His recommendations of purchase were favorably considered by the directors. In 1866 Mr. Dickson was made General Superintendent of all the business of the company, and Vice-President ; and in 1870, on the retirement of that noble man, George Talbot Olyphant, who for more than ten years had been at the head of the company, earnestly working with him for its advance, he became the President.

To form a proper appreciation of the duties which devolve upon Mr. Dickson as president of this Company, let it be understood that the Lackawanna Valley produces about twelve million tons of coal per annum, and the Company referred to can produce about one-fourth of it. In the Wyoming Valley twenty-eight breakers are owned or controlled by the Company, and with the working of all these, in addition to his railway duties, Mr. Dickson is thoroughly familiar. His early life and its practical experience qualify him to meet these burdensome duties in an eminent degree. It is a common saying by the multitudes of people in the Lackawanna Valley, "I'd give more for Tom Dickson's opinion on coal matters than for those of any other railway man in Northern Pennsylvania." In the difficulties which occasionally occur in mining regions, wherein labor pits itself against capital, the Delaware & Hudson Company have ever been fortunate in possessing such a spirit as Thomas Dickson to adjust the matters

at variance. He has a hold upon the affections of the miners which is marvelous, and in no instance do they ever disregard his counsel. As a citizen, Mr. Dickson stands prominently in the hearts of the people for all that ennobles and elevates manhood. Always liberal, he is never known to disregard an appeal which embodies the least degree of merit. As an exemplary Christian, and a supporter of his church—the Presbyterian—he stands in the front rank, commanding the respect of all who are associated with him. He is still in the vigor of manhood, and, with the great resources which yet remain to be developed, the country could ill afford to lose his services for years to come.

The first improvement between Scranton and Carbondale was a plank-road, and was constructed under the supervision of Mr. Dickson. He was one of the original parties in the organization of the Moosic Powder Company; was one of the parties in the organization of the First National Bank of the city of Scranton, and now a director; was also one of the parties in the organization of the Scranton Trust Company and Savings Bank, of which he is now an officer; he furnished the machinery, and was an original stockholder in the Gas and Water Company of Scranton, now a director; at one time was a director in the Pittston Bank; is a stockholder and director in the Lackawanna Iron and Coal Company; a stockholder and director in the Oxford Iron Works of New Jersey; he is a director in the Mutual Life Insurance Company of New York; also occupies the same relation to the Merchants' and Manufacturers' Insurance Company of Newark, New Jersey. He is also interested as a director or officially in furnaces, iron works, and railways other

than those mentioned. The following extract from a speech delivered by the Hon. Galusha A. Grow before the Board of Trade and the Corn Exchange, Montreal, on the opening of the New York & Canada Railway, November 17, 1875, in reference to Mr. Dickson, is a characterization of the man from the point of view of his achievements, which strongly confirms the phrenological view based upon his portrait merely.

“Forty years ago a family of emigrants who had bidden farewell to kindred and home in the lowlands of Scotland landed on the busy wharves of your city. The mother leads a barefoot boy along your streets, little dreaming of the destinies in store for him. The father is intent only on finding some place where he may earn his daily bread by his daily toil. After a fruitless search he passes out of the city, and over the great Empire State, and makes his first home in the New World in Northern Pennsylvania. For himself he finds employment in the machine-shop of the Delaware & Hudson Canal Company, and the boy works in their mines. To-day we bring back your barefoot boy, and present him as one of the noblest specimens of a man, and as the best and most conclusive argument in behalf of the spirit and genius of the institutions of the Great Republic, under whose benign influence his history is the record of so many who from penury and pinching want in childhood have, unaided and alone, by their own inherent strength of character, climbed the ladder that leans against the sky. But few, however, have achieved a success more creditable to the man than that of the Scotch boy who to-day administers with so much ability the affairs of one of the oldest and most worthy enterprises in the de-

velopment of American industries. If he is a benefactor who makes 'two spears of grass grow where but one grew before,' what shall be said of him who, aided by large-minded capitalists, makes the desert and waste places bloom and blossom like the rose, and, opening the great arteries of trade, links together widely-separated peoples, and unites in bonds of interest and sympathy jarring nationalities? Despite wind and frost, Dickson has broken through the barrier of ice and snow that hereto-

fore, for almost half of the year, had separated us. Henceforth his locomotives will daily lay at your feet their treasures of black diamonds, gladdening the hearts and warming the fire-sides of your people of every grade and condition. In conclusion, I give you: 'Canada and the United States—one in origin and one in language; may the friendship and good-will of their people be as strong and lasting as the iron and steel bands that now bind together their trade and commerce!'

Department of Physiology—Our Sanitarium.

Cultivate the physical man exclusively, and you have an athlete or a savage; the moral only, and you have an enthusiast or a maniac; the intellectual only, and you have a diseased oddity—it may be a monster. It is only by training all together—the physical, intellectual, and spiritual—that the complete man can be formed.

RESPONSIBILITY IN PARENTAGE.

SERMON PREACHED IN THE DE KALB AVENUE M. E. CHURCH, BROOKLYN, N. Y., BY THE PASTOR, REV. S. H. PLATT, A.M.

"The fathers have eaten a sour grape, and the children's teeth are set on edge."—Jeremiah, xxxi. 29.

[CONCLUDED FROM FEBRUARY NUMBER.]

THE "hoodlum" classes of our cities—so named in the expressive vernacular of California—a race seemingly born of ruffianism, with no obvious means of support, and no linkings of association or desire with the beneficent institutions of society, is a forcible illustration of the same law of transmission of depravity as that, which, in the case of John Chretien, blasted his family hopes. He had three sons. These sons had four children; these four had eight children. Of these, four were murderers and seven were robbers, because cursed with a physiological and psychological taint of violence and aggression. These hoodlums—street corner loafers and bar-room frequenters—present one of the greatest problems of the age to the Christian and philanthropist. To leave them in the festering slums which gave them birth and their

first views of life, is to take them thence, by-and-by, as candidates for the State's prison and the gallows.

That the ranks of vice can breed criminals faster than our penal and reformatory institutions can dispose of them, is but too evident in the police reports of our cities. Heaven defend our liberties as our cities become still more populous, if some plan be not devised to meet the danger!

Still wider illustrations may be found of the same law in the SOCIAL EVIL of all civilized lands, and of which we will only say its magnitude is appalling, and its horrors inexpressible.

The vagrancy and thieveries of the gipsies, who are childish and purely animal in intellect, sentiments, and morality, furnish yet another illustration of this law of transmission. The strength of these propensities in their race was

strikingly exhibited when Borrow, having translated St. Luke into their idiom especially for them, hoping thereby to regenerate and rescue them from their traditional vagabondage, they hung it about their necks as a talisman *when they went to steal*.—Ribot.

The reconstruction problem of the South is largely an outcome from the operation of the law of heredity. That problem now contains four constituent elements. First, the old slave-holders, proud, aristocratic, and domineering by birth and education, now depressed and embittered. The second, the ex-slaves, constitutionally and by education dispirited and hopeless, now psychologically inferior and depraved. The third, the poor whites, through generations demoralized but capable. The fourth, all sorts, but chiefly seekers of fortune's favors, amid unfavorable conditions. At least three of these four elements are made such as they are by the law of heredity. And a complete and permanent remedy can only be found in a reverse operation of the same forces.

National characteristics, likewise, reveal the proofs of the same law, as, for example, the Combativeness of the Irish, the obstinate Conscientiousness of the Scotch, the persistence of the English, the home-love and freedom-love of the Swiss, the suavity and recklessness of the French, the perfidy of the Italians and Spanish, the stolidity and patience of the Germans, the thrift and enterprise of the Yankee, the exclusiveness and avarice of the Jews.

The wars of civilized and Christian nations, so opposed to all the better impulses of humanity and the teachings of morality and religion, seem largely the result of the same law. "In this country," says Nelson Sizer, "our history shows that the children born during war, have gone to war themselves

when old enough to vote and fight. The great French and Indian war prevailed about 1750. The children born about that time were twenty-five years old when the Revolutionary War opened, lasting until 1783. Add twenty-nine years and we come to the war of 1812. Add twenty-one years more and we come to the warlike era of Nullification in 1833, and three years later the great wrangle about the Northeastern boundary. Old men were then in Congress, and by their sober councils war was barely averted. Add twenty-four years more, and we come to 1860. God pity the nation that provokes a quarrel with us in 1887-91! We have no doubt a similar state of facts might be traced in the history of France, England, Germany, and other nations. Children born during seasons of national peace do much to check the war-fury of those who are born during war, and sometimes, as in 1833-6, avert it."

Galton has assigned as a reason for this warlike propensity of modern times the fact "that in the Middle Ages celibacy was enjoined by religious orders upon their votaries. When a man or woman was possessed of a gentle nature, that fitted him or her for the duties of charity, meditation, literature, or art, no refuge was possible elsewhere than in the bosom of the Church. But the Church exacted celibacy, consequently these gentle natures had no continuance, while society was brutalized by their practical elimination from it.

It has been objected against this view that the Church was cruel, persecuting, and licentious; all of which may be admitted without vitiating Galton's conclusion in the least, for naturally the fiercer and more turbulent characters in the Church ruled it,

while the gentle natures shrank away all the more completely into seclusion.

MEANS TO IMPROVE WITHIN OURSELVES.

Such being a brief exhibit of the grand law of heredity, together with its modifications, the important practical question arises, "If transmission has such a fearful power for evil, has it not a corresponding power for good? May not the virtues be inborn as well as the vices? Nay, is it not even possible that a religious temperament may be produced in the children of Christian parents that shall pre-incline them toward a Christian life? May not a religious tendency be thus imparted to the race that shall eventually place it upon a higher plane of possible virtues and of Christian attainments?"

In these days of analysis of agencies and weight and measurement of forces with utilitarian ends in view, these are questions which demand consideration. Certain it is that the highest possibilities of moral culture in the race lie not in supernatural regeneration *alone*, important as that is, but rather in the organized constitutional uplifting of the elements within humanity upon which grace works, and out of which it must shape its best specimens of redeemed men. Just here a question of personal responsibility presses upon our thought, viz, since every parent is projecting more or less of himself upon the coming generation, should not that which he thus transmits be his best and noblest? Here, the inferior is disgraceful, the vicious is criminal. To bring out of the mysterious unknown a being to run the fearful gauntlet of human and diabolical temptation, to expose him to the terrific liabilities of an unsought probation, and not to give him the best furnishment within our power, is downright cruelty; while to load him with needless weights in the hazardous race

for life, is as if the malice of demons inspired our course.

Dr. Bushnell has spoken forcibly of "the out-populating power of the Christian stock." Does he not mean by this precisely what we have mentioned as the parental transmission of the noblest and best? Surely God must hold all parents responsible, not merely for the religious training of their children, but for the very mold in which the child is cast, so far as that can be modified by their patient care and wisely-directed efforts.

Another inquiry of a social and judicial nature demands a moment's thought. Is there not a clear and legitimate distinction between those predispositions which only exist as strong tendencies within, but with a possible self-control, and those predispositions which are merged at times into fixed and dominant impulses in which responsibility has ceased?

Dr. W. A. Hammond has defined such morbid impulses as "a condition in which the affected individual is impelled consciously to commit an act which is contrary to his natural reason and against his normal inclinations;" and distinguishes this state from that of delirium, in which the subject "acts according to his reason, perverted though it be—*i. e.*, he is logical, reasons correctly from the premises, but the premises are false."

Dr. Thompson, of the general prison of Scotland, holds that there is among prisoners a distinct incurable class, and that crime is hereditary in the families of criminals belonging to this class. In view of this fact, there is no doubt that the treatment of criminals must sooner or later become a branch of psychological science, in which due credit will be given to all the forces which unite to make the man, and which in

man crystallize in character or crop out in deeds.

If such be the force of the law of heredity, *where lies the grand hope of men?* We answer, first, in the fact that variation and the survival of the fittest are largely within men's own power. They can, by a wise choice, work variations that may be improvements to an indefinite extent.

It is a shame that the very race which has developed the noble pippin by culture from the crab-apple, the edible potato from the poisonous bulb, the fleet race-horse from the plodding pony, and the choice Devonshire from the almost worthless wild cattle of other ages, should leave its own organic destiny to the caprices of ignorance and the frenzy of passion. *By better begetting may we find a generation of better men!*

THE SECOND AND GREATEST HOPE of man lies in the fact that evolution is aided by the Holy Ghost, so that all development in the line of rectitude may be stimulated and fixed by the presence and power of the Holy Spirit. The same subjugation to the power of impression that renders the transmission of an acquired vice a peculiar liability, also opens to us this most glorious possibility of a regenerated manhood, viz., that by the special indwelling and impact of the Holy Spirit upon the nerve-cell, noble aspirations and upward tendencies shall be projected as impressions upon the forming nerve-cells of the embryo being, and become organized as constitutional predispositions within him.

From this subject we deduce a few practical rules, viz.: First, hold no sentiment, indulge no passions, form no habits that you would not have organized as a proclivity into your child. Your true policy should be to secure a birth-right Christian predisposition in your child before acquired depravity be-

comes almost invincible. Hence, not reformation only should be your aim, but actually to so impart the positive tendencies of a religious life that the promise, "unto you and your children" shall be not only by inspiration, but by organism as well.

Second. The young should select such partners for life as by the laws of nature may work out the best results to the rising generation. They are to live, not in themselves only, but in their descendants; hence, in view of the tremendous reactions upon themselves of the lives which they originate, for reasons of self-interest, if for none other, those lives should be conditioned in prudence, and the most scrupulous regard for the welfare of the race.

Third. If already a victim of any vice, or predisposition to vice, begin at once an educational process of emancipation. By long watchfulness and laborious training, aptitudes and qualities may be called forth which shall effectually check and control even constitutional predisposition to vice. The hereditary influence may be strong, but if not absolutely supreme, it may, after all, act only a secondary part in the weaving of life's destiny. The steady, tireless, persistent moldings of an education wisely chosen and patiently applied, may prune even deforming abnormalities into healthy growths, and from the curse of inherited perversities develop a noble manhood, that shall be all the grander for the fiery process of its evolution.

In conclusion, by whatever eating of sour grapes an entailment of conflict and heritage of weakness and demoralization may be yours, remember that the Omnipotent love of Jehovah rings out its challenge over all perversities, "Where sin has abounded, grace does much more abound!"



True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

THE WOMAN QUESTION.

THIS fruitful topic evokes much discussion, and is apparently far from being settled; but we perceive that some gain has been made. The subject is discussed now in a more reasonable and consistent spirit than formerly. Twenty years ago the term "Woman's Rights" was enough to excite the ribaldry of the editorial world. Now, not a few able men have undertaken to vindicate her cause, and, what is better, many able pens have been developed in the ranks of woman. She is beginning to speak for herself with ability, persistency and power, and it seems to have been conceded that woman can write as well as talk; that she is able to speak eloquently from the rostrum, and that she can do this and retain her refinement and her delicacy.

Some years ago the associate editor of the PHRENOLOGICAL JOURNAL wrote for a health magazine an article on this subject, which contains some views which he wishes to introduce with some additions and modifications here.

It is said that when man paints the lion, and places himself on the same canvas, he does not give the lion a position commensurate with his real power, but places his foot on the lion's neck. If the lion were to become the artist, we presume the tables would be turned, and the lion would represent himself with his foot on the neck of the man. So long as man was the master of literature, and also the maker of the laws, woman was represented as

man's inferior. He was Gamaliel, and she at his feet; but, thanks to the improved public schools, to the general diffusion of knowledge, the newspaper, the lecture-room, and other means of culture which have given woman the power to use the brush and paint the world's history, and declare the world's wants, it is beginning to be understood that woman is, in general terms, at least the equal of man, not necessarily his equal in each power and faculty, but his equal in the aggregate; therefore, of equal value, and, on the whole, his peer. Beyond this concession the public—we mean those of right thought and feeling—do not incline to go, and beyond doubt this is about as far as reason and justice require us to go.

Some writers on woman's nature and sphere have recently claimed more than equality for woman. Among them the late Mrs. Farnham maintained that woman is, in many respects, man's superior; that she is of finer grain, of more excellent quality—that she is the silk of life's fabric, while man is rough and stronger, resembling, perhaps, the coarse hemp on the back of a carpet, which serves as a basis for the beautiful pattern which glows charmingly on the surface; that he is but a mere setting for the brilliant and priceless gem.

I am unwilling to accept the carpet-warp as a proper illustration of man's place in the fabric of society, for mere background and strength are all that

such a hypothesis allows to him. A much better, because a juster illustration of the nature and relation of the sexes, would be that of the warp and the filling of broadcloth. Both are spun from the same fleece, the only difference between them being that the warp is twisted harder. In the process of weaving the filling being softer, but not finer in thread or fiber, is made to fill up all the spaces between the harder threads of the warp, and in the process of fulling the cloth, the soft filling becomes closely felted or knitted, not only with itself, but with the warp, thus making the whole fabric a homogeneous unity, at once strong and soft. Moreover, in the process of finishing more of the nap of the cloth comes from the filling than from the warp, consequently, more of the gloss and polish come from the filling than from the warp, while the greater part of the strength comes from the warp, and the strength of both is greatly augmented by the union which the process of fulling establishes between the hard warp and the soft filling. Everybody knows that cloth tears easily lengthwise, because it is the filling which is involved, but that it tears with much difficulty crosswise. In the latter case the strong warp resists the effort to tear it; in the former, the resistance is not so great, because the softer filling is not able to resist the strain. True manhood and true womanhood find complete illustration in the warp and filling of a piece of broadcloth. Each is the proper complement of the other; in their co-ordination consists a complete structure, but incomplete without unity. Some have thought that man is cotton warp while woman is silk filling, making the combination a handsome satin on the surface, with coarse cotton as a worthless and hypocritical back.

Perhaps it is not reasonable to expect that a new question will always be discussed in a temperate and judicious manner. Fanaticism seems to be almost necessary in those who are pioneers in a new cause. The staid, quiet, harmonious, conservative people come into the field after the forest is cleared, and the stumps and roots are decayed; and only pioneer enthusiasts are expected to enter the battle when the cause is unpopular. Hence, some women who have written and spoken have poured forth wholesale denunciations of men, and it might be well to inquire of such teachers where all the good fathers, kind brothers, devoted sons and loving suitors come from?

There is a law of resemblance which is favorable to both sexes. The son who inherits as much from his mother as he may, will combine those qualities thus inherited with his own masculine life as a man, and thus there will be in the one person the best qualities of both sexes; that is, the combination of the strong with the susceptible. On the other hand, the daughter who resembles the father will acquire masculine vigor, courage, fortitude, and self-reliance from the father, and, by virtue of her sex, she will modify and soften these strong qualities which she takes from the father, thus combining in herself the best qualities of both sexes, and she may, like her brother just described, contain in herself all that is valuable in the two halves of human nature, the masculine and the feminine; and when such co-ordination and resemblance occur, then we have the finest specimens of either man or woman.

People often state truth in a fragmentary way, and fail to agree with each other simply because they do not see the missing links in the chain, which, if supplied, would unite the fragments.

and bring the differences of opinion to an end. For instance, the doctrines of the "sovereignty of God," and the "free will of man," have agitated several generations of theologians, and it is only lately that their sons have found out that both doctrines belong to the great circle of truth, and are really parts of one harmonious whole. Another opinion, venerable in its antiquity, that man is justly the lord, and woman the serf, has nearly run its race. The new opinion, on the contrary, that woman has all the refinement and goodness, as well as genius and wisdom of human nature, will be found, if not so shocking as the other to the consciousness of people, quite as far from the exact truth. There are natural differences between the male and the female aside from those of mere sex, which are as distinct in the human race as they are in the lower animals. Everybody knows that the male and female horse, lion, and the male and female of many kinds of birds, show marked differences in appearance. Nevertheless, we are inclined to regard them as radically equal, or else the Creator made a mistake in their organization. If we were bold enough to make the assertion that the male birds of heavenly plumage and rapturous song are not inferior to their consorts in beauty and refinement, whatever may be true in reference to the human race, we apprehend we should not be contradicted by any of that school of women who adopt Mrs. Farnham's idea of the superlative perfection of woman, and the coarse, rude organization of man. We once remarked to that able woman in reference to her book, "Woman and her Era," in which she maintained that woman was of finer material, almost angelic, and man was only the rough frame-work of humanity, that we saw

but one serious objection to her theory, viz., that nearly all splendid women with refinement and elevation were unfortunate enough to have a man for a father, and that the only hope in the case of man was that he was so fortunate as to have a woman for a mother. She looked straight into our eyes for a moment, and smilingly dropped the subject.

There are differences between the masculine and the feminine, but these are no more marked than are those of feature and disposition. Let us state some of these. The male form has high, broad, square shoulders, a strong and sturdy neck, large chest, and moderate development of the abdomen, narrow hips, large joints, rigid muscles, and the entire outline is marked and angular. The female figure is less in size, the limbs are shorter, more plump and smooth, hands and feet smaller, relatively; the neck is smoother and longer, with no appearance of the Adam's apple at the throat, shoulders sloping, chest narrow and plump, the abdominal and nutritive system larger, and the hips broader. The entire figure is rounder and the muscles softer. The face of the male has a larger nose, high cheek-bones, broader mouth and chin, deeper lines and heavier brow. The cranium of the male is broader at the base, higher at the crown, generally larger in the forehead, and shorter and more vertical backward of the ears. One accustomed to see and handle crania will separate male and female skulls as readily as others could distinguish boys and girls fourteen years of age by the face. In disposition the feminine organization has a predominance of Cautiousness, Conscientiousness, Benevolence, Spirituality, Parental Love, and Friendship; the masculine has more Combativeness, Destructiveness,

Amativeness, Self-Esteem, Firmness, Causality, and Calculation.

Now, it is the glory of human nature to combine as many of the bodily and mental characteristics of both sexes, in each person of each sex, as possible. It is then, and only then, that the higher order of excellence either in man or woman can be attained. The father and mother being equal, the sons who resemble the mother, and the daughters who resemble the father, are 33 per cent., at least, superior to those in the same family who resemble the parent of the same sex. This produces a strengthening of the feminine, and a softening and modification of the masculine character. It infuses vigor, and courage, and manhood into the feminine nature, and, on the contrary, it gives refinement, affection, and sensibility to the masculine constitution. Thus each sex is prevented from becoming so extreme in its own peculiarities as to be distorted. When sons resemble the father for two or three generations in succession they become hard, rough, and coarse; they have too much strength, and too little refinement. While, on the contrary, daughters resembling the mother wholly for several generations become characterless, timid, inefficient, pathetic, and dreamy. They become all emotion and no logic, all tenderness and no force.

By resembling the mother the son inherits stronger social and moral faculties, and more of the elements of taste; he gets a smoother form, smaller features, hands and feet, shorter and plumper limbs, broader hips, rounder and larger abdomen, and a longer body as a whole, so that he sits taller and stands shorter than if he resembled his father. The daughter who resembles her father will have higher and squarer shoulders, larger chest, larger features,

a higher crown to the head, with a broader region about the ears; she will have longer and more bony arms and hands, longer and less smooth limbs and feet, and will have more dash and daring in her character.

It is often said that men of great distinction resemble their mothers, and we have Washington, Franklin, Edwards, Napoleon, Milton, and Shakspeare, cited as examples. On the other hand, we may, with equal truth, assert that women of marked talent and distinction like Madam De Stael, Lady Mary Wortley Montague, Harriet Martineau, Mrs. Farnham, and Mrs. Somerville, resemble their fathers. Thus each combining all there is in the masculine and feminine, all there is in human nature, a union being formed of the strength, courage, firmness, dignity, and logic of the masculine, with the intuitive, spiritual, sympathetic, affectionate, tender, and susceptible of the feminine.

Here is the key to human rights and human distinction; here is the basis and the law of human relation, masculine and feminine, and here the logic of woman's rights and woman's proper sphere. Each has a right to all the duties and immunities of human nature. Neither is in any just sense the master in all things, and each is the God-appointed superior in some things. In their proper union and co-ordination there is strength. Without freedom and culture there is only weakness to either. Let both be educated, trained, and developed, and each shall be the proper counterpart of the other, and neither will be the master or the slave.

PROF. AGASSIZ AND EVOLUTION. — The current opinion is that Prof. Agassiz believed that the human race and animals originated in several distinct pairs. In other words, the idea is conveyed by per-

sons who apparently never have examined his writings that he believed in the special creation of man and animals as they now exist in distinct races and species. This is erroneous. In his great work on Classification he distinctly says that he believes that all life was at first *created in the egg*. This is, in fact, the evolution theory, which is that all life originated and sprang from a cell, or a single combination of cells. An egg is only a cell composed of a combination of cells, whether it be the ovum of an animal or the egg of a bird, it is only a development and growth of other cells which start further away from the animal life, and finally grow up into it. Another popular

error is, that the evolution theory claims that man was derived from the monkey. The leaders of evolution do not claim or assert any such idea. They do claim that *all* animal life had a *common origin* in the cell and is a development of cells; that man himself *never* was a monkey, but that man and monkeys are branches of some common ancestor, and, indeed, that all animal life are branches, and that the monkey race, next to man, is the most recent and highest branch from the parent stalk; that monkeys never develop into man, although man may degenerate so as to become very near like a monkey; he may also become like many other animals in propensities and in everything but form. R. S. G.

PENAL LAWS RELATING TO SUICIDE.

At the September meeting of the Medico-Legal Society of New York, a paper was read by Mr. R. S. Gurnsey, of the New York bar, entitled, "The Penal Laws relating to Suicide in Ancient and in Modern Times." The following is a synopsis of parts of it:

THE author took a very wide scope in his treatment of the subject. He did not use the word penal, he said, in its narrow legal sense, but in the broad sense of penalty of every kind and nature—legal, social, moral, and religious. There are two classes of voluntary deaths; one is selfish, and the other is where it is for others. The first suicides recorded in Jewish history are those of Saul and his armor-bearer. Samson's death can not be regarded as a true suicide.

Reference was made to other Oriental countries, and to India, China, Japan, and the antiquity of views in regard to self-slaughter. The Stoical view of it was that it was not immoral, and was even praiseworthy in many cases. This was owing to their peculiar philosophy in regard to man. The ancient Greeks were not unanimous in their approval of the liberty to commit suicide. The views of Pythagoras, Aris-

totle, Cicero, Apuleius, Plato, Cæsar, Ovid, and others, were given, and the historical and chronological steps, and of the progress of public opinion and the laws on the subject. The attitude which the teachings of antiquity, and especially of the Stoics, on the one hand, and of almost all modern moralists on the other, in regard to their conception of death, appears very plainly in their view of suicide. For the modern view of it among us we are indebted to the great Church of Rome. The doctrine of future rewards and punishments, which is so prominent in the New Testament and the Koran, is the foundation upon which it was mainly built in religion. In the Koran suicide is expressly forbidden. The first movement in the Roman Church was at the Council of Arles, in the fifth century, where it was pronounced to be the effect of a "diabolical inspiration," and, at the Council of Broga, about the middle of the sixth century, it was ordained that no religious rites should be celebrated at the tomb of a suicide, and that no masses should be said for his soul. A

few years later, the Canon law ordained the same thing to a wider extent, and it was considered that a suicide "died in mortal sin," and could never enter the paradise of the blessed. These laws were spread over Europe by the Roman Catholic Church. During the whole period of church supremacy, the act was more rare than before or since, and under the government of Catholicism and Mohammedanism suicide, during many centuries, almost absolutely ceased in all the civilized, active, and progressive part of mankind. The position which the Roman Catholic Church and its propagators took in its early days, and in its strength and vigor, is still maintained in Europe by it and its two main branches, the Greek Church and the Protestant Episcopal Church, in regard to burial rites and ceremonies. In the United States it is practically disregarded; the act of suicide being deemed an insane one, and the party as not morally responsible.

In regard to England and the United States the author said:

"At the time of the Reformation in England, the Ecclesiastical law was adopted into the statutes of England, by 25 Henry VIII, chap. 19 (1534), and, as a further punishment, confiscation of lands and goods was also added, this being regarded in the nature of a compensation to the state for its loss of a human being. This latter penalty is said by Bracton to have been adopted from the Danes, where it had previously existed. It was more probably derived from the Canon law and the Roman civil law, in both of which it had been used many centuries before, as we have seen. The English statute also directed that the remains should be buried in the highway at cross-roads, with a stake driven through the body. This burial at the cross-roads without

religious rites was to give as strong an impression as possible of a heathen burial, and also of a criminal act; for the heathen Teutones executed their criminals by sacrificing them to the gods on their altars, which were mostly at the junction of the cross-roads.

"The statute of George IV, in 1823, modified this practice so that now the burial of the remains must be by private interment in the church-yard or other burial-ground of the parish, and shall take place between the hours of nine and twelve at night, under the direction of the coroner, without the rites of burial of any church, and no stake shall be driven through the body. All his goods and chattles and leases of real estate are forfeited to the crown the same as formerly. The real estate (excepting leases) was not and is not now forfeited in such case, and his inheritance is not forfeited as to other property. This offence was never attended with corruption of blood.

"In this, as well as in other felonies at common law, the offender must be at the age of discretion and of sound mind, and, therefore, an infant killing himself under the age of discretion, or a lunatic during his lunacy, is not regarded as a *felo de se*, so as to work a forfeiture of his property. But the disposition of the remains is the same in all cases.

"No part of the property is vested in the crown before the self-murder is found by some inquisition.

"If the body can be found, all such inquisitions must be by the coroner *super visum corporis*, and an inquisition so taken could not formerly be traversable in the court of King's Bench. If the body can not be found, the inquiry may be by justice of the peace, the same as of all other felonies, or in the court of King's Bench, if it sits in the county where the act was committed;

and such inquisitions are traversable by the executor, heir, etc. Coroners' juries generally carried their views so far as to decide that the very act of suicide is an evidence of insanity, and that, therefore, it worked no forfeiture to the crown. Bentham cites this as an example of the uselessness of official oaths. In 1693 a law was enacted allowing the findings of a coroner's jury to be reviewed by the court of King's Bench by the writ of *Certiorari*, and the inquisition may be quashed as insufficient. In Scotland there is a forfeiture of personal property only.

"On the principle that the ethical precepts of the English ecclesiastical law are incorporated in the common law of the United States, so far as the same is applicable, suicide, and the attempt at suicide, are to be viewed as common law offences with us, and hence are felonies. The usages of the English law have never been carried out in this country against the body or estate of the unfortunate *felo de se*, since independent State governments were organized."

Forfeiture in cases of suicide are expressly abolished by statute in New York (3 R. S. p. 988, s. 32). Laws for the punishment of aiding and abetting suicide exist in all civilized countries, but are now nearly obsolete from disuse, because the natural instincts of humanity are sufficient to prevent its frequent occurrence. In New York, the Revised Statutes, Vol. II., p. 661, § 7, declares "that assisting another in committing suicide is manslaughter in the first degree."

Of the outstanding life policies in the United States (and there are about eight hundred and eighty thousand of them), probably one-twentieth do not contain any proviso against suicide, and about three-fifths contain only the

simple proviso making it void if the insured shall "die by suicide;" and about three-tenths contain the additional words of "sane or insane." The first and third companies in rank in the number of outstanding policies only added to that clause "sane or insane" about four years ago—the fifth had used it for many years. The second in rank contains only the simple proviso declaring it void in case of suicide. The fourth, as we have seen, does not contain any restrictions whatever on this point. These five companies have more than one-third of the total number of outstanding policies.

At the close the author stated his reflections and conclusions, and said that religious influences should be used and more strenuous laws should be enacted to prevent this crime, and that life insurance in such cases should be prohibited until a policy had been held for many years at least. The author expressed himself in favor of prohibiting at any time an insurance in any such case, because it is against public policy. Altogether, Mr. Guernsey's paper must be considered, by reason of its scope and the researches of the author, to be a very valuable contribution to the history of a most important subject.

GENTEEL SHARPERS.

WE find the following timely warning in the *New York Daily Witness*, which, by the way, deserves the support of all who would advance the moral interests of society:

"\$500,000 has been made in a single investment of \$100. This, of course, is an extraordinary occurrence; but ordinarily five dollars can realize, say \$25,000. Even sums as low as one dollar can be safely invested, when favorable results can show a profit of \$5,000.

Circulars, giving full information, sent free.—*Adv.*"

The *Witness* editor thus comments on the above :

"If there is any man green enough to be caught by an advertisement like this, published by our respectable neighbor, the —, he richly deserves to lose all he may send—'even sums as low as one dollar.' The gambling business, in some aspects, appears to be in its last moments. People in the country have been so outrageously swindled by some of these 'put,' and 'call,' and 'straddle' brokers, that they are learning wisdom, and avoiding even the more respectable firms engaged in this business. But the bogus firms in this line are finding it harder and harder to get enough from customers to pay

expenses. True to their watchword, they 'put' the money received into their pockets and 'call' for more, and 'straddle' their customers like the old man at sea, so long as there is hope of getting more money from them—'even sums as low as one dollar.'"

Here is a bit of facetiousness which hits well the subject considered. We hope that the editor is right with regard to the gambling business being "on its last legs." Such schemes for trapping the unwary have been, indeed, exposed for a sufficiently long time to be about exploded. We trust that those who operate in such disrespectable lines will be so utterly broken in fortune that they will be driven into vocations which will exercise their cleverness in a way worthy of the term honorable.

WHAT PHRENOLOGY HAS DONE IN CIVILIZATION.—In a discussion which came off not very long since in the parlor of the Oneida Community, the subject of Phrenology was the leading topic. Mr. Noyes thus expressed himself: "My mind has been directed for some time past to the question of literary education—as to what we shall study, read, etc. I see that while the colleges and regular schools have been flourishing and growing in the country, and educating a certain class of persons, at the same time the great popular movement of education that has been going on for the last thirty or forty years, and which has taken everybody in and put them to school is one that started with Phrenology. Phrenology, as I have frequently said, is metaphysics for the millions. It is the deepest study, in one sense, that the schools have, and yet through Phrenology the great masses of this country have been taught in a system of metaphysics, which the scientific people (while they adopt a good deal of it) seem to despise. The habit of thinking on deep subjects was introduced among the common people through Phrenology in a

way that it could not have been by any other means. * * * * For my part, I should be glad to have our children, all of them, taught Phrenology. I should like to have them understand the general principles of it, learn the language of it, and believe in it as far as we believe in it ourselves. The study of that science would help our system of criticism. It is really a system of criticism itself, and would fall right in with our system, and be a help to it. The colleges set folks to studying Virgil and Homer, and other old heathen writers, but I believe we could get more good from studying and practicing Phrenology."

N O W .

REMEMBER, young friend, in thy earliest youth,
That no moment will ever return;
That if thou wouldst drink from the fountain
of truth,
And the sweets of that fountain discern,
Thou must strike for true knowledge, true wisdom
to-day,
With a spirit that never can bow;
Though the future its radiance may shed o'er
the way,
Yet the moment for action is now.—E. T. BUSH.

HOW TO DRAW THE FACE.

CHAPTER IV.—CONTINUED.

PARTS AS REGARDS CHARACTER AND EXPRESSION.

THE MOUTH.

THE mouth, though not surpassing the eye in range or degree of expression, is yet, perhaps capable of greater variety of configuration and action, from the varying thickness and forms of the lips and their relation to each other; from the extreme mobility of the corners of the mouth, the muscles of which draw them upward or downward, or laterally, or even antagonistically, and from the action of the lower jaw in opening and shutting the mouth, showing the teeth, tongue, etc.

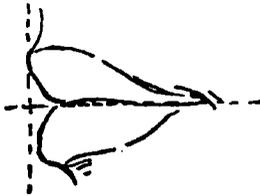


Fig. 76.

While different configurations of the mouth are deducible from our general analytic form, different aspects and conditions may require still further analysis or consideration, as the expressions of cheerfulness, gloom, etc., and their various conditions of posture and expansion.

The three prominent characteristic conditions or positions of the mouth are the *straight*—expressive of general quietude,



Fig. 77.



Fig. 78.

calmness, repose, etc., when the muscles are relaxed; when rigid or compressed, firmness, determination, etc.; the *curved upward*, expressive of mirthful qualities, laughter, hilarity, etc.; and the *curved downward*, of lugubrious ones, grief, dolor, anguish, etc.—both open and shut according to intensity.

All other changes are referable to these three prominent conditions. Different degrees of open or expansion of orifice, lon-



Fig. 79.

gitudinally or laterally, furnish numerous variations of kind and degree of expression. Age, as in the other features, also tells upon its configuration and condition, from the presence or absence of the teeth and the full and plump or shrivelled con-

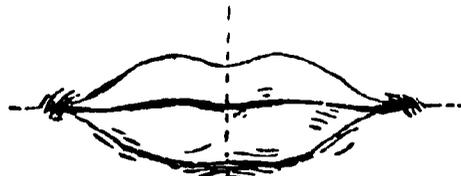


Fig. 80.

dition of the integuments. (See figs. 26, 27, P. J. July, 1874.) But in all these the same general principles inhere, and their representation is effected by the simple and easily understood variations of the basilar guides or indicatory lines—which we used for the

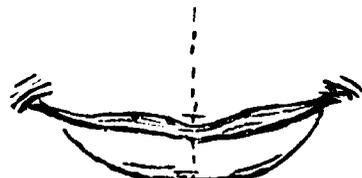


Fig. 81.

construction of them more abstractly. (Figs. 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87.)

THE EAR.

The ear is the least expressive of all the features, it having but little, if any *motion* of itself. To be sure, in the lower animals,



Fig. 82.

it has perhaps the largest range of motion and expression of any other feature, but in man it can hardly be said to have any at all—to “prick up” the ears being metaphorically used, or relating more to the position and action of the entire head. But its somewhat varying general form, in strong instances expresses character, and it is in itself in a normal condition full of beautiful lines and curves, sufficient in themselves to elicit attention and command admiration, as well as to indicate its importance in the economy and beauty of the head. Still, its general shape being nearly



Fig. 83.

the same under all conditions, we will only notice it here in its main construction, leaving the student to deduce varieties from his own observation and practice, only referring to an article on “Ears” in the PHRENOLOGICAL JOURNAL of January, 1875, where the subject is treated of at length.

As the ear changes its figure according to the position of the head, we append a few views of different ones. (Figs. 88, 89, 90.)

It will be observed that the curves of the ear are admirably adapted to harmonize



Fig. 84.

with the flow of the hair, when it is wavy, or curling in loose ringlets around the temples and back-head, and when divested

of that auxilliary it still seeks to compensate for the absence of those graceful lines by the salient nature of its own curves to relieve the otherwise plain character of adjacent portions of the head.

CHAPTER V.

THE WHOLE, AS REGARDS CHARACTER AND EXPRESSION.

As in the case of the features separately, so in the entire head, we will adopt the



Fig. 85.



Fig. 86.

same method of procedure, first by our entire analytical form, and afterward by shorter methods for brevity and facility.



Fig. 87.

As we have seen by our *profile* standard diagram (in Chapter III.), the symmetrical or classic proportions and relations of the head and features occupy the dimensions of a perfect square, or nearly that of a circle described within the boundaries of that square—that is, the head in that view is as high as wide, the distance from the crown to the throat the same as the distance from the frontal ridge to the extreme occiput, or back-head—and the features occupy relations and positions designated and bounded by certain lines and spaces, and

fill those spaces by virtue of certain contours of standard style and dimensions.



Fig. 88.

This, of course, expresses that character. It is the even-balanced condition, without salient or governing qualities. It can hard-



Fig. 89.

ly be said to be an existent one, and in its perfect state is so considered. It is merely an ideal or characterless condition, so to



Fig. 90.

speak, and our approximation (if it be so) will be considered as such, and its purpose

is mainly to discover or elicit character proper by deviations from it. It is merely the main factor, which, by adding to, or deducting from, we obtain the product wanted.

In illustration, we will repeat our form here, and see what changes a deviation

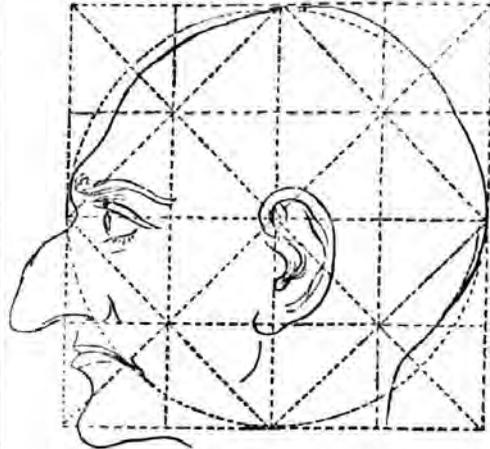


Fig. 91.

from it may produce in prominent instances. (Fig. 91.) The three types are readily determined, and others may be suggested, and very marked deviations sufficiently illustrate the point we have endeavored to state. (Fig. 92.)

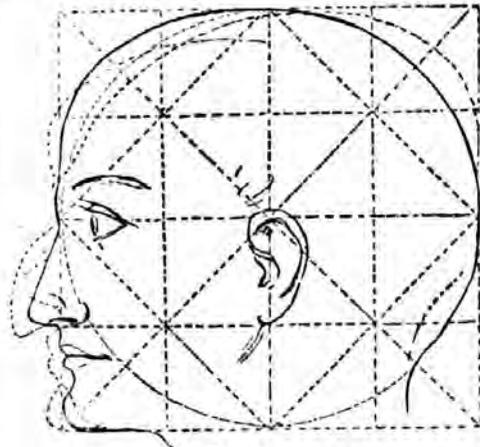


Fig. 92.

Although all varieties of character are obtained by deviations from this standard formula, yet we will not present it at every instance here adduced, or require its production on the part of the student for every essay. As we remarked in the preceding

chapter, it is now so fixed in the mind that it serves as a mental guide without the visible form—that is, at least, in its complete state—and its capability of dissection and modification is so great that almost

[TO BE CONTINUED.]

any part or amount may be used without the actual presence of the others, or modifications of them. Its parts are simply geometric forms, which can be varied or augmented indefinitely.

JAMES MARTINEAU ON PHRENOLOGY.

EDITOR PHRENOLOGICAL JOURNAL :

A FEW weeks ago when reading Mr. James Martineau's essay on Comte's philosophy, I met with several remarks contradictory to what I consider and understand to be the doctrines of Phrenology, upon which, with your permission, I desire to offer a few short comments, leaving the many readers of the JOURNAL to judge of their value.

In the first volume of the essays alluded to, on pages 32 and 33, Mr. Martineau says, "Comte's repudiation of all reflective knowledge is due chiefly to his acceptance of Phrenology, a system which has always taken an infatuated pleasure in knocking out its own brains by denying *ab initio* the validity of that self-knowledge on which all its own evidence directly or indirectly depends. The arguments on which Comte relies in his criticism on the psychologists are the stock objections of Gall, Spurzheim, and Combe, namely, that the mind observing and the mind observed being the same, the alleged fact must be gone and out of reach before it is looked at; that a mental state is not a whole fact, but only a part or function of a fact, being as much an outcoming of some cerebral state as the feeling of indigestion is the sensational side of deranged action in the stomach, and that the psychologists have never found anything out."

On page 34 Mr. Martineau says, "It is not to the discoveries but to the fictions of Phrenology that intellectual philosophy objects, nor can any one familiar with the writings of Descartes and Locke, of Spinoza and Berkley, of Reade, Mill, and Hamilton, deny its habitual eagerness to use to the utmost the results placed at its disposal by the zeal of the anatomist."

On page 40, he further says, "The logical doctrine of Aristotle, the modern theory of vision, the ascertaining of laws of association and abstraction, Butler's exposition of the moral constitution of man, deserve to be ranked among positive achievements of a high order, and are recognized as such by the vast majority of competent judges on this point."

In the first place, sir, we need not concern ourselves with what Mr. Martineau affirms Comte did in respect to Phrenology and reflective knowledge, unless his reception of the doctrines of Phrenology was reasonably the cause of his repudiation of reflective knowledge and was the natural result. We simply have to inquire what the phrenologists themselves have done, and also what Mr. Martineau says they have done; and in directing our attention to these points we must suppose the language used by the essayist as either metaphysical or metaphorical. But whichever way it is considered, it places the phrenologists in a position they never sought, and, indeed, never occupied, for they themselves have not denied the validity of reflective knowledge, so far as I am aware. I can not point to any passage in the writings of the founders of the science where they deny what Mr. Martineau affirms and assumes they do, and which he calls one of their stock objections. In reality the reverse of his statement would be more true; for in determining the functions of some of the organs, self-knowledge, or reflection upon states of the mind and consciousness, have lent a powerful aid in confirming the results of observation. It is, therefore, untrue to say that Phrenology "has always taken an infatuated pleasure in knocking out its own brains." But, on the contrary, it is true that it has by obser-

vation established that the brain constitutes the organ of the mind, and has also demonstrated its functions by incontrovertible evidence, and has also succeeded in correcting many erroneous conclusions of the metaphysicians. The only knocking out there has been done by the phrenologists has been the knocking down of the frail superstructure reared by speculators upon self-consciousness alone.

With respect to what Mr. Martineau calls the "stock objections of Gall, Spurzheim, and Combe," I have never seen them stated in anything like the language he applies to them, nor do they appear anywhere in the works of Mr. Combe, to the best of my knowledge.

It is highly probable that the early phrenologists have not denied that a mental state is "the outcoming of some cerebral state," and we should like to be informed of any well-known objection to this doctrine, which has been many times verified where the brain has been exposed to view. The tenor of Mr. Martineau's language indicates that he denies a mental state to be a cerebral state, or the "outcoming" of that state. We should like to know what he would term it.

Phrenologists do not positively affirm that "psychologists have never found anything out." If Mr. Martineau means by "psychologists" the metaphysicians, we are at a loss to know where, in the writings of Mr. Combe, he uses the word "psychologist?" It seems, however, that Mr. Martineau has substituted the word "psychologist" for "metaphysician," at least the reasonable inference points that way, as he speaks of Butler's exposition and the modern theory of vision as psychological achievements.

Phrenologists maintain that metaphysics based upon the reasoning of consciousness alone has, indeed, proved a barren field, and so long as it refuses the light of those truths which have illuminated the philosophy of mind and shown its consonance with the understanding, it will continue till doomsday vainly grasping after creations of the imagination.

Looking at the statement, "that it is not

to the discoveries but to the fictions of Phrenology that intellectual philosophy objects," etc., we ask, where are the fictions, and where is the consistency of saying, with respect to anatomy, that phrenologists are eager "to use to the utmost the results placed at its disposal by the anatomist." The phrenologists would rather receive this apparent censure as a commendation than otherwise. But for all that appears in the statement to the contrary, Mr. Martineau may regard anatomy as a fiction of the phrenologists, at all events he speaks of it as if the phrenologists were wrong in using its results, or were at variance with themselves in doing so.

He is further inconsistent in confronting us with Mill and Hamilton, as both of them were measurably ignorant of Phrenology, the one having guessed that there might be a philosophy of mind, and the other stoutly denied ocular proof of the fundamental principles of the science. The question is not what Mill and Hamilton have said, but, Is Phrenology true? The phrenologist never denied the value of anatomy or its results, nor have Descartes and Locke, Spinoza, Berkley, Reade, Mill, and Hamilton any more rights to the results of the anatomist than Gall, Spurzheim, and Combe, if as just a claim to them.

The language of Mr. Martineau is exceedingly ambiguous and involved, but it is evident he is not more fortunate in the paragraph quoted from page 40 than in the preceding ones, and the question really is, are the logical doctrines of Aristotle, the modern theory of vision, and the laws of association and abstraction, and Butler's exposition true, or only partially correct, and at the same time antagonistic to the truths of Phrenology, or the doctrines of this science? What the majority of Mr. Martineau's competent judges have to say on the point does not establish their conclusions nor falsify those of the phrenologist on the subject referred to; nor do they prove the value of the deductions of the writers named as opposed in their disagreement to Phrenology.

If Phrenology had been as "guilty of the infatuated pleasure of knocking out its own

brains" as Mr. Martineau indicates, surely it would be less culpable than if it had knocked out the brains of any other science; while if the aspersion were well founded, the science would present the comical appearance of a well-formed head and body minus the brains. A complete refutation of the indictment is to be found

in the fact that ever since its inception the child of this much-abused philosophy has continued to thrive and grow until it has reached the stature of a man, well-proportioned in all its parts, and full of vivacity in its development, with no signs of dotage.

Yours, very truly,

THOMAS TURNER.

DEEP SEA SOUNDINGS.

MARINER, what of the deep?

This of the deep—

Twilight is there, and solemn, changeless calm;

Beauty is there, and tender, healing balm—
Balm with no root in earth, or air, or sea;
Poised by the finger of God, it floateth free,
And, as it treadeth the waves, the sound doth rise,

Hither shall come no further sacrifice;
Never again the anguish clutch at life,
Never again great Love and Death at strife.
He who hath suffered all need fear no more,
Quiet his portion now for evermore.

Mariner, what of the deep?

This of the deep—

Solitude dwells not there, though silence reign;

Mighty the brotherhood of loss and pain;
There is communion past the need of speech,
There is a love no words of love can reach;
Heavy the waves that superincumbent press,
But as we labor here with constant stress,

Hand doth hold out to hand not help alone,
But the deep bliss of being fully known.
There is no kindred like the kin of sorrow,
There is no hope like theirs who fear no morrow.

Mariner, what of the deep?

This of the deep—

Though we have traveled past the line of day,
Glory of night doth light us on the way;
Radiance that comes we know not how or whence,

Rainbows without the rain, past duller sense,
Music of hidden reef and waves long past,
Thunderous organ-tones from far-off blast,
Harmony, victrice clothed in state sublime,
Crouched on the wrecks begemmed with pearls of time;

Never a wreck but brings some beauty here;
Down where the waves are stilled, the sea shines clear;

Deeper than life, the plan of life doth lie.
He who knows all fears naught. Great death shall die. *Sea and Shore.*

BRAIN AND MIND.

DR. CORNELIUS G. COMEGYS, lecturer on clinical medicine in the Cincinnati Hospital, delivered last autumn, before the Alumni Society of the medical department of the University of Pennsylvania, an address of great interest to every reflective mind. In this address he discusses the connection between the spiritual and physical parts of man, and shows how, in some respects, human character may be undermined and destroyed through ignorance, imprudence, or lack of discipline; how the brain may retain its normal power and become more powerful and efficient.

From the somewhat full report published in the *Tribune* we extract the following specially pertinent passages:

"What the nature of the impact of the material and immaterial parts of us is we can not at all explain, but there are laws of correlation which we do know, and in the possession of these we are capable of exhibiting the results of their violation in the same way as those of other great organs of the body. The concerns of a State, so multiplied and so vast, are often under the guidance of a single individual, and history presents abundant testimony of the ruin of

people, otherwise prosperous and powerful, because of the indulgence of the ruler in licentiousness, tyranny, and an insatiable thirst for conquest, whose character in the beginning exhibited self-denial, justice, and peace. Autocrats exist, also, in the general affairs of a people, exercising powers which are often nearly as large, for good or evil, as those possessed by him who sits upon a throne and rules an empire. We have seen in our time a fiscal autocrat, who assumed to control the movements of our business world; and a railroad king who undertook to bind the shores of our two oceans in his bonds of steel. In far less conspicuous instances large communities find themselves involved with an individual who has gradually risen from humble beginnings to a position of such supreme importance that his good or bad fortune involves them in his weal or woe. Such men possess, naturally, strong powers of mind, and slowly gain their lofty stations by industry, abstemiousness, the faithful discharge of all trusts; by the wisdom of their counsels and the display of constructive ability and general administrative powers. Thus beginning, full of capacity for great undertakings, they gain positions where they wield unusual power; and now their danger begins and the public peril.

“The brain is the material basis of the mind, and is subject to all the physiological and pathological laws of the other viscera. It has a great range of capacity as an organ. It needs a simple supply of blood for mere nutritive changes in its structure, but a much greater and momentary one when supporting mental actions. The vital chemistry must nowhere else have so free play as here. It must have rest, too; it becomes fatigued even by ordinary and unexciting uses; but when inordinately employed for excessive periods, the balance or nutritive changes is disturbed—it wears excessively and loses ability for the normal manifestation of mind. The mind is builded by the gradual formation of ideas, the material of which are derived from the senses, but shaped into concepts by an innate faculty. The accumulation and retention of these are the raw material of our

intelligence. These factors, great and small, are stored away in associate forms, and constitute our isolated judgments of things, more or less compound and complex. They are, also, inseparably connected with our emotions and moral and religious sentiments, which constantly guide us in the discharge of our duties. A man in a controlling position should be able to employ all these resources calmly and sagaciously. His sagacity for sound judgment and self-government rests upon his control of his intellectual possessions and the due restraint of his affective nature which underlies them. He should have coolness for reflection, and ableness to compare and combine them for the study of propositions of great enterprise; and the emotion which accompanies intellection must be so restrained that it incite not to baleful ambition. Now, this due exercise of mind for our self-direction depends upon the integrity of that dominant faculty which distinguishes man from all other animals—I mean the will. Under this autonomy we possess powers for generalization, or abstraction of our conceptual stores; we can arrange and compare our notions, advance or restrain suggestions, eliminate or aggregate factors, suppress or stimulate emotion, and hold in check our baleful passions; but if this master-force be in abeyance we lose our autonomy, and become creatures of mere impulse—may not I say mere automata? All the fine powers for analysis or synthesis are shattered, and what remains of mind is a mere exhibition of ‘association of ideas,’ in forms more or less inco-ordinate. The treasures of knowledge are still held, but no longer coherent and under discipline; neither illusions nor delusions can be detected. Like a ship under full canvas, with no hand at the helm, filling, backing, moving ahead, but the voyage is a mere drift; or like a great army without an adequate commander to direct its march or its battles—weak and dangerous in its vastness.

“This supreme mental force is no transcendental entity to be considered apart from physical existence, but may be said, in its fullness, to be the correlative of the

totality of the organic power of the brain. It is, therefore, only a well-nourished and a well-rested and properly exercised brain that can display the freedom of this magnificent endowment of the man. Let those fine physical qualities of the organ suffer deterioration by any excess, and self-control falters; drifting supervenes; the man begins to be led by mere associations of ideas; he lives in dreams. In the state we call dreaming the brain is at rest; ideation goes on 'in trains of thought;' we float in phantasmagoria; sounds, touch, odors, tastes, give them color; we are unable to verify our notions; illusions or delusions are realities; we have consciousness, pleasurable or painful, but it is at the mercy of this automatic ideation. There is no will in dreams. How often do we struggle for ability to strike down our tormentors or escape our entanglements! The will is not free because the full power of the brain is not in action. There is too much blood in it for rest—more than mere nutrition requires for recuperation, and it works on with its processes of ideation; but there is no self-control.

* * * "Success exalts good feeling, which, if unrestrained, may go on to ecstasy; while disappointment, if unresisted, tends toward melancholy; and so our exciting or depressing passions from undue indulgence reduce the powers of the brain (by wear and tear, if you please,) in regard to the exercise of the will. This being in abeyance, the individual is exposed to the dominancy of the passions. To conquer, to grasp, to control, to hate, to lust, to revenge, to destroy—any or all of the terrible elements of evil that dwell in the soul may arise and govern the life of a man. An emotional or passionate man is universally regarded as unfit to lead, and unreliable generally, because his reason is subrogated to his passions, which seem to lie, like ferocious beasts, in ambush, ready to leap upon and destroy that reason. The state known as 'hot blood' is recognized, and in law it often condones great crimes; but crime as revenge, perpetrated in that state which is called 'cold-blooded,' meets with public execration; yet, pathologically speak-

ing, they are on the same plane; in both cases the inordinate exercise of feeling reduces the organic condition upon which the dominion of reason rests; in the one case quick as the lightning flash, in the other slowly undermining the physical domain.

In fever, in inebriation, and under moral shocks, we every day see reason dethroned, and, alas, under powerful incitement, the vilest passions often surmount and reign over the grandest minds! Thus we see that the inordinate indulgence of our affective nature enervates the brain by wear and tear, and this loss of nervous force impairs the tone of the circulation of the blood in the penetralia of the organ; its pressure, rapidity, quality, and volume are disturbed; the vital chemistry is impaired, the organic aggregate is lower, and its functional, volitional incapacity begins. This is the simple, physiological, and pathological relation whereby the character of mind begins to be affected.

"I have now reached the summit of my argument as comprehensively as my brief moments will allow. I have attempted to show that upon the physiological brain a sound mind can only rest; that the inordinate exercise of the brain changes and weakens its powers for reasonable action. That, reflection being impaired, emotion becomes the guide of thought, and, depending upon the station of the individual, will be his own danger and the public peril. I have not used the word insanity thus far, though I have said enough to exhibit this general definition—that, from its mildest to its gravest forms, it is a loss of voluntary power—of the freedom of the will—and it is from this standpoint that I reassert that the brain and its functions are under the care of our profession. We are able to declare that men, in the management of great trusts, spurred on by a vaulting ambition, or by excessive indulgence in mere animal passions and appetites, become dangerous to those trusts and all their environments. Be he monarch, commander, statesman, financier, railroad king, manufacturer, speculator, stock-gambler, or business man, the 'delirium of greatness' fastens itself upon

him, and renders him unsafe. Sooner or later he must fall. It is logic.

"We warn men, but they will not heed us. They mock at our solicitude and boast of their capacious, unlimited powers; but, sooner or later, the wear and tear shows itself; the ship steers wildly, because the pilot is losing his keen eye and his firm grasp of the helm. We turn to the institutions of learning and warn the teachers against the over-stimulating and over-working of the brain by multiplicity of tasks and mere memorative processes. The prize scholar shall become less useful to society than the laggards of a class who barely receive honors, yet who, later, gain posts of distinction because they would not suffer over-working of their brains. We warn the people against luxuriousness, indolence, and the constant use of stimulants, and over-indulgence in any passion or appetite; for while many organs of mere animal function suffer, the great brain itself becomes undermined. Luxury is the parent of terrible vices. It is appalling to contemplate the social and national destruction which threaten us on account of the inordinate indulgence of the passions of avarice, speculation, and lust—progeny of luxury, and which have gone too far in the destruction of that public and private virtue which were the pride of our ancestry. Only industry, frugality, abstemiousness, self-denial, and purity of morals can, under the blessing of God, bring us back to a position of security."

AMERICAN GOLD AND SILVER PRODUCT IN 1875.—According to the figures of the General Superintendent of Wells, Fargo & Co., the total gold and silver production of the country for the past year was \$80,889,037. This is an increase of \$6,478,982 over the product of last year. It is estimated that the total yield in 1876 will be \$90,000,000, of which \$50,000,000 will come from Nevada. The States and Territories in which the yield fell off this year were California, Idaho, Utah, and Washington; the States, Territories, and foreign nations where it increased were, Nevada, Colorado, Mexico, Oregon, British Columbia, Montana, and Arizona. The falling off in California is

attributed to the lack of water, resulting from a mild winter. The total yield of California is set down at \$14,842,010 in gold dust and bullion by express, and \$1,484,201 by other conveyances, making a grand total of \$16,326,211. Of this sum at least \$7,000,000 were absorbed by the general Government in customs, and sent east, and at least \$8,000,000 by the railroad to pay interest on its bonds and dividends on its stock. It would seem that with so large a production of the "material basis," resumption should be not far distant.

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PUZZLES IN SPELLING AND PRONOUNCING.

—There is a word of only five letters, and if you take away two of them, ten will remain; what word is that? It is often.

There is a word of five letters, and if you take two of them away, six will remain; what is it? Sixty.

Take away my first letter, take away my second letter, take away all my letters and I am always the same. Can you guess that? It is the mail-carrier.

Can you tell me what letter it is that has never been used but twice in America? It is A; it is used only twice in America.

Spell the fate of all earthly things in two letters? D K (decay).

What word is always pronounced faster by adding two letters to it? The word fast.

What is that of one syllable, which, if you take away two letters from it, will become a word of two syllables? Plague; take away pl and it becomes ague.

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CHILDHOOD'S LESSONS.—Education does not commence with the alphabet. It begins with a mother's look, with a father's nod of approbation, or his sign of reproof; with a sister's gentle pressure of the hand, or a brother's noble act of forbearance; with a handful of flowers in green and daisy meadows; with a bird's nest admired but not touched; with pleasant walks in shady lanes; and with thoughts directed, in sweet and kindly tones and words, to nature, to beauty, to acts of benevolence, to deeds of virtue, and to the source of all good—to God himself!—*Blackwood.*



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.*—N. SIZER, *Associate.*

NEW YORK,
MARCH, 1876.

A CABINET COLLOQUY.

AMONG the many visitors at our rooms there are to be seen almost daily persons of distinction in science, or art, or politics, or professional life. Now and then we are approached by one whose inquiries or criticisms show the student or investigator in anatomy or physiology. A few days since such a person drew our attention to some specimens upon the shelves of our Cabinet, and requested a few words in explanation of the theories of Phrenology with reference to a certain line of cerebral development, and after listening with apparent earnestness, confessed his great surprise at not having heard the subject treated in that way before. He substantially remarked:

"Then you do not teach the theory of projections upon the head, commonly called bumps?"

"Certainly not, for we should have no sound basis for a system constituted of such erratic elements."

"Tell me, then, again, how you estimate development of brain?"

"From the center of cerebral growth or elaboration, the medulla oblongata. Taking the opening of the ear as an external point in near correspondence to its anatomical relation to the brain, we observe the

distance forward, upward, laterally, backward of any part of the brain cortex, and so estimate the size of the organs at that part. Say it is the organ of Comparison, we would determine, we observe the distance of that part of the anterior brain in which Comparison is located from the opening of the ear, and then taking into account the nature of the person's temperament, we judge its influence in the mental life."

"Protuberances merely, then, are not considered in this method?"

"It depends, of course, upon the nature of the protuberance. An experienced observer can readily determine whether a protuberance is due to a thickening of the plates of the skull or to brain extension, as the indicia are widely different. As a general thing, a protuberance which is backed up by brain matter comprehends a considerable space, while a mere bony growth is small and sharp in outline."

"Very good; but some of our prominent authorities in anatomy, Dr. D—, for instance, says that phrenologists can not demonstrate the truth of their science because there are parts of the brain which can not be reached by observation or experiment; and thus far but about two-thirds of the mass of the brain has been divided into organs."

"I think that I could show to your satisfaction, had you the time to spare, so that I could go over the ground of the subject in detail, that the brain is organized and differentiated in such a multiple way, there being centers related to muscular movements, as demonstrated by recent experiments in vivisection, and parts co-ordinating with other parts in the reception and expression of sensation, emotion, etc., that what has been ascertained is of great value to us, and should be used as much as possible in the affairs of our daily life. Take the science of astronomy, or of geology,

much has been gained by the great minds who have given their time and labor to their respective investigation, but how very much more remains entirely unknown about the planets and the stellar world, about the terrestrial formations! Would you reject the sciences of astronomy and geology because so little is known absolutely in them? Certainly not. So of Phrenology, what is really *known* of the constitution of the brain and mind is eminently due to the labors of phrenologists, and that knowledge is of the gravest importance in every department of thought. This we know to be true from a thousand testimonies. We are thankful for the information we have, and it stimulates us to further inquiry."

"Yes, I must admit that it is a grand subject, this mind of ours, and I frankly acknowledge that you have cleared away some very serious objections which I had long entertained upon the subject. I wonder that our physicians and surgeons do not investigate the subject with some degree of thoroughness, instead of standing aloof, as most of them appear to do."

"We only wish that they would show some interest in it. Our Cabinet would be open to them, and we should be glad to aid them in their examinations."

Here ended the colloquy, and after an exchange of civilities our visitor departed.

THE OLD QUESTION IN THEOLOGY.

WE have received the following question involving this old and much-vexed subject, and we venture in reply to give some views which may aid those who are troubled in that direction to arrive at some satisfactory conclusion :

"EDITORS PHRENOLOGICAL JOURNAL: If we admit the truth of Phrenology, must we necessarily admit that the doctrine of predestination is true? I believe that every

man is better adapted for some one thing than for anything else, but does that not imply predestination? Please give us some light on the subject? J. E. G."

This word "predestination" is an old club which has threatened, if not broken, many a controversial head; and no other arguments are so earnest, because none are so sincere, as those which relate to theology. Political arguments are usually hot and angry; theological arguments are earnest and deep-toned, and though they become sometimes angry and bitter, they originate in a religious love of truth. Those theologians who belong to the Arminian faith stand aloof from the word "predestination" because Calvinists have used it in a way which seems to the Arminian to bind everything fast in fate. Fifty years ago the controversies as to "predestination" "free grace," and "free salvation" were topics of earnest dispute among the best and most religious people of the land.

Webster defines the word "predestination" thus: "the act of decreeing or foreordaining events; the decree of God by which He has from eternity unchangeably appointed or determined whatever comes to pass; it is particularly used in theology to denote the predestination of men to everlasting happiness or misery. An unchangeable purpose of an unchangeable God."

As phrenologists, we were obliged to meet the charge of "fatalism" which had been urged against Phrenology thirty years ago more than of late, and this objection has usually come from the very men who have taught us in the pulpit and in their theological books that "God from all eternity foreordained whatsoever comes to pass," and had decreed the rewards and punishments corresponding to the merit or the demerit of the subject of the Divine Law. They have objected to Phrenology because,

as they understood it, if a man have great Firmness he must be obstinate, if he have strong Combativeness he must fight. They argue that if faculty is developed through organization, organization must determine conduct, and, therefore, men being so organized, are fated to do this or that; consequently we formerly had ten times as much objection raised against Phrenology by predestinarians, on account of its supposed tendency toward fatalism, as we had from any other class or sect. Methodists and other sects leaning toward Arminianism, and who are of the non-Calvinistic form of belief, often encouraged us, accepted Phrenology gladly, availed themselves of its benefits, and accepted its philosophy; while our Calvinistic friends, who, it has been asserted, taught fatalism, if language can teach it, objected to Phrenology because they thought they saw fatalism in it.

The poet Pope says that God, "fixing nature fast in fate, left free the human will." Theologians who accept Calvinistic predestination have endeavored to show that the human will is free, though the whole history of the man has been foreseen, and, of course, foreordained, but that man's will is left free to choose the good and reject the bad, and he is, therefore, just as culpable for wrong-doing as if there were no such thing as foreknowledge or foreordination.

The Arminian insists that man is absolutely free to do right and to do wrong, and is so related to the law of God that he can do what is required, or he can do wrong; that there is no fiat or predestination in the case; and that if predestination be true, free will goes to the wall. If Phrenology favor predestination, the Methodist should be the man to object to it. But our experience has taught us that there are more Methodists than Calvinists who accept Phrenology.

Let us inquire in regard to some facts which do not take on a theological aspect, and see whether there is anything related to man's history that savors of destiny or predestiny. Our correspondent, for instance, was predestined by the laws which entered into his being—if not by Infinite predestination—to be a man. He was ordained to be a white, and his whole structure as a human being, his sex, his color, his constitutional qualities by which he could work out manhood, were thrust upon him without his knowledge or consent. He had no power of choice or dissent in respect to these things; then is not this destiny and predestiny? He can not help himself, he can not be otherwise than a white, male, human being; and if the laws were established by which that result occurred before he had any knowledge or choice, was it not predestiny? One is destined to have black hair, black eyes, and dark skin, and another to have light eyes, light hair, and a fair or florid complexion; one has a Roman nose and can not help it, and another with a celestial or snub nose wishes he had an aquiline or a Grecian nose, and all can not help being what they are. One man is six feet high, another is five feet high, and wishes that he were five and a half feet; one is born with a robust constitution without any aid of his own; another is born with conditions which do not permit of robustness, and without any fault of his, and with all his wisdom he is able only to attain to tolerable comfort and health. Is this destiny? Is one to blame for his weakness, or the other praiseworthy for his strength? and is it not destiny in each case, or, if you please, predestination? The place of birth, the time of birth, and the surroundings of birth, can we avert, change, or hinder them? If not, why do we complain, then, of the "destiny that

shapes our ends, rough hew them as we may!"

To come a little nearer to Phrenology. One child is born of parents whose condition was such that amiableness, gentleness, and generosity of spirit constituted the atmosphere in which the child was generated, gestated, born, and reared; and these were conditions with which he had nothing to do. But he has the benefit of them; their beneficent influence on his being has wrought in him an organization in harmony with his disposition. He has less Combativeness and Destructiveness and less development of the other faculties through which wrong-doing may come than most persons, and he enters upon life with a smile, with a generosity and grace of spirit which might not have belonged to his grandfather—who, perhaps, was a pioneer, and fought Indians and bears, and by hard work made a fortune, so that his children were placed in circumstances of comfort and culture; and having been thus lifted by the energy and the vigor of the father to a summit level of refinement and ease, they could give birth to one whose temper should be an improvement upon that of its parents and grandparents.

On the other hand, let us suppose "the father had eaten a sour grape, and the children's teeth were set on edge"—Jer. xxxi.—suppose poverty, abuse, and all that belonged to difficulty and trouble had been heaped upon the family, and the poor boy had come into life like an Ishmael, with a spirit of opposition and aversion, and with everybody opposed to him. Now, is the child in the first instance to be praised for the good he has inherited? and should the child in the second be censured and punished for the evil he inherited? or are both children simply responsible for the right and proper use of that which they inherit-

ed? Up to the point of birth, including surrounding conditions, they had no choice, no free will, no responsibility; but when old enough to be capable of acting for themselves, their responsibility commenced, and it is simply commensurate with their knowledge, their age, their capacity. Everybody understands this.

To a certain extent, then, destiny and predestiny seem to be our lot. We have organic conditions and surrounding circumstances which we neither made nor chose, nor consented to have exist. Being thus endowed and surrounded, our responsibility begins at the time when we choose the right or the wrong, and within certain limits all men are free. For example, I am not responsible for not being six feet high. I am not permitted to be of that altitude, am not free to be so; I am simply responsible for doing the work which is within the reach of a man five feet seven inches high, and all the grapes that hang above that line must be picked by taller men. Suppose I am not capable of entering into abstract subjects; can not follow the hidden purposes of nature and nature's God, as some men profess to; but within a certain sphere I can ascertain all that may be known, and there only am I responsible. Lord Bacon, Sir Isaac Newton, and other lights of the intellectual world, having eminent capabilities, are responsible for a higher sphere of philosophy, of mathematics, and theology. If they can cultivate these fields better than I can, or as I can not, they certainly are responsible for doing that which lies beyond my reach, but which lies easily within their own.

We impose upon little children certain obediences and duties that they can understand and perform, and we hold them responsible in their sphere according to their age, strength, and knowledge. As they

become larger and wiser, their duties are broader and their responsibilities also, and not until they attain to the stature of men do we hold them responsible for the duties of men. In the same family some children seem brighter and quicker to understand, and the parent makes a difference, or ought to, in her requirements from such children. The brighter child only needs a hint or suggestion, and his thought compasses the whole wish of the parent; while another may be sound and strong in thought, but weak in the perceptives, and the gentle mother explains a subject to such a child with patience and with repetitions until it is comprehended. She would not tolerate in the brilliant child any such hesitancy, but would expect and demand instant obedience.

We believe that God is wiser and better than men, and that those who do their best, whether they can do little or much, will be acceptable to Him, as our children are acceptable to us when they do what they can in obedience to our requirements. We have no symbol which presents the Divine government to our comprehension so vividly and tenderly and truthfully as the relation which exists between the human parent and his beloved child, and which is described in Scripture in such forceful language as this: "Like as a father pitieth his children, so the Lord pitieth them that fear Him."

It may be a nice point to accept fixed and unalterable law on the one hand, and to maintain, on the other hand, freedom of choice and of will on the part of the subject. But we think that the parable of the talents, recorded in the twenty-fifth chapter of Matthew, brings both these subjects into a clear light, showing that capacity or ability is not a matter of original choice, that some men are predestined—certainly by

circumstances anterior to their choice—to be endowed with certain capabilities; that these capabilities differ without choice or culpability on the part of the man; that the responsibility commences where the exercise of the faculties commences, and that the responsibility is to be measured by the right or wrong use of the faculty which is possessed by the individual, whether it be little or much. May we not, therefore, infer that it is just as easy for one man to fulfill his duty as for another? It is said that the lord of those servants delivered unto them his goods; to one he gave five talents, to another two, and to another one *according to their several ability*; and their reward was measured by their improvement of what they received, not by the amount they accomplished. He who was blamed and punished was not blamed and punished for not acquiring five talents or two talents as a profit, but for doing nothing. He could have doubled his one talent just as easily as the one who had five talents doubled his, or else there is no force in the parable.

Our correspondent says: "I believe that every man is better adapted to some one thing than to anything else, but does that not imply predestination?"

To a certain extent it seems so. If the man possess the talents he has and can not help it, if they were given him without his knowledge or consent, if he be adapted to music, or to mechanism, or to figures, to teaching, speaking, or writing, better than to anything else, we think that he should be thankful to God for the destiny which enables him to do, to be, and achieve better in one thing than in others. Occasionally we find a poor fellow who does not seem to be predestinated to be much of anything; he is weak all over. In every vital and physical force weakness, not strength, expresses his condition; while, on the other hand,

there are natures so full of strength that they can scarcely contain themselves.

We believe that every man is able to use his power in such a way as to be approved of God and acceptable to wise and good men. Our courts of justice, our domestic government, sustain the idea that men are responsible so far as they have faculty, and not responsible for conduct which grows out of natural deficiency that could not have been rectified.

Our correspondent, then, may go on as best he can, using his faculties in the fear of God and in the love of man, and not care whether Phrenology proves predestination, or whether predestination proves Phrenology, or whether the word predestination, as often explained and understood, has been made a barrier to effort, or an excuse for sin or laziness. The question is, Is Phrenology true? Is one man endowed by nature with one set of faculties, some stronger than others? and, if so, does the size and shape of the brain explain the difference between him and others? If this be so, nature indicates the talents which grow out of that organization, and Phrenology merely explains the condition.

MONOPOLY DESPOTISM.

NOT long since we were informed by a paragraph in a morning paper that the coal dealers had met, and, after a grave consideration of their interests, had concluded *not* to advance the price of anthracite for the month of January, but to do so for February. This reminded us of a somewhat bitter article which was printed in a newspaper a month or two since on the subject of the prices of necessaries, discussing how they are controlled by monopolistic combinations, irrespective of supply and demand.

We believe, of course, in the abstract

principle that it is demand which controls the price of staples, but also know that this principle applies rather to a community wherein trade is permitted to have free course, and not to a community wherein its movements are hampered by civil regulations, or by organized effort for restricting it to such channels as are conducive to the advantage of a few individuals.

How benevolent the action of the coal men! who possess the power, it seems, to put the price of fuel at any price they please, and wring from the poor an extravagant sum for the bushel they can only buy from time to time, to keep their ill-clad bodies from freezing these many sharp nights when the penetrating winds seem to reach the very bone.

We are told that combinations exist in all the departments of trade relating to the supply of food; that these combinations are mainly controlled by the large dealers, and are made up of a select few, while the outsiders must knuckle to their dictation, or expect to be crushed out. This state of things is found in New York city especially, where are all sorts of "Boards," organized manifestly for the purpose of controlling the current of their respective lines of business, and rendering it subservient to the profit of the individuals constituting such Boards.

It is somewhat inconsistent with the claim so loudly put forth by Fourth-of-July orators that here is the natural home of the poor man, that society helps him to an independent maintenance, when society must pay for its bread, fish, meat, vegetables, coal, wood, etc., according to what a few men who daily or weekly meet in a sumptuous room determine to require; when the farmer may not send his produce to market, or the stock-raiser his cattle and sheep, without submitting to certain regu-

lations ordered by some Board or other, and which do not permit the farmer or stock-raiser to fix the prices of his own commodities. The "glorious freedom" of American citizens should not submit to tyranny in this or any other form.

ACADEMIC COMPETITION.

A SECOND inter-collegiate contest came off recently in this city, in which the subjects for competition were increased by the addition of mathematics and Greek. Eleven institutions were represented, viz: Princeton, Lafayette, Cornell, Hamilton, Williams, University of the City of New York, College of the City of New York, Rutgers, Syracuse University, St. John's, Northwestern University of Illinois. The prizes for oratorical ability were awarded, the first to a Hamilton student, the second to a Cornell student. The gentlemen awarded the prizes for essays represent Williams, Cornell, the College of the City of New York, and the Northwestern University. The mathematical prizes were won by a student of Cornell and a delegate from Princeton. The first prize for Greek was carried off by a young lady representing Cornell University, while students of Rutgers and of the New York University were highly commended. Cornell University, it will be seen, received a large share of these scholarship honors, and is apparently well on toward the leadership among American Colleges. The success of a lady in the Greek contest is peculiarly interesting, and is, as the examiners reported, "a gratifying proof that the recent efforts to elevate the standard of female education have not been without fruit." Moreover, such was the general excellence of the examinations, that the committee feel assured "that were further time allowed, and the requisite stimulus applied in the way of prizes, scholarships, or

special courses of instruction, our colleges would produce such Grecians as would be a credit to any country." Very likely, but, on the whole, we would prefer that the special courses of instruction had reference to subjects of more practical value in the business or uses of life. We hope that in the next literary contest that those old *alma matres*, Yale and Harvard, will contribute toward giving it a more general interest. Perhaps in such an event they would win more honorable testimonials than can be obtained in a mere contest of muscle on a Saratoga Lake.

DO TELL US.

OUR friends of the *Christian at Work* give us "a kind of a" notice, as a boy would say, in the following style:

"THE PHRENOLOGICAL JOURNAL for February, and *The Science of Health* for the same month, contain much meritorious matter, and some which we think a little too *materialistic* in its tendency. Both are ably edited and well illustrated.—S."

We thank our down-town contemporary for what there is of good will in the above estimate, but think the qualification which it has deemed it necessary to emphasize too general. We should be glad to be informed with regard to the particulars in which the "old bone" shows its ragged end, for the acuteness of the *Christian at Work* has discovered a mouse where no one else has detected even his tracks. We fear that something of the ancient and bigoted opposition to truth as it is in human nature, that opposition which drove the worthy pioneers of Phrenology from Vienna, but which, strange to say, was not marked in conscientious Scotland, still holds a controlling place in our neighbor's day-dreams and lucubrations. But, dear impetuous, strong-willed, energetic, temperance and

order-preaching *Christian at Work*, where did you find the "little too *materialistic* tendency" in our February number?

OBITUARY.

It is with deep regret that we record the death of Mr. Henry D. Campbell, which occurred at Millerton, N. Y., December 6th, 1875. He was only in his twenty-fifth year, of a good family, well educated, gentlemanly in his demeanor, tall in form, graceful in manner, refined in taste, elevated in his disposition; in short, he was a gentleman of great worth and promise. He graduated from the American Institute of Phrenology, in the class of 1874. He had for some years been troubled occasionally with hemorrhage of the lungs, and it was this trouble which carried him to his early grave. We had hoped much from him in the phrenological field, for being finely organized, and of a good culture, he would have carried an excellent influence with him in whatever field of labor he might have engaged. This is the fourth young man of promise and culture who received instruction from us, and has been called away from a field of much usefulness to man in his earthly course.

OUR SUMMER CLASS.

IT is expected that there will be this year a very great number of people coming to Philadelphia to witness the Centennial celebration, and that tickets for the excursion, to last during the whole term of the Centennial Exhibition, namely, from the tenth of May till the tenth of November, will be issued at about half of the usual prices. This will give people from Maine to Texas, and from Cape Cod to California, an excellent opportunity to visit this section of the country, and see all that is attractive in Philadelphia and New York, and at the

same time have the leisure to attend this course of instruction.

While we are disseminating Phrenology through the JOURNAL and the other standard works, we feel that the American Institute of Phrenology has been the means, also, of disseminating its important truths. If a young man with fifty years' good work in him take a course of instruction, and then make himself a missionary in this good cause, he becomes, if we may use the word, a traveling center of light and information. The living word from the zealous lecturer will fix the truth in the mind of his hearers, while the printed page may not be read, or be heeded if read. The lecture and practical examination will make an impression that will last a lifetime, and do much to mold and regulate the character of him who receives it. Besides this, our students teach classes, instruct men and women so that they may read character, and thus apply these truths to those whom they meet in the daily business of life. We think teachers, traders, and mothers, especially, need all the light that phrenological and physiological science can throw upon the path of their duty. The teacher ought to understand his pupils, and know how to apply treatment and instruction to each according to his peculiar mental and physical characteristics. The teacher who understands Phrenology will go from pupil to pupil in a class and impart instruction in a given branch of learning in as many ways as there are pupils, addressing each according to his peculiarities. One pupil needs facts, he can supply the reasoning; another needs reasoning, he can find out the facts for himself; and pupils should be helped where they are weak. That which they can find out quickly for themselves they do not need to learn from the teacher. A single hum-drum method of imparting instruction

to a class of twenty will be acceptable, perhaps, to four out of the twenty; to the rest it may be foolishness or a stumbling-block.

The mother has not only to instruct, but she has to mold the dispositions. What astonishing differences are found in children of the same family! one resembling the mother, another resembling the father, another resembling both equally, and perhaps two others partaking something of one and largely of the other, yet all differing and requiring treatment and training in accordance with these differences.

A trader has to deal with strangers who bring with them their selfishness and other mental peculiarities. If the trader can cast a glance at the mental organization of customers, and see who is proud, and who is smooth, who has judgment, and who lacks it, who is selfish and grasping, who is bland or generous, he can treat each one according to his mental dispositions, and make a friend and customer of each. But if he is obliged to handle men by guess, try experiments, and "tread on their corns" in doing it, he may drive half of them away, and not win the friendship and confidence of more than a half of the other half.

We believe that any young man who wishes to be a lawyer, or a merchant, or a physician, or minister, could not employ six weeks of time, and the requisite amount of expense, to a better advantage than in taking a thorough course of instruction. A knowledge of human character and the power to read strangers and thus know how to adapt conduct and conversation to each person in the most successful manner, is no mean acquisition. The clergyman who understands it, the lawyer who is versed in it, and the physician who has made it a study and mastered it, will take a higher and more influential position, and win better success than those who are deficient in this infor-

mation. In fact, we may say it will double a man's influence and apparent talent; and we believe the time is coming when the metaphysician, the man whose vocation it is to deal with mind, will be the best patron and most ardent admirer of Phrenology. When Phrenology was introduced, some timid people hastily decried it as favoring materialistic and fatalistic ideas. That hasty error is fast fading out, and not a few ministers who, twenty-five years ago, were taught to look upon Phrenology as something dangerous especially to the minister, now preach according to the teachings of Phrenology, and are successful beyond other men. A great many are winning splendid success, are attracting large numbers of people and interesting them, who do not use the terminology of Phrenology, but who employ its philosophy and the ideas which it develops, and this philosophy and these ideas seem to the people the very essence of truth, and are accepted most cordially.*

AMERICAN BOOK-MAKING. — A Philadelphia paper in remarking upon the topographical elegance of an edition of Forster's "Life of Johnathan Swift," published by Harper Bros., suggests that the book is printed from English stereotype plates. To this the publishers retort: "It may please our amiable contemporary to learn that not only were these plates made in New York, but that Messrs. Harper & Brothers have furnished the plates for the English editions of several important works, notably Nordhoff's 'Communitic Societies in the United States' and Van Lennep's 'Bible Lands,' and also that the plates for the English edition of Squier's forthcoming work on Peru will be made by the same firm. A great

* Those desiring to obtain special information in regard to a course of instruction will be furnished with a circular on the subject by addressing the office of this JOURNAL.

advance has been made in the art of topography within the last few years in this country, and American printers have not only overtaken, but surpassed their English rivals in the elegance as well as the general

accuracy of their work." We may add that there are other houses in this country who have long been rivals of Europe publishers in the beauty of their typographical productions.

AGRICULTURAL HINTS.

A Pleasant Kitchen.—Considering that so many women of the middle classes are obliged to pass a great portion of their time in the kitchen, why not make it an attractive apartment, rather than stow it away in the basement, or in some dark corner of the house, as is now too frequently done? Most houses display pleasant sitting-rooms; but if we judge of the conveniences and general pleasantness of the kitchen by the rooms in the front of the house, we find, in many instances, we utterly fail in our conjectures. To make a little show in company-rooms, how many actual kitchen comforts are denied in many households! It is surely better to begin our house-furnishing at the kitchen, and work toward the front as we are able. Let the kitchen closet be well stocked, even though the parlor suffers a little. Surely the health of the household, and the comfort of the women-folks should be placed above all other considerations.—*Ohio Farmer.*

God Almighty first planted a garden, and indeed it is the purest of all human pleasures. It is the greatest refreshment to the spirits of man, without which buildings and palaces are but gross handiworks, and a man shall ever see that when ages grow to civility and elegance, men come to build stately sooner than to garden finely, as if gardening were the greater perfection.—*Lord Bacon.*

Cleaning Plowshares.—The following directions are given for taking the rust off a plowshare: Take a quart of water and pour slowly into half a pint of sulphuric acid. The mixture will become warm from chemical action; put it on the iron and let it remain there until it evaporates. Then wash it again. The object of this is to give the acid time to dissolve the rust. Now wash with water, and you will see where the worst spots are. Apply some more acid, and rub on those spots with a brick. The acid and

the scouring will remove most of the rust. Then wash the mold-board thoroughly with water to remove the acid, and rub it dry. Brush it over with petroleum or other oil and let it be till spring.

A Substitute for Guano.—The following substances when combined in the proportions given will be found to produce an excellent fertilizer. It is well adapted for all crops requiring considerable nitrogen, and will prove useful in all cases where guano is successful. This formula has been recommended by Prof. Johnston, and has been tried with very satisfactory results:

Fine ground bone.....	815 pounds.
Sulphate of ammonia.....	108 "
Asher 80 pounds, or pearlash.....	20 "
Common salt.....	80 "
Sulphate of soda.....	20 "
Nitrate of soda.....	25 "
Sulphate of magnesia.....	50 "
	610 "

This application costs about fifteen dollars, and if applied to any of the cereal grains, or to grass lands, can hardly fail to give a profitable result. In proportion to its cost it gives a better yield than some of the higher priced fertilizers. If the nitrate of soda were increased to 100 pounds, it would add much to the value, and probably increase the profit.

A Useful Garden Tree.—The *Evergreen* inquires: "Has any one tested the value of the *Lombardy Poplar* as a screen? Visitors to foreign nurseries, especially in portions of Belgium and Germany, are impressed with the peculiar adaptability of this species for the purpose indicated. It requires so little space to grow, is so entirely hardy, bends so easily to the strong winds, and increases so rapidly that it has been preferred to everything else. Close screens of this tree are used abroad for affording partial shade to pot plants in the open air, as well as to beds of small seedlings. On our western prairies it has been introduced, and we believe satisfactorily so far."

Our Mentorial Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

Go Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

THE AMERICAN EAGLE is used as a symbol of American Independence. Can you tell me how it originated, or give me some information in regard to its meaning?

Ans. In ancient times its effigies were borne upon standards. The Romans, as you doubtless know, attached special importance to the eagles which were carried by their armies. It is said that the American Union adopted the eagle partly as a compliment to France, and also because the bird represented is largely distributed through the United States.

HOPEFULNESS.—As this faculty is so necessary in making life happy, please inform me what are the best methods of cultivating it if it is weak.

Ans. One good method of cultivating Hope would be to associate yourself with somebody who is not half as well endowed as you are, whom you have to cheer up and comfort; who will need to have you hunt out the sunny spots, and look for fair skies and hopeful promise. When we feel envious of the rich, and disposed to complain that we are not as well off as we think is desirable, we sometimes take a stroll through the poverty-stricken districts of the city, where everybody is abjectly poor, to whom an extra good meal is an occasion of great rejoicing. We return from such a walk feeling rich. We have two good meals a day, all we need to eat, and a tight roof to sleep under, and a good bed; and while we pity the very poor, it brings back a reflex action of rejoicing in the comforts with which we are surrounded.

If we take a walk through Fifth Avenue and across Murray Hill, and see those broad and elevated mansions with polished plate-glass and magnificent furniture, with a horse and carriage for each member of the family, and all the money that ingenuity can contrive means to spend, we go away feeling pretty poor, and sometimes disposed to complain that our lot is that of poverty and hard work. It depends, when one is half way up a hill, whether he looks far down and sees the struggling beginners at the base, or far up to those whose horizon is wider than his own, and whose atmosphere is clearer, who get the sun earlier and enjoy it later. In looking down we feel that we are pretty high, and that those poor fellows at the bottom who have hardly commenced to rise are very low; but looking the other way the picture changes. Try this method awhile; enjoy and rejoice in that which you have, and be thankful; and since you have achieved what you have, try to feel that you can achieve more, and can attain to whatever is desirable.

HABIT AND STRENGTH OF MIND.—

DEAR EDITOR: How should students of law conduct themselves that they may have a clear intellect, their memory be improved, and their spirits animated?

Ans. Your question is very general in its application. If you mean that we shall prescribe a course of life adapted to the life of a one who has made a sedentary employment his, we should require much more space than this department could afford. Students of law should eat food that is nourishing but not stimulating; that is, they should eat lean meat, brown bread, oatmeal, and the various cereals, fresh vegetables, abundance of fruit, but should not indulge in alcoholic liquors, condiments, spiced sauces, pastries, or anything which conduces more to carbonaceous growth than to the formation of good bone, muscle, and tissue. They should sleep abundantly, so that the brain and nervous system shall be kept in a harmonious, refreshed condition. They should exercise two or three hours a day in the open air. It would be well to have some trifling outside employment, that the mind shall be usefully occupied meanwhile. In fine, they should conduct themselves generally in a moderate, regular, Christian way.

THE PHRENOLOGICAL JOURNAL IN GERMAN.—We have an occasional inquiry with

regard to the publication of the PHRENOLOGICAL JOURNAL and other of our works in the German language. In this country we have a large constituency among the German people, but that constituency is scarcely large enough to warrant us in undertaking to publish it in the German language. We notice that one of our friends, who publishes a little monthly, has found it convenient to say something with regard to the principles of Phrenology in a recent number under the title of "Phrenologische Blätter," or phrenological leaves. This publication is called *Der Mitarbeiter*, and is a lively little monthly adapted to the use of the German people generally.

INJURY TO THE BRAIN. A man while at work in Kentucky sustained an injury to his head from the falling of a tree. His skull was found to be seriously fractured, but through careful nursing and after a somewhat protracted confinement he recovered his general health and the exercise of his mental powers with the exception of memory. He has apparently forgotten the names of most common objects, and can not even recall his own name or those of the members of his family, yet his perception in other respects seems to be efficient. I add, also, that his speech is imperfect, being unable to express himself freely in conversation.

Ans. We infer that the injury of the brain sustained by the subject above mentioned is mainly situated in the anterior lobe, perhaps in the inferior frontal portion of that lobe. It is altogether likely, however, that the shock produced by the blow deranged some of the nervous centers; for instance, the convolutions surrounding the lower end of the fissure of Sylvius and of the Isle of Reil, and one of the consequences may be his loss of regularity or harmony of speech. Cerebral anatomists out of Phrenology are pretty well settled with regard to the location of the power of language, experiments having resulted in its being related to one hemisphere or side of the brain, and ere long they may also ascertain its relations to the other hemisphere. With regard to the man's recovery we can not say aught of a definite character, but we deem his case hopeful if his health, in other respects, be good.



WHO ARE THE RICH?—The terms *rich* and *poor* are relative, not absolute. There is, perhaps, a level of absolute poverty, away down where the necessities of life are not; but we doubt very much whether there is anywhere a level of absolute wealth. Our ideas of whether a man is rich or poor are based on the amount of property or income at his disposal. Society has fixed an artificial scale by which wealth and

poverty are determined, and a varying level above which a man is said to be rich, and below which he is called poor. This is convenient for others, but it has little to do with determining the condition of the individual. If we would know whether he is rich or poor, we must go deeper than this, and take as the basis of our reckoning a principle which this artificial scale merely recognizes.

The fact that even this arbitrary scale has no fixed level, that its zero is ever varying, higher in one generation and lower in another, up in one locality and down in another, suggests the true basis from which to reckon wealth and poverty. The rich man of the last century and the rich man of to-day have very different bank accounts. Tried by the scale of the former, the wealth of the latter would seem tremendous; and yet he is not correspondingly richer. The man who is rich in a country town, might not be considered comfortable in New York; and yet the rich man of New York is not necessarily richer. The requirements of the present are more expensive than those of the last century; and a residence in New York entails far greater expenditure than a residence in Jenkinsville.

Nor are these differences in men's requirements always determined by time or place. People's tastes are different. An income which would make one person rich, might be but a beggarly pittance to another. The wants of a man whose tastes are simple and unostentatious, may be as fully supplied by a moderate salary as those of a Ralston by a princely income. The difference between the rich and the poor consists not so much in the difference of their incomes, as in the different relations which these incomes bear to their respective wants, in whether or not they meet and satisfy their aspirations and desires. What men call wealth is determined by the amount of property that a man has at his command; but what are wealth to the possessor are the contentment and satisfaction which it brings him.

Who, then, are the rich? Certainly not always they of large estate. There are, in many so-called wealthy people, longings for something still beyond their means, which makes them poor, indeed. The poorest of all poor people are they who live up to or beyond their means, and still long for the unattainable. It matters little to such natures what the extent of their means is, so that it be sufficient for the necessities of life, since all beyond this goes but to feed the feverish flame of insatiable wants, and leaves them pitifully poor. The poor are they whose means, no matter whether large or small, are insufficient to meet their wants—natural, acquired, or imaginary. The rich are they whose wants, whether few or many, are all within their means. Contentment is the soul of wealth. The man

who is content with his income, great or small, is rich in a more enviable possession than Rothschild's millions, of themselves, can give; while he who rolls in wealth, if contentment be wanting, is poor in a more pitiable poverty than that which doles out to a man the bare necessities of life.

R. A. BUSH.

LITTLE THINGS.

"Little drops of water,
Little grains of sand,
Make the mighty ocean,
And the beautiful land."

Truly has it been said that life is made up of little things. He who is faithful in little duties, —overcoming little difficulties, conquering little temptations, bearing little trials with fortitude— will steadily advance and be rewarded by great and important results. The humble clerk who strictly and promptly executes the commands of his employer often becomes the distinguished merchant; the mechanic who is punctual and upright in minor matters, becomes the millionaire; the diligent student who devotes but an hour daily to the acquisition of learning, becomes the dignified professor discriminating the beauties of the sciences and the grandeur of knowledge. Though beginning life under adverse circumstances, impoverished and bowed down with burdens, let the aims and aspirations be high— always looking to the topmost round of the ladder—and in time, perhaps years, the pinnacle of fame will be reached. How beautiful and appropriate are little courtesies! offering a comfortable chair and a glass of cool water to the weary traveler; having a pleasant word of recognition and welcome for the stranger; presenting a bouquet of fragrant flowers to relieve the monotony of the invalid's room; and a wreath of evergreens and white roses gently laid on the newly made grave is a touching and affectionate tribute to departed worth, and soothing to the bereaved friends.

"Little words of kindness,
Little deeds of love,
Make this world an Eden
Like the Heaven above."

It was the observation of an apple falling to the ground which led Sir Isaac Newton to make one of his greatest discoveries, the law of gravitation; from noticing the tiny birds, one after another, Audubon became the celebrated naturalist, being familiar with the feathered songsters of the forest; the modern steam-engine—and with what wonderful developments!—was discovered by observing the force with which the top was raised from the tea-kettle. Agassiz was made happy when one of his students found an egg in the body of a skate which he was dissecting, and exclaimed, "I would not take \$2,000 for that rare specimen." So scientists are de-

lighted with little things which would fail to interest others.

What mischief results from a little habit uncurbed! What a calamitous conflagration may originate from a single spark! What a magnificent, wide-spreading oak grows from the tiny acorn! What a grand, elegant building comes from little grains of sand made up into mortar and in the form of large, massive rocks! So the painting is most adorned by the light touch; the pearly dew-drop is the most beautiful form of water, the diamond the most valuable of jewels, and the fragrant little violet the loveliest of flowers.

"So our little moments,
Humble though they be,
Make the mighty ages
Of eternity."

F. D. M.

REAL GREATNESS.—He who possesses the Divine powers of soul is a great being, be his place where it may. You may clothe him with rags, chain him to slavish tasks, but he is still great. You may shut him out of your houses, but God opens to him heavenly mansions. He makes no show, indeed, in the streets of a splendid city, but a clear, pure affection, a resolute act of a virtuous life, will have a dignity of quite another kind, and far higher than an accumulation of brick and granite, of plaster and stucco, however cunningly put together, or stretching far beyond our sight. Nor is this all. Real greatness has nothing to do with man's sphere. It does not lie in the magnitude of his own outward agency. Perhaps the greatest men in the cities at this moment are buried in obscurity. Grandeur of character is wholly the force of thought, moral principle, and genuine love, and these may be found in the humblest condition of life. A man brought up to an obscure trade, and hemmed in by the wants of a growing family, may, in his narrow sphere, perceive more keenly, seize on the right means more decisively, and have more presence of mind in difficulty, than another who has accumulated stores of knowledge by laborious study, and has more of intellectual greatness. Many a man who has gone but a few miles from home understands human nature better, detects motives, and weighs character more sagaciously, than another who has traveled over the known world, and makes a name by his reports of different countries. It is the force of thought which measures intellect, and so it is the force of principle that measures moral greatness, that highest of human endowment, that brightest manifest of the Divinity. The greatest man is he who chooses the right with invincible resolution, who resists the sore temptation from within and without, who bears the most heavy burden cheerfully, who is calmest in storms, and most fearless under menace and frowns, whose reliance on truth, on virtue, on God, is most unflinching. **ABRAHAM ROTL.**



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

HILL'S MANUAL OF SOCIAL AND BUSINESS FORMS; A Guide to Correct Writing; Showing how to Express Written Thought Plainly, Rapidly, Elegantly, and Correctly, in Social and Business Life. Embracing Instruction and Examples in Penmanship, Spelling, Use of Capital Letters, Punctuation, Composition, Writing for the Press, Proof-Reading, Epistolary Correspondence, Notes of Invitation, Cards, Commercial Forms, Legal Business Forms, Family Records, Synonyms, Short-Hand Writing, Duties of Secretaries, Parliamentary Rules, Sign Writing, Epitaphs, Engravers' Inscriptions, Brush-Marking, Job Printing, Postal Regulations, Writing Poetry, etc. By Thomas E. Hill, Chicago.

As indicated in the foregoing elaborate title, this work is exceedingly comprehensive. The author has evidently aimed to cover all the departments of practical life in which the pen is an essential instrumentality, and his endeavor has not failed of eminent success in producing a most useful book. At the start full instruction, accompanied with several excellent illustrations, is given in handwriting. The author, being a master of the pen, furnishes many valuable suggestions for the profit of teachers, and all who would become skillful chirographists. Next he proceeds to consider the art of short-hand writing, and in this department furnishes a synopsis of Mr. Lindsley's Tachygraphy, which he deems superior to the ordinary phonography. In the chapters which follow, occupying thirty or forty of the quarto pages, we have the principles of spelling, defining, grammatical construction of sentences, rhetorical aids, etc., in composition, tersely yet clearly set forth. Then comes the department of letter-writing, which, in its different forms for the purposes of business, friendship, etiquette, etc., is well filled up, scarcely any conceivable purpose for which a letter might be used being omitted from the copious variety of forms.

In this last department, and in the business and commercial and legal forms, and information which immediately follow, the practical uses of the volume culminate. Suggestions are given with reference to the preparation of important documents, from the writing of a promissory note to the drawing of a last will and

testament. Abstracts from the laws of the States, and of the United States, in those departments affecting private and home rights, are included in this part of the book, and are of particular value to those owning small properties.

Then, too, there are the postal laws, tables of weights and measures, value of coins of different countries, calculations of interest, populations of our own and other nations, and a great variety of statistical items. Parliamentary proceedings occupy a liberal space, and properly, too, and the technique of type-setting receives some attention.

We have been informed that upward of 50,000 copies have been sold already, and we don't wonder, as it is such a work as an agent can talk about, if talk be at all necessary besides its examination. It is sold only by subscription, in elegant styles of binding, Mr. Wm. H. Shepard, 13 Astor Place, New York, being the general agent for this city.

TWO LECTURES UPON THE RELATIONS OF CIVIL LAW TO CHURCH POLITY, DISCIPLINE, AND PROPERTY. By Hon. Wm. Strong, LL.D., Justice of the Supreme Court, U. S. One vol., 12mo: pp. 141; muslin. Price \$1. New York: Dodd & Mead.

There is a wise saying to the effect that "the more one knows of everything, the better able is he to do any one thing." Taking this view of the subject, we see the appropriateness of having lectures of this nature given before the faculty and students of the Union Theological Seminary in New York, during the winter of 1874-5, as these were. They are equally appropriate for any theological class; and Dodd & Mead have done themselves credit in the conception of the idea, as also in the beautiful style in which they have put before the public a book containing such information. The author says, "Such knowledge would, in many cases, tend to relieve clergymen from embarrassment, and enable them to avoid unhappy litigation, by which the peace and prosperity of churches is so much disturbed."

He does not claim to tell us all about the subject which he treats in so lucid a manner, but says, "I still maintain that even imperfect knowledge is better than none. All our knowledge is imperfect. There is no subject in morals or in law the extremest depths of which man has ever sounded. The unknown greatly transcends the known. But even partial knowledge is power, if, so far as it extends, it be accurate." These thoughts are just as applicable to other subjects as to that under consideration, and we bespeak for the book an earnest and extended reading by all whose position affords them an opportunity to lead other minds, or whose counsel is sought in material as well as ministerial matters. In the discussion of the tenure of church property the author is

particularly clear, and many points are presented which it would be well for those disposed to charitable or religious gifts or bequests to know. The much-disputed questions on pew-holding are also treated in a brief and comprehensive manner.

AN ELEMENTARY ENGLISH GRAMMAR, Consisting of One Hundred Practical Lessons, Carefully Graded and Adapted to the Classroom by Alonzo Reed and Brainerd Kellogg, A.M. 16mo; pp. 143. Price, 50 cents. New York: Clark & Maynard.

A brief examination of this work impresses us very favorably with respect to its adaptation for use in the school-room. It is simple, an important quality in a text-book on grammar, and a quality which is most rare, we must confess, in text-books devoted to that subject. The authors are teachers whose specialty is the English language, and they have brought their experience to the preparation of the book. Believing grammar to be a science, they have sought to elucidate its principles in a way which shall interest a pupil, and not repel him by a series of dry, technical, bewildering rules, as is the case generally. The construction of the sentence is the object which is placed at the front, and its *practical* consideration is the mode adopted, care being taken to avoid technical insipidities, or mere routine parsing and parrot-like repetitions. Its most valuable feature is the exercise of the youthful mind, which it encourages and stimulates, we think, healthfully.

OUR WASTED RESOURCES. The Missing Link in the Temperance Reform. By Wm. Hargraves, M.D. 12mo; cloth; pp. 201. Price, \$1.25. New York: National Temperance Society.

This is a work of much practical importance in connection with the Temperance question. It presents an array of statistics showing our national wealth in agriculture, manufactories, mines, etc.; the number of persons employed, wages paid, etc., in the multifarious industries. Then in strong contrast are presented well-authenticated statistics of the liquor traffic, whose startling aggregate must compel the most "liberal" politician, if he take the briefest glimpse at the book, to pause. One important inference which the reader can not help drawing is that the most felicitous result would accrue, especially to the laboring classes, if the use of liquors were entirely stopped. The author points out clearly and forcibly what the use of liquor does; but does not state as clearly what causes the use of liquor. The habits of the people must be reformed; temperance in all things must be the rule, and then the appetite for stimulants of all kinds will be lessened. As a powerful aid to the cause of Temperance, the book should be found servicable, the facts which it furnishes being incontrovertible.

IMPROVED DIARY AND MARGINAL INDEXED BOOK OF DAILY RECORD. Revised and Arranged by M. N. Lovell, Erie, Pa. Limp morocco, red edges. Price, \$2. Erie Publishing Company.

This is a new form of diary, so arranged that, by means of marginal indexes, the user can at once turn to the page on which he may have entered the events of any day. There is, also, an alphabetical index, by which one can easily find notes of various days on which similar events have happened. It is arranged for five years' service, as long as one would care to carry one book. For inventors or literary men, or for physicians, or for men generally who are in the habit of making records of occurrences or of thoughts as they happen to them, this new diary would be found exceedingly convenient. A good deal of statistical information is furnished, with numerous calculations of value to business men. The book is substantially bound in fine morocco, and of a size large enough to keep its place perpendicularly in one's breast pocket.

THE CHRIST OF PAUL; Or, the Enigmas of Christianity; St. John Never in Aelia Minor; Ireneus; the Author of the Fourth Gospel; the Frauds of the Churchmen of the Second Century Exposed. By George Neber. One vol., 12mo; pp. 397; muslin. Price \$2. New York: Charles P. Somerby.

Agitation has always seemed necessary for a healthful settlement of anything impure or opaque, and this book, as is apparent from its title, is one of the agitators of a subject deemed by many, if not by the most of the intelligent in modern society, as already settled. It is written in a terse, colloquial, attractive style, and will have thoughtful readers, even among those who are opposed to the views advocated. In fact, it is more in the form of a story, or series of historical stories, than a plea or argument, and readers are to draw their own conclusions.

The upshot of the book, as shown in the concluding chapters, mainly is, that St. Paul taught a different Christianity from that declared by the four Apostles who, it is usual to believe, wrote the leading parts of the New Testament; and also that the four gospels were not written as Christianity generally asserts.

THE ATLANTIC MONTHLY, for February, is especially rich in contributions from the pens of leading American authors. John Fiske has an article in his best psychological vein; Ralph Waldo Emerson is represented by a patriotic poem; J. T. Trowbridge has a poem of a pathetic-mystical character, full of suggestiveness; Mr. Garfield claims a place for a strong paper on the currency question, in which he quotes from the utterances of prominent financiers, including one which originally appeared in the *PHRENOLOGICAL*; while the editor, Mr. Howell, is happy in his own department.

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[WHOLE No. 446



GENERAL JOHN GLOVER, OF MARBLEHEAD.

A FRESH CHAPTER OF REVOLUTIONARY HISTORY.

THE analogy selected by Mr. Cole in his famous series of pictures, "The Voyage of Life," of a river as illustrative of human life, is always pertinent, but especially so as to the memory of the remarkably executive person whose name heads this article. For while many others no more mer-

itorious than the subject of this sketch have never been concealed for a moment from the admiring gaze of a grateful posterity, floating, as it were, on mid-stream, the memory of General Glover seems to have been caught by a side eddy, and though occasional glimpses have since the Revolution been caught of his remarkably successful military career, as a rule he has been overlooked, and only at this very late day has a fair desire been manifested for more light upon his history.

Mr. Savage, in his "Geneological Dictionary" (Vol. II, p. 263), refers to John Glover, who settled at Salem, Mass., as having married Mary Guppy, January 2d, 1660, and that a son, who was also named John Glover, was born August 29th, 1661. Omitting the intermediate gradations, we find that the subject of this sketch was born at the old family mansion November 5th, 1732. After the customary commercial education of that period, he settled down to what he supposed would be his life-work, that of a merchant.

Though largely interested in navigation, his feelings and convictions became so intensely interested in the exciting events which preceded our Independence, that he early converted his schooners and brigs into privateers, so as to be ready for action as soon as the war, which he saw was inevitable, should be declared, and drilled a military company personally, without the intervention of a sergeant.

The eventful spring of 1775 found the little band of Colonel Glover ready to take the field. He took up his line of march for Cambridge, and conducted there the first organized body of soldiers, ready to report for duty. Before leaving home he had very quietly stowed away, in certain privately-marked barrels of pork some bags

of specie—an article fully as scarce then as it is now—rightly conjecturing that it would not come amiss, and the "special service" of the army soon showed the wisdom of his foresight.

On arrival at Cambridge he took possession of the house now owned by the poet Longfellow, but then the property of a most venomous Tory. These headquarters he retained until the arrival of the commander-in-chief, on the 3d of July, 1775, when they were appropriated by General Washington as his headquarters. Colonel Glover's soldiers, with their neat uniforms of sailor hats, blue jackets and trowsers, and superior discipline, were inclined to look upon the Virginia riflemen, with their hunters' frocks and long, uncombed hair, as good material for fun, and were unsparing in their criticism and practical jokes, which, of course, were promptly resented by those always rough but always ready backwoods hunters and Indian fighters.

In fact, quite a fight had already begun, which bid fair to assume serious proportions. We don't find it recorded that Colonel Glover interfered—perhaps he enjoyed the fun—but just as matters were getting serious, an ancient chronicler and eye-witness tells us, "Washington made his appearance, whether by accident or design, I never knew. I saw none of his aids with him; his black servant was just behind him, mounted. He threw the bridle of his own horse into his servant's hands, sprang from his seat, rushed into the thickest of the *melée*, seized two tall, brawny riflemen by the throat, keeping them at arms-length, talking to and shaking them."—(Irving's *Life of Washington*, Vol. II, p. 124.)

General Glover's command does not appear prominently again on the field

of action until August 29th, 1776, when, by the disastrous results of the battle of Long Island, our little army seemed placed entirely at the mercy of the relentless enemy. Our outposts had been driven in, and the waters of Gowanus Cove, New York Bay, East River, and Wallabout Bay entirely encompassed us on three sides and partially enveloped us on the fourth. As the enemy had concentrated his force at the opening of this *cul de sac*, it was evidently only a question of time as to when the overpowering legions of the enemy should gobble us up entirely. The British, by their superior naval power, were undisputably the masters of the situation on water as well as on land, and, as if to add to the unrelieved dreariness and despondency of the situation, one of those impenetrable fogs, which the New Yorkers and Brooklynites are so familiar with, spread itself over and throughout the miserable body of men who, but three days before, considered themselves the only hope and stay of American nationality and independence. The despondent sentinels moodily paced their rounds, but a feeling pervaded all that it was then but a gloomily-played farce, a heartless drama, the curtain to which would be dropped whenever King George's commander gave the signal. Truly, our patriot fathers might have exclaimed on that day, *De profundis clamavimus*; but in the midst of that despondency, and, perhaps, of those prayers, was heard in the distance the shrill music of the fife, then the rattle of the kettle-drum, and then (to quote again from Mr. Irving), "came Colonel Glover's Massachusetts regiment, composed chiefly of Marblehead fishermen and sailors, hardy, adroit, and waterproof, trimly clad in blue jackets and trousers. Every eye brightened as

they marched briskly along the line with alert step and cheery aspect."

Washington, on Manhattan Island (New York City), apprehensive that the British would draw a cordon by his ships and boats along our rear, had at noon the previous day intrusted to Colonel Glover the duty of providing transportation for the army, and though some of the vessels had been brought fifteen miles, eight hours after the order was given the vessels were ready at Brooklyn, whence the amphibious regiment took them to Long Island and recrossed in safety with a most precious burden.

Of this most skillful and successful movement Washington Irving says:

"The whole embarkation of troops, artillery, ammunition, provisions, cattle, horses, and carts was happily effected, and by daybreak the greater part had safely reached the city, *thanks to the aid of Glover's Marblehead men.*"

And, *en passant*, it should be especially noticed that, though Colonel Glover's command was classified as artillery, we find it doing as effectual work as infantry as any corps in the service.

Military men will wonder why the British were so slothful as not to have drawn their naval forces to our rear with sufficient alacrity to cut off this well planned and admirably managed retreat, and more so that, as we had then and there so successfully evaded them, that they did not at once run their ships up the North and East rivers and attempt to more than recover their lost ground by penning our forces up on the east end of Manhattan Island. Lord Howe never more showed himself to merit the name of "the friend of America" than he did on this occasion.

We find no indication of activity on his part until the 13th of September, when three frigates and a forty-gun ship ran up the East River toward Hell Gate. The next day Washington sent his baggage to King's Bridge, it being evident that the plans of the enemy were to envelope us, as Colonel Reed wrote, "and it is now a trial of skill whether they will or not." The same day, about sunset, six more ships passed up the Sound and joined their predecessors. Then came expresses from above advising that several thousand British troops were being disembarked at the small islands at the mouth of Harlem River, where large forces were already encamped. Next morning three men of war stood up the Hudson River and anchored opposite Bloomington, effectually stopping all transportation by water to Dobbs Ferry. About eleven o'clock two divisions of British troops moved in boats from Long Island and landed, under cover of the ship's fire, at the upper part of the city. Our militia who manned the breastworks ran away without firing a gun. Two brigades of Putnam's Connecticut troops, who had been sent to rally the fugitives, caught the panic and joined the general stampede. Washington personally rode in among the panic-stricken fugitives and vainly tried to check them. In a transport of rage and despair he dashed his hat to the ground and exclaimed: "Are these the men with whom I am to defend America!"

General Greene says that "Fellows' and Parsons' brigades ran away from about fifty men and left his excellency on the ground within eighty yards of the enemy so vexed at the infamous conduct of his troops that he sought death rather than life. Under these disheartening circumstances Colonel

Glover was charged with the general superintendence of the evacuation, which was successfully accomplished, and the army a second time saved.

We don't find any record of fighting on our side on this occasion excepting a skirmish of the enemy's full force with "Glover's brigade," but, as said enemy kept on and encamped where what now would be called between Thirty-fifth and Thirty-eighth streets and Fifth and Sixth avenues, we must either infer that our heroes got the worst of it or that the historian has mistaken when he ascribes the fighting to have been done by the "advance" of Glover's brigade. We incline to the opinion that our General, in bringing up the extreme rear, found it necessary to use his artillery to repress any undue familiarity by our unwelcome visitors.

Our hero does not come again into prominent notice until October 4th-18th, 1776, when Sir William Howe, having thrown a heavy force into Connecticut, with a view to again flank Washington, when they, as Mr. Irving tells us, "were waylaid and harrassed by Colonel Glover, of Massachusetts, with his own, Reed's, and Shepard's regiments of infantry. Twice the British advance were thrown into confusion and driven back with severe loss. A third time they advanced in solid columns. The Americans gave them repeated volleys and then retreated. Colonel Glover, with the officers and soldiers who were with him, received the public thanks of Washington for their merit and good behavior."

In this last affair we find Glover directing an attack, and not, as at Long Island and New York, protecting a retreat, and find the same cool, deliberate judgment, personal bravery of the officer, combined with the pluck and perfect discipline of his men, produc-

tive of the same desirable results. A great friendship always existed between General Charles Lee and Glover. When Washington made his most dismal march westward through the Jerseys, Glover's command was left on the banks of the Hudson with Lee, who, though frequently requested to send Glover and his command to the immediate support of Washington, persistently retained him until an imperative order came, and Glover was again under the immediate direction of the commander-in-chief.

Glover's impatient nature chafed at being so much on the retreat and defensive, and not only was the Christmas Eve attack on the Hessians at Trenton decided upon on his earnest assurance of its feasibility, but he had the distinguished honor of leading the advance on that occasion. His was the artillery whose thunders struck terror into the hearts of the half-drunken Hessians on that night.

We do not wish to pluck one laurel from the brow of the other noble officers and men who assisted in that heroic effort, as without the hearty pluck and persistency with which Colonel Stark led the advance guard of infantry, the fortunate result probably would not have been obtained except at a vastly greater cost of precious blood than was expended.

The continuous efficiency of Colonel Glover, and his marked ability in the council and the field, without any personal demand of his own, resulted in his promotion to the rank of brigadier-general by Congress, February 21st, 1777. It will hardly be believed, in this day of self-glorification, that this most meritorious and successful officer hesitated to accept the promotion, and only did so upon the urgent request of Washington, who wrote to him:

"Diffidence in an officer is a good mark, because he will always endeavor to bring himself up to what he conceives to be the full line of his duty.

* * I know of no man better qualified than yourself to conduct a brigade."

The following October we find our General actively engaged under the command of Major-General Schuyler, and in front of Burgoyne's army at Bemis Heights. No two commanders stood higher in the confidence of Washington than Generals Glover and Morgan, of the Virginia riflemen, and these were especially detached by him from his immediate command to assist in that most important enterprise of preventing the junction of Burgoyne and Clinton, which, if successful, would have completely detached New England from the rest of the nation, and, on the return of peace, left the Hudson River as our northeastern boundary, and the British in possession of the great chain of lakes.

These two veterans, with their commands, formed part of our left, and the British right, which faced them, was not only held by the best troops of the enemy, but possessed a commanding eminence, which was strongly fortified, and, if retained by them, would insure the fortune of the day in their favor. And here let us remark that, as noted in an earlier paragraph, although the first time these hardy hunters, and not less hardy sailors, met (in Cambridge) they got into a lively scuffle, ever after the most fraternal relations obtained, and no two bodies of men, in proportion to their numbers, rendered better service than they did.

The night before the decisive battle was expected, General Gates arrived, superseding Schuyler, and, of course, inevitably disarranging the plans which had been carefully arranged for the

battle the next day. The new commander did not seem to appreciate fully the fearful responsibilities of the hour, when the next morning showed the enemy equally prepared for assault and defense, and for a brief period all was indecision on our side, which, if availed of by the enemy by a sharp dash against our lines, would have reversed the history of the day, and, perhaps, of the war.

General Arnold, the same historian says, without any command, having sent his resignation to Congress, seeing the critical position, detached Morgan with his sharpshooters to skirmish in the front and to gain a clump of trees which gave cover, from which his marksmen could pick off the enemy's artillerists in the fortification above referred to, and then seizing upon Glover's and two other brigades, made a most determined dash with the bayonet, which was most desperately defended.

Even the stolid Hessians expressed their amazement when they saw these brave Marbleheaders dash through the fire of grape and cannister and over the dead bodies of their comrades, through the embrasures, over the cannon, with the same agility with which they had formerly climbed to the maintop, or traversed the back-stays, bayoneting the cannoneers at their posts. It was said that Morgan's riflemen on that occasion ran up the trees which commanded the enemy's guns with the speed of catamounts. Glover's troops evinced the coolness and agility of sailors in their attack, and showed that they could use the bayonet with as much skill and effect as the marling or hand-spike on board ship.

Till that hour the *bête noir* of our army was the Hessian and his bayonet, with which he was ascribed almost su-

perhuman skill. That day he was beaten with his own chosen weapon, and the lesson he learned and we learned was an important factor in future contests. After one of the most desperate hand to hand fights ever known on this planet, the redoubt was taken, the guns turned on the enemy, and the day was ours. Nothing shows the fiery nature of this battle more distinctly than the fact that General Glover that day had three horses shot under him. This battle was fought October 7th, 1777, and is called the battle of Stillwater.

Notwithstanding the severe service chronicled above, our gallant soldiers the next day were brisk and ready for action, as the enemy, though beaten and in retreat, was still a formidable power, and we could not afford him time to recover from any demoralization which may have occurred; but to do him justice we must say that although he had been abandoned by his Tory, Canadian, and Indian allies, his English and Hessian troops made a most admirable retreat. He had crossed Fish Creek, and, expecting an attack on his flank, had established a very strong force in ambuscade under cover of a wood which commanded the ford. Four of our best brigades, including Glover's, were detailed for the attack which Burgoyne so justly anticipated; but it was Glover's good fortune to arrest a deserter, from whom he learned of the trap which had been set. One hour later those four noble brigades would have been annihilated had it not been Glover's good fortune to obtain this evidence, which was only elicited by his good sense in promptly examining his prisoner, instead, as was and is too commonly done, sending him to the rear under guard. Burgoyne a few days after surrendered his magnificent army, and General Glover with his

brigade was detailed to escort them to Cambridge, where he again occupied his old quarters in the house now owned by Mr. Longfellow.

But his stay in these congenial quarters, so near the home loved so well, could have been of but short duration, as we find him in winter quarters, 1777-78, at Valley Forge, forming part of a line from the Schuylkill to Valley Creek, with intrenchments in front. Early in the spring of 1778 he was attached to General Greene's command in New Jersey, and assisted at the battle of Monmouth, after which he was ordered to Newport, R. I., where we find him chronicled August 22d as joining with John Hancock, General Greene, and others in a protest against D'Estang's abrupt desertion with the French fleet when an important battle was daily imminent.

This withdrawal of our allies rendered necessary the retreat of our army, which was accomplished on the 30th of August, 1778, under the superintendence of General Glover, to the mainland across Bristol Ferry. General Glover commanded the rear guard, and so ably was the duty performed that we did not lose a man or a musket.

Glover was always distinguished as possessed of clear judgment, undoubted courage, and as a severe disciplinarian. That these characteristics were not without their effect on his command is evident from the annexed extract from the valuable work of Mr. Winthrop Sargent :

"The regiment that he raised in 1775 was mainly composed of seafaring men. It was one of the first filled up in Massachusetts, and when taken into Continental pay still retained its efficiency. The roster of officers, with its Williamses and Thomases, offers a contrast to the Jedediahs, Abels and Abijahs, the Pen-

uels, Melatiahs, and Amoses, who at that time so often made a New England regimental list savor of 'a catalogue of Praise-God Barebone's Parliament, or the roll of one of old Noll's evangelical armies.' In the service it was especially exempted from the sweeping contempt that was visited on the shortcomings of some of its countrymen by the Middle [States] and Southern soldiery."

But in addition to the soldierly attributes enumerated above, he possessed and displayed moral courage to a remarkable degree.

Though a large slave-owner, and subsequently a Federalist and member of the Cincinnati, he never could see the logic of contemporaneous existence of the Declaration of Independence and American slavery. Firmly impressed with this foreshadowing of the "irrepressible conflict" of institutions, he, not only without support of, but in antagonism to the prejudices of his brother officers, urgently advocated recruiting from the colored race, with freedom as a bounty, but backed up his precepts by his practice.

That bitter Pennsylvanian, Alexander Graydon, though sweeping in his denunciation of all other New England troops, carefully exempts Glover's regiment (this was before it grew to a brigade) thus:

"The only exception I recollect to have seen to these miserably constituted bands from New England, was the regiment of Glover, from Marblehead. There was," he continues, "an appearance of discipline in this corps; the officers seemed to have mixed with the world, and to understand what belonged to their stations. Though deficient, perhaps, in polish, it possessed an apparent aptitude for the purpose of its institution, and gave a confidence

that myriads of its meek and lowly brethren were incompetent to inspire." But, though apparently animated by the most friendly feeling, Mr. Graydon could not refrain from the following: "But even in this regiment there were a number of negroes, which, to persons unaccustomed to such associations, had a disagreeable, degrading effect."

But when the colonel had become a general, and in discharging his responsible duties at the retreat from Newport, we find, not "a number of negroes in this regiment," but a fully equipped regiment of blacks, and so admirably disciplined as to call out warm commendations from Lafayette, who was almost the only officer inclining to Glover's liberal sentiments.

We abstract from the *Journal of Congress*, of February 27th, 1779, thus:

"A letter of the 24th from General Washington was read inclosing a letter from Brigadier General Glover praying leave to resign his commission. It was

"Resolved, That Congress, sensible of Brigadier General Glover's past merit, and in expectation of his future services, direct the commander-in-chief to indulge him with a furlough for such time as may be necessary to settle his private affairs."

General Glover next appears on the public arena Sept. 29th, 1780, as a member of the court martial which tried and sentenced Andre, and was officer of the day of his execution, after which he was detailed to superintend the drafts for the army in the State of Massachusetts, where he remained until he received notice of the acceptance of his resignation, which is chronicled in *Journal of Congress*, July 22d, 1782, thus:

"General Glover's resignation was accepted, and he was retired on half pay."

General Glover enjoyed one satisfaction seldom granted on this side of the dark river, viz., that of reading his own obituary. He had been dangerously sick, and a report prevailed that he was dead, and the papers then, as now, hungry for an item, published his obituary, which, on his subsequent convalescence, he read—doubtless with interest, if not with edification.

He was distinguished by his invariable kindness to his animal as well as to his human retainers. His horses were as tenderly cared for as if they had been children, but his favorite pet was an old charger, which, after three horses had been shot under him at Bemis Heights, was the last one remaining. One day there was an alarm given among the colored servants that the general was sick, and a doctor must be sent for. Of course the horse nearest at hand was grabbed, and that proved to be the general's old pet. The saddle was hastily thrown on, and a heavy darkey as hastily mounted, who rode three miles to the doctor's, and three miles back, without discovering that the stirrup was under the saddle.

The horse's ribs were badly cut, and if the veteran general did not swear on that occasion, he was much more moderate in his temper than tradition gives him credit for. JOHN G. DREW.

To the above interesting sketch we add the following brief synopsis of General Glover's character:

As is evident in the portrait, which is engraved from a *fac simile* of a pencil drawing from life by the celebrated artist Trumbull, General Glover possessed many elements of force and great strength. He was earnest and emphatic in action, not remarkable for ability to talk, but ready to do upon the instant whatever he deemed suitable in any given contingency. He

possessed a great amount of Firmness, was not the man to withdraw from a contract or promise; the element of Conscientiousness entered largely into his mental composition, and contributed to steadfastness of moral tone and the sense of duty. He had a good degree of perceptive ability; could take in the factors of a situation at a glance; and there was sufficient Constructiveness to give him facility in devising and applying methods for the use of the knowl-

edge gained by his perceptive faculties. His first impressions were quick and accurate, and usually controlled his conduct. He had Benevolence enough to be kind and sympathetic, and a hearty fondness for friends and social life. His weaknesses and errors grew out of the over-action of his forceful, energetic qualities, rather than by reason of any predominance of qualities conducing to vice and moral impropriety.

THE PSYCHOLOGICAL BASIS OF RELIGION.

CONSIDERED FROM THE STANDPOINT OF PHRENOLOGY.

PRIZE ESSAY II.—*Continued.*

THE QUESTION ANATOMICALLY CONSIDERED.

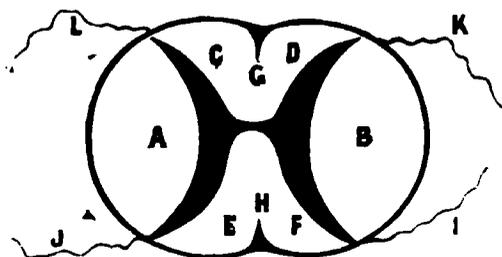
THE manner in which these facts of structure and function bear upon the issue between theologians and physicists is this: that, under Bell's view, a nervous system is a clock of very complex construction, not a living organism, endowed with an intelligence, susceptible of sensory impression, originating motor movements, and co-ordinating all the complex external relations comprehended in the term *life*. A distinction must, however, be made between intelligence and consciousness, the former being synonymous with the neurility of the cineritious tissue, and dipping into all the processes of the unconscious life, the latter pertaining to the convolutions of the anterior lobes and forming the basis of the ideo-volitive activity.

In order to trace out the origin of those fundamental intuitions, the religious among the rest, that have their centers in the middle and coronal region of the brain, it is necessary to recur to facts of structure not yet discussed. A transverse section of the

spinal cord will give the reader an accurate idea of the distribution of the two species of tissue, the cineritious or excitor, and the white or annunciative. The following is from a section in my possession, hardened in an acid dilution.

The cineritious tissue consists of two crescentiform bodies, united by a lamina of the same material a little anterior to the center of the cord, so that the posterior bones are a little longer than the anterior. The posterior white cord (EF) is separated into two similar strands by a penetrating fissure (H), and these strands are united by a thin commissure of white tissue at the bottom. The anterior fissure (G) performs a similar function, and dips down upon a similar commissure. The anterior white cord conventionally includes four divisions, namely, the two represented by CD and those represented by A and B. It should be added, however, that a thin commissure of white tissue passes between the anterior horn of each crescent and the pia mater, and joins each of the lateral divisions A and B to the anterior divi-

sion C D. The spaces between J L and I K present a general idea of the ligamentum denticulatum that keeps apart the anterior and posterior roots of the spinal nerves, having their respective origins at the posterior and anterior horns of the crescents, and unite beyond. The reader will observe that, including the two lateral divisions A and B, the anterior white cord is thrice larger than the



posterior. In a general way, the innumerable filaments composing the special anterior cord C D, pass upward and forward after entering the brain and terminate the nerve-cells of the anterior lobes, while the posterior cord expands into the cerebellum, and the cineritious interior is continued in the olivary bodies. The two halves of the anterior cord decussate before entering the cranium. In a general way, also, the pyramidal bodies continue the anterior cord, the restiform bodies the posterior,* and the olivary bodies the two cineritious crescents, these several bodies, taken together, forming the medulla oblongata and great vital center of the

* It is very inaccurate to regard the corpora restiformia as bodies formed solely by the posterior column, as they are usually described. They are not even bodies consisting of fibers from the posterior cord, to which some anterior fibers are added, the added fibers running parallel with the others; but, on the other hand, they are bodies consisting of fibers that interlace in a very intricate manner, the interlacing filaments coming some of them from the antero-lateral columns, and some of them from the posterior. Gall and Spurzheim were perfectly aware of this fact, but have not described it in detail. I have in my possession a hardened section of a restiform body which clearly shows the course of the fibers and their exceedingly intricate of arrangement.

nervous system. The fibers of the corpora pyramidalia now plunge into the pons Varolii, some of them terminating in cineritious cells within that commissure, but the majority passing through it, forming the anterior and external bundles of the crura cerebri and the exterior portions of the corpora striata, and finally expanding into the lower, frontal, and lateral convolutions of the anterior lobes, supplying also a considerable expansion of filaments to the infero-anterior convolutions of the middle lobes. From the posterior portions of these bodies spring also bundles of fibers that assist in the formation of the optic thalami (great posterior ganglia of the cerebrum), and ultimately enter into the posterior cerebral convolutions. Finally, a number of fibers, springing from the lower extremities of the corpora pyramidalia, enter into the structure of the cerebellum. I should add, while tracing the evolution of the cerebral lobes, that, although anatomists have generally coincided in regarding the cerebrum as consisting of six lobes—the two anterior, two coronal, and two posterior—the division is not well founded as regards the latter. The Sylvian fissure very distinctly marks off the anterior lobes, but no such fissure separates the middle (superior or coronal) from the posterior, which have generally been held to include the portion that rests on the tentorium. It would be preferable to speak of them as the coronal and posterior regions. The anterior lobes have their special pair of ganglia in the corpora striata; the middle and posterior regions theirs in the optic thalami, improperly so called, and accurately designated by Dr. Gall as the great posterior ganglia. Again, as showing the interwoven condition of the spinal cord as it expands into the encephalon, let it be observed

that the corpora restiformia, although in the main concerned in the structure of the cerebellum, are each, as it continues its half of the posterior cord, divided in ascending into two fasciculi, the anterior of which may be traced into the cerebrum; while, on the other hand, directly after decussating at the lower extremity of the medulla oblongata, each half of the anterior cord sends off a fascicle of fibers, that ascends behind each olivary body and assists in forming the floor of the fourth ventricle. Once again, the two halves of the anterior cord, before entering into the pyramidal bodies, send off two other fasciculi, each of which envelops the corresponding olivary body, as it ascends, and, having penetrated the pons Varolii, terminates in its respective quadrigeminal tubercle, which is connected with the corresponding hemisphere of the cerebellum by the longitudinal commissure known as the velum medullare, and with the corresponding great posterior ganglion by a commissure of medullary fibers. These bodies (the tubercula quadrigemina) consist of a cineritious interior, connected with the gray tissue of the spinal cord, enveloped with an intertexture of white fibers, and are properly entitled to be regarded as the ganglia of vision. Finally, the crura cerebri, from which spring the two great anterior and the two great posterior cerebral ganglia, as well as those ganglia themselves, refer themselves in their cineritious tissue to the ascending spinal axis; the interior gray tissue of the pons has a similar connection; and the olivary bodies, having passed through the latter, and contributed to the crura and the great posterior ganglia, expand partly into the superior convolutions of the coronal and posterior regions. Commencing, therefore, with the inferior

extremity of the gray tissue of the spinal cord, and receiving from the peripheral nerves, on the one hand, and from those terminating in and distributed to the special organs, on the other, an infinity of various impressions, as it ascends, may be traced upward a single central excitor tract, which, as it enters the encephalon, enlarges into the olivary bodies;* pushes into the pons Varolii, that, as a great general commissure, white without and gray within, communicates with all quarters of the brain; enters into the crura cerebri, into the posterior ganglia, into the quadrigeminal bodies, and, perhaps, into the crura cerebelli; receives in its cells, in these various departments, the roots of all the nerves devoted to the special senses, with the possible exception of the olfactory; and at last expands by its radiating filaments into the superior convolutions of the brain, from the posterior margin of the lobes of ideovolution along the coronal and posterior regions of the cerebrum. As it ascends, it gathers, pair by pair, from the entering spinal nerves all those organic impressions and instincts that are peculiar to their respective departments of organism, and agglutinates them in the olivary bodies, and finally presents

* The olivary bodies, except in their gray tissue, must not be regarded as exclusive continuations of the crescentiform cords. On the other hand, the corpora fimbriata of these bodies are wrapped about nuclei of white fibers that proceed from the respective anterior cords. They are also inclosed in a tunic of white fibers, proceeding from other departments of the column, and may be said in the completest possible way to gather the impressions and forces of the whole column into two capital ganglia before pushing upward to assist in the structure of the upper brain, those ganglia consisting of two nuclei from the anterior cords, inclosed in laminae of excitor tissue, open at the edge, the whole being finally inclosed in an intertexture to which all the departments of the column contribute. They are far more important centers than physiologists generally assume. When I speak of olivary fibers, I mean fibers from these complex bodies in general, not especially fibers springing from their excitor cells.

them as fundamental intuitions of the good, of the beautiful, of the true, in their appropriate centers of the coronal region. Observe, as an evidence of the experimental corroboration of these views, drawn purely from structure, that the application of electricity to these regions elicits no muscular response.

THE GRAND DIVISIONS OF CEREBRO-MENTAL FUNCTION.

The result of this cursory review of the ascertained facts of nervous structure and function is clearly to establish the position that, excluding the infero-lateral convolutions, which specially coordinate the animal functions, the cortex of the brain represents three great groups of centers, the limits of which correspond very nearly with the general division into lobes. The anterior group may be designated as *ideo-volitive*, and includes all the various attitudes of the perceptive and rational faculty, with appropriate centers for the expression of intelligence. The coronal group may, with equal propriety, be styled the *ideo-religious*, and is the center of all those spiritual intuitions and those imaginative reveries that spur on the man to higher life. In a collective way, its activities are described by the term *faith*. The posterior group may be described as *ideo-social*; it being understood that only in so far as they became objects of consciousness, and hence conceptions of the intellect, can the social promptings be distinguished as ideas, and that they are in the lives of men more or less unconscious in their operations.

To be more minute as to the connection of the gray axis with sensation, a few secondary facts must be noted and commented upon. Just above the anterior extremities of the corpora restiformia there are two large striæ of cin-

eritious tissue, which transversely traverse the floor of the fourth ventricle and assist in forming the roots of the auditory nerves; and so important are they to the function of hearing that deficiency in either fasciola cinerea is invariably accompanied with proportionate deficiency of function in the auditory nerve that it supplies. As it ascends, also, it contributes special deposits of ganglionic (gray) tissue to the roots of the spinal accessory, glossopharyngeal, and hypoglossal nerves, and to those of the par vagum, thus becoming interwoven with the sensory nerves of the upper portion of the trunk; supplies the ganglionic centers of the quadrigeminal bodies, which are the true ganglia of vision, the optic thalami being only concerned in the muscular movements incident to the act of vision, as the turning of the eyes or of the body; then pushes forward and forms the pons Tarini and the mammillary bodies, assisting in the thalami, the crura cerebri, and the corpora striata; although the gray layers of the latter are not so intimately associated with this excitor axis as the bodies previously named. In other words, it is the axis of sensation, and supplies in the course of its ascent the excitor ganglia of all forms of sensory impression, the process of olfaction excepted, the nerves of which are rooted in the extreme posterior convolutions of the anterior lobes. In this fact the student of psychology is in possession of the structural reason why, while audition and vision have given the special arts of painting and sculpture, poetry and music to human life, olfaction has, on the other hand, in no way contributed to artistic creation. It has its roots, to be more explicit, in the rational, not in the imaginative lobes. Next, if the reader will carefully study the convolutions of the hu-

man brain, he will observe that many of the coronal ones start from the pons Tarini, which is the mesocephalic limit of the excitor axis.

THREE SPECIFIC SETS OF IMPRESSIONS, all of them sensory in their type, are gathered by this excitor axis of the nervous system, as it ascends, and finally distributed into appropriate centers of activity in the coronal and posterior convolutions.* They are as follows:

1. Organic impressions, or those arising from the nature and functions of the various organs of the body, which in the brain present themselves as social instincts. These, as they become subjects of consciousness, are transformed into social ideas and eventuate in the science of sociology.

2. Specific sensory impressions, arising from the functions of vision and audition in the main, but partly from the activity of the peripheral sensory papillæ in general. These, as they become subjects of consciousness, are transformed into ideas of the beautiful, and eventuate in all the various departments of artistic and imaginative creation. Thus, when an external object is painted by the action of light, and through the convex lens of the eye, upon the sensitive surface of the retina, it is first transferred as a pictorial nervous impression to the optic ganglia (quadrigeminal bodies), which are parts of the ascending excitor axis, whence it is transferred to appropriate excitor centers in the middle region of the cortex of the brain. So with the action of sonorous bodies.

3. Impressions arising from the nature of life itself, as an inherent activity having its center in the great

excitor axis of the nervous system. These, in their nature unanalyzable, until the nature of life itself shall be known, presents themselves, in so far as they become subjects of consciousness, as the transcendental intuitions of religious faith, and lie at the basis of those fundamental religious conceptions that have been demonstrated to underlie all the known historical forms of religion, as well as those rapt reveries of inspiration and prophecy, of which the religious literature of the world mainly consists. I should prefer, therefore, to group the Veneration, Hope and Spirituality of Phrenology into one center or set centers, the activity or activities of which should be designated as religious faith, and regarded as resting upon impressions arising from the nature of life.

I pass over all those observational evidences that phrenologists have amassed as to the primary fact that an exceeding development of the coronal region of the brain is invariably accompanied with exceeding activity of the religious emotions, and that large supero-lateral development always exhibits, as its exponent, a marked imaginative activity. This aspect of the subject is one that the general reader may investigate for himself, the materials being both abundant and accessible. My aim has been to offer a reconciliation between science and religion from the standpoint of Phrenology, in the first place, but, in the second place, to show that both Phrenology and religion have their basis in facts of structure and in the very nature of life. That Gall and Spurzheim placed so little stress on these special facts of structure is mainly due to the fact that the fundamental distinction between the two species of nervous tissue, the cineritious and the fibrous,

* I have in several instances, under very favorable conditions, been able to trace fibers from the optic tract to the center, usually termed Imitation by phrenologists.

had not then been demonstrated, and that, therefore, to unravel the fibrous structure of the nervous system was more important in relation to those problems they sought to solve. I have, accordingly, with a few necessary exceptions, stated only such facts of modern investigation as are in the nature of an appendix to the works of those celebrated inquirers, drawing my materials indiscriminately from my own experiments and dissections, and from the ascertained data of other and more eminent investigators. This general rule also obtains as to the

DISTRIBUTION OF EXCITORY TISSUE, and may, possibly, throw some light on the laws of nervous activity, namely, that when disposed in laminæ its excitory properties approximate more nearly to what would be termed intelligent action than when disposed in proximately globular masses. Examples of the former occur in the corpora striata, in the pons Varolii, in the corpora fimbriata of the olivary bodies, (which directly continue the crescents of the spinal column), in the cerebral and cerebellar crura, and in the convoluted cortex of the cerebrum and the laminated cortex of the cerebellum, as well as at other points in the encephalon. Examples of the latter are exhibited in the ganglia of animal life. But as yet it would be unscientific to lay any special emphasis on this fact, as throwing light on the special functions of special departments of the nervous system, and it can only be affirmed, in a very general way, that elsewhere than in the convolutions the excitory tissue makes its nearest approximations to consciousness, when arranged in laminated structure, and that its extension into surfaces is in some unknown way essential to the manifestation of intelligence. Lastly, in dis-

missing the structural aspects of the subject, the reader must not forget that, although the excitory axis that has now been traced from the inferior extremity of the spinal column, through the medulla oblongata and mesocephalic region, to the coronal and posterior convolutions, constitutes the great central sensory tract, it is not uniquely sensory. On the other hand, from its inferior to its superior extremity it is also the great center of instinctive movements, as when a frog swims after the removal of the anterior brain, or a man in cerebral epilepsy executes actions contingent on sensory impression without the consciousness of doing so. In somnambulism, again, in which there is a suspension of consciousness, extraordinary manifestations of intelligence are frequently exhibited, as when a clergyman prepares a sermon in the unconsciousness of such an attack, or a man, not professionally a musician, who could not for his life have executed the task in full possession of his faculties, composes a piece of music for the flute in an interval of unconsciousness. I have recently inspected a striking spiritual landscape painted by a young man subject to spontaneous trances, who exhibits no traces of artistic talent in his normal state.*

*It ought to be added in estimating the important part that the organic impressions play in this department of psychology that the sympathetic nerve, consisting of a series of special ganglia presiding over the functions of secretion, nutrition and growth, is now experimentally known to propagate its influence from the body to the brain, and thus to constitute a constant reporter to that organ of the special states of the vascular and secretive systems. This is properly, no doubt, the main source of what I have termed organic impressions, especially as relates to the lower and more vegetal processes of human life. It is in part, also, the source of those inexplicable impressions as to impending disorders of special organs that transcendental physiologists denominate organic prevision. In man this function of the sympathetic system seldom reveals itself tangibly and consciously;

FURTHER EVIDENCES.

I am verging now upon an important class of facts that curiously support the doctrines of Phrenology, and are germane to the special question under consideration. If the reader will refer to a phrenological text-book, he will observe that the most prominent group of centers appertaining to the anterior lobes consists of Causality, Time, Locality, and Memory, which may be regarded as fundamental forms of consciousness; comparison being merely a perception of likeness and difference, and the rest merely accessory perceptions; while, on the other hand, every act of conscious thinking involves the primary forms of cause and effect, time and space, and memory—that is to say, the recollection of phenomena or perceptions in the order of their sequence. To the ordinary mind it seems to border upon the absurd to assume that time and space are not real things, but, on the other hand, mere forms of thought, inseparable from the activity of the anterior lobes of the brain, but very frequently annulled in instances of morbid function, generally absent in settled insanity, and always so in that species of trance in which there is suspension of the activity of the anterior convolutions. As Schopenhauer, the profoundest of all the inductive psychologists that modern Germany has produced, very pertinently remarks: “The consciousness of the ideality of

but in the inferior animals its development may often be observed as a peculiar species of intelligence connected with the preservation of life. This is generally termed animal instinct, but it is of a kind differing materially from that which has its origin in the cerebro-spinal axis, as any patient observer of the habits of animals may readily assure himself. The experiments upon which this view of the sympathetic nerve is based, may be easily verified by connecting the electrometer with a propagating filament near the cranium of an animal—a dog under the influence of an anæsthetic is most convenient for the purpose—and irritating the nearest sympathetic ganglion beneath.

time lies at the foundation of the ever-existing notion of eternity, and only want of penetration on the part of the wholly incompetent has allowed modern thinkers to explain the idea of eternity as an endless time.” As pertaining to psychology, time is that form of thinking by virtue of which what is taken to be future appears to have no existence at all, this illusion disappearing moment by moment, as the future is absorbed into the present. In many dreams, and notably in those that partake of prevision, in clairvoyance, in somnambulism, in trances, and in second sight, this illusion is not present, and the future presents itself as existing. The ideality of space is proved by the same class of facts, in which, in a similar manner, the distant presents itself as present. In the course of an examination of numerous cases in which these phenomena were involved, I have observed this law to be constant in all the varied attitudes they assume, namely, the future presents itself as actually present to the clairvoyant perception, not as something about to be present. The distant, in like manner, presents itself as at hand. This law is important as showing that time and space are wholly absent in the higher aspects of the trance state, and are consequently forms of consciousness appertaining to the anterior lobes, but disappearing when their action is suspended, and the coronal region of the brain and the excitor axis are in full and perhaps more than normal activity. The reader who is curious to verify this law of psychology will find ample materials in Kieser’s pains-taking collection of the facts of animal magnetism, particularly in Vol. VIII.* Now, time and space, as forms

* The reader may find a somewhat extensive collection of phenomena of this class in the “Library of Mesmerism,” Dr. Haddock’s description of the case

of thinking, are the special *agenda* operating to produce the intellectual notion of cause and effect, since cause and effect imply succession in time and contiguity in space. Again, memory is rooted in them, since it implies the succession of phenomena in time. So that the whole intellectual group may be said to be derivative from two fundamental forms of consciousness contingent upon normal function of the anterior convolutions; and here, as in many other points, Phrenology reinforces the transcendental idealism of religion, and gives structural and psychological basis to its most mystic conceptions.

The point is that our intellectual perception is not a recognition of things as they are in themselves, but only as they appear, and that, as is abundantly demonstrated by the somnambulistic class of facts, our lives are all essentially imbedded in a transcendental being that knows neither time nor space. Thus, as regards its etiology, the conflict between science and religion is a conflict between certain forms of thought pertaining to the anterior, and certain transcendental intuitions of life and being pertaining to the superior lobes; and if the period shall ever come, through long ages of culture, when the whole brain becomes conscious of itself, then, on the one hand, man will know himself as intellectually cognizing things according to certain forms of thought, and as spiritually cognizing them as all imbedded in one being. That is to say, reason and religion must find their ultimate reconciliation and harmony in that higher conscious-

of Emma L. being specially minute and scientific in its tenor. Dr. Carpenter mentions a few cases in his "Mental Physiology," but is not at all minute in his details, and Dr. Maudsley has a particular discussion of the case of Swedenborg; but Kleeer's collection is far the most exhaustive known to modern science.

ness toward which human progress steadily tends. But, inquires the inductive thinker, if this eternity is really present to our souls, and if time and space are actually mere dreams of the understanding, how is it that the latter enter universally into the structure of languages? On physiological principles, simply because language is a faculty having its center in the anterior lobes and belonging to the life of relation, not to the absolute life in which our deeper being participates, and because our perception of the Infinite is an interior spiritual perception that enters into the life of relation only through the understanding. Fundamentally, it is a perception of the being in which our lives are all imbedded, and in the nature of which our souls participate.

THE SCIENTISTS AS RELATED TO THE QUESTION.

Although the issue might well be rested on the purely historical and physiological grounds that have occupied attention thus far, the modern literature of the conflict has developed certain adventitious aspects that call for special consideration. The various questions raised by Huxley and Tyndall, Spencer and Darwin, call for a brief review, premising that there is no necessary antagonism between the hypothesis of evolution and the primary conceptions of religion, even with the addition of Darwin's striking appendix on the descent of man. The antagonism, so far as it exists, is between the assumption of an endless series of uniformities, pervading all departments of nature, and invading the intellectual life itself, and the idea of the supernatural as having an actual existence; and here, as elsewhere, the antagonism that arises is strictly the exponent of that primary distinction

that subsists between the activity of the anterior brain, with its necessary forms of consciousness, and that of the superior brain, with its intuitions. Whether Tyndall's definition of matter prevails or not, is a very subordinate question. Matter has been hitherto only the name of an inert substratum through which force becomes objective; spirit a name for that being in which our lives are imbedded. The presumption involved in Tyndall's view, which has eventuated in a volume of discussion in inverse ratio to its importance, is that molecular force is not only structural, but is the very potency that exhibits itself in life—the substratum of all vital and mental activity. There is nothing new in this view. Huxley very distinctly affirms it in his paper on the physical basis of life, first published in the *Fortnightly Review*, volume for 1869, and has since repeatedly affirmed it, while personally disclaiming all sympathy with Materialism, considered as a philosophical system. His view is, that in the sciences it is advisable as far as possible to adopt purely material symbols; and to this view, within proper limits, all thoughtful men will heartily subscribe. Hence, he prefers molecular forces to vital forces. On the other hand, while, as appealing more distinctly to the understanding, the material terminology is better adapted to the purposes of scientific investigation, Huxley and Tyndall are as well aware of the irresoluble dilemma that nothing is known of matter except as perceived by mind, and nothing of mind except as exhibited through matter, as the transcendental thinker, Berkeley, was. In other words, all that is known scientifically of matter or force resolves itself into states of consciousness. Familiar to the senses as light is, no definition of it can possibly

be attempted, except by reference to the transcendental reality that underlies all phenomena. Heat, electricity, magnetism, actinism, and so on through the list of forces, finally resolve themselves into molecular force, which, in modern science, corresponds very nearly to the odic force of the great German experimentalist whose contributions to molecular physics startled the world thirty years since. All that is known of them is that they are the exponents of certain molecular transformations, and that they act on matter in a state of equilibrium to produce certain molecular phenomena. They are symbols for one and the same indestructible energy that

“ Warms in the light, refreshes in the breeze,
Glow in the stars and blossoms in the trees;
Lives through all life, extends through all extent,
Spreads undivided, operates unspent.”

That is to say, no given amount of this primitive force, in any of its various forms, is ever really expended, and that which seems to be so is only transformed from one form to another. Heat has its equivalent in light, in electricity, in motion, and so on through the list, each force having its equivalent in every other. In mental phenomena, for example, the act of thinking develops cerebral heat as its most immediate physical exponent. Electricity and magnetism are also the exponents of vital transformations going on in the tissues; but, so far from evidence appearing that they are the *agenda* of those transformations, they are to be regarded rather as incidental products of them. Thus, one by one all theories explaining the vital and psychical activities as having their etiology in any of the known forces have given way. It is conceded now, on all hands, that I can voluntarily direct my thinking to

any particular subject, and that such thinking is accompanied with molecular transformations in the cerebral tissues, which develop heat and electricity as secondary products. Again, although the contraction of the muscle in motor action has generally been regarded as an electrical phenomenon, there are strong grounds for believing that muscular contractility in a transformation and agglutination on a larger scale of the primitive contractility of simple protoplasmic tissue, and that here, as elsewhere, the electrical phenomena are secondary products. To say the least, Dr. Brown-Sequard overstates the case when he regards muscular motion as a transformation of nervous force, for muscular contraction is an inherent activity of muscular tissue and of many other forms of tissue. It comes then to this, that our psychical activities are correlated with our vital and physical, and our vital and physical with our psychical, and that they have a mutual dependence and interpenetration; but that neither can be regarded as identifiable with the other.

As a consequence, in studying the phenomenon of innervation, it is preferable to regard that activity as the specific organic and molecular influence of nervous tissue; and, similarly, again, in the phenomena ascribed to nerve-aura, the physiologist is justified in defining it as the specific molecular influence of nervous tissue; but neither definition should be understood as presuming to exclude the higher spiritual activities from the life of the nervous system. In point of fact, the physicist who employs the term atomicity, is quite aware that the atom is a mere abstract hypothetical unit of extension, and that a molecule is merely a molecular center, the form of which, as extension, is wholly contingent on

the equilibration of force or forces; but it would be very tedious and unsatisfactory to burden our terminology with continual references to these primary ideas.

THE PHILOSOPHY OF FORCES

amounts, however, to this, that all known forces are resolvable into molecular force, and that molecular force is the ultimate link between subject and object, mind and matter—the structural and organizing energy of natural phenomena, the source of all law in Nature, correlated into psychic activities, on the one hand, and into physical activities on the other. From its tendency to equilibrate itself in centers comes, in the first place, extension, then world-building. In a word, this known primitive law of molecular force, the tendency to individuation, lies at the very basis of all the phenomena of nature, and is alike competent to explain the building of a solar system and of a group of organisms. But this is only proximate. Ultimately, the science of transcendental physics merges at all points into transcendental idealism, as the only possible rational explanation of molecular phenomena.

Observe, then, my dilemma. I can give no definition (idea) of matter except in the terms of mind, and I can give no definition (idea) of spirit except according to material symbols. I can not rationally think of matter, except as idea, and I can only think of mind as an unknown substratum of idea; so that the moment that I take leave of bricks and mortar, and commence to inquire what matter really is, I pass into transcendental physics, and then into transcendental idealism. Abstract the idea of force from matter, and it is nothing; abstract the idea of matter from force, and it ceases to be

conceivable. The Unconditioned of Sir William Hamilton, the Unknowable of Herbert Spencer, the Formative Intelligence of Mr. Murphy, the ideas of Plato, and the *anima mundi* of Hegel—what are they all, but so many symbols of the fact that human nature instinctively conceives an infinite as eternally causing phenomena, and can not by any process of ratiocination divest itself of that specter? A true science of psychology accepts this conception as having its root in the nature of life, and leaves the barren problem of how it is, to be solved as man becomes more and more conscious of what is really within him. Viewed in its proper light, the unity and equivalence of forces decidedly contributes to the materials for the resolution of the problem; but it would be very unsafe to burden it with any premature theorizing, further than this, that it furnishes the long-sought-for link between material phenomena and the philosophical conception of ideas, as forces having their origin in the essential nature of being.

THE PROBLEM OF LIFE.

But the more important question that lies at the basis of reconciliation is, What shall be the definition of life? Aristotle says, "Life is a nourishing, growth, and decay, through self." Kant says, "An organism is that in which all is aim and reciprocally also means. Hegel says, "Life is a means, not for something else, but for the idea of life, and continually reproduces its infinite form." Herbert Spencer, omitting the notion of self, regards it "as the continuous adjustment of internal relations to external relations." De Candolle, from the exclusive standpoint of physiology, says, "Life is the transformation of physical motion into nervous motion." "*L'ensemble des fonctions qui résistent à la mort,*" is the

very negative definition of the father of modern biology; while Schelling, the idealist, regards it "as the tendency to individuation." Huxley, if I rightly understand him in his paper on protoplasm, considers the *vis essentialis* of life as synonymous with molecular force.

It is unnecessary to waste words with any of these definitions, since all of them express some aspect of life or some condition under which it exists. The main question has been, with Herbert Spencer and his admirers, to offer some definition in harmony with the system of psychology that regards self-consciousness as a fiction. The unquestionable fact that consciousness is limited to a special tract of the brain is fatal to the system of psychology adopted by Spencer, and from this aspect, therefore, his definition is of no consequence. That there is a self in consciousness, beyond a question, is demonstrated by facts of cerebral structure and function. Nay, the idea of self lies at the very basis of life, in the process of nutrition, in the evolution of the cell from amorphous protoplasm, in the structure of the nervous system, in all its activities from the highest to the lowest. Again, investigations into the process of tissue-building have shown that one primordial tissue is the physical basis of life. That tissue is protoplasm, always of the same general material constitution, whether in plant or animal, in nervous or epithelial tissue, although exhibiting the widest divergencies in internal culture. This fact is important as showing that life is one throughout organic nature, and presents itself as having a perfect unity of dynamic properties, together with a progress of internal culture, from vital to instinctive phenomena, and from instinctive to intellectual and emotional.

But the cells in the brain of man and those in the brain of an oyster are alike primitive protoplasmic cells; their difference is one of internal culture. The consequence of modern investigation with the microscope is thus to force physicists to adopt more transcendental views of what life is than were fashionable when Spencer wrote his "Principles of Biology;" and these more transcendental views carry with them the notion of a self-activity, as the primary attribute of living tissue, tending to self-consciousness as the scale of organism is ascended; so that, in view of the known facts, it would not be far out of the way, particularly from Tyn-

dall's point of view, to state that *life is the tendency of the material toward the spiritual, through self-activity.* Or, from the ideal standpoint, it is force, through self-consciousness, realizing itself as spiritual. This definition is perfectly justified by the facts of biology; and it is because our lives are being realizing itself in consciousness that the great and fundamental doctrines of religion have their basis in primary intuitions and in structure itself, not in labored systems of ratiocination; and may be safely trusted, though their processes are not always apprehensible to the understanding.

FRANCIS GERRY FAIRFIELD.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*

THE GREAT EXPOSITION.

THE work on the Centennial grounds in Philadelphia is making rapid progress toward completion. The Machinery Hall, Horticultural Hall, and Art building are about finished, and little remains to be done to the other large structures. The numerous small erections, representative of different States, special American enterprises, and those to be used by the delegations of foreign nations are nearly all completed. The inconvenience suffered by the directors and exhibitors of the Vienna Exposition in the unfinished state of the grand pavillion at the time set for the opening will not be experienced next May if the excellent arrangements already made are carried into execution.

A brief notice of the classification of

articles and subjects for exhibition may be interesting to the reader. The Department of Mining and Metallurgy is divided into the following groups:

1. Minerals, ores, stone, mining products;
2. Metallurgical products;
3. Mining engineering.

The Department of Manufactures is divided:

1. Chemical manufactures;
2. Ceramics, pottery, porcelain, glass, etc.;
3. Furniture, etc.;
4. Yarns and woven goods of vegetable or mineral materials;
5. Woven and felted goods of wool;
6. Silk and silk fabrics;
7. Clothing, jewelry, etc.;
8. Paper, blank-books, stationery;
9. Weapons, etc.;
10. Medicine, surgery, prothesis;
11. Hardware, edge tools, cutlery, and metallic products;
12. Fabrics of vegetable, animal, or mineral materials;
13. Carriages, vehicles,

and accessories. The Department of Education and Science: 1. Educational systems, methods, and libraries; 2. Institutions and organizations; 3. Scientific and philosophical instruments and methods; 4. Engineering, architecture, maps, etc.; 5. Physical, social, and moral condition of man.

The exhibits in machinery all will be operated mainly by a great Corliss engine. This department comprises 558,440 square feet, of which about 85,000 have been taken up by foreign applicants, representing nearly all the European countries.

and applicable to the needs and fancies of every people will be ranged along these naves and aisles. All the machines, tools, and apparatus of mining, metallurgy, chemistry, and the extractive arts—hoisting machinery and machines for pumping, draining, and ventilating the deepest mines of gold, silver, and coal; machines and tools for working metal, wood, and stone; implements of spinning, weaving, felting, and paper-making; all varieties of sewing machines; apparatus for type-setting, printing, stamping, embossing, and for making books and paper-work-



Although American mechanical industry will be largely represented, a considerable area is still open to further applications. In allusion to the great variety of skill and product which this department will bring together, a writer in the *World* says:

“Imagination strives to picture the images and conjure up the sounds that will make this enormous interior wonderful a few months hence. The most ponderous, intricate, and delicate mechanical contrivances invented by man

ing; motors for the generation and transmission of power; hydraulic and pneumatic apparatus; railroad machinery, from locomotives down; mill machinery, and machinery used in grinding or preparing agricultural products; every invention of aerial, pneumatic, and water transportation; and boilers, engines, cranes, pumps, and minor machinery especially adapted to the requirements of the Exhibition—all articles that may be conceived of as coming under these general descriptions will be

displayed here, and many of them will be in full motion and at work. It is intended by Mr. Albert, the accomplished head of this department of the Exhibition, to render it especially interesting by affording exhibitors of manufacturing machinery facilities for practically illustrating the processes of manufacture of various articles and fabrics, such as woollen cloths, linens, paper, calicoes, watches, etc."

In connection with the Agricultural Building there has been set apart for the trial of farming implements a tract of forty-seven acres at Neshamony station, seventeen miles distant. Another tract of the same size adjoining has been sowed with grain, to be used for the exhibition of reapers, should the number offered in competition warrant its use. And still other farms are subject to the control of the commissioners for similar purposes.

Of the space in the Agricultural Hall upward of 90,000 square feet have been assigned to foreign exhibitors, leaving about 140,000 for American use.

Although the Agricultural Building is not finished, all objects for exhibition will be received now and at any time. Woods, grains, grasses, wool, flax, cotton, agricultural machinery, and everything else, except fruits and other perishable articles, and live stock, must be located before April 19, 1876. Fruits will be admitted in their season, and models in plaster or wax may be substituted for tropical fruits. Vegetables and other perishable products will also be admitted in their season. Dairy products will be exhibited from the 1st to the 5th of each month. As in the Machinery Building, shafting and steam power will be furnished gratuitously to exhibitors only for the purpose of exhibiting the machinery in operation. Cotton gins, sugar presses, plantation

mills, threshers, fanning mills—the operations of these will be shown.

The live-stock display will be held in September and October. The periods devoted to each class and family will be fifteen days, and the division as follows: Horses, mules, and asses, from September 1 to September 15; horned cattle (of all varieties), from September 20 to October 5; sheep, swine, goats, and dogs, from October 10 to October 25; Poultry will be exhibited from October 28 to November 10.

The most beautiful, take it all in all, of the groups of buildings is the Horticultural. This is designed to remain a permanent ornament of the great park, and occupies a well-chosen site, commanding fine views of the Schuylkill and Philadelphia. The display of flowers which will be here aggregated will probably be the grandest and most beautiful that can be imagined.

The Main Building, or Industrial Hall, is to inclose the departments of Mining and Metallurgy, Manufactures, and Education and Science. It will contain five miles of avenues and thirty-five miles of transepts and aisles. Empty, it is capable of holding 468,000 people. It is splendidly lighted, and will be rendered gay and picturesque by a great variety of architectural features, banners, and trophies.

The pressure for space has been so considerable as to embarrass the management somewhat, yet it is intended to accommodate all who come with proper contributions. The elaborate instructions issued to exhibitors quite cover all possible ground of inquiry, and indicate a spirit of liberality, and the wish to give every one who has something to show a fair chance.

A view of the Women's Pavilion graces our sketch, an erection which in itself is an expression of the growth



COOK'S EGYPTIAN CAMP AT THE CENTENNIAL.

A. L. RAMSAY

W. H. WOOD

of social ideas in this country, which can not be interpreted otherwise than favorably in their relation to our civilization. The building in question has been erected entirely through the efforts of women, and is an important contribution to the leading features of the Exposition. In it will be accumulated such products of woman's talents and industry as she can lay exclusive claim to. The fact that twelve or more States are represented in this one department suggests the energy with which it has been and will be administered.

Among other features of the great show will be the camp organized by Messrs. Cook & Sons for use in their Oriental tours. We give an illustration in which this camp is shown as it will appear on the Exposition grounds. It will be a practical illustration of Oriental life, its striking phases being brought into bold contrast with our advanced American civilization. In connection with this very interesting affair the system of excursions or tours to and through different countries, which was introduced by Mr. Thomas Cook years ago, and which has grown to grand proportions, will be introduced, an elegant office for the accommodation of visitors foreign and American being established upon the ground.

The different railroad lines converging to Philadelphia are arranging a liberal scale of prices for the transportation of visitors, and most of them will provide more frequent trains than is customary. An enterprise which is also worthy of notice is that for the accommodation of the great number of persons who are expected to crowd the city of "brotherly affection" during the continuation of the Show in comfortable lodgings at reasonable prices. A convenient place on the Exposition grounds has been taken where strangers may

apply upon their arrival and be furnished at once with the needed accommodation. It is said that the spare rooms in thousands of the orderly homes of Philadelphia have been engaged at prices which will meet the need of the frugal visitor.

Taken altogether, the great enterprise seems likely to be a success. The American people should not permit it to be aught else in any respect, for with prudence and energy in its management, results can not fail to be obtained which shall prove of permanently increasing advantage to the nation.

FAITH AND FREEDOM.

FAITH is the spring of action. Take away
A nation's faith in what it can and ought—
A creeping, slow decay
Unnerves its arm, freezes its inmost thought.
We all are saved by hope.
Hope teaches man his worth,
Opens new portals, gives him force and scope,
And when it shows new heavens creates a glad
new earth.

What gave this nation power
To rise and onward go,
In that terrific hour,
When the whole country reeled from slavery's
blow?

No puny logic reasoning from sense,
Guided our footsteps through that starless
night;

But some diviner influence
Helped us to walk by faith and not by sight,
A faith inherited from former years,
Consolidate at last in brain and blood,
Some strain of higher mood,
Winning the victory through blood and tears.

Praise to the men who, fifty years ago,
Struck, on the field of thought, their honest
blow

For Reason, Conscience, Freedom, Love,
Teaching to look, not downward, but above;
Teaching religion was not form or creed,
But faith grown into deed;
Who looked to God in trusting love, not fear,
Who found their heaven and hell around them
here;

Serving God best whene'er we help another,
And saving our own soul by saving every brother.

LOWELL.

CAPITAL AND LABOR: THEIR RELATIONS.

THE capitalist and the laborer are mutually dependent, yet there is an antagonism between them. Between capital and labor there is no antagonism. This state of discord is the result of selfishness, and not of injustice on either part. No man is entirely content with his lot, be it that of a king or of a peasant. There is a continual reaching out after something better, and conflicting interests disturb society. The Paris Commune endeavored to secure the wealth of their city, to be shared together in common. Other men, no less blinded, would go back to the agrarian laws of Rome and divide the conquered and public lands equally among all citizens. These utopian projects have been held up to the world as the great harmonizers of capital and labor since the system of paying wages has been in operation.

No antagonism ought to exist between the capitalist and the working-man. The highest progress and position of the laborer is inseparably connected with the increase and activity of capital. This opposition of interests will never be eradicated until the selfish nature of man is made subservient to his better. The working classes have no great cause for such complaints which they are constantly uttering.

In tracing the history of labor from the earliest times, a great and steady progress is seen. In early times the laborer was a serf, belonging to the land, and transferred with it by sale. The vanquished in war were sent under the yoke and became slaves, wearing a collar about their necks, bearing inscriptions to show to whom they belonged; while others wore collars which told that they were born slaves, and must so remain. The slave re-

ceived no compensation except poor food and worse clothing. He worked as a beast, with no hope or heart. Finally, the masters saw that, by stimulating the slave to increased task-work, awarding to him the surplus he could earn after his task was completed, the profits were larger; and hence, in course of time, wages were paid, and the profits increased. This was the beginning of the present system of paying laborers for work performed. The condition of the working classes has kept pace with the increase of capital, and many of their number have become capitalists themselves. The progression of the laborer can be seen by comparing the present status with that of feudal times, when Blackstone says that "the king is the universal lord and original proprietor of all the lands in his kingdom, and that no man doth or can possess any part of it but what has mediately or immediately been derived as a gift from him, or to be held upon feudal services." In fact, the working-men in those days were but little better situated than slaves. A gradation was established, which was hard to be abolished. First, the king; second, the vassal lords; third, vassals' tenants. The monarchs of Europe have lost much of their former prestige as civilization has advanced. Serfdom and slavery are relics of the past. The feudal tyranny of Great Britain drove to this country men who paved the way for the advancement of the laborers from Europe, who might come here and enjoy freedom and receive a just reward for their labors. The American working classes are better situated, so far as their temporal wants are concerned, than any other laborers in the world. Yet they are not satisfied. An under-current of

discontent is continually flowing, occasionally, and almost periodically, breaking out in strikes, whereby millions of capital are lost both to the capitalists and laborers, and, in nine cases out of ten, the laborers receive no increase of wages. This is wrong, but will continue so long as man is selfish. The causes for this discord are imaginary in most cases. To-day capital is not paying proportionate rates for the responsibilities incurred, and much is lost on account of unprofitable investment, made so by the condition of trade and commerce. The failures of England during the months of July and August of last year have produced a loss of \$120,000,000 to the capitalists. In 1874 the loss to American capitalists was \$155,239,000; for 1875 it is not far from \$149,881,000. This is caused by failures. Many factories, furnaces, and other concerns have been stopped on account of unprofitable results, whereby many millions of dollars have been lost.

Taking all things into consideration, the American laborers are well paid. Many of our laborers now would have been capitalists in the fourteenth and fifteenth centuries. Many own their homes; have great comforts and even luxuries, and are educated at public expense. At the present time the way out of these seeming difficulties is by a co-operative industry, if the reformers are right. While no one would disparage the attempt of the laborer to better his condition by all legitimate means, yet co-operation will not always prove to be the land of promise, nor a remedy for all the seeming wrongs which the laborers wish to cure in social life.

There is no royal road to happiness in our social system, and evils beset us in every sphere of action. Co-operation is not the next fundamental step

of progress to elevate the laborer to the position of capitalist. Before the capitalist will take the laborer as partner, the laborer must demonstrate to the capitalist that he, as a partner, will be more profitable than as an employé. This demonstration will be the first step in the solution of the labor problem—a step which the workings of our social system can not, perhaps, ever bring about. The laborer succeeds in mining ore, and his wages support himself and family. Give him control of the mine and let him direct the affairs, and failure is inevitable, because he lacks capacity and experience. While the miner is learning to work in the coal bed, the capitalist is learning how to invest his money in mining enterprises. Each is fitted for his own work, and in his proper place makes money. The great business enterprises of the land can only be successfully conducted when intrusted to thoroughly competent hands.

That there are co-operative enterprises in operation which pay a profit no one can deny, but they are the exceptions to the general rule. It appears to be the great desideratum of the Grange to put into operation co-operative enterprises, in order to secure greater profits to the agricultural community. No one with philanthropy in his heart will oppose their project. This large organization can certainly find among its members men of sufficient mental caliber to devise means for the improvement of their condition. But it is fatally true of mankind that the acquisition of great power often involves the disposition to wield it with intolerance, which finally results in fanaticism and tyranny. The agricultural classes are the solid structure of our material prosperity, but their intentions to be just and honorable are

no better than those of other men. The Grange is a great educator, whereby agriculture will be improved, knowledge on practical subjects disseminated, the resources of the country better developed, and the condition of all classes improved. But beyond a certain limit the Grange must fail. Impossibilities can not be compassed. It is not within the range of possibilities for the Grange to establish banks, to crush out commission merchants, to build their own fleets for the conveyance of their crops to market, to regulate the rates of freight, to build warehouses for keeping grain, to establish stores for their exclusive trading, and to build railroads for inland commerce. It takes experience and a natural fitness to carry on these varied enterprises.

If these vast industries were set to work by the Grange, they would gradually lapse back into their natural channels and become as now, and be independent of the cause which created them. Corruption has already found a lodging place within the doors of some of the Granges. Discontent is often heard, yet, for the most part, fidelity has been displayed in the working of this order. Capital has been driven away from localities, as the influence of the Grange was set against some industries. The laws of Wisconsin have been so modified that railroad building has ceased, and, of course, large capital is driven from the State to seek other places for investment. In fact, railroad building in the West is at a standstill, caused, in a great degree, by the opposition of the Grange. There is danger that this opposition will become too great for the best interest of the people. It might be well for this order to look within their own boundaries to improve the condition of the poor farmer and farm laborer.

Landed monopoly keeps many poor men down in the European countries, and may it not soon produce the same results here in the United States? The number of landed proprietors in England two centuries ago was 200,000; in 1850, 30,315; in 1872, 22,933. It is well that the farmer turns his special attention to the elevation of his fellows, and see that they procure a farm before the Government land is all occupied.

The agricultural laborer of this country is in a better condition than the laborer is in Europe. The difference is readily seen. The averaged weekly agricultural wages in foreign countries for the year 1872 were:

In Surrey, England, without board.....	\$5.45
In Scotland, " "	5.24
In France, with board.....	2.96
In Prussia, " "	2.85
In Denmark, " "	1.43
In Switz'd, " "	3.47
In Italy, " "	3.89

We find no better pay when the wages in the trades are considered. For an example, take the wages of blacksmiths:

In England, highest per week.....	\$7.90
In Ireland, " "	8.93
In Scotland, " "	7.02
In Germany, " "	6.75
In Prussia, " "	7.29
In France, " "	6.01
In Italy, " "	5.40
In Switzerland, " "	8.10
In Austria, " "	8.10
In Denmark, " "	5.74
In Russia, " "	10.80

In Massachusetts, 1872, the wages of the farm laborer per week, with board, were \$6; blacksmiths, \$18.50 to \$15.

As an example of the articles of food consumed we will take the price of flour per barrel:

In Boston, Mass.....	\$9.50
In Manchester, England.....	8.72
In Bradford, England.....	10.40
In Leith, Scotland.....	8.56
In Munich, Bavaria.....	13.67
In Berlin, Prussia.....	12.26
In Trieste, Austria.....	13.23
In Copenhagen, Denmark.....	8.36
In Chaux-de-Fonds, Switzerland.....	11.03
In Palermo, Italy.....	22.05
In Marseilles, France.....	17.64
In Odessa, Russia.....	9.56

From these statistics the superior condition of the American is seen. The wages of farm laborers in this country were, in 1836, \$9 per month, with

board; in 1866, \$15.50. In the States employing white labor the average was \$28 per month, without board; in 1869, \$15.88 with and \$25.13 without board; in 1875, \$12.40, with board.

The average price by the year, with board, in the various sections is now: Southern States, \$10.17; Western, \$16.17; Middle, \$16.81; Eastern, \$18.58; on the Pacific Coast, \$28.12. The average price for board per month by the year is, in the Western States, from \$7.72 in Ohio to \$9.80 in Minnesota; in Wisconsin, \$9.05; in Illinois, \$8.13; in California, \$15.90, the highest in any State; in South Carolina, \$4.05, the lowest.

It can not be that the American laborers are wronged. They receive all that capital can pay them. European laborers, with the wages paid in this country, would accumulate money and become rich. The great mass of the working-men will not seize the chance to improve their condition. It was supposed that the eight-hour law would work a vast improvement among the laboring class. The experiment has not been a success. The leisure time thus gained has not been devoted, generally, to the cultivation of the intellect, but has been to a great degree spent by the laborers in the beer gardens, and in places of ordinary entertainment. It remains with the working-men to improve their condition, and when they have proved to the world that they will accept means of culture, then new fields will be opened for the expansion of their capabilities.

Labor is considered mean by many. It seems to be hereditary in some men to consider manual labor as degrading, Cicero said: "We are to account as ungentle and mean the gains of all hired workmen whose source of profit is not their art but their labor, for their

very wages on the consideration of their servitude. We are likewise to despise all who retail from merchants' goods for prompt sale; for they never can succeed unless they lie most abominably. All mechanical laborers are by their profession mean, for a workshop can contain nothing befitting a gentleman. As to merchandising, if on a small scale, it is mean; if on a large scale, extensive, and rich, it is not so despicable." This spirit has produced a social war, and has arrayed capitalists against laborers, and *vice versa*. The wrongs imposed upon the laborer are secondary to those self-imposed. It is a fact that speculations, panics, and massing of capital have wrought inconvenience to the laboring class. Also the substitution of machinery, whereby laborers are valued as operatives, and not as men, tend toward injustice. Many of the operatives of this country, and especially in European countries, are purchased by capital merely as labor, and humanity is lost sight of. But the laborer is just as culpable as the capitalist. It is wrong for large bodies of operatives to be thrown together and ruled by a few men who have invested in them as they invest in machinery. This generates a narrow understanding of life. The laborer has no confidence in the capitalist. Our society is ranked in separate classes, and one class has no confidence in the other, and takes it as self-evident that each class is trying to destroy the prosperity of the other. Agitation and uncertainty unsettle conserving customs, and lead to dishonesty in our affairs.

The remedy for these wrongs lies with the laborers themselves. Socrates said: "Let him that would move the world move first himself." Prudence, frugality, and good management will

make capitalists of the working-men. Two classes of men make up the world—the saving and the spending—the thrifty and the extravagant. The great factories, mills, railroads, and canals which have been built, the carrying on of great enterprises, and every thing that advances civilization, have been conducted by the frugal and saving men; and those who have squandered their money have been the servants of the thrifty.

In 1847 John Bright said to the working-men of Rochdale: "So far as honesty is concerned, it is to be found in pretty equal amount among all classes." He also said: "There is only one way that is safe for any man, or any number of men, by which they can maintain their present position, if it be a good one, or raise themselves above it if it be a bad one—that is, by the practice of the virtues of industry, frugality, temperance, and honesty. There is no royal road by which men can raise themselves from a position which they feel uncomfortable and unsatisfactory, as regards their mental and physical condition, except by the practice of those virtues by which they find members among them are continually advancing and bettering themselves." He concludes as follows: "I assure you, after a long reflection and much observation, that there is no way for the working classes of this country to improve their condition but that which so many of them have already availed themselves of—that is, by the practice of those virtues, and by reliance upon themselves." These words will apply equally well to our laborers. The tone of living in this country is altogether too high. Laborers live up to their incomes, and often beyond them, affecting a style which none but the rich should adopt. There is a con-

stant struggle to be first in society, entailing upon the actors of this social comedy misery, waste, and bankruptcy; actors who commit frauds and dare to be dishonest, but do not dare to seem poor. It is extravagance that keeps so many poor and the servants of the frugal. Intoxicating drinks and tobacco cost the working classes far more than their food. On one occasion a deputation waited on Lord John Russell respecting the taxation levied upon the working classes of England, when he said: "You may rely upon it that the government of this country durst not tax the working classes to anything like the extent to which they tax themselves in their expenditure upon intoxicating drinks alone."

The same principle is applicable in this country. It is certainly necessary in these times to practice most rigid economy. The young men who are growing up and learning how to save, and practicing frugality, prudence, and honesty, will be the capitalists of the future; and the young men who are going along, spending their money and affecting a style which they can not hope to maintain, will be the servants of the capitalists of the near future. The difference in social life of the rich and the poor is generally the result of the one class saving and the other spending. To enter the field and accumulate property is open to all. It is as Montaigne says: "All moral philosophy is as applicable to a common and private life as to the most splendid. Every man carries the entire form of the human condition within him." The way is open, and any may enter therein and achieve success if he remembers that—

"Real glory
Springs from the silent conquest of ourselves,
And without that the conqueror is naught
But the first slave."

D. H. PINGREY.

GEORGE WALTON WILLIAMS.*

MERCHANT OF CHARLESTON, S. C.

PHRENOLOGICAL CHARACTER.

YOU have an active, sensitive temperament; are wiry and tough. But there is hardly vitality enough to give endurance, and to bear you up under hardships and severe physical labor. Your natural place in the world of industry is where the work is active, but not heavy; where the duties require celerity rather than great power, you have more force of character than physical strength, and are always overdoing, inclining to have more business in hand than you have vital power to sustain you in performing it. Yours is an organization that uses up every ounce of power which you can make. And it should be your study to husband your resources, and to adopt means for an increase of vital force. You should sleep abundantly, so as to rest your brain and nervous system. You should avoid stimulants and irritating condiments, for these provoke the exercise of power without imparting any strength to sustain effort. You should cultivate the vital functions by ascertaining what kinds of food you can most easily digest, and which will make the most blood. You should select such articles as sustain bone, brain, and muscle, and do not particularly excite the system. You should spend much of your time in the open air, live in the sun-light, and take those kinds of exercise which promote health without exhausting your strength.

Your phrenological developments indicate uncommon energy, warmth of temper, severity when aroused, and

ability to impress people with their delinquencies. You have great Firmness; you can take positions, and maintain them unflinchingly. Sometimes people think you headstrong, and all who know you well expect that when you make an effort to accomplish anything that it will be done promptly and thoroughly. You should be known for dignity, ability to manage, to lead, to direct.

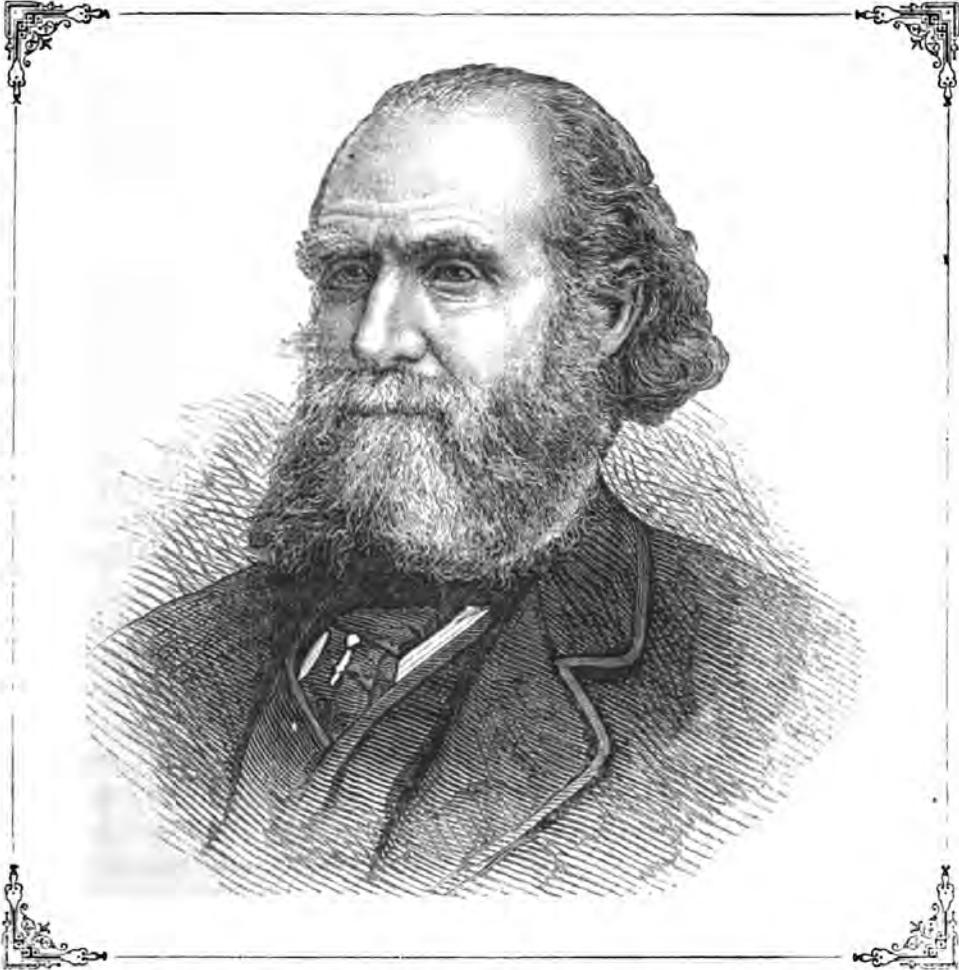
You have a strong love of justice, which gives to your moral tone elevation and strength, and it tends to make you censorious. You are more honest than devout; have more hope than faith, and in the daily affairs of life you brace yourself up with confidence in your own power and in the prospects which are before you, trusting to the energy and to the enterprise with which Providence has endowed you rather than to the special interposition of Providence to work out your purposes. You incline to use oars, and, if Providence send a favorable wind, you adapt yourself to it; but if not, you work your way with the oars. You believe in sails, but you believe more emphatically in oars, because oars are within your own control, while sails depend upon something over the supply of which you have no control. You would like a business which required sharp and earnest effort rather than one which required mere skill and talent. You would prefer to be a business man rather than to be in a profession where one had to wait for a call, a patient, or a client.

You recognize the dangers that lie in your way and seek to make every-

* Phrenological description given at our Cabinet some ten years since, while the subject was an entire stranger.

thing safe, and though you will drive rapidly, you keep a sharp lookout for the course you steer. You are ambitious to triumph over opposition, have moral independence to carry your views as a part of yourself, and it is not common for you to lean upon others for advice or assistance.

are not a man of a single gift or capacity, but of many. You could do well as a surgeon or as a manufacturer, or merchant. You have a scientific cast of mind, which gives you a love for exactness, for absolute facts. Your Language qualifies you to express yourself with fullness, and your whole tem-



PORTRAIT OF GEORGE WALTON WILLIAMS.

In the social realm you find a varied enjoyment, and, if well related, you would find in the home-circle the greatest happiness. You have earnest attachment, ability to gather friends to you, and are inclined to become a sort of hub in the social wheel.

You have much versatility of talent,

perament tends to give clearness and vigor, not only to the thought, but to the statement of it.

You are a good reasoner, but you would get impatient with people who spin fine theories. You take common-sense views of a case, and would present it in such a way as to make it

plain to the common mind. If you were a politician you would make a stump speech that would be understood by the masses; they would carry it home in their minds and talk about it. You could write in an interesting manner, and describe scenery and circumstances in such a way as to make a vivid impression, and yet not cover a great deal of paper in doing it.

With your sensitive and excitable temperament your mind is on the alert, and you expend more power than you can afford to. You lack health more than anything else, having, doubtless, wasted your vital power to some extent by overdoing. But it is not too late to reform physiologically, and you can probably increase your power and endurance by twenty per cent. by observing carefully the best physiological rules.

BIOGRAPHY.

One fine day in the autumn of 1838 a youth of about eighteen, the son of a mountain farmer of Upper Georgia, bade adieu to the home of his childhood, in the lovely vale of Naucoochie, and turned his face resolutely southward. Though bound for a distant city, where he proposed to seek his fortune, he was on foot, and carried but a scantily-filled purse.

It is not unlikely that the young traveler cast more than one lingering look backward toward where sturdy Mount Yonah stands sentinel over the quiet valley which cradles the infant Chattahoochie, and thought, with a passing twinge of regret, of the haunts of his boyhood—the scenes of so many years of quietly happy, but unsatisfying, rural life—and of the dear friends he was leaving behind him. But his courage never failed him, and in due time the journey of 150 miles was accomplished, and he found himself in

the city of Augusta with \$10 in his pocket, and his faith in himself and his trust in God undiminished. That youth was George Walton Williams, now so well known in the business world as the energetic, enterprising, and wealthy merchant and banker; and in society as the courteous and benevolent Christian gentleman. There is no instruction so valuable as the teachings of example; and the history of the thirty-five years of busy life which have intervened between the date of that lonely foot-journey and the present time is well worth recording for the benefit of the young men of the present day who, like George Williams, have their way to make in the world.

George Walton Williams is the fourth and youngest son of Major Edward Williams, formerly of Easton, Mass., and Mary Brown, of North Carolina, and was born in Burke County, North Carolina, on the 19th of December, 1820. In 1823 Major Williams removed to Naucoochie Valley, in Habersham County, Georgia, where he had purchased a large body of land. Here, in a region inhabited principally by the Cherokee Indians, and on the very borders of civilization, George's childhood and early youth were passed. His father was an excellent farmer, and an enterprising, energetic man; and, through his untiring exertions, aided by a few others who had caught something of his spirit, the fertile valley was soon brought into a high state of cultivation. It was Major Williams who introduced herds-grass, dairies, and improved farming into that part of the country, the agricultural interests of which he did so much to advance.

Major Williams appreciated the value of character, and trained his sons to habits of temperance, industry, and

self-reliance, setting before them, in his own life, a worthy example, as did his excellent wife, a woman of great energy, piety, and benevolence. The facilities for obtaining an education were, of course, very meager at that time among the mountains of Georgia, but George made the best use of such as were afforded him. With a view to the cultivation of habits of industry and feelings of self-reliance, Major Williams gave to each of his sons a small portion of land, which he was required to cultivate for himself after he had finished the regular labors of the day. With the proceeds of this extra labor, the boys were expected to furnish themselves with clothes and pocket-money.

An incident connected with our young farmer's operations on his particular little tract, illustrates the early development of those traits of character which have contributed so largely to his success in life—industry, energy, and perseverance. His farm embraced a mound near the spot where *Naucoochie*, the Indian maiden was buried. One year the country suffered from a protracted drouth, which, of course, particularly affected the mound, threatening his crop with utter ruin. Most boys would have considered this an evil without remedy, and have given way to discouragement. George did no such thing. "Where there is a will there is a way," and he actually carried water from the *Chattahoochie* at night, by the light of the moon, to irrigate his field, and thus secured an abundant harvest.

Arriving in Augusta, young Williams was fortunate enough to secure a situation in a wholesale grocery house. His salary for the first year was \$50 and board. He entered upon his new duties as a clerk with zeal and a deter-

mination to win confidence and advancement. He was prompt, active, and industrious, did whatever he undertook to do well, and was ever watchful to promote the interests of the house. Aiming at the highest success, and feeling that this could be attained in no pursuit without laborious, persistent application, he gave himself up faithfully to his work. His employer, Mr. Daniel Hand, was capable of appreciating the merits of his new clerk, and saw in him not only business talent and energy, but unquestionable integrity. The young man was advanced accordingly, and his salary soon increased to \$1,000 a year.

Mr. Williams' genius for business rapidly developed as opportunities for its exercise increased, and at the age of twenty-one he purchased the interest of one of his employers and became a partner, the name of the firm being changed to Hand & Williams. One of the first acts of the young merchant on becoming a member of the firm was characteristic of the man, and illustrates his devotion to principle, even in trade. He had been taught by his venerated father, and fully believed, that it was wrong to traffic in spirituous liquors, and although about one-half of their stock in trade consisted of such goods, he persuaded his partner to abandon that branch of their business. It was predicted that they would lose one-half of their trade by this course, but Mr. Williams allowed nothing to turn him from the course he believed to be right; and he had the satisfaction of being encouraged and upheld in it by true friends. With a firm trust in Providence, and his accustomed energy and foresight, Mr. Williams continued to prosecute his business, and at the end of the year had the pleasure of finding that instead of

diminishing, the profits of his house had increased over the previous year.

In 1852, the largely increasing capital of the firm rendering an enlargement of their field of operations expedient, Mr. Williams visited Charleston, S. C., for the purpose of establishing a house. Here again his principles were brought into seeming conflict with his interests. He was told that no grocery business could succeed here unless liquors were sold. He, however, entertained a different opinion, and the result has proved its correctness. It was not long before the sales in the Augusta and Charleston houses increased from \$100,000 a year to \$1,500,000, and their business became one of the largest commercial enterprises in the South.

In Charleston Mr. Williams' intelligence, energy, business capacity, and sterling integrity were not unappreciated, and he became a director in one of the banks and in two railroad companies, and an alderman of the city, holding in the council the responsible position of Chairman of the Committee of Ways and Means.

When the war broke out Mr. D. Hand was the senior partner of Geo. W. Williams & Co., and had his office in New York, for the purpose of attending to the business of the Charleston house. Mr. Hand was no politician, but he was opposed to secession, being convinced that an attempt to dissolve the Union would bring on a desolating civil war, and prove, in the end, disastrous to the South. Entertaining these views, he naturally desired to retire from business, which he did in 1861. In the mean time the Confederate Congress had passed an act confiscating the interest of persons residing at the North who might have funds invested in Southern houses. Mr. Williams saw at once that the effect of this act would

be to sweep away, at one stroke, the earnings of his friend's lifetime, and he allowed no considerations of personal interest or safety to interfere. He immediately took measures to save at least a part of Mr. Hand's property, and stood steadfastly by him, and with good results.

In those perilous times Mr. Williams had his Conscientiousness severely tried in other ways. During the early part of the war Northern houses had furnished his firm with goods, knowing that there was no law in the Confederacy to enforce collections in their behalf, and relying entirely upon the honor of the firm for their security. To provide, therefore, for these debts, he remitted the money to the Bank of Liverpool, and when the war closed they were discharged in full, principal and interest, notwithstanding that he was told that the notes could be bought in New York at fifty cents on the dollar. He illustrated the same trait of character in another way, never refusing during the war to receive Confederate money for debts due him.

In 1862, having been appointed by the State Legislature chairman of the Free Market Board, and by the city of Charleston manager of the Subsistence Store, Mr. Williams closed his business for the purpose of organizing these beneficent instrumentalities for supplying the soldiers' families and poor of Charleston with food. He brought to this labor of love the same activity, energy, and tact which he had given to his own business, and through his untiring exertions, aided by a few public-spirited citizens, thousands were fed during the entire war.

The day the city fell he issued from his own private residence, the dining-room of which he had converted into a subsistence store, rations to some

10,000 persons, of all colors and grades, and so great was the press that he was compelled to barricade the doors and distribute the provisions from the windows. Through his appeal to the retiring Confederate General, he obtained a requisition for the supplies which had previously been doomed to the flames.

On the landing of the Federal troops, Mr. Williams secured their services to aid in extinguishing the fires in various parts of the city, caused by the burning of the cotton and the gunboats. At his solicitation, also, guards were placed over the warehouses and mills in which the provisions were stored. He thus saved from the devouring elements food enough to feed 20,000 people for four months, and rescued many worthy families from great want, if not from actual starvation.

It was not his intention to engage again in mercantile business, but to establish a bank; and in the summer of 1865 he proceeded to Washington for the purpose of procuring a charter for the First National Bank of Charleston. Before this had been accomplished, however, his old friends began to pour in their orders for merchandise, and the planters who had saved a few bales of cotton from Sherman's "bummers" were forwarding them to his house for sale or safekeeping, so that he was, in a manner, compelled to resume his business.

He at once set about the work of erecting large cotton warehouses in the "burnt district," filling, in the meantime, his extensive stores in Hayne Street with merchandise. There he also opened a banking-house, and he soon found himself more fully immersed in business than at any former period of his life. His was the first Southern house that resumed operations in Charleston after the war.

Mr. Williams has allowed himself few seasons of repose or recreation. He has, however, visited Cuba, and made the tour of Europe, publishing, on each occasion, in prominent journals, a series of letters which would do credit to a more practiced pen, and which show him to possess strong observing faculties and excellent powers of description, as well as a keen insight into human character, and a considerable knowledge of history.

Mr. Williams is now in his fifty-sixth year, but is as actively engaged in business as at any former period of his life, moving through its various departments with the same sprightliness that he manifested twenty years ago, and pushing it with the same tireless energy.

In person Mr. Williams is about the medium size, rather slender than stout, but with a tough, wiry frame, and a fine but strong nervo-bilious constitution. His complexion is rather florid, his eyes bright and keen, his speech quick and his movements rapid—activity being a prominent characteristic of both body and mind. Of some of his most distinguishing intellectual and moral traits, his business career furnishes an excellent illustration. His energy, his industry, his perseverance, his self-reliance, his tact and his integrity are evinced in every department and in all his transactions. That he is prompt, punctual, and systematic may also be inferred; but he has one characteristic which seems quite remarkable in a business man—he acts, as it were, by intuition, rarely stopping to reason, but reaching his conclusions by the first impulse. This is one of the secrets of his success—one means of accomplishing so much. He loses no time in considering propositions, but decides at once what to do. "Instinct,"

he says, "is honest, while reason is subject to a thousand influences, and is often unreliable." He likes to make a good bargain, and considers well-bought goods as already half sold, but he uses few words either in buying or selling.

Unlike most successful business men, Mr. Williams has retained unimpaired the finer sensibilities of his nature. Literature, the fine arts, and horticultural

find in him a devoted disciple and patron; and, while cultivating these, he is not forgetful of nature or of the wild but charming scenes amid which his early youth was passed, but is planning for the beautifying (as art may beautify nature when working in harmony with her laws) of his mountain-guarded home, the already lovely Vale of Naucoochie.



A PLEA FOR BOYS.

BY A MOTHER.

MISS MURDSTONE, shutting the steel clasp of her bag with a snap, which snap stood for all possible pros and cons, said, "Generally speaking, I don't like boys." Miss Murdstone was a representative woman. The state of her mind on the subject of boys is that of society generally. Which proves one of two facts, either that boys are a mistake of nature and ought not to exist, or that society does not sufficiently accommodate itself to the fact of their existence. Now, as to the first horn of the dilemma, a single lady was once heard to remark that "men were no doubt created for some good purpose;" and such being the supposition, it is scarcely apparent how we could have men without first having boys. As to the other, there really seems to be no proper room in the world for boys. They are always in somebody's way. Their muddy boots will get stuck into corners in the cleanest house, and it is really remarkable what an affinity mud of the most

unmitigated character has for their soles. (I did not say souls, for though many people think their tendency to contract spiritual mire to be in corresponding ratio, I beg leave to differ.) Then, if it is winter time, and mother and sister sit shivering over the stove or register, do they not invariably burst in, ruddy and triumphant from their tussle with Jack Frost, leaving the door wide open behind them in their impatience to call sister's attention to a broken strap on their skates or a hole in their mittens, or to boast what a "bully" skate they have had, or how they have beaten some "Johnny" in coasting! And when they do shut the door, is it not always with an emphatic bang, that shocks the nerves of the inmates? And do they not shirk collars and neckties, and was one ever known voluntarily to cut his nails? As for nails of another kind, has not the true boy a horrible proclivity to hammer them, without, apparently, the slightest use they are to subserve, ex-

cept the questionable one of deafening the community at large?

"Lave, now, Bobby," says poor Bridget, with a persecuted air; "sure ye're always wantin' to climb the stips whin I'm afther scrubbin' 'em." So Bobby climbs them again and again in his muddiest boots, to make good Bridget's words.

"Robert," says aggrieved mamma, "you're splitting the back of that chair. How often must I repeat to you that it is ungentlemanly to tip back in that way?" Then, with a martyr sigh, "Boys are *so* hard to manage!"

"Don't manage 'em, then. Besides, I ain't a gentleman, I'm a cove!" and Bob whistles himself out of the street door to seek the sympathy abroad that is denied him at home.

"Bob," says sister Alice, with the look of a thumb-screwed victim of the inquisition, "*do* stop thrumming on that piano. It is perfect torture to hear you. I wish mamma would make you sew on your own shirt-buttons to keep you out of mischief!"

"Sew on my own shirt-buttons?" shouts Bob, aroused by the atrocity of the suggestion, and emphasizing his retort by a terrible bang upon the bass keys. "Do you think I'm a gir-r-r-l, hey?"

"Robert," says Aunt Jemima, with disgusted severity, "I smelt tobacco smoke in your room this morning. Don't let me smell it there again."

"Sorry you don't like the smell of it, aunty," says Bob, with a strut. Upon my word, I use the best of the weed—wouldn't touch a bad article!"

Robert is not a bad boy, by any means; his impulses are generous, his nature is truthful and honest, his heart as loving as a girl's—a deal more loving, by the way, than *some* girls. And yet he suffers from a chronic conscious-

ness of being either hedged in or shouldered out—of being the one disagreeable feature in the otherwise placid paradise of home. He isn't going to cry about it—not he! much as his young heart sometimes aches for appreciation. "Pshaw! who'd be a girl!" and so he tries to harden himself and becomes, to a certain degree, *blasé*. Now, mother, sister, Bridget, and even Aunt Jemima, would find that boy far more amenable, far less a nuisance, far more a comfort, if they would remember and practice on the fact that he has, as a general rule, large Approbativeness and Adhesiveness, and is appreciative, consequently, not only of praise, but of love. Bridget, bless her warm Irish heart! has an instinct of this, and can often blarney the boy into good behavior when his own mother can not reach him. People seem to have an idea that it will not do to approve boys. I once knew a Quaker lady who was the mother of six as rampageous specimens of the genus as could have been picked out anywhere. Terribly gifted they all were in bursting off buttons, tearing pantaloons, and letting daylight through hats; yet for these things they were never scolded. "Sweet, thee must look out for the nails next time;" or, "Dear, take a little more time in undoing thy buttons," was the extent of the reproof. "Thee is mother's comfort," was their reward whenever they performed the slightest service for her. These boys were perfect chevaliers toward their mother. They could enter into pillow-fights at boarding-school without compunction, but *her* pillows were always respected, and her carpets, too, for they seldom forgot that their mother loved neatness, and the door-mat was to them a sacred institution, from the very fact that it was never crossly insisted upon.

Suppose society, then, should choose for its representative, instead of Miss Murdstone, this sweet, quiet Quakeress, and give the irrepressible boy the appreciation that his nature craves. Suppose, instead of being constantly snubbed, his rights to sympathy and approbation should be a little respected; and suppose that the services now often bullied out of him should be politely requested. Who thinks of being polite to boys? And why are we so irrational as to expect of them a gentleness of manner which we do not manifest toward them? Nothing will win a boy's loyalty so completely as respectful treatment. Flattery, judiciously administered, is sweet to masculinity of whatever age, but to none more than to the growing boy, whose sense of awkwardness needs pacifying, and whose appetite for praise is usually so starved that he all the more greedily snaps at it when administered, as it usually is, unfortunately, by those who wish to pervert him. A boy who is wisely praised at home will not so eagerly seek questionable associates for the sake of the incense they offer him. Call a boy "Sir," and treat him like a gentleman, and you "grapple him to your soul with hooks of steel." Call him "You boy," and roughly domineer over him, and you rouse the lurking devil in him at once. I, for one, can little blame the generality of boys for being rough and unmannerly—the treatment they receive makes them so. Whoever saw a lady sweetly thank a boy for giving her his seat in the cars? She might so acknowledge the courtesy of a grown-up gentleman—but a boy! What right has a boy to sit while a lady is standing? But *he* knows he has a right, and her rude questioning of it determines him hereafter to keep his seat, and is one of the means by

which he is educated to a disrespect for woman, and to a domineering sense of being one of her lords and masters. In this respect, if in no other, the boy is father of the man. And the man seldom forgets any slights or insults put upon the boy. What man living but cherishes a secret sense of injury against the teacher who bullied his conjugations and declensions into him, and made his multiplication table a nightmare? And I have known a man's hatred of a girl who had snubbed him in boyhood to be undiminished in middle age.

"Men are but children of a larger growth," and, as a rule, the greater the man the more of his boyhood he retains throughout life. Go to the Stock Exchange after the bulls and bears have had one of their severest "tul-yies," and see how over-strained human nature relieves itself in boyish pugilism and knocking off of hats. Men, as well as boys, are all the better for the venting of this superfluous "od"—need it as much as the overcharged boiler needs to be rid of its superfluous steam. And this need of boydom—grown or otherwise—should be provided for. In a city like New York, every ward should have its free billiard-room, gymnasium, and base-ball ground, under proper surveillance, and open to both sexes; for of all the natural rights of the boy none is more imperative than the right of co-education with girls, not only in a literary, but in a recreational sense. If the girls are thus liable to become romps, so much the better; for they may chance to romp some red corpuscles into their blood, and some stamina into their bones and muscles, as well as some self-reliance and energy into their minds. A romp is pretty sure to make a generous, broad-souled woman; and

the world needs more such, and fewer like Charles Reade's heroines, with a genius for lying and cat-like *finesse*. A straightforward, self-helpful woman will not easily fall a prey to the wiles of wicked men, and if ever she should have boys of her own to educate, will be able to sympathize with their energetic sports, and will have nerves not easily torn to pieces by their boisterous fun. Boys have a right to such mothers, and girls have an equal right to a physical education that will enable them to become such.

Now, we are not an advocate for turning society into a Bedlam. We would not shock any delicate sensibilities with the suggestion that the boy element need rule us entirely. By all means let the boy be taught decorum at the proper times and places. His teaching will be far easier if he have a

sense of the sympathy of his elders. The sure way to make an Arab whose hand is against every man is to have every man's hand turned against him. Let us give the boy a chance. Let Young America not aspire to the presidency as a means of revenging himself on the persecutors of his youth, but as a means of doing all the good that the head of so great a nation as ours can do. Teach him generosity by treating him generously; fill his soul with gratitude by giving him constant occasion to be grateful; show him that you believe and trust in him; pay him the reward of virtue in advance, and he will be pretty sure to give you value received. There is a great deal of human nature in boys. Let every one take this for granted, and the coming man will be more humane than his predecessors.

CAN IT BE LOST?

To-DAY a picture where the very soul
Of Heaven-born genius shows most fair,
Throbs through each fine-drawn line and curve,
And glows in every tint of color there.
To-morrow and a torn, discolored thing
It lies, in which no eye could dimly see
One vestige of the rare, exquisite light
Which late shone from that canvas gloriously.
A child all beautiful, and fair, and sweet,
To-day smiles softly from its mother's breast,

Or dances gayly all the long day through, [rest.
Like some glad bird, with scarce a pause for
A sudden accident, and crushed,
Maimed, and unsightly, all the light
Of childish mirth is gone, to come no more
Into the life which seems one long, long night.
The tender beauty of the little child,
The splendor genius wrought in colors rare
Is lost! yet can it be all wholly lost?
Does not its undimmed glory fall, somewhere!

MARY W. M'VICAR.

"A BAD BEGINNING."

CHAPTER V.

THE BITTER ASHES OF SIN.

JARL DARLEY staggered back smitten with horror and dismay at the work he had done.

"My God!" he exclaimed, rubbing his forehead, as though to make sure of his identity while he stared at the prostrate figure at his feet—"was it I that did this thing? I, Jarl Darley, a murderer!"

Turning slowly around in his distress and bewilderment, he brushed from the table the loose rolls of crisp bank-notes which he had before remarked to Staunton's evident discomfort.

Stooping absently to pick them up, the thought came to him, might he not, before he gave himself up to justice, in some meas-

ure atone for and justify the deed he had committed by the distribution of this money among the needy, destitute, and suffering families to whom it rightly belonged?

He was making quick response to the inward suggestion by a rapid transfer of the notes to his pocket, when the door was burst violently open, and the son of Ralph Staunton, followed by one or two stout armed men, rushed in and surrounded him.

With the pistol, whose fatal shot had roused the house, still clinched unconsciously in one hand, with the money he had just gathered up protruding conspicuously from his pocket, with the murdered man lying in bloody witness at his feet, the evidence against Jarl Darley was strong enough to convict him of a crime which he would have abhorred and despised for the object which seemed clearly apparent, and from the imputation of which he knew he would never be able to absolve himself.

"It will not be necessary to use force," he said, throwing down his weapon and surrendering himself a prisoner. "Send for the officers of law, and I will offer no resistance to the performance of their duty."

"Jarl Darley!" exclaimed young Staunton, recognizing the offender, "you! you!—viper! Is it thus you reward my father for his kindness—you who have fed for years upon his bounty? Base born serf! villainous wretch! there is no penalty meet for you!" he went on, raising himself from the side of the murdered man, and shaking his clenched hand fiercely in the face of the destroyer.

Jarl Darley's lip curled with contempt stronger than his contrition. "Stand farther back," he said, waving the young man off with a gesture of abhorrence. "There was no spirit of murder in my heart when I killed your father—in reward of his 'kindness,' his 'bounty,' ha! ha! But toward you, Archibald Staunton, I burn with a hate which nothing but your blood, I think, can ever cool. Stand farther off—it is safer until I am more securely bound."

"I will soon have you where your hate can do small harm, devil incarnate!" was the threatening response.

"That is well," Jarl answered, stoically.

"But mark me, profligate, I will rise even from my grave to smite you if ever you dare to wrong my girl—my motherless Nora."

"Faugh! your girl!" sneered Archie Staunton, contemptuously. "What is she to me?"

"I can not tell," Jarl returned, his eagle gaze holding the young man's cowering glance; "but I have seen you watch her with devouring eyes: I have found you prowling like an evil beast of prey about my door; I have heard whispered insinuations that filled me with maddening fears; and I have marked a change in Nora. She no longer meets me with the clear, open-hearted look of love and confidence; there is a muffled tone in her voice, there is a brooding shadow of care and trouble in her young face, as though she were the uneasy possessor of a secret which she could not share. I tell you again, Archibald Staunton, if you wrong my child I will come back even from the borders of hell to avenge her!"

"Fool! what would you have?" demanded the other, angrily. "Do you expect me to marry your plebian daughter?"

"Marry her! marry my daughter!" A blaze of hate leaped into Jarl Darley's white, wrathful face. "Sooner than have a fate so ignoble befall her, I would send her with my own hand where there is neither marrying nor giving in marriage in the base understanding of creatures like you. I would rather, a thousand times rather, give her to the embrace of death than to wedlock with such—God! stand back, I say! I can not breathe so near you! Hold me with tighter grip, fellow," he added, turning to the servant who stood guard with one hand upon his shoulder. "I feel the spirit of Cain moving me to violence."

A rush of feet, a clamor of voices at the door, announced the arrival of the summoned officers of justice, the unnecessary surgeon, and the aroused citizens, and put an end to the heated discussion that threatened to lead to further catastrophe.

Jarl stepped from under the hand of his guard as the men in authority came up.

"Gentlemen, I am your prisoner," he said, with dignity. "Grant me liberty to

write a few words to my daughter, and I will go with you quietly and peaceably."

And while the officers stood back with a respect which the man's firm bearing and known integrity of character unconsciously compelled; while the doctor and young Staunton knelt seeking anxiously but vainly for some sign of life in the ghastly form upon the floor; while the people pressed forward questioning, exclaiming, denouncing—the creator of this scene of horror and confusion turned calmly to the writing-desk at hand, and in bold, clear, angular strokes penned the following message.

"MY DEAR NORA: Without deliberation or intent I have to-night taken the life of the late master of Woodburne Mills, for which crime I must, of course, suffer the full penalty of the law. Bear up under this calamity with a courage becoming my daughter, and hold yourself firmly above the stigma and reproach which will attach to my name, but for which you, my child, can not be individually responsible. If you have the will, come to my prison to-morrow, and we will talk over and make arrangements for your future.

Affectionately, YOUR FATHER."

"Our way lies past my little cottage, please be so kind as to drop this at the door," Jarl said, respectfully, laying the open epistle in the hand of the watchful sheriff.

Then throwing down the money he had appropriated with some vague idea of dispensing justice, he cast a shuddering backward look at the man whose soul he had hurried into eternity, and with drooping head walked silently away between the magistrates, whose duty seemed merely nominal, so entirely had the criminal taken the matter of arrest into his own hands.

* * * * *

A few hours later, the present offices for the dead having been discharged, and the house measurably emptied of its curious gaping throng, Archie Staunton stepped out into the clear summer night, whose calmness contrasted so forcibly with the storm of excitement through which he had just passed that he seemed to himself waking from a horrible dream. How could the

great, sympathetic heart of nature maintain such holy peace amid this awful strife and tumult of human passions? he might have vaguely wondered, as he turned into a secluded walk leading out to an open grove peopled with silent mysterious shadows.

Suddenly there started up in his way a figure with long floating hair, and hands outstretched in passionate appeal.

"Oh, Archie, Archie Staunton! This is terrible—terrible!"

The son of Ralph Staunton drew himself haughtily away from the small, speaking shadow, his slightly bearded lip lifting over his white, glistening teeth with an expression of merciless scorn and cruelty.

"What are you doing here, Nora Darley?" he demanded, harshly. "Did you think I could wish you ever again to cross my path?"

"Ah, for Christ's sake do not speak to me in that way!" plead the girl, her beautiful, clear carved marble face turned upward in the moonlight with a look of woe that might have moved a heart of stone to pity. "When I knew what was done, I could not stay away from you, and yet when I came I dared not enter the house."

"That was well," young Staunton answered, with cold contempt. "I congratulate you on having so far a restraining sense of the proprieties of your position. I had enough to endure without the embarrassment of your questionable presence."

The girl shrunk as though he had given her a blow.

"Have mercy, Archie! Do you think—oh, God! do you think I have nothing to bear?"

He put back the clasped, imploring hands with disdainful impatience. "I can not think of you at all," he said, cruelly. "If I think of any one it must be of the mother and sister a hundred miles away, who this moment are dreaming happily of to-morrow's expected meeting with the dear friend whom your villainous father has foully murdered. I have delayed the telegram that is to bear them the shocking tidings, that I might not arouse them too rudely out of their last happy and refreshing sleep."

"God bless you! You know how to be

kind," Nora Darley murmured, with sharper sense by contrast of his cruelty to herself. "Oh, Archie, if by giving my life I could atone for this terrible deed of my father's, I would cheerfully offer it. Is there nothing—nothing I can do for you or yours—no sacrifice—no devotion?"

"Nothing, nothing," Staunton interrupted, rudely, "except to take yourself forever out of my sight."

The wretched child turned slowly about with a gesture of despair and utter desolation. For months this man by the magical arts of love had been building about her the walls of a secret world, in which there dwelt but two—he the sovereign ruler, she the believing and adoring subject; and to be, at the fateful hour of her life, thrust out by the hand of her god was a woe more unutterable than that of our legendary mother, for love went with Eve out of Eden, and made all things endurable.

"You will not—you will not leave me to pass through these awful straits alone—alone?" she wailed, the overwhelming flood of desolation sweeping away all pride that under circumstances less crucifying would have flamed up in mad resentment of such injustice. "Oh, Archie, Archie, for God's sake have mercy!"

But the man once so passionately tender, seeing neither the white pleading face nor the slender hands wrung together in an agony of despair, had walked coldly away, and in mocking answer to her prayer some evil bird of the night sent out from the thick pine branches overhead a long, shrill, shuddering cry like the shriek of a spirit damned.

Shrinking and shivering with mortal pain in every nerve and fiber of her being, Nora Darley staggered blindly out into the open moon-lit road that led past the mills, whose towering stacks, outlined sharply against the purple sky, seemed to her dizzy sense ready to topple down upon her in frowning wrath.

As she labored on into the shadow, faltering and uncertain, an eddying murmur of the river struck upon her ear with the suggestion of peace and oblivion which has betrayed many a weak woman to suicidal

death. Desperate, despairing man seeks relief from his maddening miseries by means more violent, but sinning woman casts into the dark sweeping flood the burden of woes she finds too heavy to bear.

Obedying the aimless impulse of her morbid mood, poor Nora Darley slowly descended the rough stairs built in the steep bank of the river, now at its summer ebb, and sitting wearily down by the water's edge looked over the placid tide with some scarcely conscious effort to recall the childish prayer she had learned to whisper beside her bed before she laid herself to sleep. A numbness and stupor like that which overpowers the senses after the sufferings of intense cold had taken possession of her faculties, and she was in that passive state so susceptible, under conditions of a highly developed spirituality, of impressions commonly regarded as supernatural and moral.

Rising at last with the dull, dead thought of stepping out into the cool, slow-moving stream, some mysterious power seemed to stay her feet; a warm, soft, tender, perfumed light enveloped her like an atmosphere of heavenly love, and the force which had hindered her forward steps into the treacherous water now drew her gently back from what appeared to her opened sight a black, yawning, horrible abyss.

Presently out of the aura of light beamed a familiar face, and with the hushed, reverent, longing cry of "Mother!" the child-woman followed the floating seraphic vision until, at a glad, ecstatic burst of song from awakening birds, she roused as from the dreams of a passing night to find herself safe at her father's cottage door, with the red light of the summer morning flaming wide at the gates of the east.

CHAPTER VI.

WITH THE PRISONER.

Before the dawn of day every household in Woodburne had been startled by the announcement of the tragedy enacted in the quiet neighborhood, which had never guessed that it harbored in its bosom such elements of violence, though perhaps in more than one heart burned the fires of a

hate far fiercer than that which had nerved the hand of the murderer. In every household, too, were going on discussions, more or less warm and excited, regarding the event and the causes which led to it, but nowhere was the affair so sadly and tenderly talked over, with such true understanding and appreciation of motive and circumstance, as in the Lacrosse apartments, where the evil tidings were latest to penetrate. The good, womanly heart, and the clear, infallible instincts of right which ruled there, rendered judgment of all sin broad, tender, and merciful as God's.

"There are two things for us to do, Ariel," Madam Lacrosse said, after the shock and agitation of the painful report had subsided sufficiently to admit of rational thought, "we must give to poor Jarl the support of our friendship and sympathy in the stern trial, which he will meet with the unflinching courage of a Spartan, and we must take his dear, motherless Nora at once into our care. Hasten immediately to the friendless child and bring her quickly home with you; she must be suffering unspeakable distress."

The boy needed no second bidding. He and Nora had been as brother and sister since the earliest remembrance, and though of late something of the coldness and restraint which Jarl complained of had sprang up between them, the darkness of her present trouble made him instantly forgetful of all other shadows, and touched him as closely as if it had been his own.

He found the unhappy girl where she had thrown herself when she came in, beside the open cottage window, over which swung the delicate bells of the morning-glory, rivaling in their rose, pearl, and azure tints the passing splendor of the dawn. Drenched with the night dews, pallid with the night's miseries, she looked the forlorn image of despair with her hopeless, stony-eyed stare into vacancy, for with the fading of the beautiful vision that had led her out of temptation the haunting burden of dread, which she had borne for weeks, settled with the added weight of her father's crime heavily down upon her soul again.

A moment unperceived Ariel stood gaz-

ing at his little friend, then with quick step he gained her side, and drawing her bowed head into his arms, kissed her with tender, brotherly affection.

"Oh, Ariel, why did you come?" she asked, shrinking and striving to withdraw.

But holding her with gentle firmness, he smoothed back from her forehead with lingering, unagnetic hand the long tangled tresses that enveloped her like a cloud, until, touched by his wordless yet eloquent sympathy, the frozen fountain of tears broke up with a passionate sob, and she wept long and unrestrainedly.

When at last the tempest had subsided, he dried the poor, tearful face, and hunting up hat and shawl put them upon the unre-sisting girl with affectionate care.

"My mother is waiting for you," he said, lifting her out of her chair, and, putting her hand under his arm, led her away with an authority she had no will to dispute.

The mother who so long before had stepped out of life that her face was but a beautiful cherished memory, could not have given her disconsolate child a more tender and comforting welcome than did the clear-eyed, sunny-browed woman who took her from Ariel's charge with an embrace that was in itself a promise of rest, support, and protection. There was no shrinking from those motherly arms, but after a moment's sense of their blessing, the poor, driven soul started up like a hounded deer with wide, frightened eyes.

"If—if you knew all, oh, madam, would you be so kind?" she panted, struck and quivering with a sudden dart of remembrance.

"Dear child, I think I understand all," was the soothing response, "but if there be more which it concerns me to know, you may trust me as a mother—love nor care can not fail."

Perhaps we could not do better than to leave Jarl Darley's daughter just here in the hands outstretched to bless her, trusting that when we come to her again we shall find the soft, passionate face chiselled to finer, chaster lines, and the latent power of character which it betrays fully developed through the stern processes of sorrowful ex-

periences, the peculiar outgrowth of nature and of circumstances. * * *

Later in the day, Madam Lacrosse, visiting the prisoner in his cell, carried to him the following letter, which he read with misty, mournful eyes:

"MY DEAR FATHER: I am striving to follow your counsel and your example, and to be the brave daughter of a brave man, who suffers heroically the penalty for wrongdoing imposed by the law, which does not discriminate in its judgment between wicked and weak transgression. There is much in my heart that I can find no words to utter, yet you will have faith in my love though it fail, as it has failed, of satisfying expression. Pardon me that I do not come to you in prison. I can not bear the pain and agitation of an interview overshadowed by the dread of a parting so terrible. Let me think of you as you left me last night, with a tender kiss that I dreamed not then was of eternal memory. Forgive me that I seemed so cold and irresponsive. Oh, my father! oh, my father! in heaven my mother will tell you all that I have failed to speak. Do not feel that there is any thought of reproach in my heart toward you; there is only sympathy, and an inexpressible sorrow that I can not take upon my worthless self the whole burden of your suffering and atonement for sin. It would be the sweetest boon I could crave to die in your stead.

"Thank the blessed friend who shall bring this letter to you for the gracious kindness shown your daughter in her darkest hour of need. It seemed more like a divine angel of God than a creature human who took me in this morning with such words of love and cheer and comfort as have strengthened me with courage to believe and to endure all things.

"You shall hear from me again, my father, but no more to-day from your child,
NORA."

Jarl Darley folded up the blotted, tear-stained paper with a dry sob, and put it in his bosom as a souvenir of his dearest earthly treasure. Then turning to Madam Lacrosse, who stood waiting beside the narrow strip of grated window, he took both her hands in his, and bent his lips to them rev-

erently, as though they had been the hands of a saint.

"God bless you! God bless you!" he said, huskily. "I have no speech to thank you for your goodness to my poor girl."

"Any intimation that thanks are due me," said Madam, withdrawing slightly, "implies that you expected less than common courtesy and friendship would demand of me. You do not regret, then, that the child did not come?"

"No, no, it is better that she should not; we do not want to force more storms of excitement into these young lives than we can help. I only asked her to come that I might talk with her concerning her own future."

It is in regard to that I came hither to-day to consult you," Mrs. Lacrosse responded. "I have a plan which meets with Nora's approval, and if it has also your sanction, I think we may consider the matter settled. I have made arrangements to leave Woodburne in a few days, and go where I shall be able to avail myself of opportunities for study and instruction in scientific and rational methods of treating disease; and it is my desire to take your daughter with me as a companion and friend, whom it will be my aim to assist in all possible ways to a realization of her own schemes of work and usefulness, as time and experience may develop them."

Darley's face lighted up with supreme satisfaction. "I could have asked nothing better for my child than this kindly interest you manifest in her lot," he said, with repressed feeling. "I know she needs just such wise, tender care and counsel as you will give her, for she is young and wayward, with that passionate craving for affection by which she comes legitimately through the mother, whose heart I never satisfied. Ah, the sad effects of our failures and mistakes! we can never wipe them out though we seek carefully, like Esau, with tears. I would have given to my daughter the absorbing love and devotion which I denied to my wife, but she recoiled and withdrew in a way that spoke as plain as a voice from the grave, 'Too late!' Nora has a certain respect for me, but no sponta-

neous, trustful, happy, and satisfied affection. In all her life she has never given expression to so much tender feeling for me as she has put into this little note;" and Jarl took from his bosom the precious scrap of writing, and read it over again lingeringly.

"Somehow," he said, with a gathering shadow of doubt and perplexity in his face, "there seems an undercurrent of sorrow here that I do not understand; the letter reads like the wail of a soul that is tasting the bitter ashes of the Dead Sea apples of life. Madam," he added, turning to his visitor and fixing his piercing eyes upon her face, "what does it mean? What do I feel expressed here, yet can not define?"

Madam Lacrosse met his penetrating look with clear, steadfast, unflinching gaze. "Jarl Darley," she said, unfalteringly, "if there is anything relating to the happiness and well-being of your daughter which it concerns you now to know, rest assured you shall not be kept in ignorance of it. I have taken her as my own child into my love and care, and if you can trust to my discretion in the settlement of everything that affects her interests, you may feel relieved of all doubt and trouble in the matter, and consider for the present only that which immediately regards yourself."

"I am satisfied," Jarl responded, taking both her hands again in his. "Oh, Mary Melrose—the old maiden name for this once, I pray—when has there been a time since we were children together that I have not felt whatever you might suggest or approve must be right, just, perfect, and fixed as the ordinances of God? Even when you rejected my love, years and years ago, though your decision darkened all my life, I bowed to it as good and just and irrevocable, while I loved you none the less."

The hand withdrawn quickly from his hold was lifted in warning gesture. "No more, Jarl. I did not come here to-day to unearth the past."

"Past, present, future—they are all one to a man who stands upon the borders of eternity," answered Jarl Darley. "I can't measure my speech by any narrow worldly standard of propriety, with the free air and

the clear light of the spiritual kingdom playing over my soul."

"We—stand—always on the border of the other life," said Madam Lacrosse, fighting for breath. "But, Jarl, do you not confidently look for acquittal?"

"No. Is not the evidence clear?" he asked, smiling.

"Yes; but there may be extenuating circumstances. Have you chosen your counsel?"

"I have."

"Whom?"

"Jarl Darley,"

"To plead your case?"

"Yes. The simple truth you know."

"Oh, Jarl, how came you to do a thing so terrible?"

"It was terrible. Yet you do not shrink from me."

"No; why should I? The deed accomplished makes you no guiltier than the will to do. You were as much a murderer in spirit yesterday, last week, last year, as you are to-day."

"That's true. Yet the world that did not recognize me yesterday shudders at mention of my crime to-day. But you asked me how I came to commit an act so horrible. Sit down, and I will tell you about it."

And bowing her to a seat upon his prison cot as though it had been a royal chair, he went over the story of his visit to Ralph Staunton, with the account of its fatal termination, qualified by the vivid portrayal of his own swift thoughts and emotions, which gave to the whole matter a coloring that did not affect the vision or judgment of the superficial and disinterested observer.

"It was a fearful thing to send into eternity a man with so many unrepented wrongs against his fellow-beings to answer for," Madam Lacrosse said, shudderingly, when he had finished his recital.

"I know it—I feel it," Jarl answered, sadly, sorrowfully. "And I have been wondering whether in the justice of God I might not suffer in his stead for some portion of his sins. Can such things be? Well, well! This is the barest speculation. What does it matter? The penalty for all

violation of law and order must be paid in time or eternity. Whether Ralph Staunton would have atoned for, or simply have added to the sum of his evil deeds, had his earth-life been protracted, only the God who judges both him and me is able to tell."

The warden pacing the floor outside the prisoner's cell here announced to Mrs. Lacroisse that the hour allotted for her visit had expired.

"It is not the last time?" Jarl said, his intense eyes burning into her soul as she rose and extended both hands to him with

a fervent "Heaven bless you and sustain you!"

"You will come to me once more, Mary Melrose?"

"I think so, Jarl; but if I should not—"

They stood facing each other in a deathless silence, crowded to intensity with thoughts unutterable yet understood.

"Good night, and good-bye. We shall meet in the *morning*," Jarl Darley said, with a significant heavenward glance as he dropped the hands he had pressed to pain, and turned away that he might not see the beloved face pass from his sight.

[TO BE CONTINUED.]

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

"The age culls simples;
With a broad clown's back turned broadly to the
Glory of the stars."—*Mrs. Browning.*

CHAPTER VII.

IN the morning Hallet narrated his chapel experience to the Judge, and anxiously inquired what had happened to so disturb Pastor Hartwell.

The Judge listened gravely to the recital, and said: "The occurrence that caused this grief was one that would be considered very unimportant by most people. The simple fact is, that two of our best men and leaders, really self-denying, hard-working, conscientious members of our central council, have quarreled and spoken violently to each other. No ordinary business dispute would have brought them to this. They were discussing an important point of political economy, and neither having yet quite conquered his egotism and pride of opinion, they allowed themselves to be tempted into a breach of the peace usually maintained here. Our people are gradually learning to sacrifice everything but principle to the preservation of harmonious social intercourse. These men would usually—knowing each other's honesty of pur-

pose—have endeavored to set each other right without any such heat. This time the devil of pride got the better of them. Perhaps the most valuable trait in the pastor's character is his extreme abhorrence of everything like lack of social harmony. The very children have learned to soften the tones of their play-ground disputes when he approaches, and they observe then a painful solicitude in his face, in place of the beaming sympathy with which he usually regards their joyous sports. His inmost soul is so bathed with the celestial serenities, that any breath of earthly discord is as a chilling blast to it. We all love him, so that we are naturally exceedingly anxious not to annoy him in this respect. I have known noble but high-tempered women to go apart and weep by the hour, when they have been tempted into angry words, and he has turned those great eyes sadly upon them, somewhat as Jesus looked upon his disciples when he said 'Will ye also go away?'"

"Is he in the habit of walking thus in the chapel after midnight?" asked Hallet.

"He walks there often before midnight, but seldom later, unless in times of great trial. Like most very religious people, he is very fond of high places. There seems to be really a strong relationship between high spiritual states and lofty physical situations. Devotees are usually fond of hill-tops and towers. The pastor's wife tells comical stories of her perplexities when they lived in New York in cheap apartments, on account of his great desire to lodge on the top floors of high houses. You noticed two small towers on our main wing, besides that central one which you visited. One of these was built on purpose for him, and he sits there a large part of the day."

"But really, Judge, do you not think there is something unnatural in his extreme distress about so small a matter last night?"

"No; such emotions have always been characteristic of the most useful religious teachers and guides. See here:" and he reached for a book. "Here is an account of Rev. John Welch, son-in-law of John Knox, of Scotland, and the most powerful and useful preacher of his time. In 1590 he settled in Ayr. The people were divided into factions and given to bloody conflicts. He used to cover his head with a helmet and rush between the combatants. He finally established peace. The biographer says: He preached publicly once every day, his diligence in study was unwearied, and he devoted seven or eight hours of each day to prayer. His custom was to lay a Scottish plaid on his bed, that he might wrap himself in it when he rose during the night. And from the lonely church, to which he would often

retire to spend the night in prayer, his broken sighs and urgent supplications for the conversion of his people went up to Heaven. On one occasion his wife was awakened during the night by his cries and groanings, and finding him lying on the ground and weeping, she remonstrated with him. Upon which he replied: 'Oh, woman, I have the souls of 3,000 to answer for, and I know not how it is with many of them.' He obtained thus such spiritual power that, though not very eloquent, hundreds would sometimes be converted by one of his sermons. The resistless, living power that wrought such wonders came from the closet of the man of prayer rather than from the pulpit of the eloquent orator."

The Judge and Hallet spent that morning in an examination of the manufacturing industries of the Society, but we will postpone the narration of what they saw, and look at some of the features of the place through younger eyes.

CHAPTER VIII.

Edith Hartwell and Alice Templeton, both aged about eighteen, had been sworn friends from childhood. Edith was a brunette, and stately, when she chose to be. She was not as handsome as her mother, but particularly piquante in expression. All her features, and especially her brilliant black eyes, were full of interrogation points. Her face spoke, also, of shrewdness and readiness to answer her own or anybody else's questions. She was thoroughly fitted by nature, habit, and study for a literary life, and was already assistant professor of *belles lettres* in this genuine "University."

Alice Templeton was of quite different composition. She was a rosy, ro-

bust blonde, of a practical, scientific turn of mind, which in childhood had shown itself in a love of botany, and since she came to the Grange had merged in an all-devouring love of fruit-culture, and especially of grafting, which had brought her to the head of the agricultural sub-series that attends to that important matter. As will be seen, her passion for pursuing her favorite vocation was a cause of considerable amusement as well as profit to the Grange.

Near the river bank, in front of Mid Haven, stands an ancient mansion, every brick and most other parts of which (as was common in those days) had been brought from England. The only part of the original small shrubbery about this house that has survived is the double row of box-wood about eight feet high, and under whose wide-spreading branches one stands as beneath miniature elms. The house is occupied by one of the "wealthy sympathizers" as a villa, and the box-rows have been brought into harmony with the rest of the landscape gardening.

Behind this double screen, at a point where the road from the wharf approaches it, these two important officials sat on a rustic sofa actually gossiping, on the morning last referred to. This was a favorite seat with those who wished to see who came up from the boat without seeming too inquisitive. On this occasion Miss Templeton was the inquisitor as the rockaway came up the road. Glancing through the box trees at its occupants, she said nothing, but quickly returned to her place by her friend, and sat there with her eyes shut, one hand upon her heart, and swaying her head from side to side, and uttering a series of prolonged "Oh's!"

"In the name of all saints, Alice,

what ails you, and who was in that wagon?" cried Edith, darting forward to catch a glimpse of the vehicle. She was too late; it now presented its back.

For some moments Alice kept up her dumb show, although Edith slapped her on the back and pinched her vigorously.

There stood near a remarkable beech tree, smooth of bark but tottering to its fall. It was not usually allowable at the Grange for young folks to carve upon those smooth-bark trees, except in the distant forest. But this one having been condemned, was now thus given over to the youthful vandals.

After having sufficiently whetted the curiosity of her friend, Alice silently arose, took her inseparable pruning-knife from her pocket, approached the tree, and, being considerable of a "sculptist," soon had two pairs of bleeding and cruelly lacerated hearts engraved upon it, each pair pierced in the conventional style by one and the same Cupid's arrow. Under one pair she put the initials "E. H. and E. A.," and under the other "A. T. and H. R." She then scratched her picture over until it was pretty thoroughly erased.

"Was there ever such a crazy girl?" said Edith. "I'm sure I don't recognize these other wounded hearts, and was quite unaware that ours were so grievously transfixed."

Alice whispered in her ear, "Our two adorers of the White Mountains last summer."

Edith uttered one "Oh!" slid back to the rustic seat, flung her check-apron back over her head, and fairly giggled—she, the "assistant professor of *belles lettres*." Then putting down the apron she said: "Well, Alice, there's music in the air. Do you suppose these two

brigands propose to carry us off, willy, nilly?"

"I think their lordships think it quite feasible to do so. They imagine, doubtless, that their civilized attractions can easily outweigh those of the noble rustic

swains of this secluded ranch. I had no idea that their promise to visit us was more than an empty compliment. But come, we must go home and dress. Such victims do not grow on every bush hereabouts." SAMUEL LEAVITT.

[TO BE CONTINUED.]

HORACE BUSHNELL, D.D.

THIS eminent American divine died on the 17th of February last at the age of seventy-four. Few men, even among those of his profession, can claim so high a place in the esteem of people at large. We have seen but two or three times previously such a unanimous expression of respect and honor as has been accorded to Dr. Bushnell by all classes and denominations through the press. He was, indeed, a piece of lofty manhood.

Born at Litchfield, Conn., in 1802, the son of a farmer, he aimed at a liberal education, was graduated from Yale in 1827, and subsequently became a tutor there. At first his inclination was toward the law, but unexpected circumstances turned his face in the direction of the ministry, and after a season of preparation he became the pastor of the North Congregational Church. In this relation he remained twenty-six years, when failing health compelled him to resign the pastorate. He then gave himself to literary employments, according to the measure of his physical strength.

He had already published the admirable volume entitled, "Christian Nurture," and enlarged and republished it in 1860. There was a warmth of charity in his views of religious faith and practice which colored his utterances. This characteristic was signally marked in his "God in Christ," published in 1849, which led to his trial for heresy, but the result was his acquittal by a vote of seventeen to three. In 1851 came "Christ in Theology," and in 1858 "Sermons for the New Life," one of the richest

volumes of its kind ever published. Soon after appeared his "Nature and the Supernatural," which gave him great reputation abroad as well as at home. In this work he classified man as belonging to the supernatural, because not in the chain of cause and effect, but superior to it and controlling it. In 1864 a volume of his essays and addresses was issued, "Work and Play." Soon afterward a volume of sermons, "Christ and His Salvation," "The Vicarious Sacrifice," which is described as denying the expiatory quality of the atonement, and exhibiting what is called the moral influence theory, was next published. As an exhibition of the work of Christ from the side of His manhood, nothing we know is superior to it. In 1868 appeared "The Moral Uses of Dark Things," and in 1869 his protest against woman suffrage as the "Reform Against Nature." In 1872 came a volume of fresh and vigorous discourses, entitled, "Sermons on Living Subjects," and finally, in 1874, his "Forgiveness and Law," an appendix to his "Vicarious Sacrifice."

One who knew him writes of his appearance: "His face was powerful and suggestive of wonderful acuteness. His features were sharply chiselled. His forehead was rounded and full; his lips straight, and impressed with an air of decision; his eyes so deep-set in his head that they puzzled the skill of the artist who molded them in clay or painted them. He was nervous and energetic in movement, exceedingly forcible in speech, and an extremely interesting talker."

Our portrait, though small and representing him as he appeared seven or eight years ago, confirms this estimate.





True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

THE AGE OF BRAIN.*

THE intellectual achievements of the present age give it a character distinct from the ages that have gone into history, and crown it with a glory of which none other could boast. This is the age of brain, not only, but of brain activity. Men and women tax their brains as brains were never taxed before. The competitions that put us at our best are mental competitions. The chief victories that crown the brow are victories of philosophy, of literature, of statesmanship. Thought is power, and this power through knowledge is surely and rapidly achieving the autocracy of the world.

This age is at once a realization and a prophecy; the result of the past and the promise of the future. Man is the outcome of creation's past; this age, the flower of the centuries that have flown. Pope said of Bacon: "He was at once the wisest and meanest of mankind;" and the student of ethnology is compelled to the conclusion that man is at once the noblest and the basest work of God. Ruled by his savage instincts, his passions and propensities, he is a monster who to be feared and hated needs only to be seen. Under the dominion of his intellectual and moral faculties, he is a fit companion to the gods.

A chief reason for calling this the age of brain is that the functions of the brain were first discovered within the

century. Previous to the discovery of the circulation of the blood, physiology was impossible. Before the discovery of oxygen, chemistry did not exist as a science. And before the advent of Gall, with his great science of Phrenology, mental philosophy was but a mass of vague speculation, devoid of scientific basis. While we are indebted to Gall for this science, it should not be forgotten that Bacon made it possible. His *Novum Organum* is the *Magna Charta* of the new republic of science. He rebelled successfully against Aristotle, and gave to the world a correct system of reasoning, in place of the false logic of the old Greek empiric, who had ruled the world jointly with the Pope so long. Gall adopted Bacon's system of induction, hence the mental science he presents is based upon facts, and appeals to common sense.

It is sometimes objected to Phrenology that scientific men do not give it a cordial support. I reply that it has met with a degree of tacit acceptance, that is most surprising and gratifying, both among the savants and the people. Its acceptance has been greater considering the time it has been before the world, than that of any discovery of similar magnitude and importance. Witness the treatment accorded the discoveries of Copernicus, Kepler, and Galileo by the older scientists, of Harvey and Jenner by the latter ones, and you will marvel that Gall's discovery has

* An epitome of a lecture delivered in Boston, by T. A. Bland, M.D., prepared for THE PHRENOLOGICAL JOURNAL.

met with so little opposition. Indeed, the fundamental principles of Phrenology are accepted by almost the entire learned world, as well as by the people. It is true that the average scientist gives it but little thought. He is occupied with other branches of science, less complex and difficult, and which do not—as does Phrenology—involve every principle of moral and intellectual philosophy. He is an observer and analyst, not a philosopher; a man of physics, not of metaphysics. Astronomy, geology, paleontology, zoology, entomology, etc., are merely objective sciences which call into full play only the mental faculties of observation, memory, and comparison. Phrenology is both an objective science and a subjective philosophy, commanding the highest functions of reason and observation. All scientists, however far removed from the border line of metaphysical philosophy, have made sufficient casual or special observations in the direction of objective Phrenology to convince them that the brain is the organ of the mind; that a large brain—other things being equal—indicates superior mental ability; that disease of the brain produces insanity, and that we need not expect a very high grade of character in one whose brain is chiefly back of his ears.

The fundamental facts and deductions of Phrenology are as generally accepted as are those of geology and astronomy. That the science has been brought to that perfection in detail that some of those giving it special attention claim it has, is doubted by many, and, perhaps, with reason. But do not people also question the pretensions of specialists in other departments of science?

Do we accept without mental reservation all that Proctor tells of the stars,

all that Tyndall tells us about chemistry, or all that Darwin and Huxley tell us of evolution? Yet we do not—if we are wise and modest—assert that Proctor and Tyndall and Darwin and Huxley are mere pretenders. To doubt is both a right and a duty; to deny is presumptuous. It is believed by none, claimed by none—unless it be some impudent quack—that Phrenology is perfect either as a science or a philosophy. Neither are astronomy, chemistry, or geology complete and rounded sciences, but progressive ones.

Bacon broke once for all the chains of scholastic dogma that had fettered the human mind during all the Dark Ages; and since that grand act of emancipation we are at liberty to doubt and criticise all systems of science, philosophy, and religion. Ptolemy no longer rules supreme in the heavens, Aristotle has ceased to tyrannize over the schools of philosophy, and the Pope's Bull excites as little apprehension as the comet.

That heads differed in size and shape, and people differed in talents and disposition, were recognized facts before the advent of Gall; but that these two classes of facts were related to each other as cause and effect, was a fact unknown and unsuspected until he taught it.

Descartes, and Cobbe, and Locke, wrote learnedly about the human mind, but they treated it as an abstraction, hence their essays were mere speculations, having no basis in scientific facts. They were logical acrobats, whose performances were entertaining rather than instructive. Ptolemy, and the Alexandrian philosophers, constructed a system of astronomy which was both ingenious and erudite, but it was false, therefore worthless. Kepler, Copernicus, Galileo, and Newton gave us a system

based upon facts, and this is reliable and practical. Gall has given to the world a mental philosophy having its foundation in facts, and this is scientific and reliable.

By Phrenology psychological phenomena are explained as readily as eclipses are calculated by the astronomer. The older mental philosophers believed that man possessed two classes of faculties, virtuous and vicious. Phrenology teaches that man has no bad faculties. There is no organ of theft, of murder, of licentiousness. That some men are gluttons is not accepted as proof that the stomach is a bad organ or appetite a bad thing, *per se*. Nor is it proof that Acquisitiveness or Destructiveness are vicious faculties that men sometimes steal and kill. No, it is only proof in either case that the propensities are not, as they should be, enlightened by the intellectual faculties and regulated by the moral sentiments. Herein lies the philosophical and scientific—hence rational—remedy for the depravity of man, and the ills which afflict society. *Put the reins of government into the hands of the moral faculties.*

Plato, in his "Model Republic," puts only philosophers in power, and a philosopher is one whose intellect is enlightened, and whose moral sentiments approve all his actions.

To develop and quicken the intellectual faculties of a man, and neglect his moral culture, is to make a trained villain of what would have been a blundering scoundrel. The native sneak-thief is thus converted into a public plunderer. Left in ignorance he gravitates to the penitentiary; educate him intellectually, and he goes to Congress, and joins every plundering ring that promises to put money into his purse, no matter at whose expense.

This is the age of brain as compared with past ages; but the true age of brain has not yet dawned. When it has been inaugurated, civilization will become a fact; and civilization means not only intelligence and culture, but honesty, honor, purity, fidelity, fraternity, justice. So long as the nations are for war, and the people honor military chieftains with positions of power and profit; so long as wealth is worshiped and villainy applauded; so long as politicians are partizan, rather than patriotic; so long as men are slaves to passion and appetite, and women to fashion and folly; so long as depravity stalks abroad at noonday, and theft and murder prowl at midnight; so long as gibbets throw their ghastly shadows across the green earth, and prisons yawn on every hand; so long as lawyers, sheriffs, and policemen fatten off the crimes and misfortunes of their fellows; so long as editors cater to depraved tastes and stupid prejudices, and preachers dare not tell the whole truth; so long as the idea prevails that it ever pays to do wrong, the claim that we are civilized is presumptuous.

Man is the noblest of God's creatures—the ultimate of earth. In him rest possibilities which, when fully realized, will not only indicate the wisdom, but glorify the beneficence of his Creator. He is the prince of this world. The scepter of universal mundane dominion is his by right of inheritance. This scepter is the magic wand of science, before which the forces of nature are yet to bow in absolute obedience.

During the ages that have passed, this heir of royalty has been an ignorant and vulgar serf, toiling for his daily bread, and cowering before those mighty forces he was born to command.

The history of the past century contains a record of wonderful triumphs

and marvelous progress. But man's victory over nature is not complete. What has been achieved serves chiefly to show us what is yet possible. Every new discovery in science, every new invention in mechanics, every new improvement in art, are prophetic voices penetrating the veil of the future, and proclaiming the possibilities yet in store for the race, and telling us to be of good cheer, and relax not our efforts, and we shall yet grasp the scepter of absolute power—shall tread the earth its sovereign lords.

But is that all? Will progress end with the last battle with ignorance and the final triumph of knowledge? Will the coming man sit supinely down, content with what has been achieved? Or will he, like Alexander of Macedon, sigh for other worlds to conquer? Ah! if he will but reverse his methods of vision, he will discover a hitherto unknown world—unknown to the average man: the world of ideas, the realm of philosophy. This beautiful world lay all about us from the beginning, but the smoke of the battle through which we have passed obscured our vision, and the din of the strife dulled the hearing, so that we neither saw its transcendent beauties nor heard its divine melodies.

The facts of science are discovered by external observation; the truths of philosophy by internal perception—yet both are dependent upon the organ of the mind, the brain. Neither facts nor ideas can make any impression upon a man save through his nervous system or his brain. The nerves feel, the brain thinks. Through the nerves the brain is put in communication with objective phenomena, and thus the mind is able to study and comprehend the universe, and subdue it, for all power is primarily mental. Through the moral organs

of the brain man's mind is put *en rapport* with abstract ideas of truth, justice, liberty, fraternity.

Through these organs we receive impressions, get ideas, from the moral universe, the subjective world. The scientist may with truth exclaim—as Prof. Proctor did at the close of a recent lecture—"Ye can not by knowledge find out God!"

But the philosopher, through these organs of which I speak, dwells continually in His immediate presence, and enjoys constant communion with Him. When man becomes a race of philosophers as well as scientists; when the moral faculties rule supreme in all departments of society—then will injustice disappear, and love have its perfect work. Then will peace and plenty prevail throughout this world, and happiness sit enthroned in every home. Then will the Millennium have come, and the true age of brain be inaugurated.

IN MEMORIAM.

[Written for the Dedicatory Exercises of the monument to Edgar Allen Poe, November 17th, 1875.]

If he who sleeps beneath this stone,
No other verse had writ so well,
As that which sings of Annabel;
If he had told that tale alone,

To hearts that weep beside some mound,
Where lie in silence calm and deep
Those called unto that tranquil sleep
Which pillow finds within the ground—

Then his should be the poet's praise,
And for that song of loving grief,
So full, so deep, and all too brief,
For *that* 'twere well this stone to raise.

Or, if he had but raveled out,
From all the tangle of the bells
The different tone their music tells,
So all who love, or fear, or doubt,

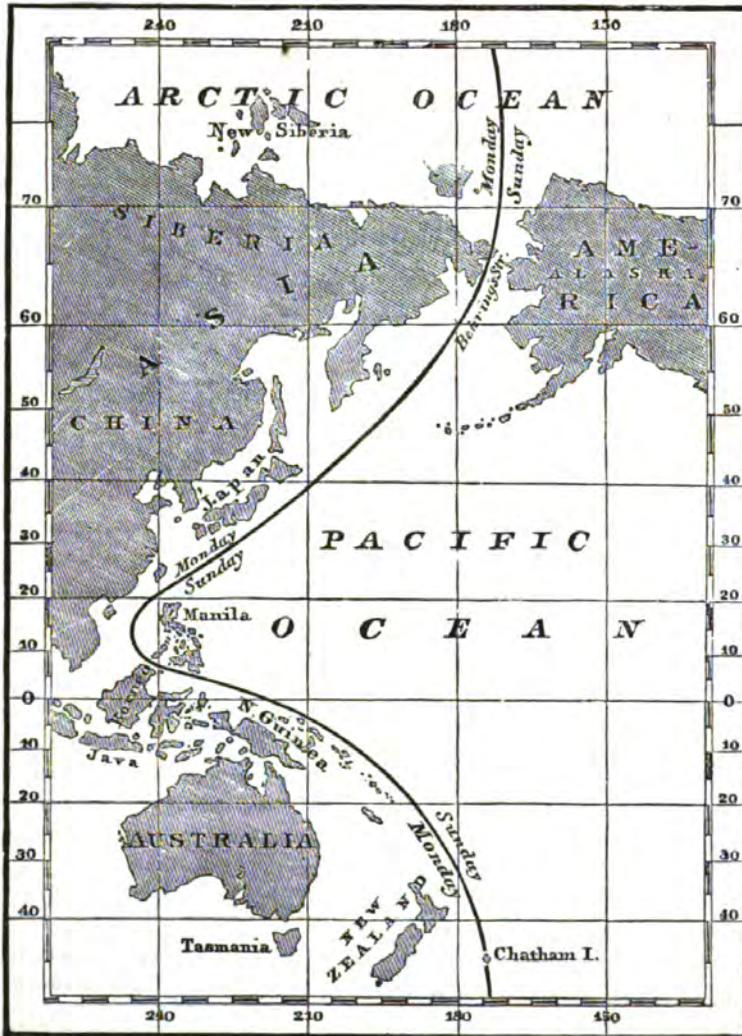
May read the sounds into that song
The bells awake within the heart,
When joy or grief has any part
With the clear notes that pulse along—

Then his should be the poet's praise,
 And for the language of the bell,
 Which he interpreted so well,
 For *that* 'twere well this stone to raise.

Or, if he had but written how
 Remorse, the "Raven," gaunt and grim,
 May find each error soul within,
 A "nevermore" for some dishonored vow;

If he to other hearts has taught
 The lesson that he learned so late,
 It could not hinder his sad fate
 Or save him from such bitter thought,

Then his should be the poet's bays
 And if we cast on him a stone,
 In loving honor it is done,
 And on it's carved a poet's praise. A. V. P.



WHERE THE DAY BEGINS.

FROM two or three of the subscribers of the PHRENOLOGICAL inquiries have been received with regard to the place where navigators in going around the world or in crossing the Pacific Ocean make or lose a day to accord with the difference in

solar time. In making answer to such inquiries we can scarcely use language more to the point than that found in Schedler's excellent Manual for use with terrestrial globes, the map accompanying which will be found to illustrate our meaning.

Every one knows that day and night are respectively caused by the revolution of the earth upon its axis. All places which lie upon one and the same meridian, and which, consequently, have the same geographical longitude, have at the same moment mid-day or midnight, in other words, the same time.

"On the other hand, if one start from any given meridian, on any one of the imaginary circles, drawn upon the globe parallel to the equator (parallels of latitude), either eastward or westward, then the clock of a place lying eastward at once becomes faster than that of a place lying to the west. The reason of this is that, on account of the motion of the earth from west to east, the sun rises earlier in the place lying eastward than in that to the west. The difference of time thus produced is four minutes for each degree.

"This accounts for the experience made centuries ago by the first circumnavigators, that a ship which sails around the earth from east to west—that is, in the same direction as the apparent motion of the sun—has lost a whole day upon arriving at her point of departure. On the contrary, if the voyage has been made from west to east—that is, in a direction opposite to the apparent motion of the sun—the ship will have gained a day in her reckoning.

"This creates a difference not only in the hour of the day, but also in the day of the week and the date of the month. This difference, moreover, occurs not only on the occasion of a voyage around the world, but even between two places the one of which is far enough eastward or westward of the other—that is, between whose geographical longitudes the difference is sufficiently great. For example, when Monday, January 15th, dawns in Leipzig, it is still 11:20 p. m. of Sunday, January 14, in Paris; and in New York it is 6:15 p. m. of Sunday.

"As each parallel of latitude is divided into 360 degrees, the total of which corresponds to 24 hours, it is clear that, by starting from any given point of the hemisphere, and traveling 180 degrees either eastward or westward, a point will be reached diametrically opposite the starting point. For

such a point, consequently, from what has been said above, there must be two different reckonings of time varying by 24 hours.

"As will be seen, this date-line starts from the South Pole, strikes pretty nearly directly north; then inclines east of New Zealand ever gradually more to the north-west, and runs thus on the east side of Australia by the Hebrides and New Guinea into the Chinese or Yellow Sea; here, however, where it has attained its greatest western projection, it makes a bending sweep to west and north, which, leaving Celebes and Borneo to the southwest, passes around the easterly lying Philippines, then takes a bend northeastward to the east side of the Japanese islands, past these into Behring's Straits, from which skirting the coast of the continent of Asia, and again taking a northerly bend, it ends in the North Pole.

"If to the east of this line it is Sunday, the 1st of a given month, then, at all points west of it, it is Monday, the 2d of the month. As shown by the map this line lies almost wholly in the sea. If, now, a vessel circumnavigating the globe wishes to agree in her reckoning of time with that of her port of departure, it is necessary, if the voyage be eastward, to drop a day on the way, but if westward, to count a day twice over. This should of right be done on passing the date-line. It is, however, usual among navigators to make this rectification on crossing the 180th meridian from Greenwich, tolerably near which, as will be seen from the map, the extreme northern and southern projections of the date-curve come.

"Finally, it may be remarked that, as our date-line is identical with no one meridian, there must be a point, at its extreme eastern projection, which first receives the sun's rays, and where, consequently, the New Year begins. This point might be called the New Year's Point. The place which corresponds to this point is Chatham Island, east of New Zealand (about 188 degrees east of the meridian of Greenwich, and in the 44th degree of southern latitude). In this regard the Chatham Islanders are in advance of all the rest of the world."

IRRESOLUTION.

WE take the following excellent counsel from the *Philadelphia Ledger*. It is an epitome of practical wisdom, and well worthy of the widest circulation :

"There are few conditions of mind more painful to endure, and more fatal to efficiency or success, than irresolution. Most of us can recall occasions when we have been thus afflicted, hesitating anxiously between two opposite courses, preferring first one and then the other, as their several advantages present themselves, becoming each moment more confused and uncertain, and, though vexed and ashamed of the delay, yet utterly unable to end it by a decision. We may be happy if such a condition is rare and exceptional with us; if our usual habit is to think deliberately, decide resolutely, and act firmly.

"The irresolute man is continually wasting energy. The power that should be economized for action he consumes in anxious alterations of opinion. Does he propose a journey, a business enterprise, or some change in his mode of life, he is torn with conflicting thoughts as to its desirability. The inducements to carry it out appear in glowing colors, and he thinks his purpose is settled; then possibilities of failures and fears of disappointment bear on him so strongly that he almost renounces it. Again convictions of its benefit press with renewed force, and he oscillates most painfully between the two courses, not having sufficient Firmness either to undertake or to relinquish the enterprise. Meanwhile the delay itself frequently settles the matter; the time in which he might have chosen for himself passes away, and he is forced to accept what fate has left him without any reference to his judgment or preference. Directly the power of choice is removed, all the advantages of the opposite plan rush upon him with ten-fold force; he is sure that that would have been his selection had the opportunity been prolonged; and, consequently, acting upon compulsion, without heart or faith, and, indeed, against what he now thinks his better judgment, his failure and his discontent are both insured. In

the smaller details of life, this irresolution, if less disastrous, is even more vexatious and annoying. To waver about trifles, to hesitate and doubt and balance probabilities upon every little matter that presents itself for immediate decision, is a lamentable waste of power, distressing to one's self, and irritating to every looker-on. It is better to make some mistakes, we should all declare, than to thus constantly lose time and force in debating the *pro* and *con* of each petty action.

"A habit of self-dependence is one most important ingredient in a resolute character. He who, either from inclination or the force of circumstances, has always leaned upon others, can hardly be expected to show much energy in decisions, or much inflexibility of purpose. It is just here that freedom becomes so palpable a blessing, giving to every man and woman the opportunity for acquiring a self-reliance that nothing else can supply.

"It is, perhaps, hardly possible for one who has attained maturity with a vacillating, irresolute nature ever to become a decided and resolute character. Still there are various degrees of this valuable quality, and it is within the power of each individual so to discipline himself as to strengthen and increase it. A thoughtful survey of every important subject on which we are called to decide is necessary to this end. There is a time for deliberation as well as for action, and when the former is crowded into the latter a wise decision is impossible. All aids to this end should be warmly welcomed, not as props to support our weakness, but as means to correct our judgment. The inflexibility that refuses to receive such aid, and only seeks to enforce its own will, is obstinacy, not decision. When, however, we have brought all foreign helps into connection with our own judgment, and have thus formed the best conclusion we can in the time allowed, we must, as far as possible, dismiss further consideration and proceed to immediate action. In the less important details of daily life, we shall not greatly err in forcing ourselves to an im-

mediate choice, though we may still question its wisdom. This self-compulsion will be most salutary, especially if we cultivate

the habit of revising our actions with a view to avoid in the future the mistakes into which we may have fallen."

THE WILD TURKEY.

AS the blue-bird is the bird of spring, the turkey may be regarded as in some sense typical of winter, since at this season people direct their attention gastronomically to him. Indeed, the flesh of the turkey is deemed specially toothsome in the winter, and is then frequently found upon the tables of the well-to-do, and at the holiday season he must be a poor man, indeed, who can not for once, at least, enjoy the good cheer of one for his family. But it is of the turkey in his native state we are to speak.

The wild turkey was once prevalent throughout the whole continent of North America, but the progress of civilization has limited its haunts now chiefly to the thickly wooded tracts of the Western States, and of the valleys of the Mississippi and Missouri. From the Atlantic States he has almost entirely disappeared.

Belonging to the order of *Meliagris*, of the *Gallinacæ*, this bird may be briefly described as being, when full-grown, about four feet in extreme length, with a stretch of wing of nearly six feet. The female is about a foot smaller. The legs and feet are purplish-red, the upper part of the back and wings a yellowish-brown, with a metallic luster, changing to deep purple, the tips of the feathers being broadly edged with velvet black. The lower part of the back and the tail coverts are of a

deep chestnut. The tail is banded with green and black, with a broad blackish band near the lower end. A tuft of small feathers protrudes from the breast, as in the illustration. The head is



small, the body being compact and well fleshed, and the legs long.

The wild turkey is not a migratory bird, or strictly gregarious, but from the necessity of hunting for its food, spreads itself through the country, assembling in considerable numbers in the district where food is found most abundantly. It feeds on grain, berries, and vegetable substances, and, except during the breeding season, the sexes remain quite

apart. It is very early in spring that their association begins, actuated by the instinct of propagation, and, like our domestic fowls, several hens follow a favorite gobbler, roosting in his neighborhood until they begin to lay, when they withdraw from his resort to save their eggs, which he would destroy if discovered. The eggs number from ten to fifteen, of a whitish color, and covered with small red spots. The hen shows a good deal of caution in the location of her nest, and in the method of approaching it. She seldom abandons the nest, even when persecuted, her attachment increasing with the growing life of her brood. The young increase rapidly in size, and in a few months are quite independent of their parent, and able to roost in the higher branches of trees. As turkeys have enemies of the most cunning kind, like the lynx or wild-cat, it is not remarkable that they

exhibit much shrewdness, and take many precautions to avoid their persecution.

The wild turkeys weigh commonly from fifteen to eighteen pounds, and very frequently as much as twenty-five, or even thirty pounds; the hen being a much smaller bird is lighter in weight.

The male wild turkey acts in a manner very like that of the domestic bird, especially during the breeding season, strutting with expanded tail, spreading his wings, and prancing about with a very proud and haughty air, now and then uttering his harsh, indescribable cry.

The turkey is of American origin; was not known in Europe until the sixteenth century, when it was sent from Mexico to Spain, and introduced into England during the reign of Henry the Eighth.

AN EXTRAORDINARY CASE OF BRAIN LESION AND ITS PROVINGS.

ONE of the most remarkable cases of brain lesion on record, and at the same time most interesting on account of its bearings on Phrenology, was that of Byron Wright, of Waterloo, Iowa, who died on the 26th of July, 1875, from the effects of a pistol-shot received two years and a half previously. Mr. Wright was a school teacher, about twenty-one years of age at the time of the shooting, having charge of the school at Cedar City, Iowa, and was boarding with the girl's mother. While seated at the breakfast-table one morning, the girl came up behind him, and holding a revolver near the back of his head, shot him, the ball entering the occipital bone in the upper part of the organ of Philoprogenitiveness, a little to the left of the cerebral falx, or

part of the *dura mater* which separates the hemispheres of the brain. The course of the ball after entering was nearly forward, but tending a very little upward and to the left, and lodging at a distance of $3\frac{1}{2}$ inches from the surface.

As soon as Wright discovered that he was shot, he got up from the table and attempted to go out of the house, but was prevented by a young German. Mr. Wright said that he wished to go out into the fresh air, but the German told him that he would not let him go out. He then went to the window, and while breathing the fresh air as it came through an aperture, the German took the revolver and shot him a second time, the ball entering in front of the left ear, below the sphenoid bone,

and lodging in the right malar bone. The German and girl both left the house then, and Wright demanded of her mother the reason for his being shot in this manner. She told him that it was because he had been making love to Almira, and had then refused to marry her. This he then and ever after emphatically denied. Afterward he left the house, going across the street to the schoolhouse, and from there was assisted to a private dwelling near by.

Drs. Robinson and Adams, of Cedar Falls, were summoned, and after probing the wounds found them to be in the regions as stated above. Their opinion was that he could not live more than a few hours. He was conscious all the time, both before and after his removal on the next day to his home in Waterloo, conversing rationally with all who came to see him.

After many weary months of wavering between life and death, he began to improve, and was able to go out, the wound in front of the ear having healed entirely; while the wound in the back of the head continued to discharge matter to a greater or less degree until his death. About this time the eccentricities which made his case so strange began to manifest themselves. He first lost nearly all his old love of home and of children, and became a wanderer, while his Self-Esteem was so exaggerated at times as to bewilder all who had previously known him. As his intellect was not in any serious manner affected, he being perfectly coherent at all times, his friends did not conceive the idea that he was insane, for it was only his social, selfish, and animal propensities which at times manifested abnormal activity.

Wright's friend, Dr. D. W. Crouse, in speaking of the abnormal action of some of his selfish propensities, informed

the writer that "his aim was to be great in a popular sense, and to impress others of his greatness; to be great as a statesman, to have notoriety even if of the 'Ben Butler' stamp. He aimed at a public life; was pompous and fond of outside display; wanted all the praise, and hated rivals; was very touchy when criticised, and had a sullen contempt for all who disapproved his actions; was egotistical and domineering in the family at home; would order people to do things for him, not because he could not do them himself, but because he wanted to be waited upon; insisted upon being obeyed; could neither be persuaded nor driven; was two-faced, evasive, and unfathomable even by acknowledged friends; loved to surprise people, and was enigmatical. He would go from town to town and try to make the acquaintance of the editors, mayors, and other public men of the places visited, and then boast that he was the friend of various prominent persons throughout the west. Sometimes he would go into the Sabbath-schools, and talk infidelity to those who could not answer him, and would try to appear learned, great, and mysterious to the children, while to ministers and prominent members of the churches he would talk as though he were a zealous Christian; would denounce evil in unmeasured terms to those who, he knew, disapproved of the things he was talking about, and to another he would boast of doing the things he had denounced. He once called upon a neighbor and asked for a horse and carriage to ride into the country with, and his request being granted, he ordered the hired man to get them and take him. The man had other engagements, and explained why he could not go, but Wright was very angry because he could not have his own way.

About a year after the shooting, while in Wisconsin, he was thrown from a wagon and sustained a severe shock, but was not otherwise seriously injured. The wound in the back of his head, however, began to pain him, and he went to a surgeon to have it examined. The doctor probed it, and found something near the surface, which he thought was a piece of the skull, and concluded to try to extract it. He succeeded, and to his and Wright's surprise it proved to be the ball which had been lodged in the brain so long before. Wright danced around the room in great glee at the prospect of recovering entirely; but in this expectation he was doomed to disappointment, for his brain had been irritated too long by the leaden pellet.

In his wanderings he became acquainted with a young lady at Iowa City, whom he married about a year prior to his death, loving her passionately for a time, but it was only the insane love of a diseased brain, which disappeared soon afterward. Conjugal Love was lost, while Combativeness and Destructiveness reigned supreme. Having resumed his vocation of teaching, he would treat his pupils with the greatest cruelty, sometimes hurling his cane across the school-room at a little offender, and at other times terrifying them with threats too horrible to mention.

Once, after beating a child nearly to death, he was arrested and fined, but neither this nor dismissal from the school tended to modify his conduct; for as soon as he obtained another school he renewed his violence, and when he could get no more schools to teach his wife became the victim of his insane cruelty. In fact, the reaction which followed the abnormal activity of Conjugal Love was such that

he would not consent to see her when in his last moments.

At length his many eccentricities led those with whom he was associated to believe that he was deranged, and he was brought before the Commissioner of insanity to be examined, and after a review of the testimony produced was by the court declared insane. His parents then took him to their home at Waterloo, after which his passions disappeared, and he seemed more like his former self, although he did not walk as erect or with the firm, elastic step which was his when well, but in an aimless, lifeless manner.

During all this time his intellectual activities did not appear to be affected, except that he could not study so long or so closely as he could before he was shot without becoming confused.

In view of this case, I submit that philosophers, metaphysicians, and mental scientists outside of Phrenology will experience some difficulty in explaining how a man's intellect can remain unimpaired when one-third of his brain is destroyed, as was the case with Mr. Wright, as shown by the autopsy made immediately after his death.

Finding his dissolution approaching, he requested that a *post mortem* examination of his brain be made, which was done by Drs. Ball, Crouse, and others of Waterloo, and Dr. Robinson of Cedar Falls. It was found that the posterior lobe, the greater part of the middle lobe, and a small part of the anterior lobe of the left hemisphere of the cerebrum, had softened, a considerable quantity of matter being found in the fibrous part of the anterior lobe. The rest of the left hemisphere, and the greater part of the right, were very much inflamed. The indications were that the inflammation had spread from the region where the ball passed to the

convoluted surface of nearly the whole brain, causing it to soften in those parts near the wound. The aperture in the skull through which the ball had entered the brain was nearly closed, thus preventing the escape of pus as fast as it formed in the brain, and this, doubtless, was the immediate cause of his death.

A chronic ulcer of the brain is something rarely met with; but it is known that when there is a chronic ulcer on any part of the body, the blood sometimes carries foreign particles into the surrounding tissues, causing them to become inflamed, the degree of inflammation depending upon the size or quantity of the irritating substance. When the ulcer is closed so as to prevent the escape of matter, the inflammation spreads rapidly to the surrounding parts, and continues to spread until there is found some outlet of escape, or death supervenes. If the particles were carried into the surrounding brain tissue, in this instance they were very small, and the inflammation they produced could not affect anything but the parts in the immediate vicinity, until after the aperture in the skull had closed; and in this case, as the organs of Secretiveness, Destructiveness, Combativeness, Conjugal Love, Adhesiveness, Firmness, Approbativeness, Self-Esteem, and that part of the brain which presides over locomotion were nearest the wound, they would be those affected, if any. Philoprogenitiveness and Inhabitiveness were found to be very nearly destroyed in the left hemisphere, and doubtless were impaired in the right.

That inflammation would excite the brain to abnormal action is admitted by nearly all physiologists, and where the inflammation is great it may exert a general excitatory influence. In this

case, only the man's social, selfish, and animal propensities were affected—those which phrenologists locate in the vicinity of the wound as described.

As the ball lodged near the optic ganglia, I inquired if his eyes were in any manner affected, and was informed that the sight of his left eye had been impaired ever after the receipt of the wound—in fact, was nearly destroyed; but whether the ball had injured the fibers of the optic nerve before or after their decussation, or whether the loss of sight was the result of the shock of the other ball, I was unable to learn from the surgeons who made the examination.

Byron Wright was about five feet seven inches high, and weighed nearly 150 pounds when in health. His brain was massive, and the sulci between the convolutions extended nearly to the center of the brain, being the most remarkable in this respect of any ever seen by the physicians who examined it. His skull was of unusual thickness. His temperaments—mental, motive, and vital—were well balanced, and of a very high grade. That his vitality was exceedingly great is evidenced by his ability to walk across the street after being shot in the head twice.

LOREN E. CHURCHILL.

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THE WEATHER IN ALASKA.—Our semi-Arctic tributary experiences many peculiar phases of weather, among them strange darkness at daytime and strange light at night. A correspondent of the *Alaska Herald*, which, by the way, is published in San Francisco, thus vivaciously alludes to things meteorological in the neighborhood of Sitka:

“A late, blustering spring and an early, vigorous winter have this year in Alaska joined hands over a most backward summer. October 28th we had our first frost, and three days later snow covered Sitka

and surroundings. Now piles of flakes are on the ground to the tune of three feet on the level, and more is in the air, ready to come down and see. The thermometer has been down to one degree above zero, a degree of cold we did not enjoy at any time last winter. Vegetables did not do very well this year, for want of sun; but salmon has been plenty.

"Some four months ago we had no darkness at night; at 11 P. M. a newspaper could be read without artificial illumination. But changeful time gives variety. Two weeks more, and natural light will be

so scarce that lamps will be needed at any time excepting from nine o'clock A. M. till three o'clock P. M.

"The main pastime now, and for some five months to come, is skating, and that is indulged in by old and young at all hours of the day and night. The Indians slide along the glassy surface barefooted, and if they feel cold they stoutly deny the fact."

The hardy Indians are probably sincere in that denial, as their feet, accustomed to bareness, and toughened by constant exercise, are encased in a thick skin, that on the soles being very dense and calloused.

"CÆTERIS PARIBUS."

THE following anecdote and comments we think will interest the readers of the PHRENOLOGICAL. It is taken from a long-established, staid Boston paper of February 12, 1876:

"When the celebrated George Combe was in this country lecturing on his specialty, Phenology, he, on one occasion, made a convert and won an ally of a species whereof he was not proud. In a western city he had a hearer who was so struck with the lucidity of the lecturer that himself fancied he also could lecture, and at the same time turn a penny, on the same alleged science. In making his first appearance in his new character, he supposed he recollected the whole of Mr. Combe's statement, and that he was quoting it in its completeness, when he somewhat pompously began: 'Ladies and gentlemen, at the outset I give the Phrenological formula: *Cæteris Paribus* is the measure of power!' There happened to be in the audience a few to whom the Latin was not a stranger, and their derisive laughter at once told the other hearers and also the lecturer himself, that there was a mistake.

"It may not be amiss if we at once inform the 'unlearned reader' that '*cæteris paribus*' is the Latin for 'other things being equal.' Mr. Combe's point was this: The size of the brain, as the organ of mind, is not the only nor even the most important item to be taken into account. Quite

as much, even more, depends upon the quality of the brain—whether it be of fine or of coarse fiber; whether it is moved by a vigorous or a sluggish temperament; and whether it has the accompaniment of good or poor physical health; with yet other important conditions of strong mentality. Size does not alone determine the strength of wood. A twig of oak may have more tenacity than ten times its diameter in punk. But where all the conditions are equal—quality, temperament, health and so on, being the same—'Size' gives the 'measure of power.' Mr. Combe's putting of the formula was: '*Cæteris paribus*, Size is the measure of power.' His imitator was so struck with the Latin that he failed to note the item given in English!

"Yet even Mr. Combe would have said that if his quack imitator must make an omission from the formula, he could hardly have done better; for the English part thereof is really not so essential as that given in Latin. Observation not unfrequently shows that the proverb, 'Big head, little wit,' is a fact. And we may quote other epithets in proof that the common judgment sees the significance of the '*cæteris paribus*'—as, for example, that the man of silly utterances has a 'soft' head. Quality is often more than quantity, and in regard to brain it is frequently the chief consideration. And he who, in attempting the phrenological formula, should say, 'Size is

the measure of power,' would, in a majority of instances, blunder more than he whose mistake we have quoted, '*Cæteris paribus* is the measure of power.'"

Then the writer proceeds to apply the principles advanced to religious affairs, and uses language of so much phrenological point that we add the remainder of the article for the sake of the admonition it gives to all who are striving to educate and elevate people from the pulpit or lecture platform:

"Attention has recently been directed to the almost chronic disease of parishes in all denominations, in perpetually enunciating 'Size,' and in hardly noting the far more important '*Cæteris paribus*.' Has the congregation 'size?' has the church 'size?' has the conference 'size?' has the Sunday-school 'size?' If so, the millennium has come, and *Te deums* may be sung. It is about time that this atrocious folly were shown in its true character. We demand that the '*cæteris paribus*' shall at least have a chance. The 'other things'—what is preached, what the effect, the durability of the work, the question whether the size is in oak or punk, substance or froth, whether the reputable public looks on in sympathy or in derision—the time has come for pastors and parishes to give these matters profound and practical consideration. For the congregation of people, not less than for the congregation of 'bumps,' the formula is, '*Cæteris paribus*, Size is the measure of power;' and the 'other things being equal' should take its proper place at the head.

"Of one thing we make sure: no one who reads what we have here indited shall, with an honest conscience, understand us as making the size of the congregation, of the school, of the conference, of no account. When we say that a minister had better be a preacher to ten than a harlequin to a hundred, we are not saying that to preach to ten is as good success as *preaching* to a hundred. Provided the thing done is good, the degree of success is proportioned to the amount that is done. To Christianize a hundred is ten times greater success than to Christianize ten. To deny this, to affirm the contrary, is to talk as the fool talks.

"Hence we say: Making sure of the 'other things,' the next thing in order is 'Size.' Any gift of utterance; any magnetism of manner; any device of dignified rhetoric—a touch of Latin, if it is really to the point!—any ingenuity of statement, the thing stated being good and elevating; all the graces of the schools; the charm of voice—all these are commendable, and they who complain of them are either shallow or envious.

"We long to see the churches full, but to secure this end it is simply suicide to play the clown rather than *be* the minister of Christ. Only preach the Gospel, and so preach it that matter, manner, and impression shall savor of Christ and His righteousness, and you can not reach too many. '*Cæteris paribus*, Size is the measure of power.'"

THE MOON AND THE WEATHER.

ONE of the subscribers to the PHRENOLOGICAL has written to the editor thereof on two occasions asking his opinion with reference to the influence of the moon upon the weather, which we as residents associate on this planetary orb experience. The subscriber quotes the astronomer Herschel—not a very recent authority, to be sure—in support of his view that the phases of the moon exercise the important function of meteorological regulators. In answer to him we quote from a scientific writer in *Blackwood's Magazine*, who furnishes, we think, very substantial reasons *adversus* the moon theory:

"The notion that the moon exerts an influence on weather is so deeply rooted that, notwithstanding all the attacks which have been made against it since meteorology has been seriously studied, it continues to retain its hold upon us. And yet there never was a popular superstition more utterly without a basis than this one. If the moon did really possess any power over weather, that power could only be exercised in one of three ways—by reflection of the sun's rays, by attraction, or by emanation. No other form of action is conceivable. Now, as the brightest light of a full moon is never equal

in intensity or quantity to that which is reflected toward us by a white cloud on a summer day, it can scarcely be pretended that weather is affected by such a cause. That the moon does exert attraction on us is manifest—we see its working in the tides; but though it can move water, it is most unlikely that it can do the same to air, for the specific gravity of the atmosphere is so small that there is nothing to be attracted. Laplace calculated, indeed, that the joint attraction of the sun and moon together could not stir the atmosphere at a quicker rate than five miles a day. As for lunar emanations, not a sign of them has ever been discovered. The idea of an influence produced by the phases

of the moon is therefore based on no recognizable cause whatever. Furthermore, it is now distinctly shown that no variations at all really occur in weather at the moment of the changes of quarter any more than at other ordinary times. Since the establishment of meteorological stations all over the earth, it has been proved by millions of observations that there is no simultaneousness whatever between the supposed cause and the supposed effect. The whole story is a fancy and a superstition which has been handed down to us uncontrolled, and which we have accepted as true because our forefathers believed it. The moon exercises no more influence on weather than herrings do on the Government of Switzerland."

A NEW WORK ON PHYSIOLOGY.*

THE publishers having very courteously placed in our hand Dr. Flint's new and elaborate volume, we have deemed it our duty to make a careful examination, especially of those chapters in which are treated the parts of our organism which have received the special attention of learned anatomists.

We have selected and read the chapters on the blood and the lymphatics, as these are subjects which have been quite revolutionized by the labors of eminent investigators during the last decade, and we feel driven to the conclusion that if our author had used his microscope more, and had kept himself at all familiar with the strides of modern histologists, he would have written a better book. As the work stands, any student who relies upon its authority in this department will be at a great disadvantage, as many of the statements will be contradicted by the professor of histology whose lectures he may attend, always presuming that the said professor of histology is "posted" on everything which has oc-

curred for the last fifteen years in his department.

Let us instance a few examples. At page 5 we find our author explaining the change in the color of the blood from dark-blue to scarlet, and *vice versa*, by saying that it is due to the replacing of carbonic acid with oxygen, and the converse. Very true, Dr. Flint, but why does this result occur? Why should oxygen produce the scarlet tint, and carbonic acid the blue? Our author's only reason is the child's reason, "because it does." Is not the well-known change from concavity of form to convexity, under the influence of carbonic acid, and the resulting change of tint (as taught by Henle, Nasse, Harless, and others), a sufficient reason?

On page 13 we run suddenly against the astonishing statement that the blood-cells arise by genesis in the sanguineous blastema, and that they are generated *de novo* in the adult from the liquor sanguinis or blood plasma.

We have seen such statements in histologies written twenty years ago, but we did not expect to hear an "original investigator" in this year of grace, 1876, giving in his adhesion to any such ideas. If Dr. Flint had just awakened from a "Rip Van Winkle" sleep of a quarter of a century, he could scarcely do better justice to

* A Text-book on Human Physiology; designed for the use of practitioners and students of medicine. By Austin Flint, Jr., M. D., Professor of Physiology in the Bellevue Hospital Medical College, New York, Fellow of the New York Academy of Medicine, etc. Illustrated by three lithographic plates and three hundred wood-cuts. Svo.; pp. 978. New York: D. Appleton & Company.

the muddled state of his cerebral convolutions.

What, then, are the facts in regard to the original formation of blood-cells? The germ, at the very earliest period of life, is divided into three layers of cells, known as the corneous, the middle germinal, and the intestinal gland layers, so called from the fact that from the upper layer the hair, nails, and epithelium of the whole body arise; from the lower layer we have originating all the glandular structures of the whole digestive tract; while from the middle layer we have developed the whole connective-tissue group, including the muscles, the vascular and lymphatic systems, and the blood. The best histologists are agreed that the primary blood-cells are not related in any way to the later ones; that they are merely the familiar formative or embryonal cells, which subsequently differentiate, as we well know, into such widely different tissues. These cells appear much like the ordinary leucocytes which in after life are the parents of the red blood-cells. These embryo blood-cells multiply by division, thus evincing a high degree of protoplasmic activity; while, on the other hand, the adult red blood-cells exhibit neither motion nor multiplication in any form; so marked is this feature that Beale, one of the greatest living authorities, calls them "dead cells," believing that they are passing into a senescent state, preliminary to complete destruction. After the cell division ceases, the increase of the blood-cells is due to the transformation of leucocytes. It is only during the last twenty years that the labors of Stricker, Von Recklinghausen, Cohnheim, Waller, and Frey have rendered the origin of these cells much less obscure.

We now pass to consider Dr. Flint's views of the origin and destination of the white blood-cells or leucocytes. On page 14 a paragraph of four and a half lines occurs, which is all that we can find in the whole work describing that most wonderful process, the "diapedesis," or migration of the leucocytes from the blood-vessels, and their wandering out through the tissues. Our author devotes just ten words to it, viz.: "the migration of the corpuscles

which has lately been described." Cohnheim's original article was published in *Virchow's Archiv*, for September, 1866, and republished in English the following summer, so that we obtain a curious conception of Dr. Flint's ideas of time. Considering the late very progress of microscopic science, 1866 should be called a long time ago. Let us hope that on other points our author has heard of investigations later than 1867.

Late treatises on histology make no mystery of the origin of the leucocytes, since they are almost universally conceded to be the proliferated lymph-cells of the spleen, and lymphatic glands; and yet we find on page 15 the experiments of Onimus given at full length to prove the origin of the leucocytes from a "granular blastema."

These experiments have no weight whatever since our increase of knowledge with respect to the wonderful traveling abilities of those "vagabonds," the leucocytes. Modern text-books on histology scarcely take the trouble to even mention the ideas formerly entertained of the spontaneous formation of the leucocytes, so completely have recent researches refuted them.

At page 92 we find a formal statement of the phenomena observed with the microscope in transparent tissues in a state of irritation, but we notice no mention whatever of that most important phenomenon, the migration of the leucocytes. Does not our author know that this fact has been observed by hundreds of competent microscopists during the nine years since Cohnheim published his discovery, and that the fact is taught in all our medical colleges to-day as distinctly as any fact in histology?

Dr. Flint exhibits curious partiality in his authorities. For instance, Robin is quoted on almost every point, whether right or wrong, and a number of others, equally distinguished, among German scientists are rarely or never quoted at all. Does he read any scientific journals? and if so, does he not know, as almost everybody else does, that for every original investigator that France had produced, Germany has produced ten? Does he not know that most of the recent advances in science are due to German patience and steady labor?

In justice it is becoming to say that the new book contains much valuable information, but should not be taken as authority on all points, as has been shown. With regard to Phrenology, Dr. Flint has but little to say, and that little is expressed in less than a half-dozen lines. In fact, he snubs the whole thing, and that irrespective of the favorable testimony contributed by five or six of the most eminent European anat-

mists of the day. We would not assert his ignorance of the researches of Dr. Ecker, or of Hitzig, Broca, or of Ferrier in the anatomy of the brain. Certainly many of the facts which our author places among the things in human physiology invulnerable to hostile attack have no stronger physical data, and are not more fortified by sound logical deductions, than the principles of Phrenology.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.*—N. SIZER, *Associate.*

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WANTED, GOOD READING MATTER FOR
THE PEOPLE.

“OH, mamma, my Sunday-school book has fourteen pictures, and they're just splendid!” was the exclamation of a little seven-year-old boy, as he burst into his mother's apartment one Sunday afternoon lately. A very intelligent little fellow he is, and fond of reading little-stories, but he is a type of the average boy in his fondness for pictures; a fondness which is promoted by the growing interest in art which American culture exhibits, and especially by the rage for illustration which dominates in the common literature of the day. Were the disposition of those who furnish the miscellaneous reading of the masses in the direction of the chaste, true, and beautiful, we should heartily encourage their activity; but we regret to say that but few

of the many who publish for the million are actuated by any other apparent wish than to get money by pandering to the low, sensual appetites of raw youth and uncultivated, or rather impure, adults.

The news-stands are loaded with cheap periodicals, weeklies and monthlies, and books whose reading-matter is not only senseless and absurd, but abounding in immoralities, either covert or bold, and whose illustrations are either disgraceful to good taste or suggestive of impurity.

Some books, written by authors of repute and largely circulated, bear the marks of having been written for the purpose of winning favor in behalf of views of questions in social morality which refined intelligence has been accustomed to condemn at first sight. Witness “Griffith Gaunt,” and the flood of like books which it introduced. The associations for the suppression of bad literature can only operate against that which is manifestly indecent, and that they are doing a work of inestimable value it must be admitted. The thousand books and papers which insidiously plant bad seed in young minds are in far too many cases brought home by fathers and mothers, who exercise little or no thought in their selection beyond the desire to read “a good story,” or to have a laugh over the funny pictures.

We would not be so unjust as to say that the literature furnished by the Sunday-

schools is pernicious. Not at all; for we know that its character is in general select and high-toned, and the best which our children at large can obtain. But now and then a writer of books for children, having in direct view the inculcation of virtuous conduct, will be careless and drop a baneful seed. We were looking through a pleasant little book one evening, when in the most attractive part we found that the conduct of the hero was in some respects a really earnest tribute of honor to the use of tobacco. The author of that book is a lady, and one who can not be indicted for intentionally aiding or abetting the harmful habit mentioned. Nevertheless, in her illustrations of the importance of practical benevolence she was careless enough to sanction tobacco-using. The bright boy whose father smokes would read that part of the book and glean an argument from it that father is right in his smoking.

So far as the moral instruction of children is concerned, we can not be too solicitous in the prescription of their reading and society. While it is right to supply material for the indulgence of the imagination, such material should be of a healthful character, not the trashy, empty, sensational sort which engenders an unnatural taste for novel reading.

There are certain story papers which circulate hundreds of thousands each, their readers being chiefly the youth of both sexes in our large cities who earn their living in stores, sewing-rooms, and factories. The literature is of the cheapest sort, remarkable for its extravagance of language and marvelousness of incident, and equally remarkable for its want of truth and practicality. By it the uncultivated, inexperienced minds of the young readers are inflated, their imaginations kept ever on the stretch, and their perception of the utilities

of life blurred and distorted. Such publications are, indeed, "sowing the seeds of intellectual and moral maladies," which will send many of the readers, when larger grown, to the ways of vice and crime.

Can we suggest a remedy? The only one we know at the present stage of legislative and social development is the conversion of the men who publish such literature to rational views of duty and honor. Only let such men be cured of the mania for making money by any available methods, and drawn to look upon life as a sphere for the exercise of their best powers, moral and social as well as intellectual and selfish; that they are bound to act according to their opportunity for the improvement, development, and happiness of their fellows; and that in so doing they will secure for themselves true honor and lasting joy, and the end will be attained of a purified literature.

BRIGHT STARS FALLING.

SINCE our last number went to press three bright, particular stars have fallen from our firmament. Possibly it would have been a better figure to say that three ripe clusters of fruit had been gathered into the great garner-house. The first of these was the Hon. Reverdy Johnson, a lawyer of more than national reputation, a fine scholar, a man of integrity, of eminent attainment, and well-balanced moral and intellectual judgment. He had reached the ripe age of eighty years, or would have done so on the twenty-first of May next. The various eminent positions which he had been called to fill, such as Attorney-General of the United States, Minister to England, and counsel in some of the most important national questions which have been adjudicated within the last thirty years, tell of the strength of his

intellect, and of the uprightness of his character. Not yet laid aside, but still active in the duties of his profession, he died, it is supposed, from the effects of a fall which might have occurred to a man thirty years younger than he. He died at the house of Governor Carroll, at Annapolis, Maryland, in February, while on a visit to the capital of the State to argue a case before its Supreme Court.

Rev. Dr. Bushnell, of Hartford, Conn., whose fame, through his literary and theological works, has more than filled his native land, was called to his reward in the same month. He had all his life been an invalid, and had more or less trouble with his lungs, yet being endowed with remarkable tenacity of constitution and great working power, with a large, sensitive, and active brain, he worked under the protest of physicians and the monitions of his own consciousness the greater part of his life. Nearly thirty years ago, warned by bronchial affection that he must retire from his pastorate of the North Church at Hartford, he offered his resignation, but his church, with commendable magnanimity and justice, declined to accept his resignation, and voted to continue his salary, and grant him an indefinite leave of absence, insisting that he was still their pastor, and when restored to health his place would be ready for him. He went to California, we think, in 1848, but found the climate unsuited to his bronchial difficulty, after which he spent a winter in Minnesota, recovering his wonted health, and returning to his pulpit in his beloved "North Church," resumed his duties, and continued there for many years longer.

He was a public benefactor, and did much for the welfare of Hartford. Since his death it has been resolved to name the new park Bushell Park, in consideration

of the high respect entertained for him, and of his influence and effort in procuring the park to be established.

Miss Charlotte Cushman, the Webster among American women, died in Boston, also in February, sincerely mourned by the people of her native city, and by the many thousands who have listened to her wonderful impersonations of character on the dramatic stage. Though she was an eminent member of her profession, and surrounded by numerous temptations, she maintained her reputation, we believe, unblemished and unquestioned. She was blessed with a majestic presence, and had a brow of authority. Her great, generous, penetrating eyes, full of soul and sentiment, made a stranger stop and stare, and inquire who could be their owner. To those who enjoyed the confidence of her friendship, her character was rich and her influence great.

When she selected her burial place, eighteen months ago, she did not look for a position among the great, but inquiring if there were some spot from which a good view of Boston could be had, and when shown such a place, she stood upon the ground and said: "Let me be buried here, in sight of dear old Boston." The place was secured to her, and she rests in sight of the city she loved so well.

EXPENSIVENESS OF WAR.—"The Duke of Gloucester says that an 81-ton gun costs £15,000, and every shot fired from it costs £25."—*Ex.*

This mere pecuniary estimate, though it be great, is very far from expressing adequately the cost of manufacturing war material to a nation. If we consider the time expended by the skilled operatives who prepare the materials and cast and mold into symmetrical shape the great cannon and the pon-

derous shot, how usefully it might be employed in ways beneficial to society, and contribute to the development of the resources of the State, and increase the material and moral wealth of the people, it can scarcely be regarded otherwise than in the light of a loss or waste.

Those great guns are intended for purposes of war, defensive or offensive—for purposes of destruction. Hasten the time when civilized, enlightened men shall bend all their powers in exercising the arts of peace, and leave bloody controversies to unreasoning brutes.

TROUBLE AT THE WHITE HOUSE.

THE frauds in the liquor traffic which Secretary Bristow's energy unvailed have occupied much of the attention of the public and of the law officers of the United States during the past two or three months. Unfortunately the investigations developed relations of an apparently unfavorable character existing between Gen. Babcock, the President's private secretary, and some of the leading operators in "crooked whiskey." The matter is a good deal mixed up, and the press, especially of the anti-administration stripe, have found in it most available material for political hectoring and diatribe, according to their taste. It is said that the President, having full confidence in his secretary's innocence of any illicit motives in whatever may have been his connection with the revenue jumpers, went to considerable trouble in the hope of clearing him, but, on the other hand, joins cordially with the Secretary of the Treasury in the prosecution of the real criminals. The acquittal of Babcock by the St. Louis court, after a trial of fourteen days, was hailed with much satisfaction by all who entertain a true respect for the dignity and integrity of high official positions. We re-

gret, as doubtless all good citizens do, that Gen. Babcock should have been indiscreet enough to lend his name for any purpose to the villains whose guilt has found them out.

Again, the recent revelations concerning the corruption of Mr. Belknap, Secretary of War, startled the country and awakened grave suspicions with respect to the integrity of any official, however important his trust. It must be admitted that high office carries with it great temptation, but competency to meet the duties of high office should comprehend that severe rectitude which scorns the slightest dishonorable approach. It moves us to pity one in the place of Mr. Belknap, whose only apparent pretext for his acceptance of bribes was the insufficiency of his salary to meet the expenses of his admitted costly style of living. We pity him for his weakness, but we can not excuse his crime against the nation. It would have been creditable to him had he retired from office on the discovery of the inadequacy of his salary, and acted the part of an honest man. Now, he is covered with shame, the cloud of which will remain upon him through life.

The *Daily Bulletin*, of this city, says that President Grant has suffered many things of late through the indiscretions or misfortunes of friends and relations. "Some of these misdoings were trivial, all of them foolish, and some of them important and disgraceful. He intrusted a very large part of his property, which is not near as great as people think it is, to one of his esteemed relatives, and the doings of his friend so intrusted almost threw him into bankruptcy. He does not live in the style he did, nor go into any extravagancies, because his salary is monthly used to help pay up debts that his friend contracted for him."

By this it would appear that the President is a man who "believes in" his friends,

a quality which is certainly not to his discredit. But if the above statements are true, it must be said that the President has not shown much sagacity in his choice of friends to do business for him. Can it be that his cigar smoke dims his naturally acute mental vision?

AN IMPORTANT STATUTORY NEED.

VERY frequently, in fact nearly every week, we read of cases of "accidental shooting, in which the shooter playfully pointed a pistol or a gun at a companion, and "unexpectedly" the weapon "went off," and killed or seriously wounded the companion. Of course, the careless inflicter of such damage "didn't mean to," or "didn't know" that the weapon was loaded, but how small the consolation such a snivelling plea affords the bereaved or the injured.

Without more than passing allusion to the daily shootings of a deliberate character, which occupy so much space in the criminal reports of our newspapers, we think that the cases of "accidental" murder are numerous enough to warrant people who love order and propriety, and are anxious to promote the arts of peace, to demand from our Legislatures severe regulations for the use of deadly weapons. As matters now are in hundreds of families, a loaded gun or pistol is kept in places where children can have access to it. We have known the little boy of a neighbor, who kept a pistol at home for the protection of his house against burglars, bring out and parade "papa's gun" for the delectation of his child visitors. No person should be permitted to carry a deadly weapon of any kind concealed upon his person, except for police duty or for other reasons which might be defined by a special license. We are quite sure that no person outside of the

rough and brutal class would offer objection to a statute of the kind, while, on the contrary, all law-abiding citizens would gladly hail its adoption as the dawn of a new era when, in our business or our pleasure, we should be no longer liable to the insult or intimidation of the ruffians who stalk through the streets of our cities and boast their armed superiority over the peaceful.

The mere fact that such a law would tend to reduce greatly the number of deeds of blood, is a sufficient reason for its establishment; and predominant among its provisions should be one relative to the keeping of firearms at home, which should direct that they be placed out of the reach of children and of those without experience in their use. We think that such a law would simplify vastly the work of our criminal courts, since the infliction of violence by the use of firearms would subject an offender to the inference that he carried a weapon for the purpose of inflicting damage upon another.

RELIGION AND TEMPERANCE.

IS not this year an excellent time for temperance men and women to organize a grand movement throughout the country? Revivals of religion are in progress at very many different points, and attended, it is claimed, with much success. Why not associate with them the great cause of moral and physical reform which the temperance movement embodies? For our own part, we can not understand on grounds logical or ethical how the promoters of religious awakenings can consistently leave the temperance matter out of their field of effort; and yet they do it. As we understand practical religion, it is a moral influence which penetrates within the most essential part of man, and its reform affects the whole

organization, giving one the disposition and the strength to form new and good habits, and to overcome his selfish and sensual propensities. Being "in Christ," or really "converted," is, according to the Apostolic interpretation, to become "a new creature," the "old man with its affections and lusts" being "crucified." This last strong word doubtless means that our customary improprieties and vicious habits must be suspended even at the cost of great suffering, otherwise the condition of the "new creature," with its moral and physical purity, can not be attained.

We have known, and do know, men who have been received into church membership, after the usual profession of conversion, who nevertheless continued their old use of strong liquors and of tobacco. Of the intelligence of these men we could not doubt. They knew the pernicious effects of alcohol and tobacco; and as professing Christians they could not escape the obligations of walking uprightly, and as examples worthy of their religious claims.

It is a fact at once painful and disgraceful to Christian society that the ministry is in general reluctant to preach the gospel of temperance or abstinence from indulgence in such manifestly destructive things as alcohol and tobacco. Should one-half of the twelve or fifteen thousand "devoted" to the proclamation of truth and righteousness in this country make an earnest effort, each in his own parish, to stem the tide of intemperance and vice flowing from the liquor and tobacco practice, we would witness a revival of decency and sobriety which would furnish the people a genuine foretaste of the Millennium.

So long as people hug pet vices of any kind to their hearts, so long will there be a lack of true moral integrity in their lives. Oh, for some Moses to arise in the plenitude of moral and intellectual conviction, and awaken the people as by a thunderclap to a sense of their duty in this matter, and so bring about a revival of purity and fraternal love which shall bless man with immortal fruits!

AGRICULTURAL HINTS.

Needless Inconveniences.—W. B. writes in the *Country Gentleman* on such absurdities, and we wonder, as we read, whether there is much practical *common sense* among us, after all our boast of progress.

"Any person possessed of ordinary powers of observation can not fail to discover a great deal of unnecessary work, which, by a little forethought, might be dispensed with. I do not now speak of those who fail to provide themselves with proper implements for doing work, and in this way waste time enough each year to more than replace them with the best and most approved patterns. I intend to speak of inconveniences, some of which exist on almost every farm. All are said to have their failures in some particular, no matter how well arranged their business may be as a whole. I have seen premises

apparently well ordered otherwise which were provided with neither post or hook where a visitor could hitch a horse. Not one in a hundred is provided with a horse-shed. I know an old man, now four score, who has always drawn his manure and produce through a deep slough, between his barn and field. Ten dollars expended in labor would have made a good road. The saving in a single year would have more than repaid the outlay, to say nothing of the increased comfort of all concerned. A neighbor has for years drawn his hay on wood wagons which would not carry more than half a load. The extra time wasted in loading and unloading every year would furnish good and convenient hay-racks.

"I knew a man who drew all the water for his stock in a leaky milk-can attached to a

rope. More than half the water escaped before reaching the trough. I once knew a whole neighborhood that depended on one long cart, which went the rounds as each one hauled out manure, or did any work which required a cart to be tilted. I have walked hundreds of miles out of my way, when tired, to cross a stream which lay between the house and pasture. We afterward bridged it at a very few dollars' expense. I have known a whole highway district to turn out for years to avoid a stone, which has since been removed at an expense of only eight cents. These are only a few of the marked instances which have come under my observation. No one can fail in looking about him to detect a multitude of similar cases. Although each may be only a trifle in itself, the aggregate is enormous.

Hygienic Culture.—A correspondent of the *New England Farmer* tells how he eradicates weeds, and we copy him to show the results of vegetable fertilization. The experience will doubtless please some of our readers: "Some fifteen years ago I turned up an acre of rich land and sowed it in the proper season with rye. It came up perfectly well, and promised a good crop. In the spring it looked very flourishing, but there soon appeared multitudes of weeds, which continued to flourish till, at the time for harvest, they were much more conspicuous than the rye. After threshing, the straw, which I valued more than the grain, sold very ill, hardly at half the usual price in Boston. The rye itself was full of seeds, many of which refused to be separated by the winnowing. I determined to avoid this evil if I could; so I plowed up an acre, next to that which had served me so ill, let it be until next spring, and waited until a rich crop of weeds sprang up, which, when they were five or six inches high, I plowed in, and waited till another crop of somewhat later weeds were in the same condition; these were plowed in, and afterward a third crop of the latest weeds was served in the same manner. It was then sown with rye, and produced the cleanest and most beautiful and luxuriant crop I had ever seen. I have no doubt that the three crops of weeds did the land more good than an ample covering of barn manure would have done. The same course essentially pursued since has been equally successful. My crop of rye this season was the best and largest I have ever had, and the straw was the best—perfectly clean."

The Independent Farmer.

How pleasant it seems to live on a farm,
Where Nature's so gaudily dressed,
And sit 'neath the shade of the old locust tree,
As the sun is just sinking to rest;
But not half so pleasant to hoe in the field,
Where the witch-grass is six inches high,
With the hot scorching sun pouring down on
your back—

Seems each moment as though he would die!

How pleasant to sit in the cool porch door,
While you gaze, half reclined at your ease,
Half asleep, o'er your beautiful field of grass
As it sways to and fro in the breeze;
But not quite so pleasant to start with your
scythe,
Ere the morning sun smiles o'er the land,
And work till your clothes are completely wet
through,
And blisters cover your hands.

In keeping a dairy there's surely delight;
And it speaks of contentment and plenty,
To see a large stable well filled with choice cows,
Say numbering fifteen to twenty;
And yet it seems hard when you've worked from
the dawn

Till the sun disappears from your sight,
To think of the cows you have yet got to milk
Before you retire for the night.

But the task fairly over you cheer up once more,
And joyfully seek your repose,
To dream of the cream-pots with luxury filled,
And milk-pans in numberless rows;
But the sweet dream is broken when early next
day

You're politely requested to churn,
And for three weary hours, with strength ebbing
fast,

The victim despondingly turns!

But no one disputes that the farmer is blessed
With true independence and labor,
Whose food don't depend on the whims of man-
kind,

Like that of his mercantile neighbor.

For God in His mercy looks down from above
And patiently gives him his bread,
Provided he works eighteen hours every day,
And devotes only six to his bed.

HENRY W. HERBERT.

The Potato-Bug Again.—To THE EDITORS OF THE PHRENOLOGICAL JOURNAL: The communication of "Jennie Jones" in the department of Agricultural Hints of your number for January, states some things concerning fighting the potato-bug as unquestioned facts. They may be facts, but they are not unquestioned. She recommends the

use of Paris-green, and says "do not be afraid to use it," and that she has never known its proving injurious to anything else. Now, my neighbor lost almost his entire flock of hens and chickens last summer—over forty of them dying suddenly one day—from Paris-green, he thinks, and he is probably right, applied to potatoes in the way Jennie Jones recommends.

We know that Paris-green is one of the most deadly of poisons; and we have reason to believe that bugs which had been killed by it could not be healthy diet for hens or other birds. Some say hens will not eat the bugs, while some say they will. Probably the truth is that hens will not eat them if they can get food which they like better, but will eat them if starved to it; but we know that hens will eat flour, and where Paris-green is applied mixed with flour it seems reasonable to suppose that hens might get poisoned by it. Some apply the poison mixed with water—say a teaspoonful to a gallon—using a watering-pot. The pot should have a nozzle with a great many extremely small holes, so that the water may be distributed over the vines in the finest possible drizzle.

Many doubt whether potatoes can be healthy when so deadly a poison has been applied to the vines. This feeling is so general that my neighbor, a widow, who is not afraid of hard work, gets an extra price for her potatoes because she keeps the bugs off by hand instead of using Paris-green.

I am inclined to think that, with the small quantity of poison used, the potatoes are not absolutely poisonous; but the poison injures the vines; if used a little too strong it kills every leaf it touches—and poisoned, half-killed vines can not perfect good, mealy potatoes. The constant handling of vines necessary to keep the bugs in subjection, for they must be gone over every day, or, at most, every other day, also injures the vines to some extent, I think so much as to injure the quality of the potatoes. At any rate, I have not seen a really nice, mealy potato in either of the seasons when bugs have been the most plenty.

In the season just passed bugs were not so plenty as they have been before. We hope the nuisance is permanently abated; but we fear that they were fewer only because we had very unusually heavy showers in June, which may have drowned them out.

JEFFERSON, Wis.

c.

Relative Value of Manure.—The Oneida Community's farmer has been experimenting on sweet corn with different fertilizing composts. He used sixty cents' worth each of thirteen sorts, and a few other kinds, as follows:

Earth Closet manure, four barrels.....	costing 80 cts.
Coal ashes, a small load.....	cost nothing.
Sulphate of iron.....	" "
Plaster.....	" "
No manure.....	" "

Allowing him to give his own account of their application and its results, each separate parcel of manure was applied to the hills of two rows of sweet corn that extended through the middle of a field, and the kinds of manure used were indicated by stakes at one end of the rows. The corn was used for canning, and was weighed with the husks on the ear at the time it was picked and drawn from the field. The following table gives the results:

<i>Fertilizer.</i>	<i>Lbs. of</i>	<i>Lbs. of</i>
	<i>Excess.</i>	<i>Gain.</i>
Home-made superphosphate of lime.....	265%	76%
80 per cent. German potash.....	248	58%
Boston animal fertilizer.....	244%	55
Hen manure.....	212%	122%
Lister's superphosphate.....	156%	24 loss.
" bone meal.....	229%	50
" bone flour.....	276%	89%
" ground bone.....	269	79%
" dissolved bone.....	179%	10 loss.
Ashes.....	212%	23%
Home-made superphosphate and		
ashes.....	233%	44
German potash and hen manure.....	177%	8
Earth Closet manure.....	338%	138%
Ashes and hen manure.....	275%	86
Coal ashes.....	211%	22
Sulphate of iron.....	173	16% loss.
Plaster.....	200%	10%
No manure.....	188%	

At the time of planting, such of the fertilizers as were supposed to be injurious when in immediate contact with the seed were thoroughly mixed with the soil. The home-made superphosphate was bought in the form of sugar refiners' bone black and sulphuric acid, and the two ingredients afterward combined. It was claimed that this phosphate operated best in immediate contact with the seed; and the seed was planted in that way, and no bad results followed. But in planting the Lister superphosphate in the same way, the seed nearly all rotted, and the small yield that the table shows came from the second planting.

Beyond any sort of doubt, seeds soaked in weak camphor-water will sprout and grow vigorously, when the same seeds, not thus treated, will refuse to show any signs whatever of vitality.

Our Mentorial Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

REFLEX ACTION.—"Dr. Hammond, of New York, states that if the entire brain of a frog be removed, the animal will continue to perform those functions immediately connected with the maintenance of life. If the web of the foot be pinched, the limb is immediately withdrawn; if one foot be held with a pair of forceps, the animal endeavors to draw it away; if unsuccessful, it places the other foot against the instrument and pushes against it convulsively. Also he states that a man decapitated a rattlesnake with his whip and stooped down to examine it, when he received a blow from it full in the forehead. Is this true?"

Ans. The spinal and other ganglia which consist of brain matter, and are distributed in different parts of the system, are amply capable of producing for a short time muscular movements, and may even secrete urine, and digest food as long as the heart continues to supply blood to the organism; and the lower forms of animal life, the turtle, the frog, and most of the snakes, exhibit continued life and a kind of physical sensation after the head has been taken off for hours. Remember that insects and all worms have little or no brain, and depend upon their ganglia almost entirely for the operation of their different functions.

ALIMENTIVENESS IN DRUNKARDS.—"If it be a fact that exercising an organ enlarges it, why is it that so many drunkards have the organ of Alimentiveness moderately developed?"

Ans. Alimentiveness is not necessarily the foundation of using alcoholic liquors, arsenic, or opium, for none of these articles are supposed to taste good, or to be addressed to the gustatory

sense. Men sweeten and dilute liquor to make it passable. The stimulus and excitement work on the nervous system, and the habit of drinking or craving drink or opium or tobacco, does not reside in Alimentiveness, but in a perverted condition of the nervous system; nine out of ten of those who learn to drink, or to use opium, or arsenic, do not do it from appetite or natural inclination, but as the result of habit; and when the habit is fastened upon the nervous system, it is a disease of that system, and not merely the strength of Alimentiveness. That organ is given for healthful food and normal drink, while those articles we mentioned are unhealthy, abnormal, and poisonous.

CONSTRUCTIVENESS.—"Does the organ of Constructiveness appear to occupy a different position in different brains, and, if so, what is the reason?"

Ans. In one sense we can say, Yes, and in another we would say, No. The German head is broad and round; the Scotch head is long and less broad; the African head is shaped very differently from that of the Indian; and these differences in the constitutional form of the head make differences in the relative position of the organs. A full explanation of this topic would require a great deal of talk and illustration, and the solution of all such problems can only be found in a course of study, or in a course of instruction in theoretical and practical Phrenology.

HOW TO FIND ORGANS.—"What is the best means for ascertaining the relative size of the organs of Asceticism, Hope, Spirituality, and Imitation?"

Ans. This would require half a dozen illustrative engravings, and two or three pages in the JOURNAL to explain it to one who was not familiar with Phrenology. We can only say in this place generally that the elevation and fullness of the top-head indicate development of that range of organs; and where the head is sloping on each side, or low and pinched all through the top, the moral organs are small or moderately developed.

CULTURE OF LANGUAGE.—"Please inform me whether novel-reading is better adapted to cultivate Language than any other kind of reading?"

Ans. We think not, so far as mere culture of lingual expression is concerned; yet the interest which the majority of people take in reading works of fiction is one important feature in the

improvement of Language. It were better for one to read the works of the best authors, and in connection with such reading to use the dictionary and standard text-books on logic and rhetoric, referring to the latter for whatever difficulty may arise in the course of the reading of the former. Such a method would conduce to substantial mental improvement. A person would thus be benefited generally; his Language would not only be developed, but he would acquire a good deal of useful information.

AGENCY.—J. F. B. — Yes, we will give you an agency for the sale of our magazines and books. We are desirous of engaging the services and good-will of all earnest friends in the cause of mental and physical reform.

LEAP-YEAR. — “Why was it, and when was it that the ladies were accorded the privilege of men in engaging company during leap-year?”

Ans. The extra day which is required to be added to the year once in four years, to make the years keep even pace with the journey of the earth around the sun, is an odd fragment, and man in his magnanimity, wishing to do a generous thing, sportively gave woman the privilege of making advances in love matters one year in four, or as often as the odd day was added to the year. The talk of ladies' rights in leap-year is only a matter of fun. It may really embrace an important fact that one quarter of all the matches are brought about by woman's management. If women were openly recognized in the privilege of taking the initiative in this matter, many a good but bashful young man would get a better wife than he now does, because woman's intuition would perceive his merit and seek to win him; while now he dare not venture a worthy conquest, but often takes up with one who is his inferior. Let the ladies take the hint during this Centennial year, and use their leap-year freedom as their hearts may direct. We speak unselfishly, one lady having already secured the fortune in us.

BLIND PHRENOLOGIST.—We can not give you any special information with regard to the person mentioned. We are positive, however, that he is not a graduate of the Institute, and if he claims to be such is entitled to little credit.



PHRENOLOGY VERSUS BUMPOLGY.—Many people are led to deny the truth of Phrenology from a superficial view of the subject. Half knowledge is rather worse than no knowledge at all. Merely to know that certain parts

of the brain are said to correspond to certain functions of the mind, is liable to mislead. Men learn that phrenologists think a large head to be indicative of much brain, and, consequently, of much mind; yet they see many big-headed fools. They know it is claimed that a large development in certain regions of the brain gives great mental powers; yet they know many who have these developments, but who have not the mentality which they are supposed to indicate. They know the claim that a large development of the base gives strong propensities, while a full top-head tends to make a man religious; yet they find people with heavy-based brains whose lives seem to contradict the phrenological doctrine, while many a graceless, Godless wretch has a fine show of the moral organs. They become perplexed, and know not what to think; and often, in a state of desperation, declare that Phrenology is untrue.

Now, the great trouble with these people is, that they have managed to gather the bare outlines of Phrenology, and have not learned enough to know the difference between Phrenology and Bumpology. The latter is an intermediate stage between no knowledge and a full knowledge of the science; and it is a dangerous point at which to stop. It has made more skeptics in, than converts to, Phrenology. The bumpologist pays little or no attention to the *relation* of the organs, or to the *quality* of the brain, as indicated by the expression of the countenance and by that indescribable something which all practiced eyes readily recognize, but for which no appropriate name can be given. He demands that every “bump” do thus and so, regardless of what its neighbor development may be doing; and if it fail to comply, he has strong evidence that Phrenology is a delusion.

We have ourselves seen heads that would look well in plaster, heads almost ideal in outline, with the organs apparently all full, and the reasoning and moral faculties apparently well developed, that, nevertheless, were carried by people who were considered anything but moral and intellectual. We confess to having been much puzzled by these seeming contradictions in our earlier acquaintance with Phrenology, or, rather, when we had gained a little proficiency in mere Bumpology. But, as time has worn on, and we have become better acquainted with the subject as we have studied more carefully, learned the true principles of brain growth, and observed more closely, these difficulties have disappeared. We have learned that *quality*, as well as *quantity*, is recognized by the true scientist; that the *expression*, as well as the shape of the head, must be taken into account in determining the quality and bent of the mind; that the eye, the lip, the every feature, speaks in a language that must not be misunderstood.

It is true that a poetic head does not always

evolve metrical beauties, nor does Phrenology claim that it will. It is true that the man of apparently murderous combination does not always stain his hand with blood, nor does Phrenology claim that he must. It is true that of two men, he of the less striking developments may win the greater distinction, and achieve the greater work; nor does Phrenology deny him the possibility. Phrenology claims to show the *tendency* of the mind; it claims to tell not what a man has done or will do, but, rather, what he *may* do. It points out a man's developments, and says, "This man will naturally follow this, that, or the other path;" but it does not say that he is necessarily a poet, a preacher, or a murderer. It tells what the man *is*, naturally, not what he is as seen of men. "Bumpology" claims too much, and hence the proper disrepute into which it has brought the science of Phrenology among those who have not taken the trouble to learn the difference. Bumpology recognizes merely the outlines, the bumps and protuberances, and makes nine blunders to one correct delineation. Phrenology, which is based upon anatomy and physiology, recognizes *everything* in man's organization, and reads him accordingly.

— E. T. BUSH.

HISTORY IN LETTER-WRITING.—Show me a letter which you have written to an old associate, and I will describe his character, and tell you what has been your intercourse with him. When you take up your pen to write to him, you will begin to feel as you did in his society. If he be a man of God, a man whose every word is the outbreathing of his higher nature, a man who labors faithfully to save souls—a man whose life is always consistent, how does your higher nature receive a fresh impetus, how do you forget all sensual things!

Take up your pen to write to one whose every conversation with you is on things worldly and sensual, and, no matter how high and holy have been your thoughts, or what ecstasy you feel in contemplating the universe of God, your mind must come down to the level of his. He can not understand the beautiful thoughts which such feelings would inspire, and you must think and write what will please him.

Write to a half-witted fellow, and you will not write much that is sensible; write to an intellectual man, and you will not write nonsense. Write to one with whom you often walked in the shady woods or by the roaring river, one with whom you were wont to saunter forth at dawn of day or when the sun was setting "behind the western hills," to gaze on the beauties of nature, and watch with admiration the changing color of the many-tinted clouds, beholding God in His works, and lifting your hearts in adoration of Him, and you will, consciously or unconsciously, so fill your letter with the spirit of

those rambles that men may read it in the story of your intercourse with him, and, thus learning the bent of his mind, see in him the worshiper of nature.

Write to a man with whom you often loitered through the street, loafed in grog-shops, laughed, drank, and gambled there, and your letter will indicate something of those spiritless walks, and will almost exhale the stench of those vile dens. You can not wholly erase those scenes from your memory; you can not be wholly free from their influence; you can not wholly remove their penciling from your face, and you can not wholly remove their stain from your soul. No more can you, though you may not refer in words to them, keep their impress out of your letter. So it will be an index to your friend's character, a key to the history of your life with him, and a witness against you both.

— W. E. C.

A GOOD WORD AND WORK.—A correspondent writes: "I have the 'Student's Set,' which I sent for a year or so ago, and which I have read and find to be all that it is claimed to be. I would not part with it now for twice the money it cost me. It is amusing to watch the expression on the faces of my neighbors, who never saw anything like it before when I show them the bust or model head which came with the 'Student's Set.' Some of these people admire it, and profess a desire to study the subject. There are some, however, who sneer, and ask, 'What do you do with Phrenology?' It may never be worth a dime in mere money to me, but who can compute the inestimable good it may secure for me in mind and body. Like a pebble dropped in water, where wave after wave circles and widens to the shore, so is the influence for good of the seed disseminated by phrenological teachings. Take away Phrenology, and the rays emanating from it, a darkness is left thick enough to cut. It may be encouraging for you to know that away out in West Missouri, in an old farm-house that has stood there for nearly half a century, there are hearts that swell at reading the speeches of the teachers and students of the Eleventh Class, recently graduated at your Institute. May God prosper you and them. The work you have undertaken is of Him, and must increase.

MUST HAVE IT.—A school teacher of York County, Pennsylvania, who is a good one, if his penmanship and English afford material for judgment, thus expresses his opinion. The italics are his:

Do not fail to send me the November number of the PHRENOLOGICAL. I can't afford to be without it. My profession is teaching, and I find your JOURNAL among the most valuable (if not *the most valuable*) of all the periodicals I read. In fourteen years' experience as teacher I have found it *invariably* true that those teachers who read the PHRENOLOGICAL JOURNAL are *the most successful* instructors.

A. W. G.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

GOOD manners are a part of good morals.—
Whately.

WHEN money makes the man, the loss of it
unmans him.

WHO has no inward beauty, none perceives,
though all around be beautiful.—*Dana.*

IN their intercourse with the world people
should not take words as so much genuine coin
or standard metal, but merely as counters that
people play with.—*Douglas Jerrold.*

WE must not hastily conclude it winter in the
soul, though the heaven be lowering, provided
the earth be fruitful, provided the seemingly de-
serted soul bring forth fruit with perseverance.
—*Boyle.*

HARD, horny hands, embrowed by the sun and
roughened by labor, are more honorable than
white ones that never reached out to help a fel-
low-creature, or added a dollar to the world's
wealth.

THE Divine mind is the ocean from which all
truth originally springs, and to which it ulti-
mately returns. To trace out the shores of that
shoreless sea, to measure its measureless extent,
and to fathom its unfathomable depths, will be
the noble and joyous work of eternal ages.—
Hitchcock.

TRUTH has her pleasure-grounds, her haunts of
ease

And easy contemplation—gay parterres
And labyrinthine walks, her sunny glades
And shady groves, for recreation framed.

—*Wordsworth.*

PRESENTLY a smile of ineffable sweetness
spread itself over his pale face, and then he said,
quietly, and with an expression of relief, "Let
us cross over the river, and rest under the shade
of the trees."—*Death of "Stonewall" Jackson.*

PERSEVERANCE will obtain good cabbage and
lettuce, where otherwise nothing but thistles
will grow.—*Dutch Proverb.*

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

A LITTLE girl studying geography suddenly
exclaimed, "I wouldn't like to live in Africa,
because the people live in A-shantee."

A BROTHER and sister were invited out.
"Now, Ben, don't take a piece of everything
that is passed you; it ain't genteel." The first
course was bread and meat. Ben partook. The
second, butter. Ben concluded it time to re-
fuse. "No, thank ye."

A PROFESSOR asked his class: "What is the
aurora?" A student, scratching his head, re-
plied: "Well, Professor, I did know, but I have
forgotten." "Well, that is sad, very sad," re-
joined the professor. "The only man in the
world that ever knew has forgotten it. What a
pity!"

THIS is the way they resign in "Ole Virginia:"
"Whar can we find a first-rate new minister?"
inquired a deacon of a colored church in Vir-
ginia of a brother darkey, the other day. "Why,
I thought you had one," replied the friend.
"So we has," continued the inky deacon, with a
wink, "but we's jus' sent him in his resignation."

THE other day when a Detroit grocer spelled
sugar "s-h-u-g-e-r," a friend pointed out the word
and remarked, "That word isn't spelled quite
right." "Ha! I see," laughed the grocer, "one
would think I had no education;" and he
crossed it out and wrote, "s-h-u-g-o-r."—*Free
Press.*

A CASE of general average. "Ain't you rather
old to ride for half-price," said a Charlestown
car conductor to the elder of two boys riding
yesterday. "Well," remarked the youth, "I am
under fourteen, and this boy with me is only
five. That don't make twenty, and you will take
two boys under ten for half-price each." And
he took them.

THE other day a Vicksburg negro was drawing
a big dog around the street by a strap, and a citi-
zen inquired: "Is that your dog?" "Yes,
sah." "Do you want to sell him?" "Yes, sah;
I want to sell my sheer ob him." "Your share?
How's that?" "Why, dis dog am a little down
in the mouf on 'count of the hard times, an'
Ize depumitized to sell the kaynine for the sum
of two dollars."—*Vicksburg Herald.*

A LAWYER was in a country town on a flying
trip. He was accosted in a hotel by a "drum-
mer," who thought him one of the fraternity,
and inquired: "For what house are you travel-
ing?" "For my own." "You are! May I ask
your name?" "You may." Pause—enjoyable
to the lawyer, embarrassing to the other. "Well,
(desperately) what is your name?" "Jones."
"What line are you in?" "I don't understand
you, sir." "What are you selling?" (impa-
tiently). "Brains," (coolly). The mercantile
traveler saw his opportunity, and, looking at the
other from head to foot, he said, slowly, "Well,
you appear to carry a very small lot of samples."

"As I was goin' over the bridge the other
day," said a native of Erin, "I met Pat Hewins.
'Hewins,' said I, 'how are you?' 'Pretty well,
thank you, Donnelly,' said he. 'Donnelly?' said
I; 'that's not my name.' 'Faith, then, no more
is mine Hewins.' So with that we looked at
aich other agin, an' sure enough it was nayther
of us."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

A KEY TO EQUITY JURISPRUDENCE.

Containing over Eight Hundred Questions, being an Analysis Classified by Subjects and References and an Alphabetical Index. Designed for the use of Law Students. By R. S. Guernsey, of the New York Bar. 300 pages. Price, \$4. New York: Diossy & Co., 86 Nassau St.

In the Introduction the author says that the greatest difficulty under which law students labor at the present day is in the great mass of matter laid before them, which is encumbered by minute details of decisions, etc., which tend to obscure and hide the underlying principles, and the magnificent and harmonious system upon which the law is founded. This work is designed for the purpose of aiding law students in the study of, and to clearly understand, equity jurisprudence, a great branch of the law, as a system complete within itself, and founded upon logical and scientific principles.

Story's Commentaries on Equity Jurisprudence, upon which this analysis and questions and alphabetical index are founded, is referred to by the chapter and titles containing the subjects and answers to the questions used, and this arrangement requires the student to note on the margin a brief answer to each question. The questions relate to points which constantly arise in actual practice of the law. The chapters and questions comprise an outline or analysis of the entire system of equity jurisprudence, and the student may use any one or more standard works to fill up the subject.

This we consider to be a work for the law student on a more convenient and practical plan, though similar in purpose, than that Dr. Todd recommended to students as a system for an "Index Rerum."

In "The Course of Legal Study," by David Hoffman, in recommending note-books for law students, he said: "The objects of noting are two: first, as a means of impressing knowledge on the mind by selecting and extracting from much that which is valuable; and, secondly, the possession of such a digest as may be frequently resorted to; which digest being the work of the student himself, carefully and judiciously selected from an infinite variety of authors, and methodically arranged, must be familiar to him, and

can be examined by him with more facility for the solution of an occasional doubt, than perhaps any other work."

It is a remarkable fact that nearly every lawyer that has become eminent in his profession adopted the plan, while a student, of making an analysis of the elementary law-books as they were read (see Baker's Life of Seward). The plan of this work is entirely new and original as an aid in the study of the law. The advantages of it over every other with which we are acquainted are: 1. Its practical character, the study being special directions relating to the collection of leading legal principles; 2. The matter thus accumulated is always available for use; 3. It is not necessarily voluminous or laborious.

It is designed for the use of universities, colleges, and law schools, and for private use. There is no doubt that any student who follows the method of study which the author has laid down in this book will never abandon or regret it so long as he continues the study of the subject; and he will be ever thankful for the facilities which it affords in understanding and accumulating a thorough knowledge of this most important and comprehensive branch of the law.

ALICE GRANT; or, Faith and Temperance. By Mrs. E. J. Richmond, author of "The MacAllisters," "Adopted," "The Jewelled Serpent," "Zoa Rodman," "The Fatal Dower," etc. One vol., 12mo; pp. 352; muslin. Price, \$1.25. New York: National Temperance Society.

Contents, or chapter heads: The Mother's Last Wish; The Village Funeral; The Return; Vain Efforts; A Happy Event; A Wife's Influence; The Avenger of Blood. Retribution; A New Project; The Women's Temperance Meeting; The Crusaders; Mania à Potu; Strange Remedies; One Step Too Far; Answered Prayers; The Saloon Meeting; Choice Liquors; The Runseller's Remorse; Dolly Bender; Metamorphosis; The End Thereof; Troublous Times; Revenge; The Little Templars; A Moral Question; Sawney's Again; The Faith-work; New Tactics; The Prodigal's Return; Fruits of the Traffic; John Morton's Story; The Question; Dr. Simkin's Prediction; The Captain's Release; Wedding Bells; A Reception; The Crusade.

The above table speaks for the story of the book. It is full of interesting incidents, and should be widely read. The author expresses deep feeling concerning the duty of the Church and of Christian people in the matter of Temperance, and advocates for Sacramental purposes the use of unfermented wine. Reading this book makes us deeply feel the foolishness as well as wickedness for the voters and law-makers to allow licences for liquor-selling when everybody knows it leads to the greatest crimes and suffering, and calls for and requires prisons and officers, and taxes, and cruelty, and starvation. When will the lesson of practical wisdom be learned? Let the better class read such books as this and allow their better nature to rouse itself, and produce corresponding results. Then we shall see less of the glaring blood-colored windows in liquor saloons.

THROUGH AND THROUGH THE TROPICS. Thirty Thousand Miles of Travel in Oceanica, Australasia, and India. By Frank Vincent, Jr., author of "The Land of the White Elephant." 12mo; cloth. Price, \$1.75. New York: Harper & Brothers.

We have received a copy of this his second book on Oriental travel from the author, and find it equally interesting with his first. Adopting a pleasant style, Mr. Vincent hurries us over the "thirty thousand miles" of ground, but not with so rapid a pace that we can not realize the scenes he portrays in terse but fitting terms. The rapidity of the narration gives a literary splendor to the volume which gratifies the American who is drawn to read it, because he is usually conversant to a good degree with matters and things in the far East. The incidents selected by the author are generally such as are not found in the stock of average writers of travel. He adopts the long round-the-Horn passage in a clipper bound for San Francisco, and describes briefly this now unusual course for tourists, according high credit to the American captain and crew who sailed the craft. A chapter does up 'Frisco, and then our traveler is on his way to the Sandwich Islands. Five chapters discuss the people and country of these interesting mid-ocean isles. From Honolulu Mr. Vincent goes to Sydney, in New South Wales, and then we have the wonders of "Kangaroo land" shown us. Next the mixed beauties and deformities of Calcutta claim attention, and after some amusing experiences we proceed mentally with the author to high Asia, noting the more important towns and incidents by the way. Benares, the home of Hindooism, with its thousand temples; Allahabad, the city of Alla; Lucknow; Agra, with its pearl mosque, and the Taj, so wonderful in architecture; Fnttehporé-Sikri; Delhi, the home of the great Moguls; Umritsur, are noticed, and many interesting peculiarities of Hindoo life commented on. Mr. Vincent derives the inference from his personal experience that the "outlook for India is encouraging," and that a noble civilization, waxing nobler with advancing centuries, will lift these glorious old lands of the Hindoo and Mogul to an indefinitely higher level than anything they have yet occupied."

NOTES, EXPLANATORY AND PRACTICAL, Upon the International Sunday-school Lessons, for the year 1876. By Rufus W. Clark, D.D. 12mo; cloth. Price, \$1. New York: Dodd & Mead.

The International Sunday-school Lessons for 1875 were given an extended publicity through many of the religious weeklies and monthlies, and were used in the majority of the Sunday-schools of the Evangelical churches throughout the land. Dr. Clark's anticipation of the needs of teachers in the continuation of the practical Bible work which these lessons furnish will be

appreciated. His notes present in a clear, terse form the prominent points in the weekly portion of Scripture selected for each lesson, and as these notes embody much of the best thought of Biblical scholars, they possess an encyclopædic value.

PERCY BYSSHE SHELLEY, as a Philosopher and Reformer. By Charles Sotheran, including an original Sonnet by Charles W. Frederickson, together with a Portrait of Shelley and a view of his tomb. 8vo; New York: Charles P. Somerby.

This well-written pamphlet is the matter of an essay which was read before the New York Liberal Club. We infer easily from its characterizations that the author is a devout admirer of the idealist and poet Shelley. He finds many traces of the sage in Shelley's writings, and as evidence thereof produces certain passages. We believe that the true poet possesses many of the elements of the seer, that lofty intuition which supplies the wealth of thought indicating an endowment almost supernatural in its previsionsal outreach. Mr. Frederickson imputes to the poet of his admiration a deep religious sentiment; not of the strict orthodox stamp, to be sure, but fervent and ecstatic in its way for all that. As a literary production the essay has many excellent qualities.

AMERICAN PIONEERS AND PATRIOTS— GEORGE WASHINGTON; or, Life in America One Hundred Years Ago. By John S. C. Abbott. Illustrated. One vol., 12mo; pp. 360; muslin. Price, \$1.50. New York: Dodd & Mead.

America's Centennial year, 1876, seems a fitting time to publish a biography of America's first President, George Washington. It is also the time for America's children, whether young or old, to learn the history of their country, and since all history is better learned from biography than in any other way, we recommend the series now being published by Dodd & Mead, entitled, "The Pioneers and Patriots of America," of which the volume under consideration is one. Were we to attempt a description of this book, we should be tempted to copy the whole, and as that can not be done, we must be contented to recommend it, knowing that much intellectual benefit must accrue to readers.

MEMORIAL TO CONGRESS ON THE CURRENCY OF THE UNITED STATES. From the Board of Trade. This measure represents the opinion of leading financiers of the metropolitan city, and in the main the recommendations which it embodies are in agreement with views on the currency, convertibility, and resumption which have been given place in our columns. We beg our legislators to do something speedily to relieve the country from its weight of anxiety and depression on account of the lack of a positive basis in our monetary relations.

TWENTY-THIRD ANNUAL REPORT OF THE CHILDREN'S AID SOCIETY, Nov., 1875.

This somewhat elaborate production sets forth with considerable detail the operations, during the past year, of that useful enterprise. The influence of the Children's Aid Society is exceedingly happy. Hundreds of children by its means have been rescued from lives of poverty and crime, and given opportunities for development in fields of usefulness, as the Report states. When it is considered that, from the little vagrant girls thus saved, there might come a long line of paupers and criminals, the immense gain to the future of our community from these labors of charity may be feebly estimated. Many of the incidents stated in the sub-reports of the workers connected with the society are deeply pathetic. Taken altogether, the report must commend itself, or, rather, the workings of the society, to all who have any appreciation of good efforts toward the redemption of the wretched. The office of the society is at 19 East Fourth St. Mr. Wm. A. Booth is President, Mr. Charles A. Brace Trustee.

MAGAZINES AND PERIODICALS RECEIVED.

SHORTEHAND MAGAZINES. We are pleased by the energy shown by some of our young men in getting up an interest in the periodical publication of phonographic and phonetic matter. There are shorthand writers enough in the country to sustain two or three good monthlies, and these would, in their turn, serve to obviate much of the tendency to individualism of style, which is so marked in the profession.

We have received copies of two new monthlies, viz: No. 3 of *The Phonetic Magazine*, published at the American Phonetic Dépôt, Tyrone, Pa., and No. 1 of *Brown's Phonographic Monthly*, published at 737 Broadway, New York.

In the former are some remarks on Isaac Pitman's shorthand which it is worth while to produce here, as it contains some practical suggestions which our shorthand readers will appreciate.

"One of the grand secrets of phonographic writing consists in the possession by the writer of confidence in the accuracy and legibility of his style. Any doubt or hesitation is fatal to the facile use of phonography. Even advanced students, through want of training in first principles, sometimes fall into the error of supposing that they can the sooner acquire speed in writing by adopting various expedients and contractions, which, instead of saving time, really embarrass the writer and impair the legibility of his writing. It is a great mistake to suppose that the briefest style of shorthand must necessarily be the most rapid or the best. Some young phonographers have been complaining in *Notes and Queries* that Isaac Pitman's shorthand is not short enough—that it is as simple as the common corresponding

style left unvocalized, and that more abbreviations and grammalogues would enable writers to write the faster. An experienced reporter replies to this that few rapid writers use even so many as he provides, and they meet every exigency. * * * * Learners should not be wise above what is written, nor embarrass themselves with shorter forms than what experience approves. It is evidently easier to make two strokes which the fingers make as it were automatically, than one—if ever so short—about which there is the embarrassment of question or hesitation, or which is so much like something else quite different in meaning, or so curled up as to make a draft on the reader's time, which is often as precious as that of the writer."

ANNUAL REPORTS of the Managers and Officers of the New Jersey State Lunatic Asylum, at Trenton, for the year ending October 31, 1875. An excellent exhibit of a twelve-months' operations in an institution which justly ranks with the best of its kind in the land. Dr. Buttolph's report is unusually full, and with it he takes leave of the Trenton Asylum, preparatory to assuming the post of superintendent of the new and much larger asylum at Morristown, N. J.

We like the February issue of *Lippincott's Magazine*. There is much reading of value in its columns both to instruct and discreetly entertain.

JANUARY WEATHER NOTE. From the Chief Signal Officer of the Government Weather Department, whose report lies before us, we derive the information in brief that the month of January was marked by the following general features: first, the high barometric pressure in the South Atlantic, Eastern Gulf States, and Southern California, but low pressure in Oregon and Canada; second, high temperature, the excess being particularly marked in the Northwest, Ohio Valley, and Tennessee; third, an excess of rain from Arkansas northeastward over the Ohio Valley.

ANNUAL REPORT of the Treasurer of the United States for the fiscal year ended June 30th, 1875. This first compilation of Mr. New in his important relation to the financial matters of the nation is a well-digested and clearly-arranged pamphlet.

THE HAMMAM, a quarterly sheet devoted, as its name implies, to the circulation of data relating to the Turkish bath, is a neatly-printed affair. No. 1 contains a running description of the processes undergone during the taking of such a bath, and the testimony of physicians with respect to the beneficial effects of such a mode of applying heat and water. As a method of self-purification it is certainly most efficient.

MANITOU, COLORADO, U. S. A. Its Mineral Waters and Climate. By S. Edwin Solley, M. R. C. S., etc.

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[WHOLE NO. 449



F. A. P. BARNARD, LL.D.,
 PRESIDENT OF COLUMBIA COLLEGE, NEW YORK.

THE constitutional characteristics of this organization are decidedly marked. Power and endurance seem to stand out in relief, as if he could have taken a position in any field of effort where hard work and long and weary journeyings might be required. He could have been a farmer, or a me-

mechanic, a navigator, a soldier, an explorer, and have carried with him health, endurance, vigor, and that physical persistency which wins by tiring out opposition. He not only has strength, but there seems to be an intense activity, a quick sensibility to all that is interesting. His mind works rapidly as well as strongly, and he is persistent, never leaving a point until he has satisfied himself in respect to its treatment. When a boy, if he started to accomplish anything, everybody who knew him believed that he would catch the fish, or get the nuts, or shoot the squirrel, or win the prize. He always had a purpose, and a persistent earnestness in the accomplishment of that purpose, and he makes sure of his footing as he goes forward; is always able to secure a position, and he will fill it so full that nobody else can supplant him.

There is a massive forehead; the upper region of it is large, indicating great activity of the reasoning and reflective powers, but we notice, also, great fullness across the brow, showing the ability to gather knowledge, to find out all the facts that belong to a subject, and to arrange, organize, and classify them for himself.

He is known for system and method, and especially remarkable for numerical and arithmetical talent. As a boy, he was excellent in figures, and, as he advanced in study, he came to be among the first in mathematics, in natural philosophy, and in the studies which related to mechanism. He has a keen sense of the complicated condition of subjects and things, both in a philosophical and mechanical sense, and he so organizes all his affairs that they work in harmony according to rule; and he has large Language, which qualifies him for literary work, and en-

ables him to explain his knowledge on every point with clearness and fullness, constituting him a capital teacher and instructor.

He has a sense of wit and humor, and, as a speaker or writer on subjects that would permit the presentation of their ludicrous phases, he would make that trait stand out sharply. He has the sentiment of poetry strongly marked, a feeling that allies him to beauty, and elegance, and æsthetic refinement.

He has a fair share of Acquisitiveness, which leads him to take much interest in economies and finance. He is judicious and guarded in his statements, but not so politic and reticent as many. He exerts influence mainly by frankness and manliness, and so leads men, never permitting himself to be driven into a corner, or to be made the fit subject of censure or criticism.

He has Combativeness enough to fight the battle of life manfully, and to push his way to achieve success against strong opposition. He is very social, is liberal, kind-hearted, genial, and winning in his manners, persuasive when he wishes to be, respectful toward age and things sacred, and he also has rather strong Spirituality, appreciating that which relates to the higher, the unseen, and immortal.

He has a large head, and a very finely-organized temperament, with persistency, criticism, and the power to gather facts, and arrange and organize them for use. He makes himself effective wherever he moves, and there is in him a peculiar healthfulness of thought. He is not warped, eccentric, or peculiar, and his views, though they may be of an advanced rank, do not startle the conservative, but are usually so presented as to make him a natural leader among men, who might, if left to themselves, adopt more moderate views. He

is able to present a subject which is comparatively unpopular from its newness, and do it in such a manner as to make it seem easy to comprehend and easy to explain.

FREDERICK AUGUSTUS PORTER BARNARD was born May 5th, 1809, in Sheffield, Mass. At the age of fifteen he was admitted into Yale College, and was graduated four years later, taking the highest honors. He gave his attention immediately thereafter to teaching, having obtained a position in the Hartford Grammar School. In 1830 he became tutor at Yale, but served one year only, withdrawing from that relation to take charge of a department in the American Asylum for the Deaf and Dumb at Hartford. One year later he was called to the New York Institute for the Deaf and Dumb, where he remained five years. Then, having been elected Professor of Mathematics and Natural Philosophy in the University at Tuscaloosa, Alabama, he went thither and entered upon the duties of the position, discharging them with creditable ability until 1848, when he was transferred to the chair of chemistry and natural history in the same institution.

After six years' occupancy of this professorship, he accepted an invitation to take the chair of mathematics, natural philosophy, and civil engineering in the University of Mississippi. Two years later he was elected president of that institution. He remained thus related until the opening of the late war, when he resigned.

During his connection with the University of Alabama he had given much attention to astronomy, contributed to the erection of an observatory, etc. After his retirement from that institution he gave much of his time in 1862

and 1863 to stellar observations at Santiago, Chili, and afterward, until June, 1864, he had charge of the chart-painting and lithographic departments in the office of the United States Coast Survey. In May of that year he was elected President of Columbia College, New York. This important post he has occupied until the present time, evincing in its administration an ability which has contributed much to extend the usefulness of that widely-known and highly-reputed institution.

In 1829, shortly after completing his student life at Yale, he published a school arithmetic, which found a good deal of favor among teachers, and was placed on the list of books required for admission to Yale College. In 1830 he published an addition to Bridge's Conic Sections, modifying that author very considerably, and giving the work an almost original cast. This book became, and was for many years, a textbook in Yale College and other collegiate institutions.

While connected with the New York Institute for the Deaf and Dumb he contributed largely to its reports, and wrote articles for the *North American* and other Reviews, on topics related to deaf-mute instruction. His "Analytical Grammar," with symbolic illustrations, was published in 1837. This work attracted the attention of eminent grammarians like Mr. Gould Brown and others. The stereotype-plates were destroyed by fire, not long after its publication, and it has not been republished, but the method formulated by it continues to be used in the New York Deaf and Dumb Asylum.

During his residence in Alabama and Mississippi Dr. Barnard was engaged very actively in the endeavor to improve the systems of education primary and secondary, as well as advanced,

and wrote a good deal on related subjects. He contributed to Henry Barnard's *Journal of Education* and to the *American Journal of Science*. His letters on "College Government," which were published in 1854, attracted no little attention from educators. A pamphlet which he addressed to the trustees of the University of Mississippi in 1858, in which he discussed the practicability of building up a true University in our country, had a wide circulation beyond the State for which it was intended; doubtless it had some influence upon the recent discussions of the subject and the developments which have grown out of them. In the same year he delivered the "annual oration" before the society of Yale Alumni. In 1857, as chairman of a committee of twenty appointed by the American Association for the Advancement of Science, he made a voluminous report on the history and methods of American coast survey. In 1860-61 he delivered a course of lectures before popular audiences at the Smithsonian Institute on the Undulatory Theory of Light, which lectures were compiled and published as an appendix to the annual report of that institution for 1862. This is the only systematic presentation of the mathematical and physical theory of optics which had been published in this country down to that time.

In 1867 he was appointed by the President of the United States one of the Commissioners to take charge of American interests at the International Exposition held that year in Paris. On his return therefrom he prepared an elaborate report, which awakened much public interest. In 1871 he published a volume on the Metric system of weights and measures, showing how it could be adapted to the use of the

American people, and the advantages to be derived from its use.

Dr. Barnard has always shown a very lively interest in matters relating to popular education. In lectures, in contributions to many periodicals, to his college work, and in many scientific investigations, he has been conspicuous for his sympathy with modern progress generally. His annual reports as President of Columbia College have discussed with much boldness the questions of the day relating to higher education; his views lean strongly to what may be called the liberal side, favoring a considerable latitude of choice to be given to the student in the selection of studies, particularly during the later years of a collegiate course.

In 1860 he was elected President of the American Association for the Advancement of Science. This office he held until 1866, when he presided over the meeting held that year in Buffalo, N. Y. His address before this association as retiring president, given at Chicago in 1868, discusses the doctrine of the materialistic school of modern physico-mental philosophy, which regards physical and mental forces as reciprocally convertible. Dr. Barnard took strong ground against this, and his address was an admirable analysis of the questions involved. It was translated into German, and awakened much discussion in foreign philosophical circles.

When the National Academy of Science was founded by act of Congress in 1863, he was named as one of the corporators, and acted as chairman of the physical section in 1870-72. In 1855 he received the degree of LL.D. from Jefferson College, Miss., and the same degree from his *alma mater* in 1859. In 1861 a degree of D.D. was conferred upon him by the Uni-

versity of Mississippi; in 1872 that of L.N.D. by the regents of the University of the State of New York. He is connected with many learned societies of this country and of Europe, and is regarded in literary and scientific circles as a man of mark and a good representative of American progress.

As an example of his manner of thought and composition, we give the following brief extracts from an address delivered at the opening of the American Institute Fair a few years since:

"If we measure the civilization of a people by the degree of its intellectual culture or of its æsthetic refinement, there have been periods in the world's history distinguished for a civilization of the very highest order, when yet the common arts of life were at a low ebb. Such was the culminating period of Grecian literary glory, marked by the production of masterpieces in philosophy, in oratory, in history, and in poetry, which for more than 2,000 years have commanded the admiration of the world, and which are even yet unsurpassed for power of thought or brilliancy of fancy. Such, also, was, a few centuries later, the Augustan age of Roman literature, an age which has left behind it monuments of genius hardly less admirable than those of Greece. During both these periods the fine arts, also, were cultivated to a degree of perfection which the world had never seen before and has scarcely seen since. It is indeed a faith held by many that the sculptures of Praxiteles and Phidias have never been approached in merit by any modern production. Yet, at the very time that Athens was thus deluged, as it were, in a blaze of intellectual light, she had not so much as a water-wheel or a windmill in all her territory. Her citizens ground their wheat to flour in a species of wretched hand-mills; employing for this purpose, as for every other toilsome service, the labor of slaves. The industrial arts were, in fact, very unequally developed among the Greeks. None attained a higher degree of perfection among that people than the absolute neces-

sities of the civilized state demanded; unless they happened to be arts capable of feeding the love of splendor, as well as of ministering to the natural wants of man. Thus architecture was cultivated and exalted to the rank of a fine art; and the crumbling monuments of that early architectural period are still studied for their beautiful proportions, while the principles of construction laid down by their builders continue to be received as law by the architects of our own time. In respect to most other arts, however, the polished Greeks were far behind such peoples as at this day we are accustomed to speak of contemptuously as half civilized."

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"In those early periods of high civilization to which reference has been made, the task of providing for the daily wants of society was laid upon a servile class; and if any freeman felt himself compelled by the narrowness of his means to engage in a mechanical occupation, he was esteemed as little better than a slave. Society was thus divided into castes. To the superior class belonged all the culture and refinement; to the inferior all the toil. The processes of the arts of industry were followed by those who were fated to purchase them, in a dull and spiritless routine. The operative felt no pride in his calling and no ambition to improve its methods. There was no stimulus to such an ambition, since improvement could bring with it no honor; and whatever aspiration might arise in the breast of an individual of humble rank to mend his position, incited rather the desire to escape from his vocation than to attain excellence in it. If the statesmanship of those times was sagacious enough, as it probably was, to perceive that the wealth of a nation, and, by consequence, its political importance and its military strength, depend upon the productiveness of its industry, it was, nevertheless, blind to the truth that in order that industry may be productive, labor must be made honorable." * * * * *

"The civilization of the century in which we live is something widely different from this. Its tendency is to the intellectual

and moral elevation, not of a favored few, but of the whole people. Yet recognizing the undeniable truth that before the mind can be cultivated or improved, the body must be provided for, it encourages and recompenses with honor every honest effort to ameliorate the physical condition of the race. It accordingly esteems the man who succeeds in making two blades of grass grow where one grew before as a greater benefactor of his countrymen than the general who wins a battle or the conqueror who subdues an empire. And extending this principle, it bestows the same honorable commendation upon every one who contrives, by whatever instrumentality, to produce in increased abundance any article capable of contributing to the sustenance or the comfort of men, and of thus promoting the general welfare."

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"It is common to ascribe to Lord Bacon the modern revolution in the methods of investigation, and the origination of the inductive philosophy. But this is hardly consistent with the fact that the inductive method had been already fully inaugurated by Brahe, Kepler, Galileo, and perhaps others, many years before the publication of the "Novum Organon," which it is hardly probable that any of them ever saw. It is to be borne in mind, nevertheless, that even after the inauguration of this method, by whomsoever introduced, the advance of

science could not but be, for a certain length of time, of necessity slow. The whole field lay before the investigators substantially unexplored, the most elementary truths in each branch of science were yet to be ascertained, the pioneers were few in number, and the discouragements they met with were great. It is in the natural course of things, moreover, that investigation should be more productive of results as it is prosecuted further; and in the combination of these reasons may be found the explanation of the fact that a movement which began in the sixteenth century, almost imperceptibly, and which in the eighteenth had hardly become sufficiently marked to attract general attention, has in our time become the rush of a mighty current, forming the most salient phenomenon of the civilization of the age. And as science has advanced, so industry has, with equal step, kept pace beside her. Each new discovery has created a new art or improved an old one, till, looking through the whole extent of the industrial world, we scarcely encounter a machine, or a process, or a product, or an implement, which is not a form of applied science; and we find the laboratory and the workshop to be so intimately allied that, fully to understand either science or the arts, one must be familiar with both. In the laboratory we have the arts in embryo; in the workshop we have science in application."

THE "POTENCY OF MATTER."

CONSIDERATION OF CERTAIN VIEWS OF PROF. TYNDALL.

THE views on materialism which are advanced in this article have been called forth by the perusal of Mr. Tyndall's paper on "Martineau and Materialism" in the *Popular Science Monthly* for December, 1875.

Whoever will take the trouble to study and comprehend that paper can scarcely avoid noticing the general candor conspicuous in almost every part; but probably most persons who have no decided opinion upon the questions

discussed therein will scarcely be able to form any satisfactory judgment on the basis outlined by its eminent author. It is apparent that the conclusions reached by Mr. Tyndall, though they may be legitimate from his standpoint, are yet characterized by an indefinable vagueness, and from their nature appear even to their author only partially conclusive.

If it be possible to arrive at sound conclusions upon the question of "ma-

terialism," no one having a knowledge of the science of mind can justly doubt the claim of Phrenology to interpret the question, because there is no other system extant which professes to deal with the brain and its various qualities directly. By its teachings we are confronted at the threshold with the vital question of mind and matter; the qualities of each and their connection being the ground of examination.

It seems to me that without the aids afforded by Phrenology we can not advance to a well-defined position on either mind or matter, or the qualities of either. It is by the assistance of this system that the ideas contained in this article are suggested; and I suppose no apology is necessary for advocating views upon this foundation in opposition to so eminent a writer as Mr. Tyndall, bearing in mind that he has seen it advisable to argue the question unassisted, apparently, by any systematic views of mental physiology, and has selected the same path traversed by multitudes in the past.

It may be well to premise here that we do not know positively what matter is in its essence; and it follows necessarily that we do not know what the mind is. What we do know about the subject is this, that we have our *ideas* of the qualities of what we believe to be matter and mind, and to dogmatize upon the subject would be a proof of puerility.

The probable reason why we attribute various qualities to matter and mind is because of the essentially different nature of the perceptive and reflective faculties. The perpectives and the senses appear chiefly to cognize materiality and its qualities, the reflectives recognize cause, effect, and conditions, and it is because of the different nature of the two classes of faculties

that we apply the terms matter and mind, materiality and immateriality. In the one case we see primarily through the eyes by means of the perpectives, and in the other we do not see through the eyes by means of the reflectives, but the reflectives are affected by cause and effect, and conditionally, and are stimulated to activity by the sentiments and propensities. If this were not true, man would be on a lower plane of existence; in reality he would not be man. And it is on account of his possessing at least three classes of faculties that he is able to reason as an intellectual, religious, and moral being. If the force of these statements be borne in mind, we shall be helped in our further meditations.

From a very careful consideration of Mr. Tyndall's paper the reader will perceive that the author is studious not to commit himself to positive and decided statements concerning the properties and powers of matter independently of mind. This will be clearly seen by a study of page 148 of the paper alluded to, where it reads:

"Consider the ear, with its tympanum, cochlea, and Corti's organ, an instrument of three thousand strings built adjacent to the brain, and employed by it to sift, separate, and interpret antecedently to all consciousness the sonorous tremors of the external world. Matter I define as that mysterious thing *by* which all this is accomplished. How it came to have this power is a question on which I never ventured an opinion."

Observe in the sentence, "Matter I define as that mysterious something *by*, which all this is accomplished," Mr. Tyndall does not say that matter itself does all this, but he says, "I define matter as that mysterious thing *by* which all this is accomplished."

We think his explanation does not go far enough; but, nevertheless, he seems to have proceeded, at least, in his statement of the case, to a point beyond which he is unwilling to go. From our understanding of the position and the phraseology he has employed, we think that he should have inquired as to whether matter of itself does all he has predicated; or, on the other hand, whether matter has not been endowed by a superior power with all the properties which he attributes to it. Instead, however, he candidly assures us that on this question he never ventured an opinion.

That he does not deny the existence and operation of something superior to matter and its forces may be seen by considering what is said on page 145. After speaking of the earth, and inorganic and organic nature, he goes on to say: "From this point all three worlds would constitute a unity in which I picture life as immanent everywhere. Nor am I anxious to shut out the idea that the life here spoken of may be but a subordinate part and function of a higher life as the living moving blood is subordinate to the living man." Here the reader will perceive the tendency to refer the life we see around us in nature to some higher source than matter itself, and superior to the forces of material objects.

It is these and other statements contained in the paper now under discussion that render Mr. Tyndall's arguments vague and unsatisfactory. He seems disinclined to advance a step and attribute nature and all its life and properties to a great and powerful Author who continually upholds the universe, and has imbued it with the life which is undoubtedly immanent almost everywhere.

On page 146 we are told, "Were not

man's origin implicated, we should accept without a murmur the derivation of animal life from what we call inorganic nature. The conclusion of pure intellect points this way and no other. But this purity is troubled by our interests in this life, and by our hopes and fears regarding the life to come."

Seeing that man is not a being of what Mr. Tyndall calls pure intellect, it is unsafe and unwise to assert that pure intellect points as he affirms and no other way. There can not be such intellect as is here spoken about without burying the emotions out of sight, for man is a being of emotions as well as of intellect, and the one does not exist without the other. Therefore it is unreasonable to predicate anything of conditions nowhere to be found, and in this life impossible. We may assume far more reasonably that "man's origin is implicated" because of his compound nature, consisting of intellect, moral sentiments, and propensities.

Mr. Tyndall's paper contains several illustrations of the properties and modes of action of matter. We select the one on page 142, which shall be the text of further remarks. He there says: "A Sunday or two ago I stood under an oak planted by Sir John Moore, the hero of Corunna. On the ground near the tree little oaklets were successfully fighting for life with the surrounding vegetation. The acorns had dropped into the friendly soil, and this was the result of their interaction. What is the acorn? What the earth? And what the sun, without whose light and heat the tree could not become a tree, however rich the soil and however healthy the seed? I answer for myself as before—all matter. And the heat and light which here play so potent a part are acknowledged to be motions of matter."

In this description we have a bare statement of some of the modes of action of matter, but as I have before shown, we are left uninformed as to whether Mr. Tyndall believes matter itself arranged these modes of action and conditions independently of an Author who bestowed on matter the powers we see exhibited, and who controls all matter from the most tiny atom to the most stupendous world.

In opposition to so high an authority we humbly venture the opinion that Mr. Tyndall confines his attention to a partial view of the phenomena which come under the observation of the perceptives. We admit, with him, that an acorn is matter, and the earth and sun, but Comparison and Causality are unsatisfied with his statement of the case, and prompt us to inquire further. In the first place, what do we see in the acorn and the friendly soil, and the growing tree?

First of all, we perceive an effect from a cause—for the tree was surely caused to grow; and in the next place we see adaptation between the roots of the tree and the soil which is the means of supporting it. It may, indeed, content the perceptives to say that the acorn and the soil are matter, but the reflectives suggest the question, Who endowed the friendly soil with properties to support life, so that the roots of the little oaklet cling to it so tenaciously, and enable it to grow by the genial influence of the rain and sunshine into its beautiful proportions, and adapt it in a thousand different ways to supply the wants of man? To assert that the "mysterious thing called matter" arranged these adaptations, appears to my mind hostile to the true spirit of philosophy, and I respectfully reply that it appears consistent with the constitution of the human faculties to as-

cribe these adaptations, nature and properties of the roots of the tree and of the friendly soil, to a great, wise, and intelligent Author.

In the next paragraph, page 142, Mr. Tyndall says, referring to Mr. Martineau, "He may retort by asking me, 'Who infused the principle of life into the tree?' I say, in answer, that our present question is not this, but another—not who made the tree, but what is it? Is there anything besides matter in the tree? If so, what and where?" I reply, Yes, there is something besides matter in the tree—there is life-force.

On page 143, first paragraph, it is said, "But then if the power to build a tree be conceded to pure matter, what an amazing expansion of our notions of the potency of matter is implied in the concession! Think of the acorn, and the earth, and of the solar light and heat—was ever such necromancy dreamed of as the production of that massive trunk, those swaying boughs, and whispering leaves from the interaction of these three factors? In this interaction, moreover, consists what we call life."

From this quotation it will appear that Mr. Tyndall admits there is life in the tree, but he attributes it to a different origin than we do. Observe, he says, "in this interaction consists what we call life." The interaction, therefore, is not matter, although the word interaction may express what we call life, nor is it in any one of the three things, the acorn, the sun, and the soil, for we can have all three either separate or combined without having life. We may have a dead tree in fertile soil with the sun and rain. Trees die under conditions apparently identical with those that once made them flourish in their luxuriance. So that we have to add another faculty, namely,

fertility, to the tree—a vital force. We ask now, Which is superior, the life or the tree? or, perhaps better, Is there no distinction between a tree and life? We answer, Yes, for we can deprive the tree of life, and then it becomes like what we believe all matter to be, dead material. Under these considerations what becomes of the asserted “potency of matter” when destitute of life? We can have material forms, but unless imbued with the mysterious principle of life they lose their chief property or distinction, that which is exhibited through the material.

A tree and all other matter has certain properties, as color, weight, and dimensions, but none of these qualities can be predicated of life. Life, in my view, appears to be real existence and eternal; and, so far as human intelligence reaches, matter is eternal also, but in different conditions, solid, liquid, and gaseous, and most probably in other more refined states which now elude our observation.

The reader will perceive that in the foregoing quotations Mr. Tyndall does not pretend to give a definition of matter; he prefers the safer method of stating properties and attributing them to matter. It is impossible with the faculties man is at present possessed of to define either matter or mind, for we are incapable of knowing the essence of anything, and our knowledge is continually being augmented by discovering simply the objects and qualities of things.

We shall now attempt to point out some of the indications of the superiority of intelligence and power over all the properties of matter, and by this contrast, and the deductions legitimately drawn from them, we think we are justified in transferring Mr. Tyndall's supposed “potency of matter” to a su-

perior intelligence outside of nature, and who wields a transcendent power over the material universe.

Referring again to the illustration of the acorn and the soil, Mr. Tyndall, as before stated, sees in them nothing but matter. I have pointed out that there appears to my mind adaptation between them such as could not have been prearranged except by intelligence. This adaptation will hardly be denied by the thoughtful. Now, there is nothing in the earth that necessarily implies the existence of acorns, and nothing in the acorn that necessarily implies the existence of the earth or soil. It is proper here to explain what I mean by necessarily. I use the term in an absolute sense, as implying that the opposite of what we perceive between the acorn and the soil can not be conceived of. In this way, for instance, it is absolutely necessary to have a hollow between two hills, and no sane person can conceive this not to be true. But in the case of the earth and the acorn, no such necessity appears to exist between them. For it is conceivable that acorns might have been borne on some other tree or plant than an oak, or have been produced in some other way. And, to utilize the language of Mr. Combe, “Comparison and Causality, if adequately developed, can not ascribe adaptation to either of the two structures, because both are required to render it possible. The adaptation therefore not being an attribute of *either*, and yet the perception of it being called forth in the mind by the contemplation of the objects, the hypothesis of the existence of an intelligence external to both seems alone capable of accounting for it.” This argument, in my view, reaches the philosophy of all Mr. Tyndall's illustrations, and extends beyond the limits within which he has confined

them. If he had referred to human life, his arguments would have had more weight, and would have been placed on a higher plane; and the illustrations he might have drawn from cerebral manifestation and cerebral matter would doubtless have been to many more difficult to account for. We refer to the action of the brain as the extreme to which materialism has not yet advanced. We know that we are thinking beings; and from many cases on record, several of which are recorded by Mr. Combe, we know that when the matter composing the brain is in a state of rest, no mental manifestation takes place. When the brain has been exposed and rendered inactive by being pressed upon by the finger, no action of any kind except vital functions, as breathing and circulation, continued. When the pressure was removed, however, some manifestation took place, as talking, or singing, or walking. Now, it is evident that, although these actions, or one of them, resulted only when the brain was in motion, nevertheless the brain itself was only a medium made use of by what we believe to be the mind. It is inconceivable when we regard the brain as composed of a pulpy substance, partly of white and partly of gray matter, and these resolvable into chemical elements, to suppose that these elements of the brain, love and hate, feel pleasure and pain, grief and joy. We believe the brain to be simply the instrument of the mind, and when deprived of the vitalizing principle it is nothing more than inanimate matter. Remember, also, that the brain is not sensitive to touch, and the brain and body of a recently deceased person are simply matter destitute of the vital force—life.

If we turn our attention again to the

outside world, we perceive it so replete with adaptations that Comparison and Causality, if well developed and exercised, can not be satisfied with the assumption that these are simply accidental circumstances or conditions inherent in matter itself. For instance, consider the human blood. We know it possesses the wonderful power of repairing injuries not actually existing, and which may never be called into activity. But is this not a grand proof of the wisdom and intelligence of the Author of our nature that when He arranged the human body and the modes of action of the blood, He also endowed it with this quality of repairing future injuries, but which may never be called into requisition? We regard this as an overwhelming proof of design which it is not possible to conceive as inherent and accidental, unless it be supposed that matter has intelligent forethought.

Again, consider the power man by his intelligence has over matter and its qualities, and over all the elementary substances. Does not this fact proclaim that matter is but the servant of man and mind, and that it is potent chiefly in its capacity to supply his wants? And is it reasonable to talk of the potency of matter unassisted by intelligence, mundane or extra-mundane?

If we contemplate man himself, although we find him possessing great control over matter and the natural forces, still when we compare his power to what we witness around us, it sinks into insignificance. Reflect for a moment upon the systems of worlds performing their vast and endless revolutions in dread solemnity in distances far removed from our earth; think of the ceaseless and silent regularity of their movements, and of the laws which control and maintain them in their per-

petual courses, and say after reflection whether we do not here behold proofs of wisdom and intelligence which baffle our comprehension and supersede all our powers in an indefinite degree. Man we know has not been able to produce a perpetual motion, but the supernatural power appears to have met with no opposition in the achievement, for are we not every moment of our lives the unconscious subjects of this power? And every day adds new proofs of the goodness and continual operation of a great Intelligence. Although man has considerable power over the elements and matter itself, still it is only within certain limits that he can command their co-operation. But the Infinite Intelligence encounters no obstacles to His will, for do we not discover His power and control over all the elements, to design and fashion them into countless inanimate forms, and fill innumerable organized beings with life. The Supreme Being appears to manipulate matter as its master. What is matter, or what is man in comparison to the sublime intelligence manifest in every department of our earth? We can not discover its limits, and the most rational inference appears to be that the world and the universe are governed by some Infinite Power.

To the devout phrenologist it seems eminently absurd to argue the question of materialism upon the ground chosen by Mr. Tyndall, because it tends to exclude the knowledge that man has any religious feelings and aspirations adapted to a future state of existence. It also treats Revelation as a myth, and, therefore, aims not only at obscuring our conceptions of the Divine Being, but of blotting out the belief of His existence, and practically contends that the world is not an institution, but a gigantic vegetable. This style of argu-

ment, I say, appears to the devout student of human nature eminently absurd, and proves the futility of regarding the question of "materialism," and the so-called "potency of matter," from the partial view of the senses and intellect without a rational science of mind. Even suppose we agree to call the interaction of the brain of man and its manifestations, life; if so, we know it is also something more, for man loves, and thinks, and remembers. Not only so, but he loves his fellow-men through one part of the brain, and himself through another, and worships his Creator through another. Now, these faculties are essentially distinct and different, yet the substance of the brain composing them, even looked at through the microscope, appears all alike. If the brain matter itself loves and thinks and recollects, considering that we can only consciously exercise one faculty at once, as Veneration or Conscientiousness, all these several functions might, it would seem, have been displayed by one and the same part of the brain.

Moreover, there is a vast difference between the sentiments and the intellect. The mind, through the intellectual faculties, remembers, but the sentiments are merely impulses. The brain matter, however, is composed of the ten chemical elements in each and every part, so far as is discovered. But if every organ were composed of a different combination of the elements, it would be unreasonable to suppose or infer that these so-called "interactions" were the results of different states and modes of action of chemical substance alone.

Contrast love with any other attribute we are cognizant of. Love belongs to the character of man—love of right—and we can not find this principle anywhere in the world except as

exhibited by man or God. Although conscience is in proportion to the size and activity of Conscientiousness, it would be a stultification of intellect to say that the love of right is the simple result of a piece of brain matter, because unless the body and brain be animated with life, the organs of the mind won't act, and we don't know what life in itself is.

Extend this line of argument to the faculties of Veneration, Spirituality, Hope, Benevolence, and Ideality, and the higher reasoning powers. Suppose now, that Mr. Tyndall should say these distinguishing traits of man are the simple results of the interaction of the brain and the outside world, and let it be admitted, we could not by any possibility eradicate these faculties, and separate them from the nature of man. What, then, is the result? Why, simply this, that the question of matter, and the absolute potency of matter, whether admitted or denied, practically leaves the question where it finds it,

and the supposed potency of matter does not affect or alter its nature, nor the nature and destiny of man. Admit that the sun, the earth, and the tree are matter and interaction, they remain just as they were for all that, and the supposition will not cause the tree to live one hour longer, the earth to become more fruitful, nor the sun to shine with greater brilliancy. The importance of the whole subject hinges upon the question: What are the qualities of external objects, and how are they adapted to the faculties of man? And what is man's nature and destiny? The science of mind is the only system which can throw much light upon this vital and pertinent inquiry.

To admit the supposed "potency of matter," and follow the conclusion to a legitimate termination, darkens the attributes of the Supreme, commits the stupendous folly of attempting to annihilate the religious emotions of man, and reduces him to the same level as a chest of drawers. T. TURNER.

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

"The age calls simples;
With a broad clown's back turned broadly to the
Glory of the stars."—*Mrs. Browning.*

CHAPTER VIII.

HALF an hour later saw the girls, very becomingly attired, chatting with their guests in the Templetons' parlor. And who were the young men? Rev. Edgar Anthony was a blue-eyed, fair-complexioned, intellectual Apollo, to whom Miss Edith had proved a decided attraction. He was from New York city, and of a wealthy High-Church Episcopal family. He had found himself in "holy orders," and intoning the Episcopal service as assistant pastor in

a fashionable church before he had really begun to do his own thinking. He was now in a rather painful predicament. Having a piercing intellect, after once turning it upon the dogmas in which he had been educated, he was all afloat in a sea of gloomy speculation. The great height of his head in the region of the moral sentiments showed that there were but two ways out of his condition into any other—one through genuine religious light and

peace to an apostolic usefulness; the other through deeper depths of darkness, gloom, and despair to settled melancholy, and, perhaps, insanity or suicide. He was very reticent and modest, and, in his troubled condition, it was especially annoying to him to be informed that the large accessions of elegant ladies to the morning and evening prayer services of the church were due to his Belvidere appearance and the music of his St. Chrysostom intonations. He was in sore perplexity; felt that he was out of place in his present work, and yet was too undecided in aims and opinions to be ready to leave it. So this richly-freighted bark was drifting, drifting upon the shoals. "Who shall show him any good? Lord, lift Thou up the light of Thy countenance upon him."

In his distempered mood, Edgar had found the practical sagacity, the settledness of view and purpose displayed by Miss Hartwell, as well as her brilliancy, peculiarly attractive, especially when contrasted with the diletanteism of the smart city ladies of his circle. So he had allowed his more energetic friend, Herman Reynolds, a New York broker, to persuade him to spend an autumnal vacation in visiting the Southern home of their new acquaintances.

Reynolds was by no means so remarkable a person as Anthony; but, like him, he felt ill at ease in the business into which he had drifted. He was a good-looking, dark-hued, active, capable young man of business, who was down among the bulls and bears of Wall Street because his father happened to be there. He was a really devout, conscientious member of Anthony's church, and did his simple-minded best to repair on Sunday the spiritual wastes of the week spent in studying the antics of Jay Gould &

Co. Upon him the vigor, vivacity, naturalness, beauty, and practical good sense of Alice Templeton had made a profound impression; and he came fully prepared in mind to marry her if possible. He was the only one of the four who had reached that positive view of things.

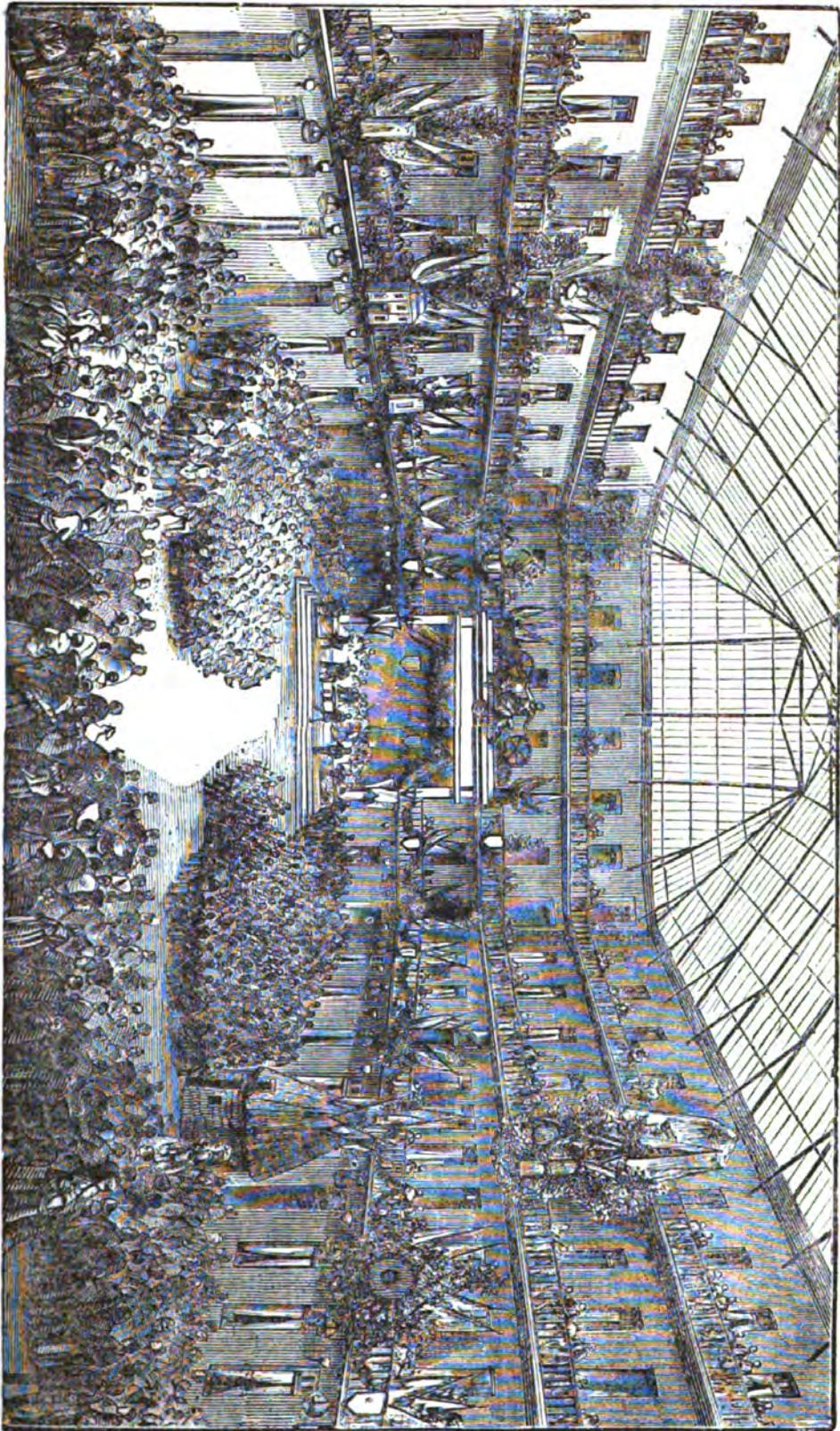
"Gentlemen," said Alice, "you are just in time to attend our quarterly festival and distribution of prizes, which will be held this afternoon in one of our glass-covered courts. The prizes given at each festival are for those pursuits which seem to especially culminate about that time. This afternoon they will be for the agricultural series of grains and large fruits. I suggest for the present a general stroll."

"Beware, gentlemen," said Edith lifting her hands in mock protestation; "this is only a snare on the part of this fruit monomaniac to beguile you in the direction of her interminable fruit forests. Do you know there are 100,000 fruit trees on this place, and I believe she is on terms of personal intimacy with each one of them."

"Well, which is the worst?" said Alice, "Edith would beguile you into the library, which would be no novelty to you; and she would talk book until you would be glad to escape to my trees."

"I am sure I did not talk book much at the White Mountains. We may as well walk out; but I warn you that when we are among the fruit trees you can dismiss all other subjects from your minds. The place is formed of half-a-dozen old plantations, and even in the thick forest growth old fruit trees are occasionally found. You will see these covered to their very tops with grafts, all done under her supervision. I think she sometimes wishes she was a man, that she might climb up and put on the sprouts herself."

THE QUARTERLY FESTIVAL—DISTRIBUTION OF PRIZES.



And so they strolled forth awhile. Wherever the ground was broken or stony, and so unfitted for the modern culture of grain crops by machinery, fruit trees had been planted. When an experimental fruit grove of hitherto untried varieties of peach, apple, pear, and cherry was reached, her companions tempted Alice by questions until she "let herself loose." She knew every tree, and showed up their points as a jockey does those of a horse. She would fondle a three-foot dwarf pear like a baby, and show that just here and here by the trunk it could bear two pears next year, but none on the ends of the branches, which could not endure the weight. If she spied in the distance some broken twigs, where a careless passenger or loaded wagon had wounded one of her friends, she would rush up to it caressingly, and try to better the conditions with her pruning-knife. But oh, the fine scorn with which she stamped her little foot when she found that some unskilled stranger had been cutting grafts from some of her favorites, and had taken them from the tops of the trees! "The goose! not to know better."

Reynolds was full of wonder and admiration, but also full of despair. Could it be possible that this Pomona goddess would receive any new love into her heart? Was there any room to spare? "At all events," said he, "the long and short of it is, no more 'puts' and 'calls' and 'straddles' if this prize peach is to be plucked. She would not leave this place to preside over Stewart's mansion."

The young folks took dinner at the Hartwell table; and the New Yorkers noticed a familiar custom in the fact that the waiter-girls wrote the items of the dinner on a slip of paper which lay beside the plate of the host. They un-

derstood, also, without explanation, the fact that he paid the bill as they went out in pasteboard checks.

All now repaired to the glass-covered court at the south-east corner of the buildings, where preparations had been made for the festival. A fine display of grains and fruits had been arranged in some of the adjoining rooms, and the balconies were copiously adorned with flags and evergreens. At one end was a permanent rostrum. The men, women, and young folks immediately interested in the occasion sat on chairs near the platform, upon which numerous prizes were seen. Many of these were books and other articles of use. A large part of the audience sat in the public and private rooms that open into the court; and when something of special interest was occurring, the balconies also were filled with people. In the end of the court opposite the rostrum stood a mixed multitude, including many spectators not connected with the domain. The general appearance of the company was far superior to that usually seen at agricultural fairs. The intimate and continual association of the combined home, when there is a thorough diversity of employment, and a genuine development of the aptitudes of each and all, soon takes the boorishness from even the coarsest.

Besides the giving of prizes, there were speeches, songs, instrumental music, and recitations, the exercises lasting through three hours. There was here no display of that vicious "competition" which is said to be the "life of trade" in ordinary civilization, and which simply implies an antagonism of interests. However they may gloss it over, the men who compete at an agricultural or any other fair, are at war with each other, and except so far as high morality prevents, desirous of

each other's business destruction. It is for the benefit of the ordinary farmer that his neighbor's crops of fruit and grain should be poor, and even that they should be a total loss; thus shall his own bring a better price. But in Peace-maker Grange all those engaged in the grain series or the fruit series share the net profits of those series in proportion to the time and skill which each invests in them. Therefore, with them a bitter, deadly "competition" gives place to genial, kindly "emulation;" for the success of each is practically the success of all.

CHAPTER IX.

The rest of that afternoon was spent by the young folks in sauntering through the public rooms and halls of the main buildings. They sat down ever and anon, as congenial people will, for a long chat upon some subject that happens to come uppermost. The two stronger natures, Edgar and Edith, were rather guarded in their intercourse. Large bodies move slowly at first. Edgar was so deep in the "Everlasting Nay," like Teufelsdröck in Carlyle's "Sartor Resartus," that his talk wandered rather aimlessly, and Edith found her Belvidere difficult to fathom sometimes. He avoided any very earnest expression of opinion, and sought refuge in *badinage*.

"I want you to understand from the start, Miss Edith," said he, "that we are not at all prepared to compliment this place of yours. You call yourselves Peace-makers; but I can assure you that, so far as we are concerned, you will have 'to conquer a peace.' You have shown us your library and reading-room, school of design, chemical laboratory, botanical and mineralogical departments, art gallery, and

schools of various technologies, with certainly learned instructors and apt pupils in each and all. But I can find just as good schools in all these branches without coming out into this benighted wilderness in search of them."

"The strong point in our plan," said Edith, "is this: we are in these schools for life, and this fact alone makes ours the most useful 'polytechnic school' extant. From youth to old age we have access to all these departments, according as we are attracted to them. Very seldom is any part of our education compulsory; and it is never finished. It is more possible here than in any place I ever heard of, for young and old to find out what they are good for, and to fit themselves for it. With our minute sub-division of our work, and frequent change of groups, all have frequent opportunity to come in contact with every branch of human industry for which they have any aptitude or attraction. To find what children are good for, and get them at it, is one of the despairs of civilization, and a thing seldom accomplished in ordinary life. With us the child finds the line of his aptitudes, and works therein as naturally as the bee, the squirrel, and the beaver."

"Really," cried Edgar, mockingly, "it ought to be Miss Edith Hartwell, Professor of Political and Social Science—not to mention such trifles as Cosmical Statics and Dynamics. I must say I can't enter into the spirit of this thing as you do. It is all very well for nice little orphans in blue check aprons and nankeen pantalettes to be crowded together by the hundred and drilled in platoons; but I can not see the need of people who can do better being jumbled up together in this way. Why, I'll venture to say that there are one hundred people here named Smith, and

that alone would drive me to distraction."

"Why should the Smiths trouble you any more here than in any village of equal size? There is no village of 3,000 people in the world where the peculiarities of others annoy individuals so little as they do here. Our people are universally instructed to suppress in their social intercourse everything that can possibly offend. We're 'jumbled,' are we?" she added, with spirit, "and the outside world has something 'better.' I'll let you know our opinion to start with, and that is that the jumble, the inextricable, horrible muddle, is all on the other side; and that we consider our arrangements as much more rational and scientific than those of ordinary civilization, as was the laying out of the city of Philadelphia than that of some noisome, hap-hazard Asiatic city of barbarians."

"Come, now, Miss Edith, you and yours are in a woful minority. Small minorities that expect to be allowed to live at all are more respectful to the great majority. The mere weight of numbers gives us the right to villify and abuse you to our heart's content, and to be utterly amazed if you retort in kind."

"Majorities are always wrong, always stupid, and always impudent. Nothing does them more good than to be paid in their own coin by a plucky minority."

"A truce to generalizations. Here we are in, I suppose, your largest general parlor. How can you compare the pleasure of sitting here, listening to the platitudes of a lot of ordinary people, with sitting with a refined, select circle of wits and beauties in one of our private city parlors?"

"How strange it is that you New Yorkers, who are every year deserting

your paradisiacal private mansions by thousands to live in great 'family hotels,' can not see that we have here all the amenities of these caravanseries without their expense and other drawbacks. The insanity of your people, too, in thinking that we have any lack of privacy. For those who wish, this place affords the solitude of the ocean, the prairie, the trackless forest. I hurry hither from all other places when I wish to be alone. We have several almost speechless hermits among us, men resembling Trappist monks, who stay here because they say it's the only spot they ever found where they were really 'let alone.'"

"Well," retorted Edgar, rather gaily, "I warn you that I have come here to break up the whole thing—consider it my duty as a conservative Christian pastor to do so. I think, by the way, it would just suit the Trappists. I will write to them about it."

"Do so; but their traps will be very rusty before they set them here."

The discussion as to the relative merits of isolated and associative life waxed warm as the young people passed from one point to another in the great building. Edgar, especially, kept up a running fire of carping criticism. Herman was so sorely smitten already that he was inclined to be subdued in his expressions of dissatisfaction.

"I can not see," said Edgar, "how you can endure this close intimacy with 3,000 people. Everybody seems to know everybody else, and one's acquaintanceship must be stretched upon a Procrustean bed, to a certain uniform length, with each inmate of the place. The consequence is, one must be immeasurably bored."

"Quite a mistake," said Edith. "This is the honestest, freest community you ever saw, and, at the same

time, more genuine etiquette is shown here than elsewhere. Consider the inducements people usually have to bore and be bored, and you will see that very few of those are experienced here. In ordinary society people thrust themselves into the company of others because they lack congenial acquaintances, or because they think to thus elevate themselves in the social scale, or because they think to improve their business prospects. All boring is based on humbug. But all sorts of shams stand a poor chance here, and very specially this one of trying to prove that you are a suitable associate for one with whom you have very little real sympathy. Then, the opportunity for forming congenial acquaintances is so abundant that there is little temptation to force yourself, for mere lack of companionship, upon those to whom you are disagreeable. Swedenborg says that after death people are 'let into their interiors;' that is, as some other divines would say, they are 'shown the plague of their own hearts.' Whatever evil has been lurking in them is stirred up and brought to the surface, and they are incited to let themselves out in the direction of their besetting sins, that they and all others may know what power and strength of will to overcome evil exist in them. It has been well said that modern society, especially in America, does this work for us pretty thoroughly, so that we do not have to wait to get into Purgatory. Of all communities in America even, there is none like an integral association to bring one's evils to the surface, and give him a chance to work them off or subdue them. In civilization one puts on his best clothes and best behavior, and sallies forth to appear other than he is, and not without success. But here, though we can be

perfectly isolated if we choose, any such attempt at 'obtaining goods on false pretences' is pretty sure to be a miserable failure. Each of the associates who has been here a few years is a trained detective of such frauds. Their close discernment is a fire that soon burns up this 'wood, hay, and stubble' of human character."

Edgar winced a little under the earnest words of this young sybil, for he felt that he was "acting a part," though an innocent one. But he kept up his chaffing thus: "Miss Edith, I have already gone once through the barrel of sermons that I wrote while in the theological seminary; don't you think you could furnish me with another, or at least supply them by the peck?"

She turned toward him with a "wicked" flash of her eyes, that showed more than he had before seen of their depth and power, as she said: "I have heard that some young men ought to be barreled up during certain of their indiscreeter years. From what I see and hear of you, I should imagine that it might be well—if the barrel is empty—that you should quietly step into it and be headed up for awhile."

"What, and leave my flock without an assistant shepherd?"

"I am inclined to think that the loss sustained by the lambs, through your absence, would not be wholly of a religious and spiritual nature."

Edgar looked closely and seriously at her an instant, then reddened visibly as he caught her meaning, and changed the subject. "Let us waive religious discussion for the present. But what mean these discs and various figures on each of the private doors we are passing?"

"Ah, there now is something right to the point. That shows how methodi

cal we are, and careful to avoid intrusion, and save each other trouble. One arrangement of that apparatus shows that the occupant of the room or suite is out, and will return at a certain hour of day or night. Another shows that the person is at home, but not ready to receive visits. Others show readiness to entertain business or social callers, or both."

"Are there not some fearful gossips and gadabouts here?"

"There is no complaint of such. There are some here, but they find their natural victims, who really enjoy their society. Have you never seen, for instance, in traveling, a wiry, nervous, talking woman pouring a constant stream of twaddle into the ear of her phlegmatic husband? He likes it—sits there as comfortable as a clam at high water. He nods and smiles occasionally. He wants to have something going on, and is too lazy to do or say anything himself. But we offer so many attractions toward useful industry, and so many opportunities for the talkative to converse while at work, that they do not go out of their way much to seek auditors."

Thus as they passed from one point of interest to another, the visitors uttered their criticisms and were promptly answered.

"Is it possible," said Reynolds, "that you young ladies, brought up in New York, are willing to forego for the rest of your lives all the pleasures of the city—the parties, lectures, concerts, public and private theatricals and operas, the church meetings, charitable fairs, the shopping, riding in the Park, the public receptions of notables, the contact with the great people of the world, the bridals, birthday parties, holiday festivities?"

"Now, Edith," said Alice, "you

have talked enough; let me answer that question. In the first place, there is no one of the things you have mentioned—that is of real value—which is not found here. As for parties, we have one nearly every night—real dancing parties, too—somewhere on the place, though we do not keep late hours or have dubious dancing. In New York hundreds of people are debarred from social intercourse in the evening with congenial people, because those whom they like live at a great distance from them. We have gathered here on the plan of 'birds of a feather flocking together;' so that there is a wonderful amount of congeniality among us, and any hour of day or evening we know just where to go to find an individual or a group who will be exceeding pleasant company for us, and this, too, without dressing for the street.

"Lectures we have, of course, in abundance. We are so numerous that we can afford to pay for the best, and so great a curiosity that the stars who talk without pay always give us a call when in the neighboring cities.

"Concerts we have, of the best, from our own artists; and every great performer who visits large towns comes here. Many favor us without pay, to encourage our enterprise.

"Of public and private theatricals we have no lack. Few towns of 10,000 people have a better appointed theater or better actors, and the great stars, including the operatic, visit us as freely as the concert-givers.

"As for church meetings, our chapel is the warm, quick-beating heart of the whole place. It is like the Roman Catholic churches in being always open. Our morning and evening prayer service is always Pentecostal. We have a continual revival under the ardent ministrations of our beloved pastor. One

great result of our mode of life is, that we are relieved from many of the ordinary temptations to wrong-doing—the lying, cheating, stealing, and finesse which pervades civilization. So it is easy for us to be good in these respects, and there are always some old and young coming into the perception and practice of the fact that the truest happiness is found in making others happy. When they get to that point, our pastor tells them they are Christians, and invites them into the church membership. So the revival is a chronic fact with us. For charitable fairs we have no occasion for our own people. We sometimes hold them to raise money for some suffering outsiders. There are about 300 separate charitable institutions in New York city. We have no charity here, except as regards a few bedridden, whom we have taken in out of compassion. Living is so cheap and work so varied, that all who can so much as move a hand pay their way. We find that justice amply takes the place of charity. There is no point of human weakness or suffering covered by those New York societies that is not covered here. Peace-maker Grange is all asylums rolled into one, including inebriate and insane. Few drunkards and lunatics can long resist the genial influences surrounding them here.

“Then shopping—oh dear! that poor resource of feeble-minded, idle, badly-educated women! If you want to see shopping as it should be, visit our variety store or bazar, in a building behind the restaurant, at any hour of the day or evening. You won't find there a lot of silly women overhauling a thousand dollars' worth to buy ten cents' worth. Our women have other places to gossip and study each other's bonnets. The goods have one price, quality is honestly stated, the few clerks

needed are civil but not fawning. During the two or three hours 'watch on deck' of each relay they are pretty busy, with seldom any rush. We have notice, from time to time, to call for certain goods, as far as possible, at certain hours. The clerks are men and women, according to aptitude.

“The rest of your list can be soon disposed of. The Central Park is a fine place, but one there has—when riding—a sense of being surrounded by a multitude of codfish aristocracy, gamblers, black-legs, defaulters, supercilious Knickerbockers, strange women, and innumerable more who have attained position, office, and fortune by false means. When we ride through our beautiful hills we meet only friends for whom we feel confidence and respect.

“As for the great people and notables, as I have said, curiosity alone brings plenty of them here. We will show you a bridal soon that will be better worth seeing than any Brown of Grace Church gets up. Birthday parties, holiday festivals, pic-nics, camp-meetings, boating, and fishing and hunting and yachting excursions we have beyond compare. Archery, croquet, billiard, and chess tournaments! Oh, the world could not contain the books we could write about them!”

As Alice waxed warm in championing her pleasant home, her color heightened, her eyes sparkled, her voice and gestures grew eloquent.

Reynolds gazed upon her and forgot the presence of others. He stared with open-mouthed wonder and admiration, like an awkward school-boy. Edgar and Edith had arrived at a sufficiently good understanding to be able to nod significantly at each other, as they noticed the abstraction of their friends. Edith, bent on having a little fun after

the serious discussion, exclaimed, with a merry laugh, "Do but look at the pair of them!"

Both the abstractionists instantly saw the awkwardness of their demeanor. Reynolds shut his mouth with a snap; but Alice, quick of feeling and wound up to a high key, burst into tears, and said, "I think it is *too bad* of you, Edith!"

The culprit, of course, while unable to suppress her smiles, rushed toward her over-sensitive friend, embraced her, and covered her with caresses. Rey-

nolds involuntarily took a quick step in the same direction, and then, checking himself, looked as if he thought "turn about was fair play."

The sunshine soon burst through the clouds on Alice's face, and the latter dispersed as quickly as they gathered. "There wasn't much of a shower anyhow." Reynolds could swear that he saw a rain-bow (or rather a raining belle) as she smiled through her tears. She looked a little foolish for awhile, and cast sly, sidelong glances at her metropolitan admirer; but they all soon subsided into ordinary chit-chat.

[TO BE CONTINUED.]

SAMUEL LEAVITT.

JOHN W. GARRETT,

PRESIDENT OF THE BALTIMORE AND OHIO RAILWAY.

WE like this face. It looks stanch, steadfast, and determined. It looks honest and intelligent, as if the owner had no concealments, and no need of them; to use a common phrase, it looks as if he "meant business," and could be trusted in business, social, or political life. He has a world of intuition—that sense of truth which comes flashing upon the mind without waiting to verify its evidences, and brings conviction and decision. This is a man for emergencies; he will transact more business in a day, and will manage more crooked and restless men than most men in similar relations, and he has peculiar ability to bring men to terms who would quarrel with nearly everybody. He is a man, indeed, who will win friends among his foes. People whose interests differ from his, and whose strife and energy are employed as against his interests and purposes, though they struggle against him, yet will have respect for him. If he were a lawyer, his antagonists would strive for a verdict, and labor for victory, but

they would somehow, in spite of themselves, believe in him personally. He has the power of disagreeing with people without exciting animosity in them.

He is very friendly, large-hearted, genial, and calculated to inspire confidence. He is endowed with the organs which give common sense; his head is long from the ears forward to the root of the nose, and the forehead is massive. He is remarkable for his method, for his tendency to systematize everything, and to give personal attention to particulars. If he were to walk through a foundry, or a lumber-yard, or a repair-shop, or ride over a road, he would take in at a glance the condition of things, and men would be astonished, and even provoked or annoyed to know that a man not trained in their peculiar trade should be so good a critic of their work, and capable of seeing defects and faults which would escape the attention of most men who were not trained in such fields of effort.

He is a first-rate judge of strangers.

Men stand before him luminous, and he looks through them as one can look through a ladder, and it does not do much good for people to try to deceive him. He takes a straightforward course to attain honest results, and anything like trickery, policy, or double-dealing, would arouse his criticism and

rises so much above the frontal that it seems to indicate relative smallness in front, but this is an erroneous estimate. The head is exceedingly high from the opening of the ears; in the middle of the top-head, where it is so high, the organ of Firmness is located, indicating such an amount of steadfastness, and



PORTRAIT OF JOHN W. GARRETT.

suspicion, and lead him to detect the false pretence in it. He does not believe in sham of any sort.

The reader will observe how high the head rises in the middle section directly over the opening of the ears; if that part be covered up the forehead looks large, but the middle section

unflinching determination in the pursuit of that which he deems to be proper and right, that it is a bar to persuasion, to threats, or to the efforts of selfish combinations. Outward from that central point, on either side, the organ of Conscientiousness is located, and that shows ample elevation and

strength. He believes in justice; he loves it because it is just.

His Self-Esteem we judge to be large. He has a self-satisfied look; that firm compression of the lips means Firmness and Self-Esteem; that calm, settled state of the eye indicates resolution, decision, and self-satisfaction. He does not look as if he thought he was in a corner, as if he were afraid of foes. He is about as unmoved and unafraid of criticism as the multiplication-table is, which does not care from what side criticism may come. He has the tendency to mind his own business, and to be master of it; to feel self-satisfied with his efforts, with his judgment, and, we may say, that he is willing to be criticised.

We judge he has his mother's quick intuitions, her accuracy of thought, her clearness of analysis, and his father's strength, resolution, courage, and fortitude; and these elements combine to make him self-reliant, positive, intelligent, just, clear in plan, upright in character, and thorough in the execution of his purpose.

The following brief but very comprehensive outline of Mr. Garrett's life is derived mainly from our neighbor of *Appleton's Railway Guide*. The phrenological sketch, we may add, was predicated of an excellent photograph, the examiner being not at all familiar with the character or business capability of Mr. Garrett previously:

We presume that there is not a railway or business man in the country to whom the name of John W. Garrett is not familiar. He is known to the entire country, and in the commercial centers of Europe, as the head of the great corporation that controls the Baltimore and Ohio Railway and its connections. He has, indeed, been long prominent as such, but recent develop-

ments in railway matters, and recent episodes in the railway history of the country, have placed his name before the public at large in such a way that an unusual interest attaches to him. Mr. Garrett was born in the city of Baltimore, July 21, 1820, and there are none in that beautiful and enterprising city who are more appreciated, and more worthy of appreciation, than John W. Garrett; and there are none to whom its prosperity is more dear. His father, Robert Garrett, was one of the most prominent citizens of Baltimore in his time, and accumulated a large fortune by developing the foreign and domestic commerce of the port. He had two sons, Henry S. and John W., and he associated both of them with him in business when they were yet very young men. John W. was the younger of the two, and when he left Lafayette College, in Pennsylvania, at the age of nineteen, it was to enter his father's counting-room, whither his brother had preceded him, as partner. Robert Garrett was a man of kindly, generous disposition, warm impulses, and broad intelligence, but nevertheless a severe, unyielding man of business, who transacted his affairs in this world upon a fixed rule and principle as immutable for him and his partners as the laws of the Medes and Persians. It was under a training like this that John learned "business," and acquired the knowledge of men and the world which he has since turned to such valuable account. His father came of a well-to-do and respectable North of Ireland family, and his mother of Pennsylvania-German stock. Like his father, Mr. Garrett has all that native sagacity and shrewdness that characterize the so-called Scotch-Irish—a quality of mind which rejects instinctively the levities and smaller considerations of

life, and occupies itself with hard facts and mature problems. Sound common sense has been the distinctive characteristic of Mr. Garrett's business career; he is entirely practical, and in no sense a theorist.

Mr. Garrett and his brother, gradually assuming the management of the firm of Robert Garrett & Sons, greatly increased its importance and utility. It became the American branch of the great house of Peabody & Co., of London, and represented in this country some of the most important commercial houses of London and Liverpool. It is safe to say that there was at this time no great public enterprise undertaken in the State in which the house was not actively engaged. John W. Garrett is now, of course, generally known in this country as the head of the Baltimore and Ohio Railway. During his earlier business career Mr. Garrett was a close and attentive student of the railway problem of the country, as instanced by the road that was even then having such a powerful influence upon his native city. He expressed himself freely upon the subject of management, and it is not unreasonable to suppose that his influence was more or less felt by the road long before he ever consented to take part in its management. Those who are familiar with the history of the Baltimore and Ohio Railway must recollect that up to 1856 it had been practically an unprofitable and much embarrassed enterprise.

In 1858 Mr. Garrett inaugurated a new policy of government, and, through the nomination of the late millionaire, John Hopkins, was elected president of the company. A new order of things dated from October, 1858, and at the next annual meeting of the company its fruits were apparent. The gross receipts of the road for 1859—the first

year of Mr. Garrett's administration—were over half a million dollars less than in 1858, owing to the general business depression of the country, 1859 bearing a relation to 1857 similar to that borne by 1875 to 1873. But there was an increase of \$725,325.16 in the comparative net gains. This was when the Garrett policy of economy and personal supervision made its workings manifest, and the first practical result of it was the payment to the stockholders in the spring of 1859 of the first semi-annual dividend of the regular series, which has never been interrupted since.

In 1860 the gross earnings of the road largely exceeded those of both preceding years, but not to the extent of promising increased net earnings upon the former basis of management. But economy and reform produced an increase of net profit of \$980,300, nearly a million dollars. This was equal in point of fact to a net gain on the capital stock of over eighteen per cent. In 1858, when Mr. Garrett first took part in the management of the company, the stock of the road was quoted at \$57; but, considering the contingency of an extra dividend, then in litigation, its average market value was \$46. A recent quotation in the Baltimore Stock Board makes the stock stand at \$200, and none to be had even at this figure. It is a stock that rarely finds its way into the market, except when some of it is sold in the settlement of an estate.

During the late war Mr. Garrett played a very important part in its conduct, and few have any idea of how intimate was his connection with many of the most important military operations that took place. President Lincoln had the greatest confidence in Mr. Garrett's judgment, and some of the

most critical movements of the Federal armies were made upon his advice. His relations with the Government were marked by excellent judgment and tact. He was placed with regard to Mr. Lincoln's administration very much as his road was with regard to the belligerents, yet maintained his equilibrium with consummate ability.

During the past ten years the Baltimore and Ohio Railway has gone on steadily increasing in power and influence under the untiring and unflinching energy of its president. Branch after branch has been built and road after road acquired, while on the seaboard he has unremittingly directed his energies to the creation of additional facilities for communication with Europe. In forming his great Western connections Mr. Garrett has from the first

clearly defined the object and utility of every important step. He has always seen what the result was to be, and he has reached in one direction after wheat, in another after coal, and in another after oil. In this way it may be said that a satisfactory feature of the conduct of the enterprise of the Baltimore and Ohio road was the quickness with which results were attained. It is one of the most active roads in the country in distributing immigration received at Baltimore from the north of Europe.

Mr. Garrett's absorbing interests have not deterred him from humanitarian pursuits, and he is a well-read and cultivated gentleman. In person he is large and portly, of affable and polished manner, determined and curt of business speech, but withal a pleasant and agreeable gentleman.



THE GIRL OF THE PERIOD.

IF it were not a question of such grave moment, the desire to present the ludicrous phase of this subject might be gratified. For surely nothing can be more amusing than the self-satisfied air with which the young lady of to-day trips lightly forth from the modern boarding-school and views, with profound commiseration, not unmingled with disdain, the uncultivated and ignorant masses who agonize so many leagues beneath the unapproachable heights which she has attained. What intricate problems she has solved! What complicated mysteries she has unraveled! With what profoundness

she grasps the vital questions that agitate church and state! How clear are her conceptions of the true civil policy of the government, or the attitude which the church should assume with regard to ritualism! She will talk to you of Ruskins' latest strain, or discourse philosophically upon Carlyle's newest idea, as though she had been on terms of extreme intimacy with those gentlemen. She is devoted to the Tennysonian school of poetry, having an especial fondness for the "Blue and Gold" editions, and has all the "unutterable longings for the infinite" that such companionship occasions. It may be,

however, that her pretensions are not quite so exalted, and that she is content to move in a sphere having a closer proximity to the vulgar herd. Then some of the lesser stars are sure to be the object of her doting, for she is constitutionally compelled to dote on something. It may be that literature does not engage her attention. Then, doubtless, music is her idol and the piano her forte. If so, she "sits and sings herself away, to ——" a noteworthy amateur, at least.

The opera is so refining, so elevating; symphonies and oratorios have the true spiritual culture, and Strauss and Wagner are destined to redeem the world. Perchance, drawing has most attractions for her artistic mind. Of course she is a *connoisseur*, and academies of design and art galleries are regularly graced by her presence. No one questions the fact that she is accomplished. Indeed, she may fitly represent all the graces. She is elegance personified. In fine, she is educated.

Does any one mildly suggest that something has been neglected? That surely some very important element has been overlooked? That there may possibly be household duties and domestic responsibilities which demand a reasonable degree of attention? That the parlor and drawing-room are not the only apartments in a well-ordered home? That while giving a due share of attention to what are known as the "accomplishments," it might be wise and thoughtful to acquire some means of gaining a livelihood in case of some reverse of fortune?

Is any one so recklessly inconsiderate as to affirm that if five-tenths of the young, fashionably-educated girls were left penniless they would go to ruin, or starvation of both body and soul?

If so, let him keep his own counsel, for surely he belongs to a past and degenerate age. The ideas he advances have long since been exploded, and will not even be tolerated now.

We are living in a progressive age, and by the light of this new era we read that the old-fashioned opinion that the sphere of woman was the home-circle can not obtain in the minds of the progressive educators of to-day. She is to be fitted for a glorious destiny, far above and beyond that of a mere menial or household drudge. In fact, her organism is of too fine and delicate a nature to be contaminated by the gross and debasing influences of actual labor. Only the vulgar labor. Truly cultivated people never work. Then how incompatible with the true dignity and grace of womanhood that the young ladies of to-day should entertain, for a moment, the idea of being of any practical use to the world. Surely, no one can consider so unworthy a reflection, much less give it utterance. Is it not written in the book of the Chronicles that to educate a girl is to divest her of whatever judgment or sense she may once have possessed? That, according to the popular idea, she should be burdened with nothing, supported by nothing, and good for nothing in general? That so far from knowing anything concerning the wonderful structure of the physical system, she should positively be taught to do violence to that same body by every conceivable abuse and contortion? That health was of no consequence whatever, when the claims of fashion asserted themselves? That independence of thought and action upon these matters belonged exclusively to the eccentric? That these "proprieties" must be observed at all hazards? That the religion of the poor Nazarene

means, to-day, an exhibition of one's personal property? That life is to be regarded as one long-continued suffering from *ennui*, in which any available means are allowable by which to kill the time? That the great aim in the life of a dutiful daughter is to cost her father as much money as possible, her mother as much more anxiety, and be of no earthly use to them, to herself, or to anybody else?

I believe, nevertheless, that the woman of the future will realize much of the expectancy of the past. I see about me a bounteous sisterhood of brave hearts and willing hands that are supporting every good cause in which they are engaged. I see the star of hopeful promise arise above womankind such as has not shone since that far-off night over Bethlehem's plain. I recognize,

with sincerest joy, that there exists to-day the same spirit of holy reverence and faithful devotion as walked attendant upon the steps of the Man of Nazareth. I see in the garden of life no buds of richer promise, no flowers of more exquisite beauty than the young girls of to-day, who are lifting their glowing faces to the light of a lovelier womanhood, as morning lilies to the light of the rosy dawn. But I have no sympathy with the wretched pretensions of the modern boarding-school, nor with the ungainly deformity of mind and character which they produce. If there is any department of education where radical reform is needed it is here. For if women of this generation are but properly educated, the culture of the future need give us no apprehension whatever. H. S. V.

UNDER THE SNOW.

Lying so low under the snow,
Your darling her long rest is taking.
Spring can not charm her or the glad summer warm,
Nor yet does the winter-time bring her an aching.

Pale is her brow, and the grave mold is now
Enwrought with the gold of her hair,
Like the woof of the spider, while ever beside her
Dank silence so softly is slumbering there.
She was so beautiful, loving, and dutiful,
Bearing so meekly through every ill,

The woes that beset her, that none ever met her
But fondly do cherish her memory still.
God-faithful was she, most worthy to be
The pure, sinless bride of the Lamb;
No wonder He sought her, for every one thought her
But worthy to mate with the holy "I Am."
Would you have her come back o'er the wearysome track
Whereon she triumphantly trod?
Your tears can not move her, but th' angels will love her, [God,
So fear not to leave her with them and her
NELLIE A. MANN.

MRS. E. D. "MOTHER" STEWART.

A LEADER OF THE WOMAN'S CRUSADE AGAINST THE LIQUOR TRADE.

MRS. STEWART, who has become so extensively known in this country, and also in England, because of her earnest and practical advocacy of prohibition, is a native of

Ohio. During the most of her life she has been an active worker in behalf of the oppressed and needy, but it is only in the last five or six years that she felt impelled to enter the field against

wrong in a conspicuously public manner. To be sure, during the late civil war she was very efficient in procuring supplies for the use of the sick and

the recent grand uprising of sentiment against the liquor traffic did she feel called to take so prominent a place as that of a leader. In appearance



PORTRAIT OF MRS. E. D. "MOTHER" STEWART.

wounded in the military hospitals, and for many years she had co-operated in local efforts for the suppression of intemperance, but not until the time of

"Mother" Stewart is engaging and impressive. Her soft, gray hair, expressive eye, fresh complexion, and genial manner suggest the lady of re-

finement and delicacy, and her clear, sweet, yet emphatic voice convince of her thorough earnestness as a missionary.

A Scottish lady writes of this estimable lady's appearance at the National Temperance Convention at Chicago in 1875:

"There was Mother Stewart, looking like a consecrated general, with her eagle eyes and whitening hair, shading a face indicating enough determination to accomplish anything she set her heart on. I remember reading of her convicting a rum-seller of defying the law by selling rum on the Sabbath. She exhibited the rum in the court that had been bought in his saloon. On several occasions she had appeared before juries, and, without previous training, pleaded for the women who had sued liquor dealers for selling whisky to their husbands, and she generally won her case."

Mrs. Stewart is now in England, where she has awakened no little interest in herself as well as in the cause she champions. Our friend Mr. L. N. Fowler, having an opportunity to observe her, makes certain remarks in her Phrenology, from which we have taken the liberty to draw, viz:

Mrs. E. D. Stewart has a distinct individuality of character, as well as an identity of her own. Her head is of the average size, but well proportioned to her body, yet her brain has the ascendancy, owing partly to bodily infirmity and partly to an active nervous temperament. She has naturally a strong constitution and much power of endurance, yet she is greatly assisted in her mental labors by her superior nervous energy, strength of will, and force of character.

Her brain indicates eight prominent qualities of mind, which stand out dis-

tinctly in her character. The first is the power which her nervous-mental temperament gives to her mind, directing the majority of the forces of her nature into the mental channel, thus making her derive greater pleasure in mental exercises and labors than in those of a purely physical character.

The second prominent quality comes from the strength of her reasoning, thinking faculties, giving her judgment, originality, ability to plan, to regulate her impulses, to balance her feelings, and to guide her enthusiasm, so that she possesses not only zeal, but knowledge, and has sound, good, common sense, which enables her to treat all subjects intellectually and with reference to practical results. She acts and speaks more from the understanding than from the emotional nature. She has more of a philosophical turn of mind than a scientific one; is more given to thought than to observation, and deals more in principles than in facts and details. Her genius does not run in the direction of music, art, poetry, or figures.

Her third strong characteristic gives her self-control, self-reliance, presence of mind, independence, sense of liberty, and the desire to act and think for herself. She is not easily thrown off her balance in times of danger, but is prepared to take responsibilities if necessary, and be a master spirit. She is not wanting in the desire to excel, to please, and to be appreciated, but she has much more sense of character than regard for fashion or fondness of display in dress. She has ambition, yet her ambition is not so great as to lead her to compromise her principles in order to please any one.

Her fourth quality of mind, worthy of note, gives her energy, spirit, force, resolution, power of endurance, and

stamina. She will not stop for trials, nor be kept in check by ordinary opposition. Her energy is too great for her strength, and she is inclined to perform more labor than she ought to attempt. The combative element is not so strong as the executive element.

Her fifth leading trait is sense of obligation, of duty and justice. She has moral courage, and is a lover of equity and right. All kinds of injustice appear to her like an outrage. It must be with difficulty that she can restrain herself from using very forcible language in denouncing sin and sinners.

Her sixth distinct element is her Caution, which has a restraining influence on her executive powers, and greatly controls their action. She has much forethought, prudence, solicitude, and regard for results.

The seventh prominent quality gives her sympathy with humanity, and interest in the welfare of others, which stimulate her to action. She takes great delight in seeing others good and happy, and is willing to labor to secure these ends. Her large Benevolence has developed in her a missionary spirit, a desire to do good, and, if possible, to remove all impediments in

the way of human improvement and happiness.

The eighth and last, though not least, strong power of her mind is her social, domestic nature. She is devoutly attached to home, family, and friends; few are more sincere and devoted in their domestic feelings and affections. Nothing but a strong, sincere interest in the general welfare of the race would lead her to sacrifice her home feelings and enjoyments, to labor in a public manner, to create sentiment in favor of the right. She naturally places the family circle and domestic influence at the foundation of society, and it is easy for her to see that whatever disturbs the home-circle deranges the entire life, stunts moral growth, and prevents perfection of character and consistency of life; and whoever is engaged in any trade or business that tends to break up, disorganize or demoralize the family circle, is, in her estimation, engaged in doing the work of the evil one.

Some of her faculties are not large, and do not enter strongly into her character; but the combined action of these eight distinct conditions of her body and mind enables her to accomplish that special end, in which she takes a great interest.

THE TWO HOMES.

I PAID a visit to my friend last week ;
 She has a beautiful, well-ordered home—
 Husband and children, coach and horses sleek,
 And at her bidding servants go and come.
 She led me proudly through each stately room,
 Rich in upholstered grandeur; laces fair
 Hung at the windows, over crimson gloom,
 And works of taste and art were everywhere.
 The costly service on her snowy board
 Glittered, in labored loveliness arrayed ;
 And savory food, and fragrant nectar pour'd,
 Proclaimed the skill of mistress and of maid.
 Yet she was worn, and silent, and her eye
 Spoke not the wife and mother's glad content ;

Her fretting children richly clad went by
 On fashion's claims, or self-amusement bent.
 Late from his club her husband home returned ;
 No greetings at the door, where arms entwine,
 But through the halls his fragrant meerschaum
 burned,
 And boon companions reveled at his wine.
 * * * * *
 I paid a visit to another friend ;
 A simple cottage bounded life for her,
 But in it were the joys that Heavenward tend,
 And love's sweet household fairies all astr.
 On well-worn carpets, trod by little feet,
 The winter sunshine lay in patches bright

And in the parlor-windows gay and sweet,
Green vines and flowers alone obscured the
light.

The food was simple, yet therein was wrought
Most studious care for nature's high de-
mands—

Books, papers, pictures, furnished food for
thought,

And cheered the drudgery of the busy hands.

Fresh from their school the romping children
came,

Their cheeks atingle and their minds aglow—

Questions to ask, successes to proclaim
The breezy whirlwind, only mothers know.

And later, from the labors of his day,
The husband's dear, familiar step was heard;
The smile, the look, in love's own conscious
way,

Said more to me than any spoken word.

Oh, richer friend! the world esteems as best
Thy chosen lot, yet must one heart deplore.
Oh, purer friend! I call thee greatly blest,
And in my prayers could hardly wish thee
more.

ANNE F. BRADLEY.

THE REAL UNREAL.

FEW persons realize the power of imag-
ination, or know with what rainbow
tints it paints the prosy walks of every-day
life. Indeed, had we not this wonderful
faculty oftentimes our courage would fail, and
we should faint by the way, overwhelmed
by the burdens of life—the hard, unlovely
duties which lie all along our path. It is
only this power to grasp the ideal and bring
it down to the bare realities of life, and en-
velop and hide their unseemly proportions
within its halo of glory and beauty, which
makes life desirable, or even endurable
sometimes. But this faculty, which brings
so much happiness when used aright, may,
like all other faculties when too large or
too active, or when used to excess, be an
active cause of unhappiness. It is often, if
not always, the abuse of use that brings
suffering. "Evil is perverted good." It is
interesting sometimes to trace out the work-
ings of these faculties of the mind, and we
will draw a picture or two in illustration of
our theme:

Sylvia sits writing. The room in which
she sits is a very small one; the chairs are
wooden and hard; the table on which she
writes is an oaken, home-made affair, cov-
ered with a dainty white spread; a home-
made lounge, constructed of rough boards
and covered with a home-made cushion and
spread, occupies one side of the room; a
rag-carpet covers the floor—a carpet whose
every inch was made of old rags made clean
by washing and torn into strips and sewn
together by busy housewifely fingers, and

then woven into a very presentable carpet
by those same busy fingers. A wooden
rocking-chair, with a cushion for back and
bottom to make it easy, and a tidy cover,
ornaments the center of the room, while
near it stands a small parlor-stove, in which
a bright wood fire crackles cheerfully. A
shelf or bracket in one corner for papers
and books, a mirror between two front win-
dows, a few house-plants, a canary bird,
and three or four simple, home-like pic-
tures plainly framed, complete the home-
picture.

Sylvia is writing to a friend whose ac-
quaintance she has made abroad, and who
never saw her little home-nest. She says,
"I am sitting by my father's fire—a bright,
cheerful one, too." When her friend reads
that sentence a vision passes before his
mind's eye, a picture which his fancy paints
of the lady who penned these words, sitting
by her cheerful fire; but is the vision which
he sees the reality? By no means. He
could not paint the real, for he has never
seen so plain and home-like a picture as
that of Sylvia's home, which we have por-
trayed; but the picture which he sees is a
beautiful one which his own vivid imagina-
tion has conjured up, and which to him is
as real as the plain reality is to Sylvia. He
sees a grate-fire beneath a marble mantle-
piece, sending a warm glow over the Brus-
sels carpet; high ceilings adorned with
carving and moldings; walls covered with
beautiful paintings, luxurious sofas and
chairs, statuary, etc. This is, indeed, un-

real, but to him it is real, and thus is the real and unreal intertwined in our lives.

Sylvia loves to travel; she has friends in the Far West, in Colorado; they write glowing accounts of the country; it is "the finest in the world," they say, and they beg her to visit them in their Western home. She is a lover of the beautiful in nature and art, and on reading these descriptions her imagination immediately frames a picture—such a picture as only an imaginative and poetical mind and a true lover of nature can frame. In this picture is beautiful wild scenery of rock and hill and dale; lovely little babbling brooks winding through green shady glens, down rocky slopes, shaded by trees whose green branches reach over and bathe their rustling garments in the sparkling spray, then the water glides off, softly murmuring through woody headlands and over green pastures that stretch far away in the distance. Beautiful trees everywhere, and in great variety abound. Her's is the poet's dream, when he sings of the land where

"Rocks and hills and brooks and vales
With milk and honey flow."

Sylvia is a poet. She lives and revels in her ideal, and so long as it is ideal to her it is real. She longs for such a land as this, and therefore she clothes this far off country with the highest ideas of beauty, and nurses and cherishes her self-created picture. She will not use her reason—nothing so cold and calculating as reason can be allowed to step in to mar her beautiful dream. She resolves to visit her friends in that far-off land, and perhaps to live and die there, and is borne far away to the West, toward the Eldorado of her dreams. She crosses the plains in all their dreary monotony, and as she nears her destination begins anxiously to look for her ideal country; but she sees nothing but plains, plains. She leaves the cars and takes the stage, and as it rolls onward still no change, but the same dreary monotony. Night draws on, and finally shuts out the dismal view, and in the darkness she reaches her journey's end and greets her friends. She can scarcely sleep, so anxious is she to behold her promised land.

Before sunrise next morning she is up, dressed, and out to view her new home. She looks toward the west and beholds a scene which her fancy did not paint—could not have painted correctly. A bold and rugged mass of rocks, projecting cliffs and sloping peaks, stretching upward and backward till they seemed to blend with the sky and are lost to view. Barren they appear, except for the few pines scattered over their surface, and awfully high and grand and cold. To the east a plain stretches away, away, as far as the eye can reach, and still on, with scarce a house, a tree, or a rise of ground beyond the confines of the little village in which she finds herself. North and south were the barefoot-hills, and they even were a relief after the vast view of plain, but scarcely a green tree anywhere. There was grass, but it was brown and sere, and, as she learned, always remained so. And this was the end of poor Sylvia's dream. This the barren real. She goes within and sits down with a feeling of desperation in her heart, and which can find no relief save in a flood of tears. It seems to her that those great ponderous mountain peaks might fall upon and crush her. She really regrets that she had not remained in her eastern home; then would not the beautiful ideal which was so dear to her have been so ruthlessly shattered.

Sylvia was still unmarried, and though scarcely old enough to be called an "old maid," was verging upon that trying and undesirable period in a woman's life. Yet she was young in experience as regards men and things of a worldly nature. As is the case usually with ladies who have remained single until they have arrived at an uncertain age, Sylvia had her ideal of the opposite sex, yet very likely she would have been puzzled to describe him to you had you requested her to do so. He was undoubtedly very similar to any common woman's ideal of a true man, only exaggerated to a degree commensurate with the peculiarities of her mental constitution. He was everything noble, true, grand, rather to be worshiped and idolized than fellowshipped with in the common walks of life. Scarcely knowing

it herself, she had erected an idol, and set it high up in her soul's sanctuary, where none but herself could enter, and this she worshiped in secret. Would it not be the most cruel thing of all to tear away the veil which envelops this ideal of manhood, and sets it up as a thing to be worshiped, and gilds it with the noblest attributes of God himself, hides it from vulgar eyes, and then falls down and worships? Ah, Sylvia! Sylvia! if you but knew, how closely would you hug that ideal, and how persistently turn your back upon all advances that would tear it from your soul, and leave you naught but ashes and a skeleton!

But Sylvia did not know, and was, like all her sex, ever striving to make her ideal a reality. In this flourishing western village where Sylvia was visiting lived a widower—a very nabob in wealth—and who was much esteemed and courted in the little town in which he lived. Of course, this person had nothing at all to do with the anxiety felt by Sylvia's friends for her to visit them! But it happened that he was a frequent visitor at this house, and, as a matter of course, Sylvia was introduced and met him frequently. Had common, prosy people like you or I, dear reader, have met this man, we would have seen nothing extraordinary in him. Had we been asked to describe him, we would have said he was rather tall, with sandy hair and beard. Sylvia would have pronounced him a tall, fine-looking man, with broad shoulders, a

high, broad forehead of transparent whiteness, with such beautiful, speaking blue eyes, wavy auburn hair and beard, and such pleasing ways! Sylvia became interested—fascinated, I may say—and as the liking became mutual, need I tell my readers the result? She married, not the common mortal to whom she was really bound by the marriage rite, but him she had invested with the attributes of her soul's ideal, and tried to make herself believe she was realizing her beautiful dream. And that this was the most unreal dream of all, I need not add.

It is not for me here to tell of the sad awakening, to trace out the methods by which her ideal was divested of his tinsel-gilding; how her heart ached and her feet almost refused to tread the hard, barren paths of real life; and how she would have fallen by the way, pierced through and through by the sharp thorns, had not the roses, too, have blossomed sweetly among the thorns, and her soul been enabled to build other ideals higher and still higher as each one fell.

In her eastern home Mrs. Jones says to Mrs. Smith: "I've heard some news. Don't you think that dreamy Sylvia Turner is married!"

"La, now, you don't say so! Well, I allus said she went off there among the Injuns to ketch a man!"

"And what's more, he's worth \$50,000! It beats all how lucky some folks is."

OLIVE A. DAVISON.

"A BAD BEGINNING"

CHAPTER VII.

SAVING THE SINNER.

THE wife, son, and daughter of Ralph Staunton stood grouped about his coffin, viewing for the last time the face to which death had given an unfamiliar look, yet a look which more clearly expressed the character of the man than any he had worn in life. The spirit that had masqueraded in Protean flesh had gone out, leaving at last its true imprint on the plastic, perishing clay, as in the transparent atmosphere

of the world upon which it had entered it must appear with undissembling form and countenance.

The woman, his widow, shrouded in yards of funeral crape, and bowed in tearful grief over the confined head, was one of those impassionable creatures who take their molding from circumstances, passively reflecting their surroundings like stagnant waters, with no rippling, ruffling undercur-

rent of will and purpose. You had but to look in her soft, pretty, characterless face, and at the strong, dominant, self-assertive cast of his from which the fire of life had suddenly flashed out, to find at once the key to the nature of the son standing with folded arms at the foot of the dead, every lineament of his expressive countenance stamped with the refined selfish instincts and propensities of the father, yet unsubordinated to the higher moral faculties, the intense love of approbation, and the strong power of self-control which governed the conduct of the latter.

You might not so easily have read the daughter, with her hands clasped upon the coffin and her eyes raised to heaven with a look of devout prayerfulness, unless you understood that at its faint, far beginning her life was marked by the agitation and excitement of profound religious convictions and experiences in both parents; and though with them the fervor of spiritual ecstasy had long since burned into the ashes of careless indifference, it had left its impress on the child of that era in an abnormal development of the religious faculty, warring perpetually against the natural impulses of the heart, and rendering her peculiarly susceptible to every influence affecting this morbidly sensitive quality of her mind.

At this particular time, under the strong dominion of the Roman faith through her associations with a convent school, she would have left no office of the mother church unperformed that might insure the safety and happiness of the departed soul; but meeting with no sympathy in her latest enthusiasm of devotion, she contented herself with a silent murnauring of the mass for the dead, making the sacred sign of the cross over the pulseless breast, and devoutly kissing the crucifix suspended from her neck, while the widow wailed and lamented in inconsolable grief, and the son gnawed his nether lip and knitted his dark, stormy brows in sullen rebellion at this inscrutable stroke of fate.

Then came the inexorable officer of the dead, and shut with relentless hand the coffin-lid, hiding forever from the strained

and dizzy sight of burning, tear-dimmed eyes the face whose last remembered look would be always this of sorrowful eclipse in the darkening horrors of the tomb.

Jarl Darley from his prison window watched with strange emotions the imposing funeral procession of his victim winding its slow way to the lovely Woodburne cemetery, whose gleaming monuments were faintly discernible from his narrow, guarded outlook. Had he stood outside himself and marked his own body passing to the grave, he could not have experienced a more unnatural feeling. It was all like a dream, and yet he had so singularly clear and vivid a sense of the situation, that there was nothing of the confusion and shifting phantasmagoria of a troubled sleep, but the way he was to go, the thing he had to do, was marked and distinct and final to his mind as though mapped by an irrevocable fate, and he neither shrank from nor murmured at, nor thought to escape the inevitable retribution of violated law.

A peculiar trial awaited him, however, when, at the close of the funeral ceremonies, the daughter of Ralph Staunton came in to argue with him upon the necessity of immediate and absolute repentance of his heinous offence.

In vain her friends had reasoned with her against a proceeding so unusual; the more opposed, the more determined was she in the performance of what she believed to be a solemn duty.

"You will attend me, mother dear?" she said, appealing to Mrs. Staunton, who from the incessant use she made of her highly ornamented *vinaigrette* would seem by its aid to have supported herself through the trying ordeal of the day.

"Grace, my child, how can you ask such an unnatural thing?" she answered, shuddering. "I never could endure to see the face of that terrible, blood-thirsty man. Never speak of anything so shocking if you have any love or care for me;" and the smelling-bottle was brought again to the nervously shivering lady's relief.

"Don't look at me," responded the girl's brother to her mutely inquiring glance. "When I enter Jarl Darley's prison it will

be with the knife of the assassin rather than with the prayer of the exhorter. Try to be reasonable, Grace, and not add needlessly to the burden of our troubles."

So adjured the young zealot turned away, silenced in that direction, but in no way moved from her resolve.

"Ariel!"

The boy over whom she had always exercised a kind of proprietorship separated himself from the little group of operatives returning from the church and approached her with a respectful bow.

"What is your pleasure, Miss Grace?"

"Will you go with me to visit Jarl Darley?" she asked, with an imperiousness that forbade refusal.

"Certainly, if you wish it," was the unhesitating response.

And mutely waving her hand at the objections and expostulations of her mother and brother, the resolute girl slipped her arm within Ariel's and set out on her errand of Christian duty.

The calm, dignified man who returned her salutation with a deeply-pained and troubled look was not at all the hardened, desperate, defiant criminal whom she had come to urge to repentance and to acceptance of the only possible means of salvation as prescribed and offered by the Church.

For a moment she stood before him abashed and unable to commence the words she had thought to speak, feeling less the impulsion of religious duty than the childish need to sink down and weep away the terrible strain on heart and nerve from which she was suffering. But presently she rallied feebly to the work of her self-appointed office.

"You remember me?" she said, inquiringly. "I have been some time away from Woodburne."

"Yes, yes—the daughter of Ralph Staunton," Jarl said, with the same pained, troubled look. "I could not forget that cast of countenance."

"The daughter of Ralph Staunton comes to you to-day with earnest entreaty that you will lose no moment of precious time in confessing and receiving absolution for

your horrible crime," she began, breathlessly plunging into the business of her visit, and hurrying over it as though in doubt of her strength and courage to get through with it. "The daughter of the man you have murdered in cold blood comes to you with prayer for your forgiveness, with desire and thought only for your salvation and eternal happiness," she added, making the strong point in her argument for repentance which she expected to pierce his sin-hardened heart with the sharp arrow of contrition.

Jarl looked at the young devotee with sad, serious eyes.

"My child," he said, with sorrowful tenderness, "I understand the feeling of repulsion for your father's destroyer which your sense of Christian duty has overcome so far as to bring you to me with the promises of Divine pardon in your mouth; but you must not be disheartened in your efforts at conversion, nor think me utterly lost if I fail to come up to your standard of penitence. I have no language to express to human ear the sorrow I feel for the wrong committed, but God knows it, and the matter lies between Him and me for that perfect adjustment and final settlement which you can not accomplish, my little friend, by any appliance of your church machinery. I appreciate your goodness of heart, I honor your Christian purpose, but because I have sinned, my child, is no reason why the sacred privacy of my soul should be invaded by those who can not comprehend my secret springs of action, or know the true sources of my contrition. I yield cheerfully to the claims of the law—my life for the life I have taken; for the rest I commend myself to the judgment of God, who needs no human intervention or importunity to deal righteously with me."

All this was said so gently, so humbly, that the little exhorter did not feel repulsed; yet she was conscious of a sudden widening of vision and an influx of light which suggested dim possibilities of relations existing between each individual soul and its Creator with which she had no right to intermeddle. For the first time in her short life, too, she sensed the truth that the crim-

inal is not always and necessarily a sin-hardened creature who must be borne down upon by all the besieging powers of the Church, and caught at the eleventh hour, almost against his will, from a last plunge into the infernal depths of eternal perdition, but a being like herself, with tender human sensibilities sometimes, and a kinship with the infinite loving Heart as close and sympathetic as that of many a cold, critical, self-righteous spirit that passes through its earthly arc in the circle of existence uncharged with any wrong.

"You will understand that it was only the good of your immortal soul I was seeking in this interview, and will pardon what might otherwise be considered an intrusion," Grace said, more humbly, with an involuntary respect for this man whom she had in thought contemplated with shuddering.

"There is nothing to pardon in you, my child. I have done you a great wrong, and the sweet charity of forgiveness rests with you," Jarl Darley softly answered. "But because my position as a criminal of the darkest dye enables me to comprehend and appreciate the feelings of those similarly circumstanced, I would caution you against approaching them under the plea alone of Christian duty and interest in the salvation of their souls, lest a certain hardness and impenitence of heart should seem the sad and disappointing result of your labors. It is real, vital, human sympathy that these poor sinners need, and not any cold, mechanical offices of religion; simply to touch them with a sense of God's love and mercy, and power to save the lowest crime-stained creature of them all. And then for your own spiritual good and growth, my little friend, you want to shun the vice of thinking how great a sacrifice you are making, and what a commendable spirit of Christian charity and tolerance you are manifesting in coming, as you have come to-day, to pray with a wretched man, who has done you an unpardonable injury; for in dwelling upon this thought you miss the blessing that flows from sweet self-consciousness in good deeds, and the tender offices of love are corrupted and emptied of the gracious influ-

ences of the divine Christ-spirit which alone can make them acceptable to the desperate soul."

Jarl paused, for the little saint who had come to save him was weeping bitterly—the long pent up flood of excited feeling having burst its bounds in deep-drawn sighs and fast streaming tears that eased her heart of its forced, unnatural strain.

"Pardon me, child, I did not mean to hurt you like this," he said, gently, touching her golden fall of hair with apologetic hand, his own eyes growing dim with sympathetic tears.

"Nay, I do not think I am hurt," she answered, quickly, through her swift-rising sobs; but for the soul of her she could not have told what it was that moved her with such strange, irresistible power.

Life seemed all at once to break the limits of her narrow vision and widen out into grand, vast proportions with the infinite sweep of eternal ages to adjust the counterbalancing forces of right and wrong which she had thought the instant work of faith entreating the will of God. Dim conceptions of the beautiful possibilities and broad, far-reaching aims of an existence heretofore regarded as an inscrutable and most sad mystery struggled with the imaginings which had taken easy root in her mind, and thrilled her with vague aspirations to do something, indeed, for the love, of Christ, the glory of God, the salvation of sinners.

Shaken and unsettled by an interview so utterly unlike the one she had planned, and finding for the moment no word to express her emotion, she pressed the prisoner's hand with an affection almost forgetful of its crime, and bowing her head under his earnest "God bless you, child," turned to Ariel, on whom Jarl Darley had cast many a tender, loving look as he talked, and prayed with her tearful eyes to be taken home.

"The man must be *saved*, Miss Grace," Ariel said, in a clear, confident voice as they passed out, using with purpose in a different sense the words she had spoken on her way to the prison.

"The man *shall* be saved, Ariel," she responded, her soul firing with quick infec-

tion of his spirit. "Jarl Darley shall not die."

CHAPTER VIII.

JARL DARLEY'S PLEA.

"I don't know, gentlemen, as I have any wish to influence your decision, but since the learned counsel for the prosecution has summed up the evidence according to his view or imagination in the case, I will avail myself of the opportunity to speak a few words in self-defense, though they may seem to you rambling, incoherent, and wide of the mark. That will not be strange. People have called me insane; even the little children have shouted in derision as I passed, 'There goes crazy old Jarl Darley.' I suppose I am not exactly and squarely balanced? Do you happen to know anybody that is? I don't think I do, at least not anybody with individuality and energy enough to strike a ripple in the stagnant waters of life. There is not much good brought to pass in this world that you will not find at the bottom of it one of these same ill-balanced, ill-conditioned, dissatisfied, struggling, striving, desperate souls that in a white heat of wrath and rebellion hurl themselves headlong at the evils which some hard, cruel circumstance of this life has taught them to execrate. Skull readers would say there was an unequal development of the cranial organs—a predominance, perhaps, in the regions of Combative-ness, Destructiveness, Continuity, Firmness, and Conscientiousness, with a marked deficiency of the perceptive or reasoning faculties—of agreeableness, comprehension of human nature, and so forth, and so on. But these inharmonious creatures have a mission, none the less, and they rant, and they work, and they strive, with results that seem often, for the moment, unlucky and pernicious in the extreme, but which, in the end, are found, and, by the fiat of the Almighty, pronounced very good. That they are insensibly pushed, not to say specially raised up, to work out certain designs of the Master Mind, may not be confidently asserted without an assumption of uncommon familiarity with the plans and pur-

poses of Divine Wisdom; but it must be admitted that there is sometimes such an appearance.

"Crazy! Crazy old Jarl Darley! Ha! an honorable epithet, may be. I don't know that since the world was there has ever been any great work accomplished that the chief instruments therein were not reckoned lunatics by the people of their time. I can look down the long vista of the past and count scores of men with names shining bright now in the galaxy of fame who were regarded in their day and generation as simply mad. Aye, and mad they were—mad with a martyr's devotion to the cause they had espoused, and to which, by the fidelity of their natures, they were bound to stand though racked by a thousand tortures. To such men—aye, to madmen—the world owes the progress it has made from the bondage of ignorance and superstition to the freedom and enlightenment of this morning century that is flinging wide its doors to the fabled Golden Age, to the glorious kingdom of promise for which millions on millions, in spirit and in flesh, have waited and prayed full long. In the full splendor of that splendid era we may look for the full-orbed brain and the perfectly balanced character; but here and now the rough, uneven edges, the jagged, cragged points of human nature wear, by their sharp attrition, a smooth and prosperous passage for the harmonious souls of the expected Millennium. It is, in fact, the people who have "hobbies," and who ride them for dear life, and ride them to grim death, that keep the currents of existence moving, and free from accumulating obstructions. And, thank the Lord, there are few earnest souls that have not hobbies of one sort or another. I have mine. My hobby is the equalization of human happiness and prosperity, the impartial distribution of all the good gifts of a gracious and impartial Father. It is a hobby well bestridden, but, so far, seems never to have reached any good. It is a steed of straw, you say. In the first place, Providence never designed that there should be an equality in the human family, or He would have made the conditions of its members equal from the beginning. To

which I answer: He did not make their conditions; they are the result, the outgrowth purely of circumstances and relations within the control of human will, and God is responsible only for the law of cause and effect.

"Here is a man, lame and halt and blind from his birth. Is Providence the author of his misfortune? Clearly not. It is the product of human folly and ignorance, the result solely of nature's outraged laws. Here is one drivelling and idiotic, unequal to any duty or comprehension of duty in life. Is God accountable for the lamentable inadequacy and failure of the poor wretch's mental powers? No, a thousand times no! God's divine spirit of love and wisdom flows with the breath of life into every soul of man and woman born; but if the receptacle be distorted and misformed by disobedience to the holy laws inscribed on the tablets of being—more sacred than the tablets of the flaming Sinai—the power of manifestation is inevitably baffled and destroyed.

"Here is another, beaten and buffeted by the storms of the world, driven into kennels with dogs, and starved on the crumbs that fall grudgingly from the glutton's table, because his gift, perhaps, is to dispense spiritual good instead of to hoard material gain. Is it God's will that he should go hungering and houseless because he does not possess the faculty of turning all things that he touches into the dross of gold? Does God take the bread out of the mouths of a portion of His children to crowd to bursting the granaries and store-houses of another portion? Does God send all manner of evil things on one, and shower all His bounty of blessings on another?

"Out upon such rotten philosophy, my friends! God's love shines down with equal tenderness on all, and it is the cloud of human wrong and injustice that intercepts and refracts the rays which should warm and enlighten the desolate, desperate souls that grovel and grope and fall into deadly sins in the blackness of spiritual darkness. If I do my work well, if you do your work well, my comrades, the Eternal Justice marks, and in the long sweep of the

ages I shall receive my own, you shall receive your own; but to-day I suffer, and we all suffer, under the limitations of conditions imposed, not by God, but by generations of evil-doers who have inverted the divine order of being, and instituted a reign of anarchy and confusion in all the spheres of life.

"I am not giving this preface to the story of my crime as any apology for, or justification of it. I am not trying to show that I have arrived at anything but disaster through this break-neck riding of my hobby, but I wish simply to prove to you that my aim was true, and that however I may have failed of its accomplishment, and of the reward of work wisely and nobly performed, other men, with clearer perception of means and measures, will carry it forward to a happy consummation.

"It is presumed that I am to say something in my own defense, but a part of the simple facts of the case are all I have to offer, and these you will weigh according to your diverse standards of judgment.

"I stand before you accused of the murder and attempted robbery of a man whose wealth the work of the best days of my life has gone to swell, whose fortune, indeed, is an aggregate of the unrewarded toils of honest men. Were the dead here in bodily presence to speak for himself, I might more justly and boldly contrast our positions and challenge you to judge between us; and perhaps I may even now ask you to consider wherein, conceding the charge against me to be true, my crime differs essentially from his. It may be that he has never knocked down a fellow-traveler on the public highway, and boldly taken his money and his life; and it is not probable that he has ever crept into a slumbering citizen's house and stealthily extracted therefrom its hidden treasures; yet there are not lacking witnesses within sound of my voice who would testify, and will testify in the court of God, that he has none the less absorbed the very blood and sinew of lives that do not belong to him, devouring their substance and yielding them nothing in return. Is it a smaller sin in Heaven's sight to wrest advantage from the weak and unprotected

under the sanction, or at least with the consent, of human law, than to openly plunder them in the light of day? Is it greater robbery to thrust a thieving hand into the pocket of a helpless man than to withhold from him the wages he has honestly and lawfully earned? Is it more an inhumanity to take the bread out of the mouths of the hungry and starving than to sit still in the midst of ease and luxury, and stretch forth no hand in relief of their pitiful need?

"Though the blood of Ralph Staunton be upon my soul, I tell you, my friends, I do not fear to stand beside him at the judgment bar of God. Though the blood of my brother be upon my soul, there is no murder or spirit of murder within it. When I sought his presence on that fatal night, I went without weapon in my hand or hatred in my heart. Yet I carried with me the determination to move him to a sense of the suffering he was inflicting on those who had long and faithfully served him, and with the purpose to compel him, by means which I held in my power, to make speedy and ample restitution to at least a few of the many whom he had wronged. That I failed of my errand there is no need to say; but in what manner I failed I may not explain without the exposure of a secret which belongs to the dead, and whose proof I was therefore bound in honor to destroy. For the same reason I may not go on to relate by what steps my interview with Ralph Staunton led to its final catastrophe; but I swear to you in the presence of Almighty God that I did not with malice nor with passion, nor yet with pre-conceived purpose, send the sin-stained soul of that guilty man into the world of judgment. Whether the act was justifiable in defense of my own life, only the invisible witnesses of our good and evil deeds are able to testify, and these, unhappily, can not be summoned either in vindication or prosecution of the accused party in this case.

"It is true, as has been proven in this court, that I was found with the deadly weapon in my hand, standing over the body of the murdered man, and filling my pockets with the plunder of his safe, but with all the array of circumstantial evidence against

me, it has not been proven that the murder was committed for the sake of the plunder, nor does the money in my pocket convict me of the crime of robbery. That there was robbery in the case, I freely admit, but it was not mine. The money which these witnesses testify to seeing in my possession did not belong to Ralph Staunton. It was the property of honest, hard-working, hard-handed, but soft-hearted men—of patient, pale-faced, self-denying, long-suffering, but ever-believing women—of helpless, unoffending, uncomplaining, but wrong-enduring children, defrauded of their natural right to the comforts, graces, refinements, pleasures, powers of cultured and harmoniously developed life belonging to every son and daughter of man and woman born. It was the lawful wages of brave, true, faithful laborers who had shirked no duty in the interest of their employer, and who had looked hopefully for their reward as the only, though insufficient, means of meeting the manifold wants of their dependent families, many of them suffering for the bare necessities of existence, while the man for whom they were spending the strength and flower of their days rioted in luxury and lavished on wife and children the blessings of opulence gathered from unrequited toils.

"I said my hobby was the equalization of human happiness and prosperity—the impartial distribution of good gifts, etc., and in taking the money in question, I had but one thought, one purpose—to transfer it to those to whom it belonged, and whom I knew to be in desperate straits for lack of it. As might have been anticipated, I failed of my object, and my effort was as fruitless as all such narrow, short-sighted, individual efforts have been, and will be to the end of time.

"I tell you, my friends and fellow-workers who hear my voice to-day, there can be no amelioration of your condition, no amendment of the evils which afflict you, until in organized and harmonious body you move upon the strongholds of selfish, grasping, and unrighteous despotism, and demand of the officers whom you have yourselves voted into the power of making and administer-

ing the laws which are to govern you, that recognition and consideration of your claims to which, as honest, temperate, useful, and industrious citizens of a Republic boasting of free and equal rights, you are justly and honorably entitled.

"For myself, I expect to pay the forfeit of my life for the offense committed. It is the least the law can ask—the life of a faithful and conscientious laborer for the life of a faithless and moneyed autocrat.

"Perhaps I ought not to regret, and I certainly do not shrink from, the payment of this penalty, if, thereby, I may offer to the civilized world a final example of the barbaric horror of capital punishment. The judge who with pompous ceremony of words shall ring out my doom through the awful, breath-suspended silence of this hall—to be hung by the neck till you are dead—dead—and the Lord have mercy on your soul!"—may think that he is uttering a sen-

[TO BE CONTINUED.]

tence which shall strike terror to the hearts of all evil-doers and secret plotters of mischief, but he is simply summoning them to a spectacle over which the angels of heaven might weep with pity for the folly that supposes it possible to stay the ravages of crime by the perpetration of a deed so horrible that it appeals to the most brutal instincts of human nature, and fosters the very spirit of the wrong it is intended to punish.

"I say again, if my execution might shock and rouse the shuddering sense of community to a realization of the demoralizing influence of a practice which is a shameful reproach to the boasted enlightenment, refinement, and wisdom of our day and generation, I would cheerfully ascend the gallows which should fall with me to infamous and eternal oblivion.

"Gentlemen of the jury, friends and comrades who have stood by me, my defense is ended."

ANNIE L. MUZZEY.

SPECIMENS OF AMERICAN LONGEVITY.

LATE numbers of the New York *Observer* have contained some interesting notes on American longevity. The high character of the *Observer* as a religious organ leaves no room for doubt with regard to the authenticity of its statements, and the compiler has entered into the subject *con amore*, the evidences of investigation in many of the cases being strong enough to remove the doubts of even a Thoms. The articles from which we derive our material were published in the fall of 1875, and the aged persons mentioned were living at that time.

Among those who had entered upon their second century, the first place is given to Mr. Homer Griffin, of Lodi, Ohio, who, it is said, celebrated his 115th birthday on the 22d of April. He is a native of Granby, voted for John Adams in 1796, and at all Presidential elections since; never used tobacco, but has been a moderate user of liquor. About forty years ago he lost his right arm by the fall of a tree, but has been able since to do considerable work in and

around his home. The portrait of Mr. Griffin, and also that of his third son, was published in *Harper's Weekly* last spring. The age of that son was then seventy-four.

Mr. Cook St. John, of Walton, N. Y., attained his 102d year in June. His health has been generally poor, but he states that it has been better during the last ten years than at any time before. He is an early riser, and an early goer-to-bed; has a son living who is seventy-five years of age. He was born in Norwalk, Conn. Remembers when that town was burned by the British soldiers in the Revolutionary times, and how his mother fled with him to the woods. Sight and hearing are somewhat impaired, but his memory is good.

Captain Frederick Larbush, of New York, claims to be in the neighborhood of 110 years. Mr. Thoms, in his book, makes allusion to Larbush, saying that he is an impostor in the matter of age, and that for dishonest purposes had added thirty years to his nominal life. The character of the

old man, however, is deemed irreproachable by some of the most respectable families in New York.

In Troy, N. Y., resides Augustus Picard, who celebrated his 119th birthday on the 22d of March. He was born at Quebec, and has a sister 106 years old still living there, with a daughter 56 years old, who is the youngest of sixteen children.

Troy claims another resident of the same age, by the name of John Henry Blackwell, who came to this city in 1830, from Ireland. His wife died about fifty years ago, and he has lived alone in a little, old house, into which he is disinclined to permit any one to come. John Bullock, of Bristol, Conn., voted for Washington in 1792. He is about 105 years of age.

Vermont claims several post-centenarians; one, Alexander Stanton, of Tunbridge, who participated in the war of 1812, is said to be over 105. A French Canadian, Bruno by name, lives at St. Albans. He claims to be 108, and spends most of his time in fishing. Another, John Daniels, asserts that he is 108; is a gardener of considerable skill and wonderful activity; he lives in Haughtonville. Still another, residing at Bakersfield, whose name is Alexander Bomey, is said to be 104.

In Cuba, N. J., old Dr. Huntley, who has for many years given special attention to the training of horses, is said to be 107 years of age. Several others might be mentioned, but we deem it fitting that the ladies should now have attention, especially those who are alive and industrious at the age of 100 and odd. There is Mrs. Betsy Allen, born on the 22d of June, 1772, at Voluntown, Conn., and living, as was reported in September last, on her little farm at Charleston, R. I.; she is an assiduous knitter, turning out several pairs of stockings every year.

Whether or not Mrs. Mary Chadbourne, of North Berwick, Me., is living we can not say, but about a year ago she was enjoying fair health at 104 years.

Mrs. Mary Hubbard, mother of eighteen children, said to be 103, when last heard from was at Carthage, N. Y. She was born in Litchfield, Conn.; has a lively recollec-

tion of the attack of the British on New Haven in 1778.

In August last year Mrs. O'Neil, of Bloomfield, N. J., made complaint that her daughter-in-law, 70 years or more old, had been stealing money.

Mrs. Betsy Carr, of Clairemont, N. H., said to be 104 years of age, is a deaf mute. She is robust and active, has a good memory, can read without glasses, goes to bed early, and rises with the sun.

Aunty Stewart, a colored lady, as is usually the case with the representatives of the colored race among us, bears off the palm for advanced age among the women. She reached her 111th birthday in June last; recollects about Washington crossing the Delaware, and was at Yorktown when Cornwallis surrendered.

Among other ladies we should mention Mrs. Mary Goodale, of Croton, Conn., who attained her 100th year in June last. Six weeks before, her daughter, Mrs. Bonhell, died at the age of 82. Mrs. Rachael Gardner, of South Salem, Conn., was 100 years old on the first of September, and on that occasion received the congratulation of 102 friends, representing five generations.

At the "old folks' excursion," in Philadelphia September last, there was present one Francis Crugén, 104, and three other centenarians.

Omitting further personal allusions, we may state that the whole number of centenarians mentioned by the *Observer* contributor, and who were living on the first of October last, was fifty-seven. Of these thirty were women. Seven are reported outside of the limits of the United States, the other fifty represent fifteen States, and ten are known to be foreigners or negroes. The American newspapers have mentioned no less than 115 centenarians as living within the first nine months of 1875, of whom the women numbered forty-five, the sex of ten not being known. Of ninety-eight living within the United States, ten were negroes, twelve Irish, and seven of other foreign nationalities.

It would be a very interesting feature, in connection with the Centennial Exposition, should there be drawn together a dozen or

more of veterans whose birthdays are coincident with, or have anticipated the birthday of the nation. Indeed, several have indicated their desire to attend. One, Judge Herring, who was graduated at Princeton College in 1795, and is the oldest living graduate of an American College, expects to celebrate his centennial birthday

the second week of July. We should not close without mentioning the fact that the Rev. Dr. Lovick Pierce, of the Southern Methodist Church, who was appointed, in September, a delegate to the Northern Conference of the M. E. Church North, will complete his century shortly. He still does good work in his ministerial connection.

THE CONFSSIONAL.

A DREARY little room, high up,
Lonesome and bare and hard to reach,
Where I droop like some limp sea-weed
Great storms have flung a-beach.

Outside, below, the glare and flash
Of women brave in silk and gem ;
I bless this door that shuts me from
The merciless light of them—

And hides from all the world the pale,
Discouraged, quivering, suppliant face,
That shows when I let slip the mask
My pride has held in place—

All through the day-long struggle sore,
Which I live over day by day—
This fruitless questing of the streets
That turns so many gray.

And I must hold my head so high,
And keep my heart close under lock,
And lightly meet repulse, defeat ;
But then—I'm not a rock !

For every quiver of the lip,
Pushed back so stontly in the sun,
My eyes pay double rain of tears
When the hard day is done.

I do not doubt my God because
He lets my heart be bruised so ;

I do not love Him any less
Because this way I go.

For well I know He keeps somewhere
The deepest deeps of rest for me.
This straight, dark path shall lead to light,
Though how I can not see.

Only, when I have climbed these stairs,
To hide my wounds within this room,
So hard upon my lonely breast
Presses its unshared gloom—

God knows, if I should ope the door
Some night and find One sitting here,
Divine with pity, sweet with love
That casteth out all fear ;

'Twould matter not if that one were
Angel or human—I should see
Only the guest that God had sent
To soothe and succor me.

But He builds better ; for He knows
That though, unseen by human eye,
I still am strong to wrestle here
With all my agony.

Yet one kind touch upon my cheek,
One tear dropped softly for my sake,
The dear relief of sheltering arms,
Would make my strained heart break.

HOWARD GLYNDON.

HOW WOMAN SUFFRAGE WORKS.

AN article which we find in the *Woman's Journal* of Denver, Col., contains the substance of an address given by Dr. Hayford, of the *Laramie Sentinel*, before the Suffrage Association of Colorado. The reader will not, perhaps, deem the following extracts uninteresting, as they show in vivid light some of the results of woman's participation in the civil affairs of a far west community, where the half primitive civili-

zation or mannerisms of the settlers offered hindrances to the practical application of new social principles which would scarcely be experienced in the east. Dr. Hayfield said :

"I am not, and never was, very radical in my views, and many of the arguments used in behalf of woman suffrage I did not appreciate. There are many advantages claimed for women through their use of the

ballot-box which I do not believe. I doubt, ladies and gentlemen, whether, with the ballot, women will get any larger wages, or whether any new fields of labor will be opened to them, or that any great personal benefit will accrue. I doubt if any benefit aside from that derived from their common interest, having good government, good society, and good order in the community, will result to women from the elective franchise. But I do apprehend that their influence brought to bear upon the accomplishment of these objects would be a great benefit to the masses everywhere. I have been brought to this view by the absolute working of woman suffrage in Wyoming for several years.

"Let me instance their work in Laramie City. Seven years ago, when there was quite a population there, we were without either a church or a school-house. The women went to work with a will; they had sociables once a week, preparing a nice supper and other entertainment for the gentlemen attending, who paid a dollar apiece. They made these sociables such a success that before spring they actually built the school-house, while they were still living in shanties or wagon-tents; and so good a school-house that for five years it was the best in the Territory. We now have five beautiful church edifices, and each is carpeted and has its organ and bell; and the women have built every one of them. Now it occurs to me that to ladies who have thus exerted themselves, thus used their influence in the community, their first thoughts turning toward morality and the general good, it is certainly safe to give the ballot, for they have proved themselves capable of working side by side with husbands, fathers, and brothers in securing and maintaining good government.

"We had had no term of court for some time, and our jails had accumulated quite a large number of prisoners, desperate fellows, some of them. The courts had not been able to convict a single man for many months together, and from a general laxity of morals criminals continually increased; no jury that had served could bear to send a man to the penitentiary! The time came

for having our court; our county commissioners had met some time before with justices of the peace and put in a certain number of names to be drawn as jurors. They brought these names to me to publish. My paper was not quite a year old, but they gave it more attention than is now shown many older papers. I called their attention to this new law, and said they ought to give it a trial. They demurred at once, and said they thought it was all a joke; that it was never intended, in passing this law, to put women on juries. Finally, I said I would not publish the list unless they put some women on. They finally said if I would make out a list for them, they would "try it on." I picked out eighteen names of ladies whom I thought competent to sit as jurors; six for the grand and the balance for the petit jury. I published the list in the paper that night, and I got into hot water right away, then and there! I wrote a letter to Chief Justice Howe, stating what had been done, and asking advice as to our duty in the premises. He answered that he was very glad the law had been enacted, that it was perfectly constitutional and proper, and that nothing could occur in any manner to annoy the ladies who might serve as jurors. On the first day of court they all went to the court-house, fully expecting that every woman would get off. The Judge called the grand jury, swore them, and sent them to their duties. He then called the petit jury, about half men and half women. We had an old shell of a building, an uncomfortable, tumble-down affair; the floor was well strewed over with dirt, old stubs of cigars, tobacco quids, etc.; but when the sheriff found ladies were coming, he fixed things up in the best shape he could, had it cleaned and scrubbed and turned into quite a respectable looking court-room. There were six ladies, all sensible women, and very reluctant to accept the position; but finally they made up their minds that it had to be done, and they went at it with a will. They obtained a copy of the statutes, and then went to work, looking carefully over the chapters defining crimes and misdemeanors, and when they came to any-

thing they could not understand, they applied to the foreman of the grand jury, who acted as their special friend. The business of the court was facilitated by appointing committees on the several classes of crimes and misdemeanors; and after the ladies had posted themselves upon their duties and the requirements of the law, they came to the front, to the foreman of the grand jury, and said they thought there was a class of offenses which he had not made provision for. We had rum-holes, gambling hells, and houses of prostitution, which had been winked at by our grand juries. These ladies having sworn to perform their whole duty as jurors, and having learned from the statutes what that duty was, determined to do it fearlessly. Well, this foreman told them that if they wanted to look after this class of crimes and misdemeanors, they could do so. They accepted the trust, published the statute regarding these offenses, and their intention to carry out the law; and every prostitute and all those gamblers left the city, and for years we hadn't a vice of that kind in Laramie City. Before the introduction of woman suffrage in Wyoming, party voting was very much as it is

here. Partisan politics ran high, very high, during elections. I have seen men stay away from the polls because of the rowdiness, obscenity, and profanity found there, because of the fights and quarrels and drunkenness which made it almost dangerous for a man to go to the polls. But as quick as the ladies had a chance to vote, our election days were just as orderly as going to church on the Sabbath. The female portion of our population is comparatively small. Sometimes there would be a dozen or twenty men standing around the entrance to the polling place, but every time a lady came with her ballot, they immediately quieted down, tipped their hats, and stood back to make good room for her to pass. There are gentlemen here in this hall to-night that have been present at some of our elections and can testify to all this.

"Two hundred and ninety out of the three hundred ladies in Laramie City vote. They say they know this power placed in their hands gives them a chance to help make and keep good laws, for the furtherance and maintenance of education and morality. They want all the men to put in a vote for that purpose."

THE COLOR OF EYES.

BLUE eyes have ever received more admiration than they deserve. Philosophers have fallen in love with them, and poets have sung their praises from time immemorial. But the wisest men do foolish things, and "eye" and "sky" make a pretty rhyme. Still, there are beautiful blue eyes. The Beatrice whom Dante has immortalized must have possessed them; and also that other Beatrice whose sad story has never grown old, and whose beauty has enslaved the fancy of the painter since the days of Guido. It is fabled that the soul of Psyche looked through blue eyes, and that they played their part in her victory over Cupid!

Gray eyes are often called the index of a cold and selfish heart. The best business men have them, and the husband of a gray-eyed woman is not afraid to invite his

friends home to dinner. Some gray eyes have commanded the homage of a nation, and their memory has lingered long after they were closed in that sleep that knows no waking. Such were the eyes of Mary Queen of Scots; and eyes like these may have been instrumental in bringing Pericles to the feet of Aspasea. Other gray eyes there are, not wanting in beauty, but cruel as death! It is easy to imagine that such eyes stabbed the victims of Nero and Catharine de Medicis as surely as the fatal stiletto.

Many brown eyes have a peculiar softness, suggestive of affectionate and lovable dispositions. Mrs. Browning praises them, saying: "Thy brown eyes have a look like birds flying straightway to the light."

Now and then we see green eyes, and they are supposed to indicate a high order

of intellect. Some few people have eyes that are really golden, and, very naturally, they are dazzling.

The world is full of black eyes. Some of them bright as jets, and as expressionless; whose glances cut like knives, and take in everything, while they tell nothing. They are the mirrors of treacherous souls, and, lacking the firmness of the gray, have all their cruelty, with none of their beauty. Then there are black eyes that remind you of a volcano, and seem constantly awaiting

an opportunity to destroy you with a lava flow of passion.

And last come those eyes, large and dark as midnight, whose clean, calm glances are like unuttered prayers, unless aimed by Cupid, who knows full well there is no need to watch the arrow's flight. It never misses the mark, and for the intended victims there is no escape! But black eyes or blue, gray eyes or brown, they all have their worshipers, and one and all take color and expression from the soul they seek to hide or reveal!

JENNIE CLARK.

THE SILENT SPEAKER.

"Your face is as a book, where men
May read strange matters."

WAS it pleasant, as you thought it would be?" asked a mother of her little daughter, on her return from a juvenile exhibition which she had long anticipated with delight.

"Oh, yes, it was splendid," answered Annie, with animation; "I should like to see it all over again;" and she proceeded to give a detailed account of the afternoon's exercises.

The mother, who was confined at home by ill-health, listened attentively to the little girl, entering into the minute descriptions with a patient pleasure such as none but a mother is apt to evince under a child's story. Then looking tenderly at her, she said:

"But I am very sorry, my dear, that you had so poor a seat."

"Why, mother, what do you mean? Who knows I didn't have a good seat? Who told you?"

"Oh, I heard about it. A great many who were there knew it."

"Mother! I can't understand you! I never spoke to a single person from the time I went in till I came out; not one. To be sure I didn't have a good seat at all, but I never complained. I got along the best way I could, and

managed to see it all. Who could have told you such a thing?"

"Our tongues don't tell all the tales that are told, Annie dear. Our faces talk sometimes, don't you know?"

The child was speechless, and the mother proceeded:

"Uncle George was in just now, and told me he was sorry you had so poor a seat, but he could not get at you; and when I asked him how he knew it, he said, 'Oh, any one could read it in her face; *she had on her sour pucker.*'"

The face talks! Indeed it does, not only in children, but in grown people too; and many a secret is revealed, many a complaint made, and a vast deal of harm done by this mischievous traitor.

There is a great difference, it is true, in faces. Some are hard and cold, and unimpressible as stone. Others are mobile, marked by every passing thought, betraying every shade of emotion. Look around the breakfast table to-morrow morning, and, without a spoken word, you can tell at a glance the state of mind of each member of the family. The father has been awakened too soon, or has been summoned,

perhaps, from an interesting column of news? The mother? You may be sure a screw is loose in the kitchen or the nursery. Here is the heedless, careless chap, ready for a frolic; and there the little sensitive plant who can't bear a joke or the annoyance of a grasshopper. One daughter is pouting because she can't have her dress trimmed like Mary Westerfield's, and another serene from her morning devotions.

Go into company, take notice of the varying countenances, and mark in your own mind—you need not talk about it, lest you appear censorious—who are the earnest workers, who are the pleasure-seekers, the haughty, the vain, the discontented, the vapid, the self-complacent, the benevolent. The face tells you all, and more truly than the tongue, for that unruly member is too often hypocritical, and from policy does not always truly portray the inner conditions. Indeed, not from any deceitful purpose, perhaps, but from habit, convenience, or interest, the tongue would not be allowed to confess what eye and brow and mouth most plainly betray.

Is it not strange how the mind moves the muscles of the face? So many and delicate are these tiny muscles that every motion of the will, every pressure of feeling is instantly expressed there. It is like a telegraph. There are muscles which pull the corners of the mouth up with the electric touch of pleasure; a little, and the face is lighted with a smile; a good deal, and you have the merry laugh. The muscles which sorrow holds draw the corners of the mouth down, and the expression is sad; those that contract and wrinkle the eyebrows are handled by discontent. "His countenance fell," we say, or "The child is down in the mouth to-day," when disappointment and sorrow

are playing on the wires behind the face. Then there is a proud muscle that pushes up the under lip, and a contemptuous one that slightly elevates the nose. Oh, how curious this facial is! It seems as if every feeling had its tiny cord, with which to pull this or that feature, and depict every variety of expression on the face, as surely as you evoke music from the keys of a piano, or messages from the plate of a telegraph machine, or see the motion of the clouds over a field of grain. And when any of these muscles are repeatedly used, the face becomes habituated to their motions, so that the disposition becomes worn in the face, and you are able to discern, when you walk the streets, or wherever you go, the prevailing spirit of the persons you meet.

There is such a thing, we thus see, as the *culture of the face*. Do we, who are wives and mothers, think of this as we ought? Do we realize the influence which our faces wield in the home circle?

A tried and unhappy wife once went to her pastor for counsel.

"Do you know when to speak?" he asked. "It takes a wise person to know when to speak and when to be silent."

"I am aware of it," she answered, "and am trying to learn. The tongue needs a strong and able master."

"Not alone the tongue, my good friend. I fear you sometimes speak when the tongue is silent."

"How so?" was the astonished inquiry.

"With the tell-tale face," he suggestively answered. "That must have its master also."

It was a timely hint. The disheartened woman had never thought till that moment, how, while she was hold-

ing in her tongue under provocation with bit and bridle, and inwardly thanking God for that victory, the features of her face were playing mischief, and revealing, as by a mirror, her pain and discomfort. Her very looks were retorting upon her husband as bitterly as words could have done. Oh, it requires grace to keep the face tranquil when the inward conflict is going on—to write upon that outward index, patience, submission, faith, and hope, instead of anger, resistance, and displeasure.

How we have seen children watch mother's face during a reproof, and though her words were forced by a rigid self-control into an orderly utterance, the stern, forbidding look provoked and repelled the child. Many mothers who sincerely desire to train their children rightly, and are not lacking in love, wonder why they seem to have so little power over their little ones. They say, "We have no magnetism. We have seen mothers who could govern their children with the utmost ease, and yet they do not pray more than we do, and seem to put forth far less effort." Is not the secret just here, that the face is in one case the assistant, in the other a veritable hinderer? If our faces, mothers, wore habitually the expression of the love which "is not easily provoked," "thinketh no evil," "beareth all things," think you not it would be easier for us to impress our children and to control them?

It is a study for us, a distinct and important department of self-culture, dear friends, to school our faces. It is not all outside work, garnishing and repressing. There is sub-soiling to be done. The spirit must be right within. That first under culture, and the rest will come easy. Then our home influ-

ence may be described in the expressive lines of an old poet:

"A sweet attractive kinde of grace,
A full assurance given by looks,
Continual comfort in a face
The lineaments of gospel-books."

H. E. B.*

CHARACTER GROWS.—From the minute a babe begins to notice surrounding objects, his character is in process of formation. Day by day, through infancy and childhood, here a little and there a little, character grows and strengthens, until, good or bad, it becomes almost a coat of mail. Look at a model man of business—prompt, reliable, cool, and cautious, yet clear-headed and energetic. When do you suppose he developed all the admirable qualities? When he was a boy. Let us see the way in which a boy of ten gets up in the morning, works, plays, studies, and we will tell you just what kind of a man he will make. The boy who is late at the breakfast-table, late at school, and never does anything at the right time, stands a poor chance to be a prompt man. The boy who neglects his duties, be they ever so small, and then excuses himself by saying, "Oh, I forgot! I didn't think!" will never be a reliable man.

THE FLOWERET.

FROM THE GERMAN.

I KNOW a sweet flow'ret so tender and fair,
More brilliant than gold and rich diamonds rare,
Where it blossoms in fragrance, a bleasing reigns
round,

And happy is he who this flow'ret has found.

It blooms oft in secret, retiring and shy,
Avoiding the street and the mountain-top high,
In the cool shaded valley it best loves to stay,
Secure from the daylight's hot, withering ray.

To youth 'tis an ornament graceful and meek,
It heightens the chaste, rosy hue of the cheek;
But more charming its brightness and beauty
serene,

When on the soft bosom my flow'ret is seen.

I know a sweet flow'ret most tender and fair,
More brilliant than gold and rich diamonds rare;
Ah! often it blossoms, despised and unknown,
Be this flower of *modesty* ever my own. a.

*This good sketch we found in an exchange not long since. The name of the periodical not appearing at the top of the clipped leaves, we are compelled to omit it.



True philosophy is a revelation of the Divine will manifested in creation ; it harmonises with all truth, and can not with impunity be neglected.

HOW TO TEACH,
 ACCORDING TO
TEMPERAMENT AND MENTAL DEVELOPMENT ;
 OR, **PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.**

BY NELSON SIZER.

A CORRECT system of education, and the successful application of right principles to this great work of human life, is a subject of importance second to none. Though the parent is the natural educator of children, society has become so organized that the profession of teacher largely covers many of the duties properly belonging to parents ; but, as many parents are occupied with duties that absorb so much of their time and care that they can not properly attend to the education of their children, and some others, unfortunately, are not themselves sufficiently cultivated to do justice to the education of their children if they had the time, it is, doubtless, on the whole, an improvement to civilization and an aid to good morals that persons should be set apart for the profession of teaching whose talents, dispositions, and culture shall thoroughly qualify them for the work, and it is no exaggeration to say that no other class of persons perform more important duties to society and the world than the capable and faithful teacher.

Of course it follows that teachers should acquaint themselves with everything that can aid them in the best performance of their great work, and what else does one need so much, after he has acquired a sufficient education

to qualify him to understand and to communicate knowledge in the various branches which he is expected to teach, as to understand the being whom he has to instruct? No man of sense would send a horse to be shod to a man simply because he had the strength to shape the shoe and drive the nails. It would be expected that the horse-shoer should understand not only how to make a shoe and a nail, but something of the structure of the foot, and how to apply the shoe and the nail in such a manner that the foot should receive not only no damage but benefit. A man who should undertake to make a boot, a hat, or a coat, without some training in respect to the subject-matter of his efforts, would be hurried into some other neighborhood or pursuit.

RANK OF THE TEACHER.

The teacher stands deservedly high among workers. If one mars a boot, or badly shoes a horse, the damage may be estimated, and, perhaps, by wiser hands corrected. But if he who undertakes to train the mind and educate it for the duties of life fail in his work, he inflicts a damage that transcends estimation. We hear men say, " My education is poor ; I went to school, but the teacher did not understand my disposition or know how to impart instruction to me, therefore I learned to hate him and the

school and my books, and here I am doing drudgery because my education is poor."

If the science of mind has any claim to truth, why should not the teacher avail himself of all the light it can afford? What, then, is its value to the teacher? It is evident that the teacher needs to know the nature of his pupils, and how best to open the pathway of knowledge to each one, as well as how to control and regulate the conduct of all. Nor should the teacher be obliged, as at present, to wait weeks and months, and, perchance, years, before he finds out all the peculiar traits of his fifty or one hundred pupils.

CLASSIFICATION OF PUPILS.

If Phrenology enables one who understands it to glance over a class of boys and girls and read them almost instantly, so far as the outline and strong features of their characters and talents are concerned, it offers to the teacher a basis of success and usefulness which can hardly be estimated.

It is claimed that certain temperaments or conditions are adapted to study things and practical subjects; others are better adapted to philosophize and think, and others to exert themselves physically. One of the first things to be done in the teacher's mind, if not in the organization of classes—and it might be done with classes, perhaps—is to select the pupils and classify them according to temperament or constitutional peculiarity. Put the quick with the quick, and the slow and the plodding together. We classify a team of horses in that way. Brisk, sharp-eared sorrel nags are harnessed together and they trot in unison and are happy; while the broad-backed, square-shouldered, heavy trucksters, with their dark color and thick skins, and legs like mill-posts, are assorted

and harnessed together, and they walk, pulling their heavy load, keeping time to each other's slowness, thus maintaining their flesh, health, and usefulness.

But we classify our pupils less wisely. The sharp-featured, blue-eyed ones, with prominent brows and retreating foreheads, who see the points that are presented and grasp them as quick as chickens will pick up corn, are placed alternately among the dark-complexioned, broad-backed, sturdy, moderate pupils who think slowly, move slowly but strongly, and require time to think. Of course, the brilliant ones obtain the head of the class and answer all the questions that come within reach of their style of mind; while these slow, solid subjects maintain a steady adherence to the foot of the class, and don't care. They get it into their heads that they are not very sharp, and that it is very little use for them to study. If the quick were placed together, and the slow together, then it would be quickness against quickness and slowness against slowness. There would be equality at least in the physical conditions.

The teacher ought to know that the boy who is well developed in the upper part of the forehead and moderate across the brow, has to do with ideas rather than with facts and things, and he must be taught altogether differently from one who is prominent at the brow and retreating in the forehead. We might as well undertake to put all people in the same sized hat and coat as to try to teach all in a single class.

DISCOURAGEMENTS OF TEACHING.

It is no wonder that teaching is a drudgery, and that the noblest profession in the world should be so unsatisfying in its results to those who follow it. It can hardly be disputed that in

nothing else is there such need of knowledge of mental philosophy or power to read character, yet many of our teachers are wanting in the right means of undertaking the duties of their positions.

Navigation is studied in the right manner, and its practice is adapted to that profession. So of engineering, architecture, manufacturing, commerce. True, men often get into wrong places and mar all pursuits; yet men in business are instructed toward the very duties they are expected to perform. But who teaches the teacher? Who tells him how to read character, motives, dispositions, talents, peculiarities, and the temperaments of his pupils? Who puts him in possession of just that knowledge which he ought to have in order that every stroke may win victory and forward him in the great errand of his life?

Some teachers have learned how to read mind, to understand a class of pupils in a single day's observation. Some have learned how to encourage one and guide another, how to control each one according to his peculiarities. The teacher who knows this, as the musician knows how to bring out harmonies from the instrument, is the one who can teach easily and successfully, and proves to be the true teacher. Teachers should learn, then, how to estimate character, how to read the disposition of each pupil, and how, therefore, to manipulate each one in the best manner to secure the highest success.

Teachers who have to deal with mind need a rule to judge of mind, talent, and character. If Phrenology explains mind better than any other system of mental philosophy, the teacher should have the benefit of it. Since no one has ever presumed, before the dis-

covery of Phrenology, to predicate the character of a stranger at all, and has contented himself with an endeavor to explain mind in the abstract; and since scarcely any two systems of mental philosophy have ever agreed as to the number of the faculties, or the mode of their operation, the teacher must look to something else besides the old-school mental philosophy to obtain such aid as seems to be necessary, in order to adapt his teachings wisely to the different individuals who are presented to him for instruction.

OLD WAY OF STUDYING MIND.

Looking at them through the light of the old systems of mental philosophy, he would say of them, they must possess "perception," "memory," "judgment," "will," and "understanding." Falling back upon his knowledge of people whom he has known, he may safely conclude that these pupils before him are different in regard to *perception, memory, judgment, imagination, will, and understanding*, but which of them has the perception stronger or weaker, which has memory retentive, tenacious, all-comprehending, and which is deficient in this respect, his old system does not tell him. It gives him no clue, furnishes him no hint. The pupils look up to him with open-eyed confidence and respect, and he expects, or at least hopes, to make shining lights of all of them; but through what windows they will shine, through what faculties they will reflect credit upon his instruction, he has not the slightest idea. Of course his pupils look at him, and he returns the gaze; they wonder what sort of a man he is. He is entirely at sea in respect to them. They have come to him for an education, for guidance, training, culture, and he honestly desires to discharge his duty faithfully, and make his labors success-

ful in the development and culture of each of them. But he must begin the work in the dark. As he does not know the differences in his pupils, yet presumes there are differences, he strikes upon an average rule of instruction, perhaps, and subjects the whole class to that rule; and why should he not? Since he does not know their talents and character, and has no idea of the peculiarities of their dispositions and mental capacities, of course he must experiment.

NEW WAY TO STUDY MIND.

Let us change the scene. Introduce to that class a teacher who is thoroughly versed in Phrenology, who can see at a glance which pupil depends largely upon his perceptive faculties, which has a retentive memory of facts and places, of words and things; which has the cogitative, reasoning cast of mind; which must have ideas, principles first, before the facts become understood to him, or before he will consent to listen to them, or seek to treasure them; which has the sharp, analytical, self-understanding, self-instructive cast of mind; and if that teacher were to follow the suggestions of *his* mental philosophy, he would take all the pupils with large perceptive organs, and put them by themselves; would take the philosophical and reflective pupils, and group them.

Then he would go over the school and see who had the active, mental, studious temperament, and who had the heavy, the dull; who were the slow and retentive, who the brilliant and the quick, and he would make another classification; and instead of having thirty pupils in a class, embracing all varieties of mental peculiarities, he would have, perhaps, three or four together, and then instruct each small class according to their united resemblances in mental

development; and the explanations and reasonings which he would give to each of these sub-classes would be peculiar, and adapted to their peculiarities, and not adapted to any other class. Does any one need to be informed that such a teacher would push each of these little classes much further ahead, and with much less friction to himself and to the pupils than could possibly be done if they were all grouped together?

PEOPLE WISE IN SOME THINGS.

The present method of teaching, without any just appreciation of the mental peculiarities of pupils, by thus massing them together and applying a similar line of instruction to all, is just as wise as it would be if one had a thousand horses to drive from Chicago to Boston, if he were to attempt to drive them all together. A hundred might be able to travel fifty miles a day, another hundred forty miles a day, and other hundreds would travel thirty, twenty-five, or twenty miles a day.

If these were all to be started together in one great drove, the good travelers would not half work; they would lounge along carelessly, and be twice as many days on the road as would be necessary to reach their destination. The drivers seeing that some appeared to travel easier, and get along without trouble, would feel annoyed at those that were sluggish and slow, and would all the time be hurrying them and trying to keep them up to their work, and when the horses reached Boston, one-third of them would look jaded, and, perhaps, would not sell for half as much money as they would have done had they been driven according to their proper speed. It is easy to see that the first hundred horses should have been in charge of the proper number of attendants, and sent "kiting" on to Boston at the rate of

fifty miles a day, saving half the time of the grooms and half the expenses for feed and entertainment of the horses; and the drove should thus have been divided according to their natural speed. Then no group would be in the way of another, but each being kindly and patiently treated, the slow ones suffering no abuse, no hurrying and fretting, all would finally reach the market, and be in a proper condition for sale.

COLLEGE STUDENTS.

Now let this thought be applied to pupils, and its philosophic reasonableness, we think, will be appreciated. Experience has shown that some pupils can be prepared for college by the time they are fifteen, and graduated before they are twenty. Others require assiduous training and culture until they are twenty before they can properly enter college, and then they ought to have five or six years instead of four to graduate; but these slow-ripening apples are very apt to get the best places at last. These stanch, steadfast, moderate thinkers may become the wise and controlling minds of the future, the judges and the bishops of

church and state. It is said that Daniel Webster was not a brilliant scholar, that he gave far less promise in college than the average of the students. Suppose he had been called a numb-skull because he could not learn as rapidly as others, and had been sent out of the school in disgrace. Hundreds of boys and girls have been discouraged by similar treatment from teachers and classmates, and have carelessly fallen out of the ranks of scholarship, and expressed a preference for going to work; whereas, if they had been properly understood, and rightly instructed and treated, they would have been, at twenty-one, sound scholars, and at thirty-one superior to eight-tenths of those who were brilliant as students.

This case need not be argued; the bare statement of it is sufficient to show its force and the desirableness of the course suggested. There is no subject which lies so near the foundation of the progress and improvement of society as that of education, and we solicit candid investigation of the subject in the light of Phrenology and Physiology, which constitute the key to the highest and most permanent results.

[TO BE CONTINUED.]

THE MISSION OF THE HEBREW RACE.

THE idea that Israel's mission is already fulfilled does not agree with the facts that his census has so greatly augmented since the extinction of his nationality in Palestine, that his self-isolation is as perfect to-day as ever, and rests upon the same ancient reason, religion, and that his testimony against the common idolatry of the different nations where his family is scattered has been, is, and must continue to be, of moral value to the world's improvement. The active mission of a race is never ended until signs of decay are manifest; but no mark of old age or abatement of vigor can

be traced on Israel's brow. Is his task finished? Do not believe it.

During the Middle Ages the Jews were the physicians and bankers of Europe, giving special attention to the science of medicine, and, in behalf of culture, built many schools and colleges. They became distinguished both for wealth and learning; became proficient in mathematics and astronomy; composed the astronomical tables of Alfonso, and, it is claimed, were the cause of the celebrated voyage of De Gama. Whatever persecutions they received from the orthodox portion of Chris-

tendom, it is certain that under the Saracen rule they were treated with the highest consideration. Their inherent tendency in the direction of thought and science led them to be, for the most part, Aristotelians. As a race, the Hebrews were not born to be Platonists. In Philo, spiritual philosophy seemed to take a somewhat Platonic or transcendent form, and in Spinoza the pure philosophy of Monotheism took its widest and most disinterested shape. Whether slaves in Egypt, captives in Babylon, or ostracised religionists in Europe, there will always be a few of the number who will gravitate toward the palaces and the courts; a Joseph, a Moses, a Daniel, a Disraeli, will get near the centers of royal influence.

The venerable Rabbi Raphael said, in 1862: "We believe that salvation is still of the Jews." I do not say that, but I do say that the facts of the situation imply that Israel's work is not finished. Here is a great problem—whether Christendom is not destined to cast off, quite largely at least, the pagan elements it took on through the Latin Church. Shall not Christianity again be Monotheistic? Should this prove to be the providential end, one can then easily see in the future two results—first, the conversion of Jews to Christianity, as at the beginning; second, the effective missionary service Israel could then render in spreading Christianity over the world. Among Jews, when Christianity was new and unpaganized, 3,000 were converted to it in one day. Should it be eliminated from its pagan forms, it would by conversion absorb into itself the other two Semitic religions, Judaism and Islam, and the whole pagan world would then be a field for the purified faith to achieve victories in. The pagan elements could not stand against the fair rivalry of Christianity, from their inherent weakness; indeed, Christianity now is fast absorbing all that is good and excellent in other religions. From the beginning the Christian religion had an original, independent power of its own, wholly un-borrowed from philosophy. This power it shall keep unto the end—the power of inspiring and uplifting dejected humanity.

The more coarsely idolatrous elements

of Christendom must hereafter, in the alembic of God, be dissolved and pass away. If Polytheism was the second stage in the normal advance of the race in religious thought, and if Monotheism was the third, then the second must thoroughly and entirely give place to the third, which it never has done yet—no, not in Christendom. The truth-germ of each stage shall be preserved and contained in the third. The truth-germ of the first stage, or nature-worship, was that nature is Divine; the truth-germ of Polytheism was the eternal variety of the Divine powers; the third contains the Divinity of the Cosmos, the variety and Divinity of the powers of nature and humanity, and includes all in the eternal bond of unity. Xenophanes, six hundred years before Christ, was the supremely philosophical unitarian when he said, "God is the One and the All." But truth in the philosophic form makes no great triumphs among the millions hitherto, so that the old statement, with Sinai's thunder and lightning attending it, had far more strength in it for general human use. The one God in the one humanity is becoming a great idea. The old truth, "God is one," is at bottom the most fruitful of all truths. It is the same as to say, "God is entirety, completeness, unfragmentary, and unfractional. He is harmony infinite. No Judaism, no self-conflict in Him. He is one, and the source of all oneness. He is nature's cohesive bond. The only reason why it is a universe and not a chaos, is because its source is one and not two, nor the half of one." The old truth holds all this and more. It holds not only the harmonic order of the natural universe, but the constitutional unity of the human race, and of all other races, whether of floral or animal existence. It is the fountain of the unity of Providence, and makes for history a *plan*; makes "one purpose through all the ages run;" and, in the realm of mental and moral forces, it makes the soul a unit of many powers; restores the broken sinner to unity through inward return to truth and good; makes each person, whether he will or not, *demand* unity in the picture, the poem, the statue, the temple, and the

character. Yes, it makes the real thinker to demand unity in the moral destiny of the human race, a harmonized universe which shall show in all its relations that God is one. The mission of Israel is not finished, for his truth is not exhausted.

Swedenborg, the Columbus of the unseen world, said :

“The Jews are less aware than any other people of being in the spiritual world, believing themselves to be still living in the natural world; and that because they are altogether external men, and do not at all think of religion from an interior principle.”

He also adds that the Jews trade in the spiritual world as in the natural, “especially with precious stones,” such stones “corresponding to the external sense” of the word. He thinks that in this world the Jews were naturally the worst of all nations; that, at their best estate, “they could only be kept in a holy external,” never in a holy internal. He saw Jews of the worst sort enter a city to reside called “the filthy Jerusalem,” and Jews of the

better sort dwelling in a better Jerusalem. No doubt the Jew has less interiority of soul, and more intense objectivity than many other nations, and, for this reason, was a more effective instrument for making the most lasting impression on a world in which the external so largely rules.

It is impossible to tell what part the scattered little nation will act in the historical drama of the future, but it is safe to say that its part shall accord with the line of its genius. The genius that gave birth to a race, or party, is apt to control its evolutions to the end. What the acorn teaches about its own evolutions, is equally good on the race-plane. It shall be, then, on the line of religion, in some way, that Israel shall finish his career, and, I think, in aiding the higher evolutions of the Divine unity in its struggles on earth. The world often thinks of this race as very practical free traders, evading revenue laws where they can in every country, but the future will have worthier reasons for remembering Israel, even as the past had them.

E. G. H.

JOSEPH LANCASTER, THE EDUCATOR.

BY ONE OF HIS PUPILS.

IT has been the happy privilege of but few sterling champions of education to serve their day and generation more unselfishly and usefully than the subject of this brief sketch, which is gratefully offered as a very feeble tribute to the memory of departed worth by one of his surviving pupils.

Joseph Lancaster was born in London in 1778. He was an honored member of the Society of Friends, and in early youth developed a remarkable fondness for literature. His gentle qualities of character and zealous devotion to duty rendered him a universal favorite. Animated by an earnest desire to have the lowly reap the benefits of education, in his nineteenth year he conceived and practically carried into execution the noble purpose of his benevolent heart by organizing a free school for poor children in the Borough Road, Southwark, where his worthy father then resided, and

who, to encourage his generous son in this truly commendable and humane enterprise, set apart a large room in his dwelling for the first tutorial labors, Joseph furnishing the desks, benches, and charts out of his own limited means. In an incredibly short time there were nearly ninety children in attendance, and it was in this humble apartment that young Lancaster initiated his famous and popular “Monitorial System,” which was nothing more nor less than a prelude to the present public school system.

The brilliant success of his useful labors was recognized by the friends of popular education, and they rallied around him with a devotion that impelled the young benefactor to work with renewed energy. Among these friends was the renowned Dr. Bell, who had about this time (1797) published a work upon popular education. The Duke of Bedford was led to inquire

into the merits of young Lancaster's plan, and the result was that in 1805 Lancaster was invited to an audience with George III, who, during a long interview, highly complimented his guest for his manly effort, and encouraged him to give his views without reserve. Lancaster, improving the golden opportunity, intimated that there was probably no other period of the school-life in which a careful study of the individual characteristics and attention to the individual needs of a pupil are so imperative as in the early years, while the mind was tenderly impressible—and yet no other period received less attention in these and other respects that affect vitally the whole future of the child's life. His Majesty was so favorably impressed with the philosophic views of his visitor upon the subject of popular education, that he gave utterance to a sentiment that rendered him thereafter very popular with his subjects. "That it was his earnest desire to see every child in his dominions educated to read the Bible." About this time the "British and Foreign School Society" was established, and the names of Bell and Lancaster soon acquired a European reputation. Foreign governments, including the United States, made diligent inquiry into the character and merits of the "Lancasterian System," and either with or without modifications it was widely adopted. Lancaster being a Quaker, labored as such under many disadvantages on account of the unmerited prejudice prevailing against that worthy and philanthropic sect. Nevertheless, he became the apostle of his method, and for several years traveled through England, Ireland, Wales, and Scotland, expounding it in lectures and promoting its application practically by establishing schools among the poor and needy, till finally the "well-to-do" adopted the plan, and its introduction became general. He even endeavored to apply his methods to the education of the higher or aristocratic classes, but failed in the attempt through the silly prejudices of the so-called refined and cultivated. Such was the unbounded liberality and self-sacrificing spirit of Joseph Lancaster, that after working fifteen years for the public

he became insolvent (1812). Six years after this he emigrated to the United States, where he nobly prosecuted his useful labors. In 1820 he went to Canada, and labored there also with approbation and success.

It was early in childhood that I was a pupil of this good man, the recollection of whose many virtues is still blooming fresh in my memory, and which, I hope, will go with me to the grave—knowing, as I do, that it is always profitable to cherish the memory of the virtuous. Oh! well do I remember, though it has been a "long time ago," the benevolent face beaming down, replete with sweet affection, upon the "little tackers" who always loved to see the happy owner enter the school-houses—But how many of this little band are spared in this Centennial to look once more upon

The school's lone porch, with reverend moses gray,
That tell the pensive pilgrim where it lay?
Mute is the bell that rung at peep of dawn
Quickening my truant feet across the lawn;
Unheard the shout that rent the noontide air,
When the slow dial gave a pause to care.
Up springs at every step to claim a tear,
Some little friendship form'd and cherished bear;
And not the lightest leaf, but trembling, teems
With golden visions and romantic dreams.

In 1830 Joseph Lancaster was invited by General Simon Bolivar, President of the Republic of Columbia, to introduce his system of education into that country, but before the preliminaries were arranged, General Bolivar died. This was a sad disappointment to our friend. Mr. Lancaster was the author of works entitled, "The British System of Education," "Lancaster's Arithmetic," and an "Autobiography." He died, universally lamented, in New York in 1838, at the age of sixty years.

A. HAWKINS.

A GEOGRAPHICAL PUZZLE.—The following puzzle, from the *Advance*, may serve to amuse and, perhaps, prove instructive to those of our young readers who may try to work it out, atlas in hand. Will those who do, send us the answer?

A river in Massachusetts, a cape on the coast of Virginia and an island in the Potomac River, invited one of the United

States, and her cousin, a cape on the coast of Massachusetts, to go with them to look at some mountains in Africa. As the evening was rather a country in South America the island in the Potomac wore a large division of Ireland, and Virginian cape was dressed in a river in Scotland. One of the United States wore a fine set of a city on the border of the Caspian Sea, and the river in Massachusetts whose necktie was a range of mountains in New Hampshire, complained that an island in the frith of Clyde pinched his foot. The island in the Poto-

mac said he ought to be more of an island in the Irish Sea than to mind it. The girls said they were some islands off the Southwest point of England to talk of such trifles when the island on the coast of Scotland was so sublime, and a town in that country was so bracing. They soon returned to the house which was built of a branch of the Missouri River. The girls began to work with some rocks off the Isle of Wight, and the boys amused the girls and themselves by a city in Pennsylvania aloud.

HOW TO DRAW THE FACE.

CHAPTER V.—CONTINUED.

THE WHOLE AS REGARDS CHARACTER AND EXPRESSION.

WE have commenced with the profile and will continue on that till we have exhibited some more prominent instances of character in that view.

If it be a perpendicular, we will get that by our first mark. But if it is in any degree oblique, we will at present get that from the perpendicular (fig. 93).

The next line that we most require is the line of the eye, or the line marking the position of the eye upon the facial. If, as in our standard head, it is one-half the facial—that is, intersects it at the midway point—we will so mark it by a horizontal line from the center of the perpendicular or facial line thus (fig. 94), and still continuing our

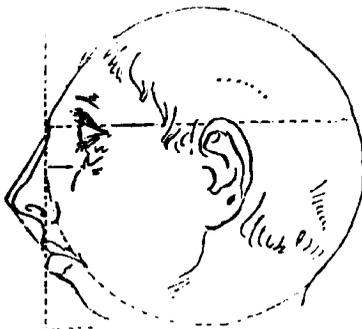


Fig. 93.

standard, it will be of the same length in the profile views as that line—that is, it will run laterally as far as the facial verti-

cally. On this we get our circle (if still too difficult to draw by the eye alone, the square may be added with markings for guides, as

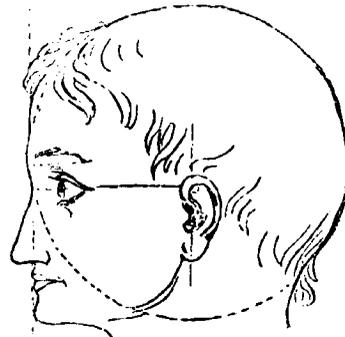


Fig. 94.

in the diagram we have used, but do not use the compass) and then sketch our features as in the standard type, making short marks for the location of nose, mouth, etc. But if not our standard, then use any other that we may desire by moving the line of the eye up or down, or changing the direction of the facial line (fig. 95).

In this way we can express a wide range of character, in fact, as wide as we may desire or can find. Having certain leading points, with a general knowledge of the features, those points can be varied to suit observation or suggestion. The facial may sometimes be broken or inflected, to show convex or concave profiles, either from the

perpendicular starting line or without, as ease may warrant (fig. 96).

But the full face calls for our attention.

such marks or guides as you may choose in their proper locations. Express, if desired, the three prominent types or temperaments

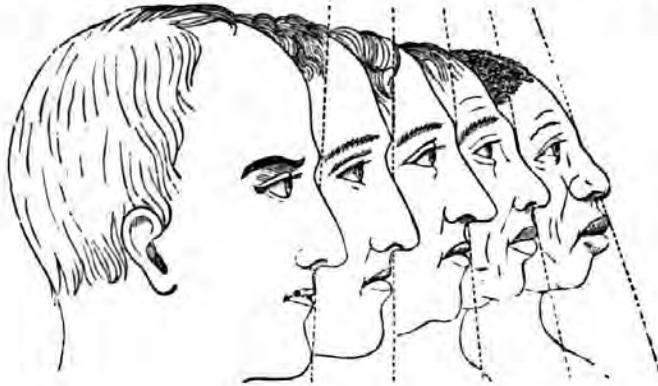


Fig. 95.

This, we have seen, is but three-fourths as wide as it is high in our standard. We would explain here again that our standard is a supposed form of proportion or a basis for the

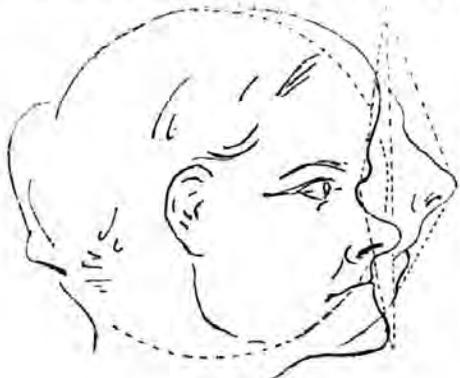


Fig. 96.

elucidation of character, and not an invariable one for the representation of character itself in its varieties. In doing that it may be of any proportionate width of the square to its height, according to the style of face required to be delineated, from the long, narrow physiognomy of emaciation and grief, occupying, perhaps, not more than one-half, to the broad, open aspect of repletion and jollity, which may occupy the full width or more of the square (figs. 97, 98).

Our facial line we still want first. The line of the eyes next—in our standard intersecting one-half and three-fourths as long. Sweep your oval (see directions for profile) and indicate the other features by

in the same way, and then proceed to variations at your pleasure (figs. 99, 100, 101). Of course, the three-quarter or oblique views are as readily obtained as these by the rules given for that position in the chapter on The Face as a Whole (fig. 102).

These variations may express character as understood by facial configuration and proportions, when the features are in repose or unagitated by any but common emotions (Fig. 102).

But the passions and emotions are matters of expression that are independent of



Fig. 97.

mere normal type of facial configuration. They are the movements of the muscles

and integuments by the same processes and causes in one as in the other, and rage, fear, anger, pity, love, hope, ardor, with pain, agony, pleasure, joy, etc., all have their language in the same movements and condition of the features in the wise man and in the boor, in the long head and in the short head, in the wide head and in the narrow head, although it is true that they



Fig. 98.

are modified by the organic condition and temperament that belong to each.

But to express or represent some of these passions graphically is our object. Of course, as the features have been represented separately, their combination is derivable from the mode of getting the face as



Fig. 99.

a whole (Chap. III.) only observing the harmony that should exist. An angry eye

and a laughing mouth would hardly go together, except the laugh were ironical,



Fig. 100.

which would then be a sardonic laugh or a demoniacal grin or sneer (fig. 103).

In this respect, however, we can do but little more here than to refer to examples with suggestions of method (as in the preceding chapter on the features separately), and leave the student to deduce for himself



Fig. 101.

from them the means or principles of detecting and expressing their numerous variations from his own apprehension. Works on the subject are numerous. Dr. Bell's "Anatomy of Expression" is a standard work among them. Observation of nature is always in order, and our purpose is mainly that of furnishing a guide-post, to point, perhaps, through the doors of other works, to her manifestations.

As the muscles have an important service in the economy of expression, the forehead, cheeks, chin, temples, as well as eyes, nose,

of fear, terror, and remorse, and kindred agencies.

The chin is elevated and protruded by

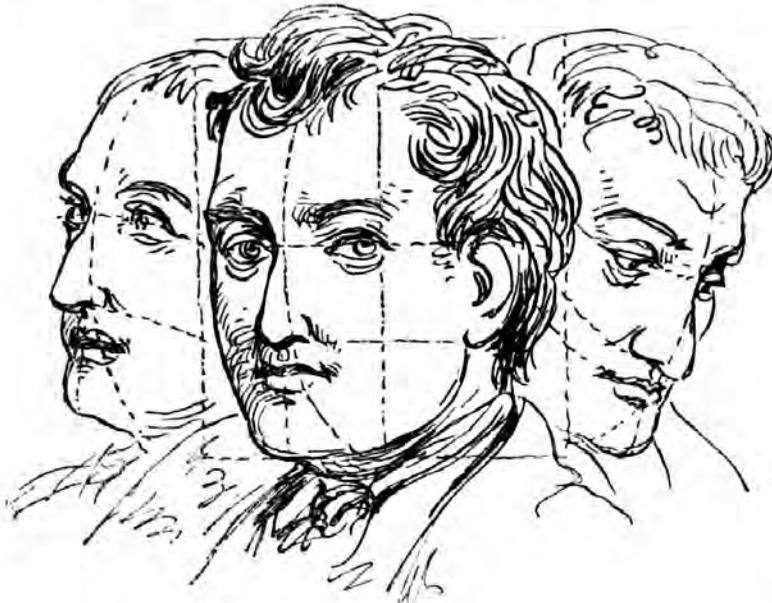


Fig. 102.

and mouth must be incorporated to make up the whole.

The forehead is smoothed or wrinkled, expanded or contracted, exhibiting the calm, unruffled quietude of peace of mind (fig. 104) or knotted into points and creases (fig. 105) presenting the agitation of dismay, doubt, or anxiety, or other and rougher passions and emotions.

The cheeks are puffed either with mirth or anger. In one case, ruddy, smooth, and lustrous; in the other, livid, rough, and



Fig. 103.

opaque, or they are drawn-out, elongated, and shrunken and colorless by the agonies

pleasant and cheerful emotions, as hope, expectation, desire, etc., or depressed and



Fig. 104.

Fig. 105.

drawn back by melancholy, doubt, apprehension, disappointment, etc., and even the temples, immobile as they are in themselves, throb, and exhibit marked conditions of emotion, contributing to the general effect.

The forehead exhibits the following principal changes from the smooth or placid condition.

1st. The contraction of the eyebrows inwardly toward each other, causing deep vertical creases or wrinkles over the root of the nose, running up into the forehead, caused by the action of the *corrugator super-*

cillii, which, drawing the eyebrows together forward, gathers the skin into ridges, causing the depressions (fig. 106).



Fig. 106.



Fig. 107.

2d. The elevation of the brows by the levator muscles causes horizontal furrows or creases over the eyes about midway of the forehead. These are often gathered into knots in the center of the forehead when combined with the preceding (fig. 107).

3d. The depression of the brows by which the skin is drawn tightly downward over the forehead, showing the bony conformation of the skull in its minute details, and the frontal and temporal veins which are often injected, as in cases of mental trouble or anxiety, and the root of the nose is wrinkled laterally and the brows slightly contracted by the action of No. 1 (fig. 108).

In the cheeks we find a great variety of changes in consequence of the varying thickness and range of play of the muscles, lying as they do, over expanses of bone, or



Fig. 108.

over cavities (caused by the projection of the zygomatic arches over the hollows of the jaws, fig. 109.)

When drawn up they lift the corners of the mouth, and cause deep creases running diagonally outward from the wings of the nostrils and intersecting the corners of the mouth, as in smiling, laughter, etc.; as in hearty laughter, causing a succession of wrinkles which seem to play at hide-and-seek around the corners of the mouth (fig. 98), and forming that peculiar dimple in the center of each cheek which may be called the laughing echo, so much admired in women and children. It is in some cases an almost perpetual characteristic, or produced upon



Fig. 109.

the slightest movement of the risible muscles, and is a peculiar charm (fig. 110).

In free, enjoyable laughter, the upper cheek being gathered into a heap, as it were, and the skin drawn tightly over it, a beautiful sheen is exhibited focalizing at its roundest part in a sparkle of light like the high light of an apple; and the eyebrows being somewhat depressed and the eyes compressed, creases are formed running from the external angles of the eyes curving outwardly and downward, as if to unite with those from the corners of the mouth.

Very different, however, is the puffed

cheek of anger or rage. Instead of those fascinating creases and dimples there is nought but a congestion of the muscles



Fig. 110.

with angry blood which tinges them with a redness, sometimes almost purple in its intensity (fig. 111).

But there are other experiences both of suffering and passion that modify the muscles of the cheek. Sorrow, grief, all kinds of mental anguish or melancholy pull them



Fig. 111.

down, and the face is elongated and shrunken and pale. Malignant passion or

anguish does the same, but the eyes and mouth are then the chief indexes of the kind and quality of the emotion. The creases from the nose and mouth are then downward or vertical in their direction (fig. 112).

But the chin has large claims upon attention for its agency in giving and heightening the expressions of the face. It may not represent them in itself, but its contour and relations largely suggest the temperament and constitution liable to certain emotions.

Who is not captivated by the dimple that nestles between the lobes or points of the lower jaw? and what language there is in the prominence or depression of the points of this feature! Forward it speaks of hope,



Fig. 112.

ardor, ambition, expectation. Backward and retreating, of despair, doubt, hesitation, defeat. Narrow and pointed, of culture and refinement. Wide and round, of comprehensiveness and force, etc. (figs. 99, 100, 104).

THE useful is generally despised. If there is anything known to exist more mysterious, wonderful, and worshipful than the involuntary physical energies, then we have not heard of it. Up to the age say of thirty years, or say, better, as long as he feels that fullness of life which we call health, it is the common destiny of man to be happy, or, at least, to know only those fanciful ills which would seem to him in diseased-burdened old age, by comparison, the height of bliss. Poverty does not prevent it, nor

humble social status, nor the bondage of toil, nor marriage, nor celibacy, nor the incubus of gloomy religious belief, nor ever-impending dangers and alarms. Happiness is an inward state, and nourishes itself on every sort of exterior condition. But as the

interior life-power begins to wane, it gradually loses the capacity to conquer and assimilate all externalities, and becomes a delicate and squeamish thing, to be nursed and cared for and fed on easily soluble vianda.

G. C. J.

THE INSTITUTE.

THE act to incorporate the American Phrenological Institute, passed on the 20th of April, 1866, together with an amendment made in pursuance of an order of the Supreme Court in September of last year, reads as follows:

"The people of the State of New York, represented in Senate and Assembly, do enact as follows:

"Section 1. Amos Dean, Esq., Horace Greeley, Samuel Osgood, D.D., A. Oakey Hall, Esq., Russell T. Trall, M.D., Henry Dexter, Samuel R. Wells, Edward P. Fowler, M.D., Nelson Sizer, Lester A. Roberts, and their associates, are hereby constituted a body corporate by the name of 'The American Institute of Phrenology,' for the purpose of promoting instruction in all departments of learning connected therewith, and for collecting and preserving crania, casts, busts, and other representations of the different races, tribes, and families of men.

"Section 2. The said corporation may hold real estate and personal estate to the amount of one hundred thousand dollars, and the funds and properties thereof shall not be used for any other purposes than those declared by the first section of this Act.

"Section 3. The said Henry Dexter, Samuel R. Wells, Edward P. Fowler, M.D., Nelson Sizer, and Lester A. Roberts, are hereby appointed Trustees of said incorporation, with power to fill vacancies in the Board. No less than three Trustees shall constitute a quorum for the transaction of business.

"Section 4. It shall be lawful for the Board of Trustees to appoint lecturers, and such other instructors as they may deem necessary and advisable, subject to removal

when found expedient and necessary, by a vote of two-thirds of the members constituting said Board; but no such appointment shall be made until the applicant shall have passed a satisfactory personal examination before the Board.

"Section 5. The society shall keep for free public exhibition at all proper times, such collections of skulls, busts, casts, paintings, and other things connected therewith, as they may obtain. They shall give, by a competent person or persons, a course of not less than six free lectures in each and every year, and shall have annually a class for instruction in Practical Phrenology, to which shall be admitted gratuitously at least one student from each public school in the city of New York.

"Section 6. The corporation shall possess the powers and be subject to the provisions of Chapter 18, of part 1, of the Revised Statutes, so far as applicable.

"Section 7. This Act shall take effect immediately."

At a meeting held on the 14th of May, 1875, the death of Mr. Samuel R. Wells, one of the Board of Trustees named in the Act, was announced, with appropriate remarks upon the important place which he had filled with so much efficiency. To fill the vacancy, Mr. H. S. Drayton was nominated and elected.

The officers of the institute are: Dr. Ed. P. Fowler, President; Nelson Sizer, Vice-President; H. S. Drayton, Secretary. By a formal resolution of the Trustees, Messrs. S. R. Wells & Co., of 737 Broadway, have been constituted business agents of the Institute.

A course of lectures has just been completed, which was largely attended by pupils from the public schools of New York,

special effort having been put forth to interest teachers and others in the movement.

With the increase of interest which has been manifested lately by the public in the educational work of the Institute, the need of a suitable place for the proper arrangement of the Cabinet, for the conduct of classes, and the giving of lectures, is more and more felt, and the Trustees are anxious to secure, at the earliest possible moment, an eligible building. Such is the encouragement given by the public thus far, that the accomplishment of this object is not deemed to be very distant in the future.

Were some substantial contributions

made now by persons of wealth who profess an interest in the instruction of the public in matters which vitally relate to the health of mind and body, the Trustees would be enabled to secure an advantageous location now, an opportunity being offered which they would be glad to accept.

As has been already announced, the next lecture session of the Institute will open on the 6th of July, and all persons who wish information with regard to the subjects embraced and the terms will obtain it by addressing the Secretary or the Agents, at this office.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.*—N. SIZER, *Associate.*

NEW YORK,
MAY, 1876.

CABINET COLLOQUY—NO. 2.

A FEW evenings since we became sufficiently interested in a visitor who was viewing the specimens of portraiture in oil and plaster which occupy the walls of our office to accost him, and direct his attention to some particularly interesting objects. He evidently was not a convert to the phrenological system, but disposed to argue against it, taking his cue, doubtless, from certain readings in authors of not very recent date, but whose opinions are now-a-days occasionally quoted in anatomical discussion.

"I notice there," he said, pointing to a

row of casts, "more or less difference in width and length of head, and also differences in the height; but may not such difference be attributable to the varying thickness of the skull bones rather than to brain development? Now, you know that skulls differ in thickness of bone, some being but an eighth of an inch, and some over a quarter of an inch in thickness. I am inclined to think that many of those protuberances which examiners take as indicative of special development of brain tissue, are due only to an irregular deposition of bony matter."

"It must be admitted," we replied, "that the distribution of bone is not always uniform throughout the skull; but to one experienced in estimating the effect of temperamental influence in the order of the physical structure, and also accustomed to manipulate the head in analyzing character, it is not a difficult matter to determine approximately the thickness of the bony case which envelopes the brain."

"How," cried our visitor, "do you mean to say that phrenologists can tell the thickness of the bone in the living head?"

"Yes, near enough for all practical purposes," we answered.

"Pray tell me how you do it?" he rejoined, with an air of doubt as to our ability to vindicate our position.

"The temperament or quality of the organization gives it a certain character of coarseness or fineness, which character is easily recognized by one accustomed to observe in this respect. The woodsman distinguishes trees by their bark. The fine-grained, dense hickory has a smooth, close bark, so has the hard, symmetrical maple, while the chestnut and hemlock have rough, coarse bark and a comparatively coarse grain. Trees of fine fiber, as a class, have bark of less thickness than trees of coarse grain. The forester knows the gradations and can tell, moreover, on which side the bark is thinnest by its appearance. So the expert phrenologist recognizes the man of fine grain by his physical contour, complexion, and expression, and he associates with that fineness of fiber a symmetrical, bony framework and a cranium of moderate thickness. Take two men of similar organic development, that is, of heads of similar size and contour, but of unlike temperament, one having a light or sanguineous complexion, the skin being smooth and thin, the hair fine and soft, while the other is of dark complexion with a strong, rugged face and frame, dark, crisp hair and beard. How much time do you require to decide which is of better stock, and has the higher grade of mentality? Which can understand a new subject the quicker and apprehend its relations? You can tell almost on the instant, and that, too, without having made the subject of temperamental differences your study. You are satisfied that the latter has a more osseous physique than the former, and you must associate a thicker, heavier cranium with his coarser brain."

"Well," said our visitor, "but don't you

sometimes find a thick skull with the indications of fineness you have mentioned?"

"Rarely; and then the bone is distinguished for its compactness and density, just as boxwood is remarkable for its exceedingly close grain. In such cases the osseous condition has been derived from a parent or grandparent, who was remarkable for toughness of fiber and physical strength. He contributed the osseous element, which in its transmission was modified and refined by elements of nervous delicacy and physical symmetry contributed by other ancestors. Such cases tell their own story. There is one feature, however, in brain development and its relation to the cranium which should be alluded to, and that is the fact that over those convolutions or organs which are the most active in a person's mental life the bone diminishes in thickness, and this alteration can be observed by the expert examiner."

"What!" exclaimed our visitor, "how is it possible to determine that? It seems to me that you are trespassing upon the realm of necromancy, if you claim such power."

"It is not so difficult as you imagine," we replied. "You of course know that between the membrane which envelopes the brain and the inner plate of the skull, there is a complex network of arteries and veins."

"Certainly."

"Well, by carefully passing the hand over the surface of the head of a man, you will be sensible of differences of warmth, and here and there you may detect pulsation. The thinner the bone the higher the temperature, and the more apparent the pulsations. We have seen persons with skulls so thin in certain locations that the bone there rose and fell distinctly under the hand, in correspondence with the move-

ment of the blood. And cases are reported of persons whose skulls were almost worn through in places by the abnormal activity of the brain at those parts. A man given to intellectual pursuits, and closely occupied day after day, will be found to have a forehead which is hot in comparison with other parts of his head. There may be organs in the moral or social region which co-ordinate with his intellect, and they will show activity by similar phenomena, but the region of the highest activity will be the more marked in its development and temperature. If you should visit an insane asylum, and have an opportunity to place your hand upon the heads of the patients, you will find that the region of the brain which is related to the nature of the mental derangement in any given case, is preternaturally warm, and the bone may be so thin that you might crush it in."

"Why is not the principle involved in this made useful in medical practice? It seems to me that if it be true, it would save people from illness, or the madhouse, or death?" inquired he.

"So far as practical phrenologists can, they do apply it as a prophylactic agency, or as a basis for suggesting remedial measures, and have accomplished no little good in the way of saving people from the sad end you mention."

Our visitor here bowed himself out, and we returned to our desk and its routine of duty. D.

SEXUAL SENTIMENT.

MESSRS. EDITORS:

IN Herbert Spencer's Comparative Psychology of Man, there occurs the following passage:

"THE SEXUAL SENTIMENT.—Results of value may be looked for from comparisons of races made to determine the amounts and

characters of the higher feelings to which the relation of the sexes gives rise. The lowest varieties of mankind have but small endowments of these feelings. Among varieties of higher types, such as the Maylays, Polynesians, these feelings seem considerably developed. The Dyaks, for instance, sometimes display them in great strength. Speaking generally, they appear to become stronger with the advance of civilization. Several subordinate inquiries may be named: 1. How far is development of the sexual sentiment dependent upon intellectual advance, upon growth of imaginative power? 2. How far is it related to emotional advance, and especially to those elements which originate from sympathy? What are its relations to polyandry and polygamy? 3. Does it not tend toward, and is it not fostered by, monogamy? 4. What connection has it with maintenance of the family bond, and the consequent better rearing of children?"

"This extract has led to a friendly discussion both on its meaning and on the fact. The point is involved in this question: Does civilization or a higher development of intellect tend to increase or intensify Amativeness? W. H. P."

Reply. In the lower types of humanity the sexual instinct is simply an animal feeling, and appears to be related to no other part of the mind; that is to say, there is no poetry, no imagination, no refinement connected with its activity or exercise. We have made inquiries of men who have lived among the North American Indians in regard to the sexual instinct of that people, and so far as we can learn, these Indians are far less endowed with it both physically and mentally than white men. And we believe that the history of Indians in regard to salacious tendencies will show that female captives taken by them have not

been subjected to such reprehensible treatment as has been very common in similar cases with the lower classes of men belonging to white nations. Among the lower types of men woman is but a slave; sold and disposed of in marriage without consultation or consent on her part, and, as a general rule, she is not treated with courtesy and respect. As we advance in the scale of nations, courtesy and refinement in the conduct of men toward women increase, and their relations are more refined and elevated, until all the faculties combine to make marriage honorable, refined—in fact, the great event of life, and, as a consequence, the conjugal and family relation is deemed to possess elements of the sacred.

In proportion as the mental faculties are increased in culture, refinement, and strength, they co-ordinate with each other. In the lower types of men single faculties work without combination, and civilization with its culture tends specially to call faculties into complex co-ordination. The faculties of perception and memory are mainly those which belong to the lower orders of men. As we cultivate society these faculties widen in their range, are taught to work, not only together, but to awaken the reasoning organs, to make extended investigations, to build up philosophical and other modes of reasoning. Thus the whole intellect interplays, each faculty assisting and promoting the strength of all the others. In the lower forms of human life habits are simple, and wants commensurately few. As life becomes cultivated and complex, more faculties are brought into co-operation. Art, mechanism, trade, commerce, ambition, ethics, religion, government, society, the family, conduce more to independent activity. If, then, the moral, intellectual, aspira-

tional, social, and æsthetic powers are brought into a higher and more vigorous order of action in the cultivated nations, every element, including Amativeness, must share in this activity.

The friendships of civilized life are far richer and higher than those in savage life. Children are prized a hundred times more in civilized lands; perhaps the simple mother spirit of the animal will not show itself more vigorously. But there are other inspirations besides the one of maternity, that make the babe the king of the household. The fact is apprehended that it is to be a companion of the parents, that it is to bear their name, and their honor, and inherit their fortune, and carry forward their projects and their reputation in the world; it is, so to speak, to make the parents immortal on earth.

All the embellishments of society, then, have a tendency to minister to love, to make it sacred, and sensitive; the ten thousand forms of politeness, tenderness, respect, courtesy, and the little civilities and gracious manifestations between the sexes must tend to enhance and vivify that element. The mere possession of the person is not all that is meant by the sexual instinct. It embraces that exalted sentiment of respect and affection, that proud consciousness of possessing a counterpart of soul as well as of body, which the true husband feels. Those ten thousand amenities and refined attentions which pervade the entire intercourse of the civilized husband and wife emanate from the pervading influence of the sexual instinct acting in harmony with the faculties of judgment, sympathy, Approbativeness, Ideality, and all the moral and social sentiments; and there is ten times as much of this sentimental love in the life and character of high-toned married people as there is of physical, in-

instinct love; yet that instinct is strengthened, intensified, and elevated in its character by its relation to all the other faculties. As the word "home" embraces more than the bare name "house," so the word "love" takes in more faculties than that basic element of Amativeness, out of which, or in consequence of which, the relation of the sexes is founded and maintained. Civilization, therefore, is calculated to awaken the sexual instinct and increase the vigor and intensity of its physical manifestation, but it is designed and tends to produce, also, a nobler and higher manifestation of that feeling, in co-operation with all the other faculties. And what is true of Amativeness is equally true of all the other faculties.

Ambition, to a low nature, has a narrow line and a limited aspiration. It is coarse in its modes and gratified by that which to a civilized man would seem baseness. The sentiment of property has a civilizing effect, and as men rise in the scale of being, their wants multiply until property means something besides food and raiment. The Indian has his pony, his weapon, and his blanket, and he is comparatively rich. Let the thought of property be carefully considered. How much does it mean? not in bulk, but in multiplex variety. Go through a well-ordered house, and see the books, pictures, articles of convenience, elegance, and refinement; the term property covers all these, and the sentiment which desires property is thus co-ordinated with the mechanical and the artistical faculties; and thus it comes to pass that the luxuries cost more than the mere necessities of life.

The warrior of the forest hideously daubs his face with red and black paint, plumes his head with eagle feathers, and hangs human scalps to his belt, and considers himself ornamented. When Ideality has been

cultivated with all the other faculties, it decorates the house, the person, not with scalps, nor with stripes of coarse paint. Constructiveness leads the savage to make a few rude implements of war or devices for trapping game, or catching fish; his clothing is rough, and his tent or shanty is of the rudest kind; but when Constructiveness has been civilized and works with Ideality and intellect, and with the higher aspirations, then it becomes wonderful in its achievements.

If, then, the mechanical, artistical, and other elements by co-operative action and culture intensify the character in each of these respects—would it not be strange if the sexual instinct did not follow the same law, and become augmented in its intensity because acted upon, fostered, and cherished by the influence of all the other faculties? And thus we can hope for a higher and better social condition in proportion as the minds and bodies of the people shall be brought into better hygienic conditions and higher mental culture?

OUR STORY.

WE have received a letter from one of our subscribers in which he makes a complaint in this formal manner:

"My objections are these:

"1. There is a story begun in the February number and continued in the March number, to be continued, etc. This I do not like.

"2. The story is one which no man or woman should read. Look at the characters in the March number; they are vile and mean as pictured.

"3. The story has murder in it; this we need as little of as possible.

"I subscribe for the JOURNAL to avoid paying for fiction, but to read the last two numbers, one is forced to the conclusion that you have begun to publish fiction, too."

Our friend of ten years' standing has a right, we think, to candid consideration, as, indeed, have all who have been associated with us in the cause of human progress. We will not ignore his plea merely because he is the only one who has objected to the sketch which we have been publishing, but look at it squarely.

The story he objects to so pointedly is that entitled "A Bad Beginning," and in defending our course in introducing it to the reader, we have to say—

First, that the motive which influenced us at the outset was the inculcation of high moral principles by the delineation, in a series of sketches of social life, by a fiction, if the reader will, in which occurrences should take place not inconsistent with the current of life in a mixed population like ours.

Second, that there should be enough of the practical application of phrenological methods to give the reader a clear view of each character, the basis of his action, how he or she was affected by propensity, or emotional sentiment, or intellectual judgment.

Third, that the influence of parentage should be rendered clear enough for the reader to trace its relations to the conduct of the principal characters.

In the treatment of the several points involved considerable latitude was, of course, demanded by the author, who is a lady of the highest moral integrity and of marked intellectual refinement. We think that she has rendered the groupings and occurrences thus far intensely realistic, and it is probably this feature which our correspondent takes umbrage at.

As for the "vile and mean" characters, they are but few, and the author has sketched them as briefly as their relation to the plot would permit. Those persons who occupy

the foreground are not "vile and mean," but, on the contrary, possess qualities which, by the stimulus of great trials, are grandly active, and command our admiration. The author is a close observer of the conflict or want of harmony between the capitalists and the men who live only by the hardest toil, and her sympathies with the laboring classes are so strong that she has given them some expression. And we think that, in the light of what we read in the daily newspapers of oppression and wrong inflicted by employers upon poor men and women, that she has far from exaggerated in the details of Ralph Staunton's conduct toward his employées.

Our friend likens this story, by implication, to the fictions of the common papers of the day. If we thought there were any real resemblance in quality and design we should suspend its publication at once, for our aim in everything we put in type is to instruct in one way or another. We would develop every part of the man, his æsthetic and social faculties as well as his intellect; his self-protective, combative, executive elements, as well as his kindness, sympathy, religious feeling, and Conscientiousness.

Teaching by examples, such as an allegory or a parable, or a "story" may be made to furnish, is one of the best methods by which truth can be presented and impressed upon the mind, and certainly we should not be debarred from adopting so efficient a course, especially when it has the approval, as is the case with "A Bad Beginning," of all but one of our correspondents and subscribers who have made any mention of it in their communications with us.

But notwithstanding all this, should there arise now a strong demand from our readers at large to suspend the story, we should accept their verdict as final.

CENTENNIAL LIQUORS.

A WARM friend of temperance and decency sends the following very pertinent letter.

“PHILADELPHIA, February, 1876.

“DEAR EDITOR: It has been reported and often repeated that the Centennial grounds in Philadelphia are to be flooded during the six months of the Exhibition with all sorts of liquors. It has gone the rounds of the papers that the Centennial Commission has farmed or sold out to a wealthy brewer the privilege of supplying all the beer to Centennial guzzlers of that swill for the sum of \$4,500. For a similar sum all lovers of ‘sparkling wines’ are to imbibe at least five hundred gallons per day—Centennially. So, too, the entire range of bibulous ‘ardents,’ named or namable, is to be arranged under the direction and control of the ‘highest bidder’ for each kind, to entice and supply the largest possible quantity to the largest possible number of thirsty Centennialisers.

“If this be so, no blame to the ‘Commission’ if all the 10,000,000 visitors—the least number computed by them—shall fail to keep drunk from ‘morn till dewy eve,’ and from May to November of the ‘glorious’ Centennial, 1876.

“But let us hope that nothing of the kind is to be permitted. I have talked with several of the Board on this very subject. They deny emphatically, first, that they have entertained any proposition whatever, or shall do so, for privilege to sell or supply any intoxicating liquors to be drunk on the grounds; second, that any public bar will be allowed at all; and they affirm that all practicable means shall be used to prevent the demand for such liquors.

“They say that there must be restaurants, and that these may supply on call at the tables fermented liquors. This last may—and will, if allowed—vitate the whole thing. But friends of ‘temperance and righteousness’ are aroused to this threatened danger and consequent tide of iniquity. They will do what can be done to avert such an outrage and disgrace. The Commissioners are to be approached by the

best men of this city seeking their assurance that they will shut down the gate against the ‘infernal stuff’ at the very outset, and keep it shut. Failing in this, public mass meetings are to be called to ventilate and pass upon the matter. And then there is a legal phase of the subject, not generally known, connected with the charter granted to Fairmount Park which may be enforced or tried. Yours, truly, a.”

We earnestly hope that the vile stuff shall be kept entirely away from the Centennial Exposition grounds. Such an accomplishment would not only be a triumph of Christian morality, but a splendid testimony to the world that the people of the United States, notwithstanding the corruption in certain political circles, are progressive, indeed, and appreciate the destructive effects upon society of the unrestricted use of alcoholic beverages.

THE FRUITS OF IT.

MANY persons have become interested in the science of human nature, and, desiring to engage in lecturing and reading character as a profession, they write us requesting to be informed, briefly, how they can best present the subject by means of lectures, and how to make correct examinations, thinking, doubtless, that in a rather long letter we can tell them all they need to learn on the subject. If they could sit and listen to our explanations for a hundred and fifty hours, and see all the illustrations offered by our extensive collection of phrenological specimens, they would find out that many scores of long letters would fail to give more than an outline or skeleton of the great subject.

As an evidence that a full course of instruction is serviceable to our students who faithfully and zealously seek to acquire all that we are able to impart, we copy from the Sandy Lake, Pa., *News* of March 10th, a notice of one of our students who graduated on the 10th of November last, just four months before the publication of the notice:

"PHRENOLOGICAL LECTURES.—It has never been our good fortune to hear the science of Phrenology and its teachings so ably explained as they were by J. Boyd Espy in his recent course. They were so intermingled with sound, practical advice, that the most skeptical on the subject acknowledged themselves benefited. We hope the gentleman will receive the patron-

age his efforts in the cause of science, religion, and humanity deserve."

This is not the first strong and cordial notice brother Espy has received during his brief season in the field, nor is he the only student of the class of '75 who has made a good mark and received flattering public recognition.

AGRICULTURAL HINTS.

To Extirpate House Insects.—We have alluded to the usefulness of alum for this purpose in a former number, and now the *Journal of Chemistry* publishes a recipe for the destruction of insects, which is a slight modification of what we have advised, and maybe more. Take two pounds of alum and dissolve it in three or four quarts of boiling water; let it stand on the fire till the alum disappears; then apply it with a brush, while nearly boiling hot, to every joint and crevice in your closets, bedsteads, pantry shelves, and the like. Brush crevices in the floor of the skirting, or mop-boards, if you expect they harbor vermin.

Loss of Weight in Grain.—A series of experiments instituted to test the average loss in weight by drying, show that corn loses one-fifth, and wheat one-fourteenth by the process. From this statement it appears that farmers will make more by selling unshelled corn in the fall at seventy-five cents than the following summer at \$1 a bushel; and that wheat at \$1.32 in December is equal to \$1.50 for the same wheat in June following. This estimate is made on the basis of interest at seven per cent., and takes no account of loss from vermin. The facts are noteworthy.

A Generous Offer.—The editor of a little sheet which deserves abundant patronage, the *Evergreen*, Sturgeon Bay, Wis., informs us that he has growing upon his premises, of spontaneous seeding, large amounts of seedlings of the above of different sizes, and some ten or a dozen different varieties, which he will give away in any quantity to any person for his own planting only, by his removing them at his own expense. He will furnish full information regarding sizes, varieties, cost of removing,

etc., to any person addressing him as above, with stamp to pay return postage.

Tomatoes Raised In-doors.—The *London Gardeners' Chronicle* describes a method of raising tomatoes within doors which, it says, has been successful, and is worthy of general adoption. The seed is sown about Christmas, and by the first week in March the plants are set out against the back wall of some of the lean-to-vineries, in a good compost, with ample root-room. Here they make a rapid and vigorous growth, and in the course of the season attain to a height of from ten to twelve feet, and produce successive crops of fruit with great profusion until past Christmas. In this manner early and late tomatoes are obtained from the same plants. As a matter of course, the plants can scarcely be kept too moist, and a good dressing of crushed bones is occasionally given. The border in which tomatoes are planted is only about fifteen inches in width. The plants must be well fed, but the wonderful crops they bear is the best testimony to the advantage of a liberal treatment. The weight of fruit obtained from one plant in a season is something remarkable, and many plants attain a great size.

A single grain of wheat, accidentally dropped in a garden in Hoveringham, England, last spring, produced sixty-three ears and more than 3,000 grains of wheat; probably the largest yield ever known, but showing what good soil and good cultivation can accomplish.

Maple Sugar.—A great many farmers might make a few hundred pounds of superb maple sugar, and a barrel of superb maple syrup, just as well as not. They have

the trees, an abundance of cheap help, and wood that would cost nothing except the labor of preparing it for the fire. The only difficulty in the way is a disinclination to engage in such a job. The argument is, "It won't pay." But will it pay to lay around the house, grumble about the weather, and watch the clouds? Mechanics, tradesmen, clerks, helpers, and all the industrial classes in towns and cities are required to start early every morning, and apply themselves all the day long, every day and every week. If the inhabitants of the rural districts would exert themselves in a similar manner they would accomplish twice as much as they now do.—*Exchange.*

Cranberries in Japan.—A young Japanese, while in the United States, expressed much surprise at seeing cranberries eaten at the table, and said that in the mountains of Japan they grow very large and beautiful, but are never cooked. Some old man occasionally goes up to the mountain and picks a long basketful of them, which he brings on his shoulders down to the town. Here the boys gather about him, and for a small coin purchase the right to crowd their pockets with them. And what use do you think they make of this otherwise useless fruit? The boys blow the glowing berries through rattan tubes, as our boys blow beans through tin ones. That's what cranberries are used for in Japan.

The following table of periods which some of the most common seeds require in germinating is given in the *Michigan Farmer*: Wheat, 1 day; millet, 1; Hungarian grass, 1; barley, 7; spinach, 3; beans, 3; mustard, 8; lettuce, 8; aniseed, 4; melon, 5; cress, 5; cucumber, 5; beet, 6; purslane, 9; cabbage, 10; parsley, 40 to 50; hyssop, 30; almond, 1 year; chestnut, 1; peach, 1; rose, 2; filbert, 2, and hawthorn, 2 years.

Make Farming a Business.—Geo. R. Drew, a Vermont farmer, is reported in the *Rural New Yorker* as saying, at a farmer's festival: "Farming can be made more pleasant by making a business of it, and not be attending to too many other things at the same time. And then by not overworking. I think there has been an improvement in this respect, but there is need of more still. I have said that I would not take the gift of a farm and be obliged to work as I did

when a boy. I now see the policy of giving children and young folks a great deal of recreation. I am very sure that more work can be done in a long run by working ten hours a day than by being actively engaged for fourteen hours. Also, we should not be too much confined at home. We should go away occasionally, and many times we might learn enough to make up for our lost time."

A Discovery About Corn.—The *Western Rural* tells of a man who plants, two or three weeks after the crop is planted, a new hill of corn every fifteenth row, each way. And this is the reason: If the weather becomes dry after the filling time, the silk and tassels both become dry and dead. In this condition, if it should become seasonable, the silk revives and renews its growth, but the tassels do not recover. Then, for want of pollen, the new silk is unable to fill the office for which it was designed. The pollen from the replanted corn is then ready to supply silk, and the filling is completed. He says nearly all the abortive ears, so common in all corn crops, are caused by the want of pollen, and he has known ears to double their size in this filling.

Fence—Waste of Land.—If a farm of 160 acres is divided by fences into fields of ten acres each, there are five miles of fences. If each fence, now, is one rod wide, no less than ten acres of land are occupied by them. This is equal to 6¼ per cent. of the farm, and the loss of the use of the land is exactly equal to a charge of 6¼ per cent. on the whole value of the farm. But nearly every fence row in the country is made a nursery for weeds, which stock the whole farm, and make an immense amount of labor necessary to keep them from smothering the crops. Much damage always results to the crops from these weeds, and if these expenses are added to the first one, the whole will easily sum up to 20 per cent., or a tax of one-fifth of the value of the farm. To remedy this we would have fewer fences, or we would clean and sow down the fence rows to grass or clover, and mow them twice a year. Ten acres of clover or timothy would at least supply a farm with seed and a few tons of hay every year. We would, in short, consider the fence rows as a valuable part of the farm, and use them as such.—*Agriculturist.*



Our Mentorial Bureau.



[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

STEALING.—"Why will Acquisitiveness cause one person to steal, and another person, very honest, to be very avaricious and miserly? I have a little boy who is very large in this organ; I also have it large, his mother has it a little less. I have all my life had a very great tendency for acquiring, and believe, were it not for the restraining influence of the moral organs, which are large, I could never have kept this organ under control. What training should a child have who has large Acquisitiveness?"

Ans. Acquisitiveness being large, will sometimes lead a person to unfairness in the acquisition of property, unless Cautiousness and Conscientiousness are large enough to balance it. We have known persons to steal in a petty way who had only medium Acquisitiveness, but they lacked sagacity and capacity to make money, and when they became poverty-stricken, would steal to eke out their existence; while another man in the same community, possessed large Acquisitiveness, but also had the energy, talent, and skill to make money abundantly, and had also the strong moral qualities to keep the propensities under proper control. The truth is, organs fully developed will lead to abuse if the intellectual and moral forces are not present also, on the same principle that lemon-juice alone is very sour, but, if mixed with sugar and water in the proper proportions, becomes delectable. Sugar is very sweet, sickishly so, but modified with lemon-juice and water, it tastes very nicely. Character is mingled, and made up of balancing and contradictory elements, but harmony is the result of their combinations, as

many notes may be made to harmonize in one grand "voluptuous swell." The way to train such a child is to keep his restraining faculties active, and surround him with a public sentiment that shall keep his moral sentiments constantly awake in the direction desired. In some families the dollar is the chief topic, and honor and conscience not being mingled in the conversation, the young listener gets a strong bias in the wrong, or avaricious direction. In some families, where domestic missionary work may be the business of the household; where property and good things are given, liberality may become chronic, and we have known children of such families to go out into the street and give to poor children things not at all needed; thus they manifested their kindness, although unwisely.

FREEDMEN OF THE SOUTH.—"Do these people show, in their general development, indications of poetry and music?"

Ans. These people show a considerable variety of development, but generally more of the musical than of the poetical. Occasionally we find one who shows a strongly-marked development of both tendencies. Africans are particularly musical, and, with intellectual culture, they doubtless would exemplify a considerable degree of the poetical element. Witness the Fisk University Company, of Tennessee.

CHOICE OF PURSUITS.—"Why are we not inclined to the pursuits for which nature endows us?"

Ans. Generally because some factitious ideal of what we should be blinds us to our capacity in the matter of vocation. The love of approbation leads men to want that which is stylish and very respectable, when, perhaps, they are capable only of doing that which does not bring either fame or fortune.

COPYING.—"What qualifications are necessary for one to become a good copyist? Also, by whom are they employed, what are their wages, etc.?"

Ans. A copyist needs to be a good writer, a good speller, a good grammarian, and have a predominance of the mental and motive temperaments. Copyists are employed by lawyers, by authors, by real estate dealers, and some others, and the wages vary in this pursuit as much as the wages of clerks in stores vary. In

New York there is a great deal of copying done at a recompense which would not enable a person to live comfortably, and pay fair board. Many young women living at home get more or less copying to do, and if they can earn three dollars, or five, or more dollars in a given week, their board being provided for anyway, it is so much earned for use or caprice. The fact that there are many such employed as copyists more or less of their time, tends to make copying rather uncertain business, and keeps wages down.

PRISONERS AND THEIR CRIMES.—

"Can a good phrenologist, by examining the heads of convicts in prison, reveal the crime or crimes of each?"

Ans. This probably can be done eight times in ten. The two exceptions will occur in respect to those who have become entrapped in some crime, toward the commission of which they are not naturally so much inclined as to something else. We have made visits to State prisons, and examined from five to twenty-five heads, and described in each case the crime for which the person was suffering the penalty. We can tell what crime one would be most likely to commit, and if he acted alone in the matter he would be likely to commit an offense against the law according to his strongest tendency. If a person is made a tool of by some stronger nature, he may get into State prison without really being the instigator of the offense, but merely officiating as assistant to somebody; and once in a while a person with weakness of organization and character being used as a stool-pigeon, would be drawn into that which he would never think of committing himself, and thus be convicted and sentenced; but we think nearly all the strong characters that would be found in State prisons could be so described as to indicate the crime for which they are incarcerated. Moreover, we have sometimes astonished the keepers of insane asylums by describing the character of the insanity of different patients by indicating through what faculty they would be most likely to break down. Dr. Spurzheim in 1832 set us the example in this country, and evinced wonderful success, and those who follow him have repeatedly done the same thing.

There are certain classes of persons who commit crime against the person, either by murderous violence or by salacious violence. Sometimes a man is adapted to do either. Another would not commit a crime against the person, but only against property. Another would manifest criminal tendency through ingenuity in forgery, by engraving counterfeit money.

There are phrenologists who like the opportunity for visiting prisons, and would undertake to be right three times out of four in regard to

the crime for which a person has been convicted; and in all cases state that to which the individual is most prone, though in a given case he may have been caught in some minor mischief.

CHRONIC CATARRH.—What shall I do for chronic catarrh?

J. S.

Ans. In the "Health Almanac," for 1875, two pages are devoted to an explanation of the disease, and a statement with regard to the best mode of treating it. We have a few copies which we can send by mail at ten cents each.

BRAIN OF THE SEXES.—What is the relative difference between the male and female brain of the human species?

D. B. M.

Ans. Observers who have paid considerable attention to this subject, and have measured the cranial capacity of the male and female head in hundreds, if not thousands, of instances, conclude that the average weight of the brain of a fully developed man is about forty-nine ounces, and that of the fully matured female to be about forty-five ounces. So much for the difference in weight. In organization the female brain is somewhat finer, more delicate; it has also a predominance, relatively, of moral and social strength or susceptibility. The feminine brain is not so wide between the ears, or so long in the anterior region, as the masculine, while it exceeds the latter in relative fullness in the upper region.



THE SUNBEAM.—The first question that presents itself to my mind in looking at the sunbeam, is its composition. What is the sunbeam? Is it composed of light and heat? Are light and heat one and the same thing, differently manifested? Or are they separate and distinct agencies? Light that comes directly from the sun is evidently accompanied by heat, but that is not conclusive evidence of their identity. On the contrary, a sunbeam reflected from the moon gives us none of the sun's general warmth. In the case of artificial heat, we can feel the heat of a fire through a stove, but see none of its light. It would seem from this circumstance that the light and heat are separated in passing through the metallic stove. If light and heat were the same, they couldn't possibly be separated. When a sunbeam leaves the sun in the direction of the moon, it contains the same amount of heat the one leaving in the direction of the earth has. In the sunbeam coming direct from the sun we find there is both light and heat, but in the one reflected

from the moon there is only light. What has become of the heat of the reflected sunbeams? It must have escaped from the sunbeam at the moon. Heat is the most subtle agent in the known world. There is nothing that it does not penetrate. If the sunbeam contain no other element besides light and heat, then the heat is in the light. Its atoms being smaller than the atoms of light, they occupy the interstices between them. If there are other elements, the heat may be in some of *them*; perhaps all of them. Is light a material substance? It is when compared with heat. And both are material substances compared with the ether occupying space. When a sunbeam strikes the solid body of the moon, it is condensed, and its capacity for heat is diminished. Its heat is thus evolved, and absorbed by the moon. Not so, however, with the *light* of the sunbeam. That is evolved by the refractive power of the atmosphere, and the moon has no atmosphere. It is reflected to our earth, our atmosphere evolves it, and it is diffused. The sunbeam comes through the fields of ether with our light and heat in a latent state. Our atmosphere, by its refractive power, evolves the light, and by its condensing power evolves the heat. The further the sunbeam travels through the atmosphere before it gets to us, the more of its heat has been evolved, and the less we get of it. That is why it is colder in winter than in summer. The sunbeam strikes the atmosphere obliquely in winter, and travels through more of it before it reaches us. And that is why we find that the higher we go from the earth, the colder it gets. If we could get above the atmosphere we would find that there is neither light nor heat there. The sunbeam is not a simple element, but a compound of elementary principles. The exact manner and conditions under which the sunbeam leaves the sun is a matter of much speculation. The most reasonable supposition is, however, that it is by the power of expansion, after the manner that water expands into steam and carries away heat in a latent state. The accepted theory of heat is, that it is a mode of motion—a wave motion of ether started by combustion in the sun. But if that be true, why do the vibrations diminish as we approach the sun? The higher we get from the earth the colder it is. If the vibratory theory be true, the heat ought to increase as we ascend. Again, if heat is a motion of ether, and light is that motion accelerated, why do the vibrations reflected from the moon give the sensation of light, but no heat? M. Z. PUTNAM.

DESTRUCTIVENESS.—"Be noble, be just, be magnanimous!" cry the moralists. Every one will admit that these are worthy objects of ambition, but few have grasp of mind enough to see, with Thackeray, that more than

half the acts men perform, thinking them done from lofty motives, are in reality the offspring of very vulgar ones. How harsh the world's judgment of that man has been who said "evil is from excess of good!" To be noble, you must be self-concentrated and self-reliant. To be just, you must be somewhat cold-hearted. To be magnanimous, you must incline toward cruelty. To be all these, you must have Destructiveness large, and then arises the question, "What is Destructiveness, and how is it shown?"

Owing to the careless manner in which epithets are applied, the man who likes to destroy, to break, tear down, cut out, is called destructive. Perhaps it is windows he smashes, or he wounds his neighbor's head, or breaks laws of God or man. The faculty will act variously, according to varying associations. A little wind will destroy a fragile plant; a tempest may not disturb an oak. One man will be a tyrant and delight in petty annoyance to others from mere weakness; another will be gentle and decisive from calm power. There is a great need of cultivating faculties termed the "lower." We see how, when a man's intellect is undisciplined, he is led into eccentricities. Visionaries and half-cracked men of wonderful expectations are, in nearly every case, men whose intellect received no discipline in early life. And it is the same with other faculties. When the destructive faculty is undisciplined, violence and bloodshed is the result. The man fighting for right with his pen has as much need of this element of Destructiveness as a general besieging a city. It is difficult to explain to the unreflecting that the same faculty which enables a beautiful woman to keep her countenance composed is but a better employment of that which leads a clown to vent his rage upon any defenseless animal in his power. It seems to have been nature's object, in allowing the stronger to prey upon the weaker, to cultivate the faculty, to show its value and to convey to man strong hints of the need of disciplining it; and, admirable as may be its cultivation, there will ever arise doubts whether field sports for men and flirtation and gossip for women are its best academies.

That Destructiveness must be well developed in any truly great man can be easily shown. In commanders and conquerors it may be in excess, but even in creative genius it must be largely represented. Even in women it is an essential. Beauty comes first from a harmoniously shaped head, and next, the lastingness of beauty depends upon the power of controlling the muscles of the face. From this necessity of the action of what phrenologists call the organ of Destructiveness, it follows that a beautiful woman must be capable of restraining her emotions. The yielding to any powerful sentiment impairs beauty. Ruskin has affirmed that "the

signs of want of control denote vulgarity." High beauty must show self-control, and be based upon self-restraint. However yielding may be the mass of the sex, the rarely beautiful are rarely seen. The proverb that only the brave deserve the fair, is founded on the assimilation and sympathy of faculties, for it is Destructiveness which helps to make a man brave, and also to make a woman beautiful.

In the poets, Dante and Milton, for example, we see the same controlling quality. Perhaps here in excess. Shakspeare is the best example. What man could write a tragedy without the exercise of this organ, any more than he could a comedy without exciting his Mirthfulness? Indeed, the Destructive faculty gives him the power, with the help of his Intellect, of grasping his theme and controlling and completing the work. It is this which gives the somberness to Tennyson's poetry. We find it in those who are prone to look upon the dark side of life. Yet the man who commits suicide will generally be found to be he who used this faculty in his moments of relaxation, and not in his habitual context of thought. Suicide comes from a morbid and irregular action of the faculty, the over-exercise and unbalanced action of the organization. The man composes a drama for himself in his own mind, in which he acts the leading part, and, as the time goes on, a tragic conclusion seems essential to the unity of the piece. In nine times out of ten it is not the constitutional misanthrope, but the naturally cheerful man, suddenly thrown off his balance of mind, who commits suicide. As it is not the habitual sinner, but the good man, who for once has stepped aside, who is most overwhelmed with grief, so it is not he who has mused much upon death, but one startled from his levity, who is most likely to be led into a monomania of suicide. The man who has never before been tempted knows not how to meet the temptation. Which is the most likely to steal? He who has never before felt the impulse, or he who has for a long time controlled it? Which is most likely to be injured by base books, he who can fix his attention on any book, who has a hunger for literature, or he who needs some excitement to urge him to read at all? And so of Destructiveness. Which is the most likely to be noble and just and magnanimous, he who has a visionary hatred of Destructiveness, and can not bring himself to deliberate in cold blood upon feelings and affections, or he who, with the nerve of a surgeon, bares his arm and cuts out with unflinching touch the ulcer from the living flesh?

—
DAMON.

HOW TO BUILD A HOTEL.—Hotels at watering places, and all other buildings intended for the reception of seekers of pleasure and health, appear not to be the model houses which

might be expected of them, and hence the general dissatisfaction of those who occupy them. Is there no chance for their improvement? It can not be denied that hotel users possess various characteristics as men and women, and these characteristics should be considered in the building and management of a hotel. I propose to plan a building, with the details I deem necessary to meet the need of every guest. Architecture, properly applied, will accommodate the mental as well as the physical conditions of human nature, and the pity is that its rational use is not more clearly appreciated in buildings.

The hotel proposed is calculated to be about 265 feet in length and about 160 feet in width, and three or four stories in height, basement not included, with an octagon tower forty feet in diameter at each corner, and perhaps a wing for the exclusive use of bachelors.

First Story.—This story is to have, in the middle of the oblong, a large audience-room, say 75 or 80 feet in width and 150 feet in length, which may be used for assembly purposes, such as concerts, lectures, religious services, and, on grand occasions, as a dining-room, or in warm weather or very bad weather, for promenades. On the two longer sides of the main hall and on one of the transverse sides are galleries; said galleries project from the walls of the main hall 10 feet, and extended from the hall floor to floor of second story. The top floor of galleries to be arranged with seats for guests, entering from the second story hall by doors. The space underneath the galleries, on a level with the audience-room, will form corridors on three sides of the hall, closed on both sides with large semi-circular sash-doors, said doors when opened allowing a clear view, in a cross direction through the building, and admitting a free circulation of air. At each end of the corridors the main stair-cases are to be located. The piazza, which is to be placed on the front, or may be extended on all sides if preferred, will have a length of 180 feet, and be about 50 feet in width. The ventilation of the audience room is to be partly gained from the ceiling, which will form a skylight. The main corridors under the galleries mentioned should project on the sides of the large audience-room, and thus give communication with all the adjoining rooms. On the main front communication with the piazza is to be had with the grand parlors, saloons, etc., and on the opposite side of the building will be the dining-room, with the pantries. Some of the octagon rooms in the towers may be used, one for a reading-room, one for a private dining-room, another for social table games, or conversational purposes, etc. At the main entrance will be placed the offices of the proprietor and waiting-rooms for guests, and at the transverse end rooms may be arranged for

guests desiring to be located on the first floor, and outlets communicating with the additional wing to be occupied by bachelors.

The upper stories are to be used exclusively for bed-rooms, with all the necessaries. Every room has its direct light and an outside prospect. The corridor of the second story communicates with the galleries of the audience-room.

Basement.—The basement will contain billiard-rooms or gymnasium-rooms for the young as well as the old; in fact, all arrangements necessary for healthful exercise.

Many more details might be mentioned, but I think this will be enough to give a general idea of the plan. Now, with the building before us in imagination, let us enter to see the effect. We go into the main hall through the outer vestibule, then we enter the second vestibule, passing the waiting-rooms, and behold, we have a view of the interior of the grand audience-room, and a fine view of the corridors, parlors, dining-room, etc. The effect is impressive. The variety will always appear fresh, as the character of the arrangement opens not one form of interest, but many. Now, let us place 1,000 guests on this floor, where wealth, beauty, and enjoyment may find a field for activity. The ventilation would be perfect, the cooling breeze have its sway, to keep the mind fresh and the spirit cheerful. Those who wish to see what is going on, and not be noticed themselves, can pass along the corridors and view the company from them or from the galleries. All other advantages gained by such an arrangement I will leave to the guests to imagine, but I will here mention that such a hotel would be really more economical than the hotels of the old styles. The disposition shown in the ordering of such an establishment, especially honest management, would find appreciation in the progressive American. The exterior of such a building as I have attempted to describe would also be impressive, and the cost of the same, in wood, would not exceed \$120,000.

It may here be appropriate to mention that this plan would admit any extent of enlargement, and it would add additional interest to all its details.

F. A. SAKLTZER.

PHRENOLOGY A TRUE AND VALUABLE SCIENCE.—Phrenology is a science unwisely neglected by the generality of mankind. Some profess not to believe in its existence, and others certainly do not appreciate its advantages. The object of this article is to establish the truth that Phrenology does really exist, and that a knowledge of this science is essentially needed by every one, especially those in possession of mental faculties.

No one disbelieves in the existence of mental organs, and that these organs are located in the

head. But we are informed by our opponents, that in one person an organ may be located in one part of the head, and in another the same organ may be located in some other part; and that there is no means of determining the exact location of *any* organ. When a man's nose does not appear on the face, and the mouth is sometimes located back of the ears, we shall have some grounds for asserting that an organ has no definite location. Nature's laws are unchangeable; and every part of every natural object always maintains its relative position to the other parts. Did you ever see apples grow on that part of a tree not so designed by Mother Nature? Did you ever see a dog's head located where his tail ought to be? From the fact that everything in creation is formed and governed according to natural laws, and that there is no such thing as chance, is it not unreasonable to disbelieve in the science of Phrenology? Those of us who have given any attention to this subject *know* that a practical phrenologist can, by the examination of a head, give a correct description of character. Now, if the location of every organ is not always the same, this would very evidently be impossible.

If Phrenology be a true science, no one should long remain ignorant of its teachings. Every man, to insure his success and happiness, must be thoroughly educated for his business or profession. If a man is to become a merchant, he should thoroughly acquaint himself with merchandise. No man can practice law successfully unless he has a fair knowledge of the things pertaining to that profession. Now, as we are daily more or less associated with our fellow-man, is it not very necessary that every one should understand that science that will enlighten him as to the character of those with whom he is dealing? Much of the dishonesty now practiced is evidently owing to the fact that men are generally ignorant of Phrenology. And I do believe that if people would make this a study, and thus qualify themselves for reading the minds of their fellow-creatures, evilly disposed people would endeavor to live better lives. Furthermore, the application of Phrenology is nowhere more beneficial than in the rearing of the young; it teaches us what they are, how to elevate them and to help them to those vocations for which they were designed.

JOHN W. LEOWE.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE greatest misfortune of all is not to be able to bear misfortune.

EVERY affection has its own enjoyment, and enjoyments tie minds together.—*Sveedenborg.*

WE think too much on what the gods have given us, and too little why.—*Walter Savage Landor.*

PART of the very nobility of the devotion of the true workman to his work consists in the fact that a man is not daunted by finding that drudgery must be done.

A CHINAMAN in San Francisco was rudely pushed into the mud from a street crossing by an American. He picked himself up very calmly, shook off some of the mud, bowed very politely, and said, with a mild, reproving tone, to the offender, "You Christian, me heathen; good-by!"

A MAN who does not love luxury is an incomplete man, or, if he prefers, an ignoramus. A man who can not dispense with luxury, and who does not love hard fare, hard bed, hard travel, and all manner of robust, vigorous, tense work, is a weakling and a soft.—*Theodore Winthrop.*

THE earnest men are so few in the world that their very earnestness becomes at once the badge of their nobility; and as men in a crowd instinctively make room for one who seems eager to force his way through it, so mankind everywhere open their ranks to one who rushes zealously to some object lying beyond them.—*Dwight.*

Do not forget if you accomplish a little every day it will amount to a good deal in a year. If you pursue some study, or read one hour every day in the year, you will have acquired an amount of knowledge in three hundred and sixty-five days that will surprise you. Bear this in mind now, early in the year, and let nothing prevent you from taking advantage of it.—*Anon.*

THE last best fruit which comes to late perfection, even in the kindest soul, is tenderness towards the hard, forbearance toward the unforbearing, warmth of heart toward the cold, and philanthropy toward the misanthropic.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

A YOUNG lady describing a bashful young man at a party, said: "He looked so timid I feared he would jump through his neck-tie and run away."

AN Aberdeenshireman newly arrived in London, entered a shop and asked "the wye to the toor?" "They speak Dutch next door," was the answer. "Fat div ye sell heer?" "Blockheads!" "Min, ye drive a gey gweed trade, for I see ye've only ane left." The fulp didna bark back.

"OH, we don't mind the fourth story," said an Ohio Congressman's wife in choosing Washington lodgings the other day; "we can go up and down in the ventilator."

A DISPATCH was handed in at the telegraphic office to wire to San Francisco, of which the following is the text, *verbatim et literatim*: "Mr.—: Teundt tcent dows guts. Bediclos berichsprea." Which reached San Francisco thus: "Mr.—: Don't send those goods. Particulars by express." Who would have thought it?

How doth a little busy B.

(By B I mean a belle)

Improve each shining hair to see
If she can catch a swell!

How skillfully she plaits each tress,
How neatly folds her pads,
And lets a curl flow down her back,
To tempt us artless lads!

HE sat in a railway car. His head was thickly covered with a mass of red hair. Behind him in a seat sat a man with hardly any hair on his head. He said to him, "I guess you waen't round when they dealt out hair." "O, yes, I was," replied bald head, "but they offered me a lot of red hair, and I told them to throw it into the ash bin."

If a man with ease would study, he must eat,
eat, eat
But little at his dinner of his meat, meat, meat;
And a youth to be distinguished in his art, art,
art,
Must keep the girls away from his heart, heart,
heart.

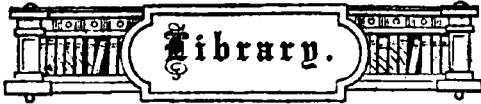
A LADY whose worse half was notorious for his ill-temper, said she had the most even tempered husband in the world. "Why, how is that?" exclaimed one of her friends. "Why, you see, he is always in a rage," was the satisfactory reply.

GOOD Deacon B—having, as some of his friends thought, shown too little interest in the public affairs of the day, was charged by a brother with being "on the fence." "Yes, I am on the fence," was the reply, "and there I propose to remain as long as it's so confounded muddy on both sides."

Happy Husband (to his wife's seven-year-old sister at the other end of the room)—"Well, Julia, you have a new brother now."

Julia—"Yes, but mother said to papa the other day that she was afraid you would never amount to much, but it seemed to be Sarah's last chance."

A GERMAN pedlar sold a man a liquid for the extermination of bugs. "And how do you use it?" inquired the man, after he had bought it. "Ketch te bug, and drop von little drop into his mou," answered the pedlar. "You do!" exclaimed the purchaser. "I could kill it in half the time by stamping on it." "Vell," exclaimed the German, "dat is a good way, too."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

A TREATISE ON HUMAN PHYSIOLOGY.

Designed for the use of Students and Practitioners of Medicine. By John C. Dalton, M.D., Professor of Physiology and Hygiene in the College of Physicians and Surgeons, New York, Member of the National Academy of Science, U. S. A., etc., etc. Sixth Edition, Revised and Enlarged. With 316 Illustrations; pp. 828. Philadelphia: Henry C. Lee, Publisher.

In the preface to this new edition of his work the author writes: "In a text-book like the present it is desirable that the reader should not be misled by having all the frequent changes of opinion or substitutions of theory presented as discoveries in physiological science. Any faithfully observed facts, however unexpected or peculiar, are, of course, at once invested with a prominent value. But the theoretical explanations by which they are sometimes accompanied are not of the same importance. They often represent only a scheme of probabilities existing in the mind of the author, and may be altered at any time to suit the requirement of more extended observation. In rendering an account, therefore, of the state of knowledge upon any physiological subject, the student should be informed, not only of the result now in our possession, but also of the means of investigation by which they have been attained."

In accordance with this sensible and truly scientific view of physical investigation, Dr. Dalton endeavors to cover the field of human physiology, describing *how* the different processes or functions are carried on in clear and terse phraseology, and dwelling but little upon the merely ratiocinative *why*. A grand truth is stated in the "Introduction," viz.: "The only method by which physiology can be studied is the observation of nature. The phenomena presented by living creatures are only to be learned by direct examination, and can not be inferred by any process of reasoning from any other facts of a different character. Even a knowledge of the minute structure of a part, however exact, can not furnish any information as to its active properties or function; and these proper-

ties can be learned only by examining the organ when it is in a state of activity." In no department of anatomy does this truth more certainly apply than in the study of the nervous functions, and yet, when intelligent physiologists are asked to accept the evidence of their senses as shown in the phenomena of mental life, they turn to dead brain tissue and ask us to demonstrate therein *all* that is claimed. Now, to get at the true relations of function we must study it in activity—and that in normal conditions, not in morbid or irregular.

In his discussion of the numerous topics which are embraced in physiology, Dr. Dalton classifies them in three divisions or orders: 1. Everything which relates to the nutrition of the body. 2. The phenomena of the nervous system. 3. The process of reproduction. In the review of proximate principles the treatment is quite thorough, involving very nearly all that is of value to the student, the results of observers to as late a date as 1874 being drawn from. The comparisons by analysis of wheaten bread with beef flesh and other articles in common use as food are scarcely fair, for the reason that the bread taken by the author as his standard is that made of sifted or superfine wheat flour and prepared by the yeast or carbonic-acid process. The marked popular tendency of late toward the use of wheat-meal or "graham" flour, and the many authoritative declarations which have been given in this country and in England in favor of wheat-meal bread, are entirely overlooked by the author. The fact, too, that a large proportion of our population make the various cereals the chief constituents of their dietary, and use them as nearly in the state which nature furnishes them as is consistent with cleanliness and easy convertibility by the process of digestion, and do not appear to suffer any depreciation of mental and physical vigor, seems to have escaped his attention. The numerous tables showing the constituents of the ordinary articles of food, vegetable and animal, are of special value in studying the nutritive merits of each, and the admirable engravings which show the form of the proximate elements are of great assistance to the careful student. The part which interests us most as phrenologists is the nervous system, and a pretty careful examination of that has resulted in a most favorable opinion of Dr. Dalton's thoroughness and fairness in considering it. In his allusion to the part performed by any special department of the brain we find the spirit of candor generally controlling. He gives in clear review the results of recent vivisections by foreign and American investigators. Finally, of the wonderful phases of reproduction the descriptions are comprehensive and lucid, very many superb engravings contributing to the enlightenment of the student.

WILEY'S ELOCUTION AND ORATORY.—

Giving a thorough Treatise on the Art of Reading and Speaking. Containing Numerous and Choice Selections of Didactic, Humorous and Dramatic Styles from the most Celebrated Authors. Fifth Edition; pp. 444. Price, in cloth, \$2. New York; Clark & Maynard.

We have had occasion to notice this excellent volume in one of its editions, and now can do little more than reiterate our commendation of the method taken by Mr. Wiley to present the subject of elocution. Being a lawyer by profession, the author has had experience enough to convince him of the great need of some preparation to fit a man for the rostrum, and he has brought his knowledge of forensic manners and much special reading to bear in the compilation of the book. His treatise upon the principles of elocution is brief, but clear and comprehensive, copious illustrations being given to exemplify the few rules laid down. As for the selections in general, they are very numerous and very excellent; furnishing the young man or woman who would contribute in an elocutionary way to the entertainment of the parlor or the public audience an ample *reportoire*.

MAGAZINES AND PERIODICALS RECEIVED.

TREASURE TROVE. A magazine of entertaining and select literature. Published by R. B. Caverly, of New York. This is a new candidate for public favor, but whether it will be able to make its way at the present dull time against the established miscellanies seems to us a matter of doubt.

EXPERIMENTS WITH THE ALLEGED NEW FORCE. By George M. Beard, A.M., M.D. Reprinted from the Archives of Electricity and Neurology, November, 1875. New York: T. L. Clacher, Publisher. This is a discussion with regard to the new force Mr. Edison, of Newark, claimed to have discovered a while back while making investigations in electric dynamics. Dr. Beard is not prepared to admit the existence of a separate force or element, but deems the new and singular phenomena elicited by Mr. Edison's and his own experiments to be worthy of further and more careful examination.

THE HEALTH LIFT Reduced to a Science, Cumulative Exercise, etc. A pamphlet bearing upon the "Reactionary Health Lifter," and its application as a substitute for ordinary exercise.

MONTHLY WEATHER REVIEW for February. The chief signal officer, who always uses good paper for his reports, if the press-work be not of the clearest order, says: "The principal features of the weather for the month have been—First, the average northerly courses of the areas of low barometer and the formation of barometric troughs and ridges; second, the high

barometer in the Southern States; third, the high temperature in all districts except the extreme northern stations; fourth, the gales of February 1, 2, and 15, and the tornadoes in Missouri, Illinois, and Indiana of the 13th and 27th."

THE JOURNAL OF EDUCATION, New York. No. 12 of Vol. I. is a beautiful specimen of what taste and good judgment can do in the way of arrangement, typography, and paper. A portrait and sketch of Mr. E. J. Whitlock, President of the Brooklyn Board of Education, are given, besides a variety of educational, art, and miscellaneous matters.

OUTLINE DRAWINGS of the Figure for Recording the Situation and Form of Cases of Skin, and for Noting their Changes. By Balmanno Square, M.D., London. We thank the author for his very excellent and suggestive pamphlet.

MUNSON'S PHONOGRAPHIC NEWS. Published semi-monthly; \$2 a year; single copies ten cents. The first number of this phonographic print bears a good appearance. We are glad to see it as a revival of magazines printed in short-hand years ago, and which, from the lack of support, were suspended. It supplies a need felt by every short-hand writer, whether he be in good practice or still a student. Some comments are given by Mr. Munson on Scovill's short-hand. He declares it substantially a reproduction of an old system, and of no special advantage to the world in comparison with the systems based upon Pitman's in general use.

PETER'S HOUSEHOLD MELODIES. The last number of this excellent monthly collection contains several good songs, among them "The Rose of Killarney," "The Homestead," "Forever Here My Rest Shall Be." There are eight compositions, all printed upon thick-toned paper. Price of the number, fifty cents, or \$4 per annum.

BRIGGS & BROTHER'S QUARTERLY ILLUSTRATED FLORAL WORK, 1876. We have received the above-named catalogue, a book of 88 octavo pages, illuminated paper cover, which is also a treatise on the cultivation of flowers and vegetables. They say, "We do the heaviest business in our line in the world." Were it not that Briggs Brothers do an honest business they could not speak thus of themselves. Accompanying the catalogue we received their "Tomato Race," which is a very witty conception, and carried out with great *empressement*.

THE CATHOLIC WORLD is fresh and vigorous, seemingly having lost little by the recent change in its editorship. An article on "The Basques," deserves notice, as the author claims special importance for that people of Southwestern Europe, representing them as possessing an antiquity outranking all other European peoples.

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[WHOLE No. 450



PROF. JULIUS H. SEELYE, M.C.

IT is not often that a teacher or a clergyman is nominated for office by a political party in the United States, especially when there has been no solicitation on his part for such distinction. The case, therefore, of Prof. Seelye, of Amherst College, is

an exceptional one. Amid the confusion and conflict of partisanship which characterized the Congressional campaign of last autumn it was not to be expected that a gentleman, however high his capabilities, who had hitherto stood aloof from politic-

ians, would snatch the palm of victory at the polls. Yet it was demonstrated in that New England district that real talent, fine culture, and high moral worth will command the respect and confidence of men, and triumph over party scheming and chicane.

The gentleman whom Hampshire Co., Mass., has to represent her in the Congress of the nation was born in 1824, and educated in the schools of New England, at that time the best in the country. With the ministry in view he entered college in 1845, and was graduated in 1849. After a course of study preparatory to assuming the duties and responsibilities of the clergyman, he visited Europe, where he derived much pleasure and instruction during the course of a brief season of travel. Returning to America, he accepted the pastorate of the Reformed Dutch Church at Schenectady, in June, 1858. He remained in this relation several years, to the satisfaction of those who constituted his congregation. In 1858 he was invited to occupy the chair of moral and mental science in Amherst College, and, this being in accordance with the bent of his mind, he accepted the position, not, however, entirely withdrawing from ministerial avocations, as he is connected with the Congregational Church in the clerical capacity.

In 1873 he was invited to visit India, at the instance of resident missionaries, and there performed a good deal of useful service in the cause of Christianity and modern civilization by lecturing to the Brahmans on social and religious subjects.

Prof. Seelye's portrait, as we give it, shows a well-developed mental organization. The intellect is logical, critical, sharp, clear, and ready—of that sort which responds to the demand of an occasion by furnishing the materials its owner would employ to point

a moral or to demonstrate a proposition. The sense of Individuality is well indicated. He is not an imitator, not disposed to follow in the track of others. As a student and as an instructor he has his own ways, and avoids the monotony of repetitions by the introduction of much variety in his phraseology and illustrations. He is earnest and positive in the expression of opinion and in the performance of duty; has little sympathy for those who hesitate and vacillate in their life's work.

His religious sentiments are well marked in the brain development, and color his thought in its different phases. Few men attach more significance to the term "moral responsibility" than he, and few are disposed to hold themselves to a severer rule of accountability. Yet he is by no means wanting in sympathy toward the unfortunate and suffering; it is the willful, stubborn doer of wrong he would punish, not the sorrowful and repentant. He is sociable, believes in home and the duties of home; looks upon the elevation and harmonious organization of society as one of the chief objects of civilization; that there can be no substantial progress without a well-ordered civil *régime*. He is a calm, well-poised man, and not likely to be moved in his convictions of truth and duty by specious argument or the pretences of influence.

With regard to his election to Congress, a word or two should be added. In his case it may be said that the office sought the man, and not the man the office. And this should be the case in every instance. Indeed, if we would perpetuate our democratic republican institutions it *must* be so. No self-appointed usurper, no ambitious self-seeker, should be permitted to hold office, even as a pound-master, in this country. Good, honest, intelligent, temperate, and religious men should be chosen for *all*

places of trust and preferment. Let the incompetent and the vicious become qualified and reformed if they would be eligible in the line of promotion. It is said that the women of his district had much to do—indirectly—with securing the nomination and election of Prof. Seelye. While he may not be a woman's advocate, in the general acceptance of that term now-a-days, yet we doubt not that woman has a staunch friend in him.

In his recent work on "Christian Missions," Professor Seelye discusses the essentials to thorough work in evangelizing heathen and savage peoples, and does so with striking clearness and force. We append an extract which is a model of excellent writing and good philosophy.

"No wise man will deny intellectual culture. Only ignorance despises knowledge. But the knowledge which is not inspired by virtue can give no inspiration to virtue. Unless it strikes its roots in a soil already pure, its blossoms and fruits will be only corrupt and corrupting. A godless education is not an object of wise desire for any people. It has no power to purify, and thus no salvation. It does not draw out the roots of evil, but rather strikes them deeper into the soul. It may deck the evil in a garb of beauty and weave for it garlands of song; but it is evil none the less, and by making its manifestations more attractive it only enables it, like Satan when robed in his garments of light, the more effectually to deceive.

"But it is said that we can reach the trouble by giving instruction in morality. The attempt has often been made. The argument in its behalf is plausible; men are immoral, therefore teach them morality. Set before them their duty and make this so clear that it can not be mistaken, and then the weight of obligation will be so

strong that it must be obeyed. But no man does his duty simply because he knows what his duty is. Unless he loves it, no clearness of knowledge will ever induce his obedience. Men are not, and certainly it is true in general that they never have been, raised from vice to virtue, from sin to holiness, from moral sickness to moral health by morality alone. No matter how pure it may be, no preaching of morality has ever sunk deep into society, or shown itself able to have any wide control over the conduct of men. It has never shown itself able to mold society internally and from the center. You can not make a man virtuous simply by teaching him virtue. You can not be certain that a child will practice the Ten Commandments simply because he has learned them by heart. The teaching is, of course, well; is not only important, but indispensable. How can men be led to do their duty unless they are first led to know it? How shall they believe in Him of whom they have not heard? But notwithstanding this, all the knowledge which men obtain of the Divine commands and their duty, never has been sufficient to lead them to a true obedience. No theory of human nature is deep and thorough which does not recognize the actual foundation for the fact, and no observation of human conduct is wide or penetrating which has not seen its frequent exhibitions.

"But can political and social changes do the work? Shall we preach republicanism and go with the Declaration of Independence and the doctrine of social equality to the nation in darkness? Alas! unless there be a foundation laid in the purified and prepared character of a people, we could only build the republic upon the sands to fall with the first flood, bringing only ruin in its fall. Political and social institutions can not be made for any peo-

ple; they must grow out of the spirit and character and tendencies of the people by whom they are adopted. They are not orders which a nation wears, but a body into which a nation grows through the development of its national life. Political institutions, therefore, for savages who have no national life is impossible, and the attempt to change the political institutions of a people already having a national history is idle unless we first change the life of the people themselves. Free institutions are possible wherever they are enjoyed, because the people have become prepared for them by a long and thorough training—a training which sometimes shows itself in a slow growth of centuries. Freedom is first, and must be seen in a knowledge of law and a reverence for law, in self-control, and a capacity for self-direction before free institutions can have either permanency or value.

Free institutions which are the outgrowth and embodiment of freedom will both perpetuate and increase the freedom from which they spring; but when we attempt to carry them over to a people not yet free, the immediate result is not liberty, but only license. The government we had sought to establish becomes anarchy, and the anarchy in its turn gives place to despotism.

“Social evil has its source, not in society, but in the individual heart, and can not be remedied by any social changes, but only as the individual heart is reached and renovated. The heart knoweth its own bitterness; and however perfectly we may seek to furnish a society with institutions, if we have done nothing more than this it is only surface-work. We have painted or plastered over the ulcer to make it look as though it were healed, but it is not healed.”

LOST OPPORTUNITIES.

LIFE is a splendid possibility. It is full of anticipated triumphs, and stretches away over many a field of imagined glory. It brightens to the fancy as the widening lines of the morning light, or deepens to the roseate hues which flood the summer sky in the golden splendor of the dying day. It rolls up the misty curtain of doubt and reveals to the enraptured eye the ineffable beauty of a land where the breath of a thousand roses scents the air, and where every sound is a voice of melody which tells us this must be a very garden of delights. The silence of the holy night is only broken by the murmuring waters as they glide peacefully on to the sea, or the sound of the

“—lonely bird
Which sadly sings,
Brooding upon its nest unheard,
With folded wings;”

and through all the golden day, no sound of labor ever comes to grate upon the ear with harsh, discordant note, but everywhere the “sunny-footed hours” keep time to the dance, with song and wine, as merrily the time goes by. To the dreamer, this is life. Let the cold, gray sky of reality but break over him, and every colored vision of his soul fades away. If we close our eyes on the material world, what picture-like conceptions arise in the world within! I turn my eyes inward, and what do I behold? Is it a spectral army riding on toward the beleagured city of the past? Or are these phantoms but the dim vagaries of a morbid fancy? Are these beings clothed in the ghostly habiliments of the spirit world? Are they the black shadows of death which sweep away

the long gathered dust of the tombs, or shall they robe themselves in the shining garments of immortality?

Silent as the grim-visaged warriors of the olden time, this spectral army passes by. No martial strains arise upon the evening air to awaken their echoes along the peaceful valleys of this enchanted land. But grandly they pass me by, line after line, column after column, on, on, neither to the right nor the left, forever and forever onward. Shining through the mists which rise and swell like the rolling billows of the sea, I catch the gleam of their waving banners and see, thereon, these blazing characters inscribed, "Time and Opportunity! They are thine. O let them not be lost!"

At last! at last! the shadows melt away into the distance, the clouds fall apart, the celestial light breaking through reveals the splendors of the most glorious of all realities. The long, unwavering line of figures, appearing to the fancy as a spectral army with banners, is naught but the well-drilled squadron of duties, occasions, and opportunities, as it goes marching down "the corridors of time."

But shall we hear no trumpet tones from this mighty host? Shall no clarion note sound forth as a warning to the millions who lie idly by in the flowery valleys which slope away from the highway of life?

Not so to the soul that never slumbers. Not so to him who rises in the strength of his might, "shakes from his locks the ashes of the grave," and treads forth "into the glorious liberty of God." Not so to him who, with ever-wakeful eye, with ever-listening ear waits in his armor to be called to the fray, and hearkens to the blast from the trumpet of his chief. Not so to him who struggles in the charnel-house

of human misery, and bursts the bonds which bind his captive soul. Not so to him who tramps with giant tread on every idol of clay, and lifts his head proudly to the heavens in the conscious freedom of his immortality? Oh, doubly guilty is he who hears not the bells of eternity, nor springs to action at their warning notes, nor sounds them forth to a slumbering world! Clear and thrilling and strong is their music, awaking every thought and energy to life and action, thrilling every nerve and fiber of the frame, calling into being the slumbering germs of a nobler life, as with eternal voice they cry, "Ring out the dead! Ring out the dead!" No, not to the dead do these opportunities come—not to the dead, but the living. No call of duty, however great, shall find a responsive echo from the tomb.

No occasion, however fair, shall ever awaken an eager desire in the slumbering tenants of the grave. But better, infinitely better, to crumble back "to the vile dust from whence we sprung," than be living in this world of glorious possibilities, possessing a sluggish soul with no hope that is not sordid, no desire that is not groveling, no far, out-reaching ambition to claim as our own the splendid opportunities which await us on every hand! Shall we drift idly by in so frail a bark across the bright and peaceful waters, like a cloud upon the summer sky, lulled softly to sleep by the heavenly music of the siren's voice as it comes, faintly at first, then clearer, till at last it rises to a great wave of melody and breaks over the enraptured soul whose golden opportunity is forever and forever lost?

"Seize the day!" cries the poet. Yea, seize the day, the bright, auspicious day, for the night lingers not far behind. You cry "To-morrow!" Ah!—

"To-morrow, and to-morrow, and to-morrow,
Creeps in this petty pace from day to day
To the last syllable of recorded time,
And all our yesterdays have lighted fools
The way to dusty death.

I hear the rush of the years as they sweep past me, and the mighty roar of voices like a tempest at sea. They die away in the distance, grow fainter and fainter, then sink into a murmur and are gone. Only one sound is heard,

clear and ringing as the horn of the hunter on the Alps, and this shall awaken the dormant soul to all its powers, stir it up from lethargy to action, fill it with a ceaseless yearning for the infinite treasures of the hereafter, and bid it grasp the floating visions of the fancy, and stamp upon them the royal seal of immortality.

H. S. L.

Department of Ethnology.

True Christianity will gain by every step which is made in the knowledge of man.—*Spurzheim.*

ANTIQUITIES OF THE PACIFIC STATES.

IF there be any subject more interesting to man than his own nature in its various relations to the past and the present, we have yet to be introduced to it. Indeed, with the advance of civilization increasing attention is given to anthropology by scientists and people at large. The developments which have resulted from systematic exploration have in some instances revealed a condition of refinement and culture in long past ages which is amazing, and suggests a question of doubt with regard to the generally received view that the human race in its early stages was low in mentality; in fact, partook of the character called *savage*. No country, within the past half century, has more richly compensated research than America in the richness and variety of the remains of its ancient people, and yet but a few individuals have given their time to such labor. Mr. Squier and Mr. Davis were for a time almost alone in their efforts to reveal the secrets of the great mounds of the Mississippi Valley, while science is indebted to the former for much light upon the ancient Peruvians and Mexicans.

For many years past Mr. Hubert H. Bancroft has been engaged in the examination of the relics of the ancient tribes and people who inhabited the countries adjoining the Pacific Ocean, and the results of his studies, as embodied in his recent elaborate

work, "Native Races of the Pacific States," are deeply interesting and instructive. Availing ourselves of the subject-matter of an outline of this work, which appeared not long since in the October number of the *Overland Monthly*, we can offer our readers little else in a single article of a more engaging nature.

Scattered all along from Oregon to Chili,



FIG. 1.—GRANITE VASE FROM MOSQUITO COAST.

and farther south, are the remains of ancient cities, towns, villages, and burial places. Proceeding from the Isthmus of Panama northward, Mr. Bancroft takes up the aboriginal relics found in each State, giving extensive and valuable notes on antiquarian exploration, and bibliography. The relics, chiefly found in the region of Chiriqui, em-

brace rude boulder carvings, columns with low relief inscriptions, and the huacas, or tombs. There are human remains, stone implements, weapons, earthen vessels, and va-

is represented by our first illustration. In Nicaragua, ancient pottery is so abundant that in some places it is used by the natives for their household purposes. Over all the

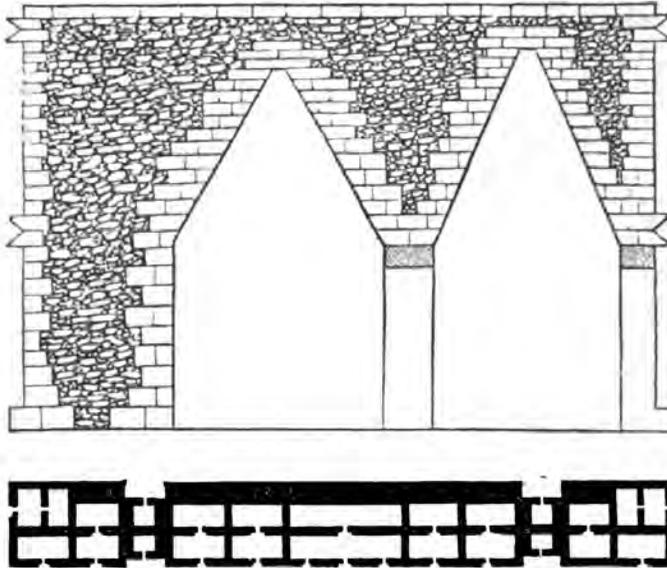


FIG. 2.—PLAN OF UXMAL PALACE.

rious forms of pottery, but the tombs are specially famous for having yielded a great number of golden images.

In Costa Rica the relics are of a similar

Nicaraguan graves stand mounds, or cairns of rough stones. These occasionally cover a large area, and some may have served as foundations to wooden temples. In one of

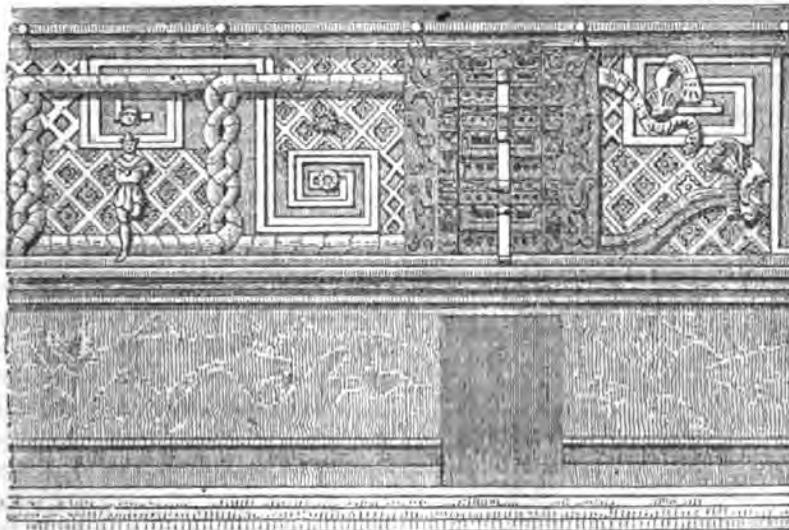


FIG. 3.—SERPENT SCULPTURE AT UXMAL.

nature, but less abundant. The Mosquito coast furnishes some excellent specimens of carving and pottery, a fine carved vase being particularly worthy of notice, which

these a beautiful stone battle-axe was discovered. Rude figures are often found beneath, or carved on cliffs and boulders, many of which were probably intended as

records, but their meaning can not be ascertained. All traces of native temples are obliterated, though idols, or stone-statues



FIG. 4—COPAN OBELISK—SIDE VIEW.

are numerous. These are of different sizes and forms, principally, however, approximating the human shape.

In Honduras, there are walls and regular pyramidal structures formed for the most part of earth, and often faced with stone and divided into graded terraces. About Comayagua are many interesting groups; one at Tenampua covers a plateau a mile and a half long by half a mile wide, on the top of a bluff 1,600 feet high. An inclosure having double walls and five pyramids will convey an idea of the works in this stronghold. Copan is the most famous ruin in Honduras, and one of the most remarkable upon the continent. The main structure



FIG. 5—OCOСINCO IDOL.

of this long-ago abandoned city is a solid mass of huge stone 600 by 800 feet at the base, and 100 feet high, fronted by a perpendicular wall on the river. At least twenty-six million cubic feet of stone must have been used in its building. Here there are many elaborately-sculptured obelisks, one of which is presented as a specimen of the productions of aboriginal Americans. These obelisks are from 11 to 13 feet high. Before each stands an altar, thus indicating their original use as idols. This sculpture was executed without the aid of iron or steel implements, and is, therefore, all the more remarkable as exemplifying ancient

industry and skill. Copan must be referred to the earliest period of American civilization, of which there are traces.

Not far from these, but in Guatemala, there is a group of obelisks larger, but less elaborate than those of Copan. Most of the Guatemalan ruins, however, belong to a different class, and a more recent period, being remains of cities occupied at the time of the Spanish conquest by the nations of Quiche and Cakchiquel. The more prominent of these remains are those of Patnamit and Utatlan, which were formerly capitals. Little remains to be seen besides irregular masses of fallen walls, scattered over the plateau. The copper medal found in this State has excited much discussion among antiquarians, who have failed to de-



FIG. 6—AXE FROM NICARAGUA.

cipher the meaning of its figures, but its authenticity, however, is doubtful.

Yucatan contains more ruined cities than any other part of America. At least sixty have been described, some of them containing really grand buildings. The material used is that of rough stones and mortar, faced with blocks of huge stone. The buildings stand on pyramidal terraces; are long and low, with flat roofs, usually divided into two parallel rows of rooms. The accompanying diagram will render the method of construction clear to the reader. Only a few of the cities are inclosed by walls, or are located with any apparent view to defence. There is only a single case thus far discovered of a building having two sto-

ries, one above the other; the usual method being to build the stories successively on the receding terraces of the pyramid, the roof of one serving as a platform in front



FIG. 7—CARA GIGANTESCA.

of the next. Some of these buildings are so located as to inclose a square court. Among those of the usual type the longest is 322 feet, the widest 39 feet, and the

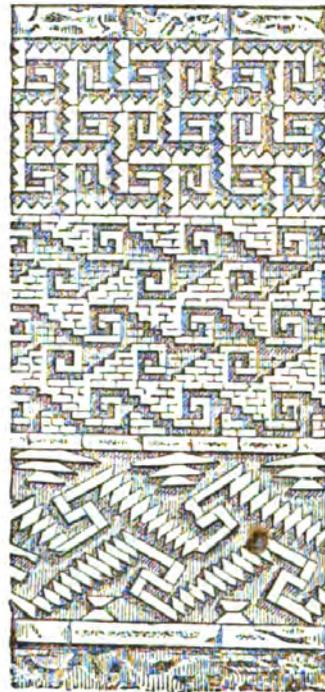


FIG. 8—MOSAIC FROM MITLA.

highest 21 feet. The building at Chichen is a notable exception to the usual type, it being round in form. There are no doors,

windows, or means of ventilation to these old palaces and temples; and decorations on the interior are rare. A few hieroglyphics occur, the figures being much the same as those at Copan, showing that the builders were of the same, or a kindred race. The



FIG. 9—OAJACAN TABLET.

outside surfaces are usually divided midway by a projecting cornice, the space below being plain, while that above is covered with sculptures. This sculpture was wrought upon the faces of long rectangular blocks, apparently before they were fixed in the walls. They are much varied in design, and some exhibit a very high order of taste; only a drawing can give an idea of their artistic nature. The illustration shows part of a façade of the Casa de Monjas, at Uxmal. All the fronts bear traces of having been originally painted in bright colors. Very few idols or altars have been found in Yucatan; and the absence of pottery and implements is equally remarkable. None of the cities are the work of an extinct race. A few date back to about the time of Christ, but the most of them were



FIG. 10—GOLD RINGS.

built within the three or four centuries preceding the time of the Spanish conquest. One of the most curious relics in the group was the Cara Gigantesca, about seven feet square, in the base of a pyramid at Izamal.

Further westward, in Chiapas, stands

Palenque, probably the most ancient American ruin. Its buildings, like those on the peninsula, are long, low, and narrow, standing on pyramidal bases, and built of huge stone. One of the finest and largest of its structures is that known as

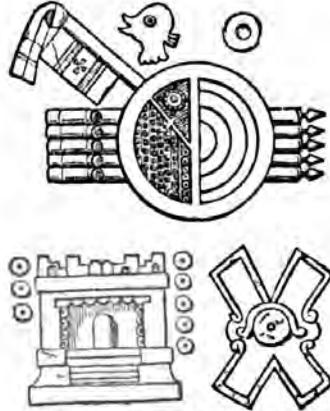


FIG. 11—BOWLDER CARVINGS.

“the palace,” a restoration of which is taken from a German artist, and so modified as to agree with the best authorities. The pyramidal base is 260 by 310 feet on the ground, and over 40 feet in height. The chief point of contrast of these buildings



FIG. 12—URN AND COVER.

with those of Yucatan consists in their having stucco ornamentation instead of sculptured stone, on the outside.

Here no weapons have been found, or idols or effigies, and pottery and imple-

ments are of very rare occurrence. The finest piece of work at Palenque, if not in all aboriginal America, is the stucco tablet known as the Beau Relief, in one of the smaller temples. This city is evidently older than those of Yucatan, but was built by a people of similar race. Next to Palenque, Ocozingo is the most remarkable ruin in Chiaspas, having some claims to be the ancient Tollan, or capital of the Toltec nations before they left Central America. The illustration shows the characteristics of one of the idols found there. North of the isthmus, in Oajaca, there are grand ruins in the form of pyramids, fortresses, and temples; at Monte Alban there are structures whose galleries traverse large mounds at

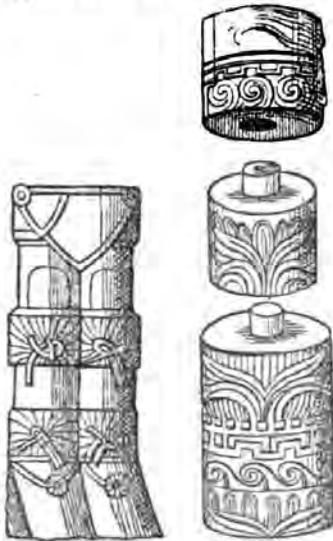


FIG. 13—COLUMNS FROM TULA.

their base, and their sides are lined with stones. "Mitla," the "dwelling of the dead," or "hell," was the grandest ruin in the state. The temples here, like those of the South, are long and narrow, but unlike them their flat roofs were supported by large beams, which have now disappeared. Massive stone pillars stand in the center of the widest rooms. The façades are divided by immense stone slabs into panels, each panel being filled with a different style of mosaic.

Among the miscellaneous relics of Vera Cruz may be named the gigantic head, nearly six feet high, with a negro cast of features. This was dug out near Tuxtlan,

Nearly the whole eastern slope of the Sierra fronting the gulf coast is covered with traces of the former aboriginal occupants. Among the mountain streams of Barancas



FIG. 14—AZTEC KNIFE,

are small plateaus guarded by fortifications of great strength, and covered with ruins of pyramids and tombs. Two of the most

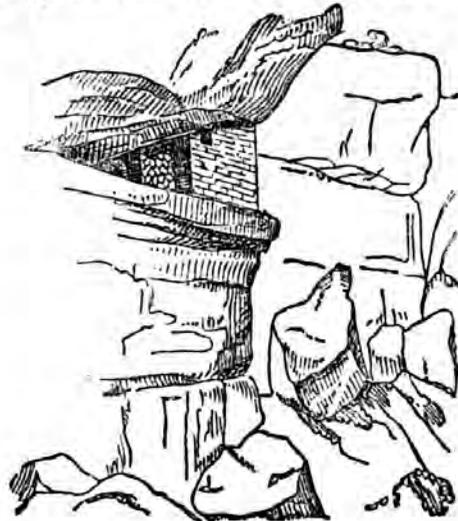


FIG. 15—CLIFF HOUSE, COLORADO.

famous monuments in Vera Cruz are those at Misantla and Papantla. At Tusapan is a pyramid bearing a temple on its summit, and also a very curious fountain cut from

the living rock, through which seems to have flown water for the supply of the city.

On the central plateaus comprising Mexico, Puebla, Tescala, and Queretaro, the site of the successive Toltec, Chichimec, and Aztec empires, architectural remains are rare, but the smaller relics are most abundant. The boulders in the region of Cuernavasca often have curious carvings, apparently serving as boundary marks. Those most remarkable relics, the calendar stone, sacrificial stone, and hideous idol, Teoyaomiqui, found in the city of Mexico, have been often described and sketched by antiquarian writers. The Mexican priests used to appear on certain festivals clad in the skin of a human victim. A stone statue thus clad was found in Tezcuco, the

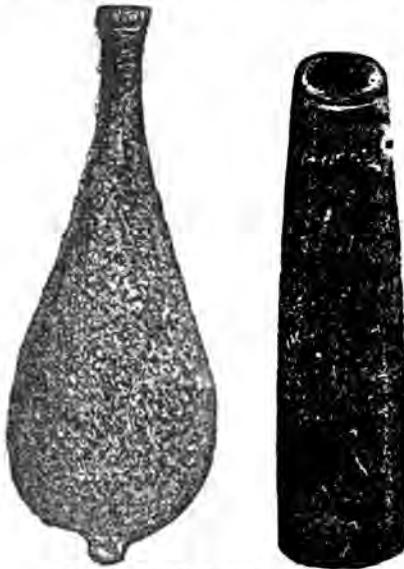


FIG. 16—SAN FRANCISCO RELICS.

ancient rival of Mexico. Some of the smaller relics found in this state, and now preserved in various museums are noteworthy; such, for instance, is the Chalcedony knife with its handle of mosaic work, which was composed of small pieces of bright-colored stone and shell. We give this as a specimen of the delicacy of finish in which the aboriginal artisans excelled.

In the northern states of Mexico aboriginal remains consist mainly of carved crockery and rude implements, and are comparatively uninteresting. The temples at Quemada and Zacatecas are among the

grandest old structures of America. Mr. Bancroft devotes considerable space to the antiquities of Arizona and New Mexico. These are numerous; the buildings are generally constructed of adobe in the south region, and of stone in the north, and are sometimes of great size. In the Chaco and Chelly cañons there are some five or six hundred feet long. Black mounds of pottery, rude inscriptions, and remains of irrigating canals, and other traces of ancient industry are also found. Although very interesting, the monuments of these regions have but little of the mysterious connected with them, notwithstanding the many speculations of explorers. All these buildings and relics seem to be the work of the Pueblo tribes, and point back to a time when the whole region was occupied by them.

The remains farther southward bear not the slightest resemblance to those left by peoples now known to be extinct; hence the theory that they were the works of the Aztecs is wholly without foundation. In southern Colorado and Utah extensive remains have been unearthed by Messrs. Jackson and Ingersoll of the United States Geological and Geographical surveys, and they are of a character like those of New Mexico. The structures most noteworthy are those built on the rocky shelves in the sides of cañons hundreds of feet from the bottom, some being accessible only by ropes or ladders. A view of one of these cliff houses is given.

From California to Alaska there are few if any architectural remains which may be attributed to peoples other than the wild tribes found in possession of the country by the first explorers. These remains consist mainly of rude implements, dishes of stone, bone, or shell, and earthenware, scattered on the surface, or buried in the Indian graves, and rude paintings or etchings on rocks and cliffs. The mounds of California have furnished many relics which are scarcely remarkable for aught else than their position many feet below the surface, under several strata of lava and gravel, and often in connection with the bones of extinct species of animals. A few groups and earthenware works exist in British Columbia similar to those in the Mississippi Valley.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*

A WORKINGMAN ON MONEY MONOPOLY.

BEING a working-man, "I know how it is myself." I know how soon the bottom of the flour-barrel is struck when labor is thrown out of employment. My sympathy is, of necessity, lavished on the toilers, whose sweat, muscle, and skill have produced and piled up all the accumulated wealth of the world, too few of whom are sheltered or comforted by it. If all the accumulated wealth of this nation, as shown by the census of 1870, were converted into cash, it would not board and clothe the population of 1870 for the short period of four years, allowing the very economical yearly expenditure of only \$250 for the support of each person. This is a startling assertion, but the census valuation of the United States in 1870 was only a little over thirty billions, while the population was a little over thirty-eight millions. At \$250 each for board and clothing, it would cost nine and a half billions a year to support the population. At this rate of consumption our national wealth would support the population in idleness only three years and two months. The accumulated savings of the American people since the discovery of the continent will not permit the whole people to rest from productive labor more than three years and two months!

Unpalatable as it may be to us, work, work, work, is the condition of mankind as a mass on earth. But there is always, of necessity, a large part of every population who can not work.

There are the very old, the very young, the very sick, the blind, and the very lame. David A. Wells, late special Commissioner of Revenue, and others who have investigated this question, estimate that only a little more than one-fourth of the population are physically fitted for productive labor. This one-fourth must support themselves and the other three-fourths. Every one who is withdrawn from this working fourth and put into idleness or unproductive labor, which is practically the same thing, leaves the greater burden upon the shoulders of those who remain. The more we are split up into religious denominations the more men we must spare from the labor class to supply the "call" for preachers. The more we multiply offices, the more men we must spare from productive labor to fill them. The more we patronize cock fights, the more men we tempt to leave productive labor and to become proprietors of fighting cocks. The more we admire and patronize the "prize ring," the more we shall lose of our best muscle from the ranks of productive industry in the persons of such as Morrissey, Kelly, McCool, and others. The more we drink of intoxicating liquor, the more men we must spare from useful labor to make it and sell it; and the more men we must detail as policemen to keep us in order while we are drinking it. The more *money* we have that must be obtained from bankers before we can use it, the more men we withdraw from the ranks of

productive labor to count money, keep bank-books, become bank attorneys, etc. The more our laws and our customs afford opportunities for some to acquire wealth rapidly without earning it, or giving some useful equivalent for it, the more we lose from the ranks of useful industry, who are to be supported by those who remain.

It is only those who perform useful labor who feed, clothe, and shelter the world. In this class I would include all those whose work is indirectly productive, as, for instance, the teacher, and such professions as we do not ourselves create the necessity for, whose work makes the work of others more productive. But the *working-man* who is employed solely in grooming some gentleman's fancy horses, while he may be very industrious and very tired at night, and the dozen or so of servant girls who are employed to wait upon some gambler's worthless mistress, while they may dearly earn their pittance, perform a labor utterly unnecessary, if not harmful, to society.

I have mentioned some of the chief burdens that diminish the labor force, and bear heavily upon the remainder—but the heaviest of these are the bankers and those in league with them, as they are the only ones we can not shake off, because they are fastened upon us by law. The support of our church, except in its exemption from taxation, is entirely voluntary, and we may quit it at pleasure. We are at liberty any day to become teetotalers, and are not bound to patronize cock fights and prize rings; but from the banker there is no escape, because purchases must be made with dollars; debts must be paid with dollars; commerce must be carried on with dollars; and all these dollars we have at last given into the hands of the bankers, and we must pay

their demands for interest, usury, or rent, before we can have the use of them. That which law and custom compels us all to have, should not be rendered almost impossible of obtaining by its supply being delegated to a legalized monopoly, but such is, unfortunately, the condition of the dollar.

When money is suddenly made scarce, it produces what we call a money panic. Debts mature for payment with the regularity of the seasons, but the means of paying them in the only thing recognized in commerce—*dollars*—is often short, not by the inscrutable ways of a Divine Providence, as in famines resultant from floods or droughts, but by unwise human legislation. Property is not valued and taken in satisfaction of a debt, but it is sold for *money*, which is applied to the debt. The scarcer money is, the more property must be sacrificed to procure it. The more property that is put under the sheriff's hammer, the more its value is depreciated. Then debtors pay out somewhat as shown in the following personal experience:

In July, 1873, I bargained for a horse, for which I gave my note for \$100, due October 1st, 1873. During the month of September the panic struck the country, and all business was blocked, especially collections. When the note fell due, the holder was in great need of dollars, for my note was not \$100, but only a promise to pay them. When my note was presented for payment I could not pay the money. I could not collect what was due to me. I could not borrow of any one, for every one in possession of ready dollars saw a finer field of profit in buying property for almost nothing than by loaning it to me to pay a debt. I went to the bank with ample surety,

but the bank would not loan a dollar, for it had previously loaned more dollars than it owned, and depositors were peeping through the key-hole for their deposits. So my creditor took a judgment against me and ordered out an execution. The sheriff levied on my horse aforesaid, my cow, my fine hogs, my ten acres of corn in the field, as being probably sufficient to satisfy the judgment. On the day set for the sale, I proposed to the holder of my note to take the horse back in payment of the note, as he was every way a better horse than when I bought him. But my creditor said the horse would not answer his purpose, that he owed a debt, and the horse was not a legal tender. I offered, then, to give both the horse and cow in payment of the debt made in the purchase of the horse. But he said that nothing but dollars would answer his purpose.

When the hour of sale arrived the sheriff announced to the assembled neighborhood that, by virtue of a certain execution put in his hands, etc., he would sell to the highest bidder the property hereinbefore named. He first offered the horse for which the note was given. One man bid one hundred and ten bushels of wheat, worth \$100. The sheriff said he could not recognize that bid, that wheat would not satisfy the execution, and again called for bidders. Another bid three hundred bushels of corn, worth \$100, but the sheriff rejected the bid because corn would not satisfy the law or answer the purposes of the creditor, and called again for bidders. Another offered two hundred bushels of potatoes, worth \$100, but the sheriff was "not collecting a debt for an Irishman," and could not use potatoes, though they were well worth the debt, and called again for bidders. A dry

goods merchant offered eight hundred yards of calico, worth \$100, but the sheriff could not satisfy the law with a few cheap dress-patterns, and called again for bidders. A saloon-keeper offered twenty-five gallons of whisky. Ah, there is the bid at last that will command some respect from the sheriff, for it was mainly to that commodity that he owed his election, and the debtor and creditor and the whole neighborhood could get rich on this bid in less than an hour; but the sheriff "went back" on his constituency under the cork, and called impatiently for some one to bid something solid—"something that would chink." A returned Californian offered six and a quarter ounces in gold, remarking that it was "solid," and would "chink." "Is it coined?" asked the sheriff. "No, it is bullion," said the Californian, "but it is worth \$100, and you can sell it for that, or get it coined." "Well," said the sheriff, "I might as well coin the wheat, or corn, or calico, or whisky; what I want and *must* have is DOLLARS. No one not possessed of these need bid hereafter," and again called for bidders. At this a stockholder in the Snipe Creek National Bank, whose investments were such that his kind Uncle Samuel loaned him without interest, bid \$30. This bid was cried a dozen or so times, and, no one being able to raise it, the \$100 horse was knocked off to Snipe Creek. The cow was put up and knocked off to Snipe Creek for \$12. The hogs were put up and Snipe Creek bid \$2 a head. This bid being cried awhile, as usual, and not raised, the hogs were plunged into Snipe Creek for \$10, which, before the panic, would bring \$10 each. Then the corn was put up, and Snipe Creek, who seemed to be the only one present possessed of "dollars," bid \$4 per acre,

and being the only, and, therefore, the highest bidder, the corn, too, "went up" Snipe Creek for \$40, realizing for horse, cow, hogs, and corn, toward paying for the horse, only \$92, out of which the court's and sheriff's costs and a "reasonable attorney's fee" is to be deducted, the profession to be the sole judges of the "reasonableness."

The sheriff announced that no further sales would take place till a new levy was made and advertised, and he would receive the amount of the several bids. Snipe Creek handed him \$92, so called, being nine \$10 bills and one \$2 bill on the Snipe Creek National Bank. I made a formal protest to the sheriff against the sale, as being fraudulent, and notified him that I should sue out a restraining order forbidding him to transfer said property to the said Snipe Creek. "On what grounds do you charge fraud?" said the sheriff. "On the ground that you rejected the highest bidders, and knocked the property off to the *lowest*. You have rejected all the honest bidders who stated in their several bids in what commodity

they would pay, and whose bids for the horse were equal to the debt, while you have exhausted your levy worth \$400 and awarded it to a bidder for less than the debt, simply because he bid 'dollars.' These bills he tenders you are *not* 'dollars.'"

"Well," said the sheriff, "they are currency, and recognized as money, are given and taken in the exchange of commodities, and are received by all in the payment of debts; and, besides, the creditor is willing to receive them on his judgment."

"I grant all that," said I, "but since my pocket has been so fearfully sacrificed to satisfy a technicality made for the benefit of creditors, I shall claim all the advantage it may accidentally give me."

But I found I had no advantage. The law requires the bidder to bid *dollars*, but the creditor or sheriff may elect to receive property afterward. But requiring the bids to be made in dollars has the effect to reduce the price, and thereby legally swindle the debtor.

JOHN T. CAMPBELL.

ALFRED T. GOSHORN,

DIRECTOR GENERAL OF THE INTERNATIONAL EXPOSITION.

ALL the gentlemen prominently connected with the management of the Centennial Exposition are at this time objects of public attention, in proportion to the importance of their connection, and whatever there may be of success or of failure in the multitudinous interest covered by this tremendous enterprise, will be likely to render them the subjects of approval or of censure in a similar proportion. This, of course, the Commissioners, from President down, understand, and we doubt not that all aim to secure the approval

of the public, and will exert their powers of mind and body to make the affair successful in all respects. One feature which impresses us very favorably, at this writing, is the effort to meet the need of the times in the way of moderate charges for admission, and for the accommodation of visitors. The spirit of greed and extortion which is usually pronounced on occasions when people are assembled to celebrate an event chiefly by spending freely money which has cost them time and labor to obtain, has found little encouragement,

and the prospect is that people of all classes who shall go to the great show will not be bled unscrupulously by hotel or boarding-house leeches, but may expect to find comfortable lodgings and good meals at average prices.

The general admission fee of fifty cents to the whole Exposition is very low, but the announced manner of its payment by a fifty cent bit of currency, or a half-dollar in silver, is unique, and

Now we give a portrait of that responsible gentleman, and an outline which has come into our hands recently.

Alfred T. Goshorn, the Director-General of the Centennial Exhibition, was born in Cincinnati, Ohio, in 1834. He studied and was graduated at Hamilton College in 1854, and, studying law, was admitted to the bar in 1856. Becoming the proprietor of extensive white-lead works in Cincinnati, he re-



PORTRAIT OF ALFRED T. GOSHORN.

may cause a sort of famine in those vehicles of exchange. The great railroads converging to Philadelphia have lowered their rates of passage, those from the east asking about two-thirds the ordinary cost for double trips.

In our previous notices of the Exposition, we have scarcely more than mentioned the name of the Director-General, Mr. Goshorn, for the reason that we did not possess the facts of his history.

tired from the practice of his profession to engage in manufacturing. For some years he served as a member of the city government, and also participated actively in the labors of the Board of Trade. It was as a member of the Executive Committee of this body that he became interested in the organization of the Industrial Exhibition held in Cincinnati in 1870, and was made its President. The exhibition proved so suc-

cessful that it has since been repeated annually, and, growing in magnitude, has become one of the institutions of that city. It remained under Mr. Goshorn's management until the organization of the Centennial Commission, in which he was appointed to represent the State of Ohio, and was subsequently called upon to assume the general direction of the International Exhibition of 1876. This appointment was made in May, 1873, as soon as the organization of the Centennial Board of Finance had placed the Centennial Commission in the possession of lands wherewith to set about the actual preparations for the Exhibition. Mr. Goshorn did not, however, immediately enter upon the active discharge of his duties, but spent the summer at Vienna, supplementing his previous experience in this particular by studying the workings of the International Exhibition of 1873, and deriving many useful suggestions from such experts in the world's fairs as Baron Schwarz-Senborn, the Austrian Director-General; Mr. Cunliffe Owen, of the British Commission, and M. du Sommerard, of the French Commission. Returning to Philadelphia in the autumn, he assumed the active supervision, and at once set about organizing the affairs of the Exhibition. All the multifarious details involved in its preparation were either organized by him or carried out under his personal supervision. To his energy, patience, and foresight is mainly due the remarkable smoothness with which the great undertaking has thus far moved on, and the absence of any of the false steps, urged by numberless volunteer counsellors, which it would have been necessary to rectify. Very few persons are in a position to estimate the amount of organizing power involved in the preparation of a great exhibition.

In fact, only those who are in circumstances to consider the details of the enterprise can appreciate the labor and thought necessary for its harmonious elaboration.

The portrait of Mr. Goshorn indicates qualities of strength, ambition, and positiveness in a marked degree. The forehead is that of a man distinguished for practical ability, who is inclined to look directly at matters and consider them in and for themselves. He appreciates utility, demands that in the outset, if his interest or approval be asked in an undertaking. His nose and chin show positiveness, insistence, and the disposition to act. He forms opinions quickly, and is ready to act upon the instant of conviction. We think that he is a ready talker, not the man to waste words in discussing any subject, but clear and emphatic in the assertion of opinion. He is desirous of the good opinion of the world, and high position is gratifying to him. His ambition, however, will not make him reckless in enterprises if the signs of Caution are properly represented in the portrait, for he considers the consequences of action, and is too practical to be misled by merely speculative prospects. He believes in authority, is a natural organizer, and responsibility sits so naturally upon him that he is more contented when invested with the control of important measures than when relieved of care or responsibility. We infer, also, from the engraving that he is not the man to be criticised, ignored, or insulted, for his spirit rises in its strength to resist any invasion of his rights or character. His Firmness is evidently very large, giving him unusual decision and steadfastness, and enabling him to maintain his position amid opposition and embarrassment which would break down ordinary men.

IMPROVED MACHINERY AND THE POOR.

IN his *Esprit des Loix*, Montesquieu has said that "those machines whose object is to abridge art are not always useful. If an article is of a medium price, and one which suits alike the buyer and the workman who produced it, the machines which simplify its manufacture—that is, which diminish the number of laborers—are harmful." The sentiment expressed in the above quotation seems to have prevailed more or less in every age, and is quite common at the present day, especially among the working people. When the Rev. Wm. Lee had invented the stocking frame, which was the origin of the hosiery manufacture, he presented it to Queen Elizabeth, who, however, did not think favorably of it, "because," she said, "if the machine should be introduced, many would be deprived of making stockings by hand." Arkwright, the founder, we may say, of the cotton manufacture, in introducing his great invention was met with a united opposition. Time and again were his assistants mobbed, and the machines destroyed.

So common and powerful a sentiment against the introduction of improved machinery must have, one would think, some foundation in reason. It is the aim of this article to discover what that foundation is, and whether the sentiment itself should be allowed to retard progress in invention.

For our purposes, we may divide improved machinery into two classes. First, that which turns to use materials whose utility in this respect was before unknown; second, that which simply increases the productive power in quantity or quality of the forces employed by man. As examples of the first and second class respectively, we may give the steam engine of Watt, and the spinning-jenny of Arkwright.

Of those machines which turn to use materials whose utility in this respect was before unknown, I think it may be said that, without any exception, they improve the condition, in a material point of view, of rich and poor alike. As a rule, they tend to raise the rate of wages by opening some new field of industry, and, by lessening the cost of the necessaries and luxuries of life, they make the purchasing power of money much greater. Naturally enough few objections have been urged from any side against the introduction of such machines.

Of that class which simply increases the power of production, we must consider two descriptions. In the first place there is a kind of improved machinery which, by creating an increased demand for the article produced, does not diminish the number of workmen. It needs little reason to show that such improvements are a blessing to mankind. The consequent cost of living being less, and the rate of wages being the same, the poor can partake somewhat of the luxuries of life. There is, secondly, an improvement in machines which does not increase the demand for the article produced in the ratio of its power of production, and which consequently necessitates a discharge of workmen. The immediate suffering of the poor consequent on the introduction of such machines has given rise to that sentiment of hostility against all improvements which decrease the demand for labor. If not reasonable, the rise of this sentiment seems at all events perfectly natural. It is not to be supposed that the working man, with a family on his hands, will postpone his immediate enjoyment to the greater benefit that will follow in the end, perhaps after he and his family shall have suffered

through life, and have passed away. If experience had not taught us, still two considerations would be sufficient to convince any one that there must be an immediate suffering among the poor when the demand for labor is thus decreased. The rate of wages must fall, and, since the price of products of labor does not fall in the same ratio, the wages which are obtained will not procure as much as the same amount would have done before. But while the poor thus suffer, the rich become still more wealthy. The fall in prices will enable them to buy with a certain sum more than could have been done before, and, as they have about the same profits, and perhaps greater, their material condition is much improved.

Thus may be seen what is the foundation for the sentiment of hostility against improved machinery. It remains to show why this sentiment should not be allowed to retard the progress of invention. It was the theory of Ricardo, and one which caused him to take a gloomy outlook on the progress of mankind, "that it is the normal state of things, that wages should be at a *minimum* requisite to support the laborer in physical health and strength, and to bring up a family large enough to supply the wants of the labor market." According to this we would be forced to believe that, after all their suffering consequent on the introduction of improved machinery, the working people would again return to the same condition of life in which they were before. While this would be true, the rich would continue to grow more wealthy, thus preying upon the poor until we must look with horror upon the possible state of society in the distant future. Fortunately for mankind, the moral and intellectual education of the working classes, as John Stuart well observes,

will change this idea of what should constitute the minimum of wages. Apart from this, however, there are two necessary results of the introduction of improved machinery which tend to enlarge this idea: the formation of a class of skilled workmen, and the great abundance of the necessaries of life. From the necessary scarcity of skilled labor it will obtain a larger compensation. Thus a large class of the working people will be able to lead a much more enjoyable and profitable life, and that they will wish to do so may be inferred from the fact that skilled labor implies and tends to produce a superiority of mind. Mr. J. E. Cairnes has said: "Skilled labor implies a certain degree of mental cultivation, and a certain progress in social respect. To obtain success in the more difficult industrial arts, the workman must respect his vocation, must take an interest in his task; habits of care, deliberation, forethought, must be acquired; in short there must be a general awakening of the faculties, intellectual and moral, which lead men to a knowledge of their rights and of the means of enforcing them." The beneficial influences resulting from this condition of a large part of the working people must be deeply felt by those engaged in more common occupations.

The great increase in the necessaries and luxuries of life consequent on the introduction of improved machines would inspire the poor with a sense of shame of being deprived of those articles which are spread about them in such abundance. The idea of what should constitute an agreeable state of existence would inevitably be enlarged. This may be easily seen when we compare the ideal of comfort at the present time with that of a few centuries ago. Mr. Henry Holland, after speaking of the

residences of noblemen in the fifteenth century, continues as follows: "But if the domestic buildings of the fifteenth century would not seem very spacious or convenient at the present time, far less would this luxurious generation be content with their internal accommodations. A gentleman's house containing three or four beds was extraordinarily provided; few probably had more than two. The walls were commonly bare, without wainscot, or even plaster, except that some great houses were furnished with hangings, and that perhaps hardly so soon as the reign of Edward IV. It is unnecessary to add that neither libraries of books or pictures, could have found a place among furniture. Silver plate was very rare, and hardly used for the table. A few inventions of furniture that still remain exhibit a miserable deficiency. And this was in-

comparably greater in private gentlemen's houses than among citizens, and especially foreign merchants." The great change in this respect is certainly due to the introduction of improved machinery. The natural result of this higher idea of comfort is to limit the increase of population until that ideal may be realized. Though it is true that the working people must suffer temporarily from the introduction of those machines which decrease the demand for labor, yet it appears equally true that, in the end, they will rise to a nobler, because happier condition, in which the returns of labor will fully suffice to procure all the comforts and joys of life. And, while the poor thus rise to the realization of a higher ideal of a pleasurable state of existence, the salutary influence of that rise will be felt throughout society.

WM. G. MAXWELL.

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

"The age culls simples;
With a broad clown's back turned broadly to the
Glory of the stars."—*Mrs. Browning.*

CHAPTER X.

SOME account was promised of what Hallet saw during that day among the mills and workshops. Just after their dinner, and about one o'clock, he went with the Judge to a large building near the restaurant, the lower floor of which was all in one room, which was used for various public purposes. Here those of the members and employés who did not already know where their services would be required during the rest of the day, were waiting. There was a large book-case there, and some tables covered with papers, and card and chess and checker stands around the sides. So for those

who preferred to occupy themselves with such matters, in preference to conversation, there was abundant opportunity. It is customary for whoever is at the head of the industrial departments to "make the assignments" at one o'clock and at half-past one for the rest of the day. They are also put on bulletin-boards. Between twelve and half-past one the great bulk of those engaged at the time in the manual series have eaten their dinners, while between half-past one and two the people of leisure and the professors, teachers, artists who are devoting the most of their time to arts, and scholars

mostly devoted to study, usually take their mid-day meal. The heads of this association have never yet yielded to the temptation to secure an apparently scientific classification by interfering to any least degree with the family. All other organizations of human creatures are kept in abeyance as much as possible to that. Blood relations are together as much as elsewhere. No matter how low in the scale of development or pursuits, parents always lodge with and are met at meal-time by their children, unless long experience has shown that there is no natural harmony between them, and nothing but bickering results from their contact. In such cases children are permitted to join those family groups which a considerable intercourse has shown to be most suitable company for them. This sometimes works a cure. A temporary separation (as occurs often with divorced couples) will frequently do more to fit blood relations to live in harmony than any amount of "rubbing their noses together."

A marked peculiarity of life among the Peace-makers is this division into families, which is always the innermost wheel within the wheels of the complex machinery. One of the first questions asked of a new-comer who has no relatives there is, "What family have you joined?" The answer is, "James Mason's," or "Mary White's." There is no compulsion about this, and there are some inveterate old bachelors and old maids who prefer to go it alone, or to herd with a group of their kind; but the majority of those who are without kith or kin take very readily to this familism; so that here again the Peace-makers realize a new thing, that has only been prophesied of. For truly among them "He setteth the desolate in families."

These families are not like the cast-iron divisions of the Shakers—say a hundred in this house making one family and a hundred in that making another, with the sexes rigidly sundered. Some motherly and fatherly souls can stand truly in that relation to a score of young folks even, just as some mother-hearted hens will stretch themselves to cover "a power of chickens." But there can seldom be any true motherhood and fatherhood among Shakers.

"You can see," said Judge Templeton to Hallet, as they talked this matter over at dinner, "how convenient this grouping is in many respects. It enables us to gather pleasant companies about the size of an ordinary family (even when nature has not gathered them) in the suites of rooms and at the tables. A stranger coming here is easily induced to join some one of these, and he becomes their guest. He has his rooms adjoining their suite, or within it. He makes their private parlor just as much his special resort as does the young man who, after due advertising in a city paper, finds 'board in a strictly private family, where no other boarders are taken,' and, of course, pays them something for the privileges he enjoys as their guest."

But we shall never get to those mills at this rate. We left the multitude awaiting the one o'clock assignments. It is a very simple process to the led, though requiring quick intellect in the leaders. The able commander-in-chief of this industrial army keeps his forces well in hand, and puts each company daily and hourly "where it will do the most good." When he says, "A 5 and C 10 to the woolen mill, and then to the apple orchard in section 250," certain groups of certain series know what they have to do; *i. e.*, to spend two

hours in the woolen mill and two hours gathering apples. It takes, of course, powerful brains among the leaders to organize the industry of 3,000 people effectively in this complex way. But let any one look, for instance, at the system of telegraphic and other signaling by which the hundreds of trains are sent rushing in and out of the Union depot in New York, and he will see that such organization as is here indicated would be simply an amusement to some minds. A single wrong twist of a little knob might send two great trains crashing into each other at the depot, but no such calamity would occur from a mistaken order of the industrial commander. "One drawback about Communism," said the Judge, "is the fact that it ignores so many of the most wonderful discoveries and inventions of modern times, especially in the direction of organizing industry and of guaranteeism. As to the latter, for instance. The Communists herd together like a drove of sheep browsing on a common. They have no trouble about their mutual financial relations. Each is supposed to produce what he can and to consume what he must. That may do for Heaven, but here, where the best good of life comes through hard knocks and intense effort, such a system is lacking in the element of justice. The great good of the modern system of insurance and other guaranteeism is, that it answers—feebly, to be sure—the cry of the human heart for an assurance of safety in various respects for one's self and one's dependents, without doing injustice to any. Now, what we scientific associationists are trying to do is, to sift out from these insurance systems the vast amount of chaff, of hurtful humbug, and chicanery, that makes them monsters of oppression, and retain

the genuine wheat of scientific guaranteeism, and add to it much that is vastly more useful. So shall we remove from the minds of our associates that fear of poverty through which they are 'all their lives subject to bondage.' Do not, then, let any of our complex machinery of organization frighten you. The best good comes from the best effort. We leave for the sleepy Communists dead-levelism and abject, unquestioning submission to leaders, while we produce at once the finest fruits of hierarchy, absolutism, limited monarchy, aristocracy, democracy, and individual sovereignty, in our little kingdom of the good and true."

The mills were found on both sides of the river below the natural dam. To prevent any general conflagration. they are separated by intervals of several hundred feet, but all are within a compass of a quarter of a mile. They do not differ in appearance from the best of those found in New England. Experience has shown that long, narrow buildings are the most convenient and economical for such purposes, and where they have to be arranged along the flumes of a water-power, architectural effects can not be much considered in their relative positions. The most striking features in connection with these buildings are their massiveness, neatness, adornment, and tasteful surroundings. There is no worn-out rusty machinery lying around them, no heaps of rubbish; in short, nothing to give the idea that the owners have built them with the idea of grinding a fortune out of them and the employés as soon as possible, and then deserting both. There is exquisite landscape gardening all about the buildings—walks, ornamental trees, and shrubbery. Everything indicates that the mills and the mill-business have

come to stay. Slow-growing ivy is creeping up the walls, pots and vases of choice plants are on many window-sills.

As they walked amid the whirling spindles of the cotton mill, the Judge said: "We are not bragging much yet. Indeed, we never shall, until our experiment or some similar one shall have started millions of Americans into this same line of living. To make a few thousand people happy and comfortable on this place were a worthy life-object for any man, but to make a successful working model for the reorganization of society generally—Heavens! that would be, indeed, happiness. Of course, if it should be our good fortune to do this, we shall have no occasion to glory in ourselves. We have scarcely originated anything. We are simply eclectics. We study the experiments and teachings of all our predecessors as far back as the Essenes of old Palestine; try to imitate their wisdom and avoid their folly. Some day, and that soon, an attempt of this sort will succeed, and start such a social revolution as has not been seen since, in 518, the Benedictine erected his monastery in Italy, and began a revival of civilization that was grandly felt for a thousand years. St. Benedict preached a gospel of organized manual industry. It spread like wild-fire amid the chaos of anarchy. His monks reclaimed waste lands, raised flocks and herds, made roads, bridges, towns, colleges, schools, churches, inns, and hospitals. They encouraged trade, established expresses for goods and letters, and revived literature. If the hour for success has struck (as it certainly has for the farmers' grange movement), who knows but we, also, may have here the antetypes of a new civilization."

"Those young men and women seem

really happy at their work," said Hallet; "the ventilation is excellent, the overseers genial."

"Harsh overseers," said the Judge, "are an inevitable part of ordinary mill drudgery. But all these young people know that every yard woven adds something to their income besides their ordinary wages. Therefore, they need no 'soul-driver' over them. Then, after two hours here, they shift to some work that will call for the exercise of other faculties and muscles. In fact, many of us are like old John Calvin, who 'sought no recreation except change of employment.'"

So they went on through mills and factories and shops where flour, starch, glue, paper, agricultural implements, hats, shoes, clothing, silks, woolens, carpets, harness, etc., were in process of manufacture. "How did you manage to bring all these industries here," said Hallet, "in so short a time, without losing greatly through unprofitable experiment?"

"The secret of our success lay here. Observing that the prosperity of manufacturing towns like Philadelphia was largely due to the fact that the operatives could live there cheaply, and yet surrounded by all manner of social attraction and amusement; as soon as we had started a few industries with our own capital, we provided factories and homes in our central buildings for a much larger number than had yet joined us. We also strained our ingenuity and our funds to furnish nearly all the social, religious, intellectual, and artistic attractions now presented. We then advertised largely, inviting persons who proposed starting various industries to rent our factories, promising their operatives such unprecedented low board (for not only single persons, but families), and such metropolitan

attractions; that many capitalists were tempted to try the novel plan. There were some failures, and several terrible financial wolves crept in upon us for awhile. But the general result you see before you. Without relaxing an iota of our social or religious principles, or running any financial risks, we thus caused to be instituted upon the domain a series of very remarkable and valuable industrial experiments, which we would not have dared to undertake ourselves.

"These attempts being made in most cases by experts, who had been successful elsewhere in each branch they brought here, our failure in any manufacture, made under such favorable circumstances, was generally considered a finality as far as that line of work was concerned. When a man succeeded in starting a new business here, if his views were congenial with ours we usually bought him out and took him into the society. But there have been several good men running very important industries here for even five years, with no closer connection with us than hiring our factories and buying and selling through our wholesale agencies. They love isolation, and we are willing they should have it, here even, during good behavior. Several men who succeeded were so bad at heart, tyrannical and wolfish, that the atmosphere of the place and all the surroundings became intolerable to them, and they were glad to sell out and leave. They were like the Satans of whom Swedenborg says, that being taken to Heaven they were so stifled by the air of the place, and disgusted at what they saw and heard, that they cast themselves down from that uncongenial sphere.

"With the operatives brought by the experimenters we had, of course, much trouble. Our policy was to glean

them out as fast as possible, invite those who were fit into the society, and get the others dismissed. As soon as we heard of people in any part of the country who were proper persons to join us we sent for them, and they usually came. We have now a fixed population for the most part, and need only the lodgings over the restaurant for those who are not members."

As they passed through work-shops, such as those where clothing, shoes, and hats are made mostly by hand, Hallet said: "People told me out West that I would find the work done here as it is in our poor-house farms—three men doing as much as one would outside. There is no such tremendous speed as I have seen in some city factories, but the labor is very steady."

The Judge replied: "City journeymen are uncertain of their future, and idle a large part of their time. When they get a job at their one trade, they must 'spurt.' Our people each know many trades, and are guaranteed employment at some branch the year round. There is another thing you might not notice that makes all our industries more profitable than the same are outside. Each worker is continually thinking how to save material and tools and time, incited thereto by knowing that his dividends will be thereby increased. This is one reason of the neatness and tidiness of everything. When a man sees a mislaid tool rusting in the grass he carries it to the proper store-house, saying to himself, 'I might as well have a divvy on that as not.' When he breaks or injures a tool, instead of waiting till the foreman turns his back and then pitching it into some dark corner and asking for a new one, he inquires whether it can not be repaired. When a sewing-girl finds a remnant of cloth

that seems large enough for a useful article, she takes it to the forewoman of the shop. When a girl doing housework in one of the garrets sees a leak in the roof, instead of turning away singing gaily, 'I'm but a lodger,' she says, 'This roof is to shelter my children and grandchildren; I must go

ask the roofers to mend it.' So you see when people once begin to live in accord with the laws of social science, there is no end to the improvements wrought. Divine order begins to appear in the midst of primeval chaos and anarchy."

S. LEAVITT.

[TO BE CONTINUED.]

ALEXANDER T. STEWART.

ANOTHER "great" man has left this earthly stage. He was great in the respect of wealth acquirement. He lived, so far as what we have gathered of his habits of thought and action give us reason for believing, chiefly to accumulate riches, to build up the vast fabric of a wonderful fortune. He was amazingly successful in his aim, for he died worth fifty or more millions. Over seventy years of age, he pursued, till the messenger of Death came, his schemes of money-making with apparently no thought of retirement from the busy scenes of mercantile life on account of age and its attendant infirmities. He was in this respect the natural product of a systematic course of life; his business habits had become so fixed that he could not have been contented out of the old channel of activity. That he was possessed of extraordinary physical power is evident, as he conducted the affairs of his vast establishment with but little diminution of the vigor exhibited in early life. Herein is a signal demonstration of the influence of an abstemious methodical life, in sustaining protracted and severe mental effort at an age when it is the custom for men to find in the quiet of home and social life the solace and leisurely avocations befitting advanced age.

Mr. Stewart was of Irish parentage, but remotely of Scotch derivation. He was born in the suburbs of Lisburn, a manufacturing town some few miles from Belfast; was educated at Trinity College, Dublin, and when about twenty, by the advice of his guardian, a pious Quaker, for he had been left an orphan at an early age, he emigrated to America. His first occupation here was that of a teacher. He became a

merchant by accident, as it were, to save money which he had loaned an acquaintance for the purpose of opening a dry-goods store. Thus he embarked in commercial life, and with a capital of about \$3,000 laid the foundation of his colossal fortune.

He would not sit for his portrait, nor allow a sketch to be taken of his features. Two or three times we made a special effort to obtain a true copy of them, but the overtures of our agents were peremptorily declined, consequently no faithful rendering of his face in life has been published by any one. He was about five feet six inches in height, weighing probably about one hundred and forty pounds; of light complexion, wearing a full beard always clipped close, the upper lip shaven. His hair was always kept rather short, and ran a little thin, particularly back from the forehead. His hair and beard had a sandy tinge. His eyes were a grayish blue. Anger was only visible in them, seldom if ever in his manner. When provoked his eyes, which were medium-sized and with large pupils, would snap to a purple tinge, a most peculiar color, and in coming back to their original shade would, for at least three minutes, be a deep, clear blue.

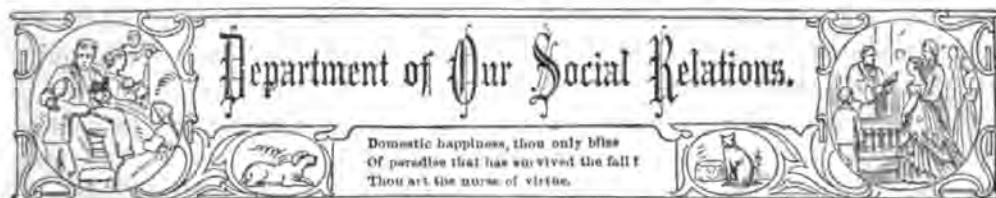
He left no child to inherit a part of his great estate, but devised the bulk of it to his wife, giving sundry sums to old employes and servants, and a million to Judge Hilton, of New York, an old friend and legal advisor, who is appointed one of his executors. With this million the judge has purchased the entire interest of Mr. Stewart in the business of A. T. Stewart & Co., which is doubtless worth many times that sum. But we presume this

transaction was in accordance with an arrangement made previously to the death of Mr. Stewart, and involves certain objects which will be developed in time.

One striking feature of the will is its lack of a single bequest for benevolent or philanthropic purposes of a public character. This has occasioned much surprise, as public sentiment usually expects a man of unbounded wealth to designate some object which shall perpetuate his name in

the sphere of philanthropy. However, if we infer wisely from the letter of the deceased to his wife, which has been published, there was an understanding of some sort between him and her with regard to the application of a part of his money.

As a business man Mr. Stewart was a model of rigid system, thoroughness, and energy. He bought and sold at the lowest prices, never permitting a clerk to misrepresent an article to a customer.



A BOY'S ORATORICAL ASPIRATIONS.

WHEN you were a school boy in the old District schoolhouse, do you remember how anxiously you looked forward to the eventful day you were expected to speak?

• Speak a piece—that is what you call it—those of larger experience and longer coats, can declaim or have an oration if they choose. You search all the books from the Primary Reader to Pope's Essay on Man, and finally conclude upon Patrick Henry's celebrated speech as the one for you. You learn it, and feel very happy in the result. Next you must practice it, and so repair to the fields; and as you repeat it for the hundredth time, some very lofty feeling comes upon you, and you wonder if your eloquence will not promote you to a Fourth of July speaker, or win you a place in the vicinity of the White House. With these feelings you go to the woods, and the grand old trees bow in acknowledgement to your greatness. Yes, you feel proud of this nodding; it seems like the dream of Joseph, only the trees are taller and even grander than the

sheaves that made obeisance to Jacob's favorite son. Besides this you want the approving nod of a little, curly headed girl, and then—then the world would never come to an end. Somebody should wear dresses a mile long if that was grand, and if it were necessary you could take your coat off for her to walk on. One man did that, and was rewarded by a queen! Just before the memorable hour of your first appearance in public, you go out and make your final speech to the gatepost, and then walk along to the schoolroom, thinking all the while how surprised your mates will be with your first attempt at speaking. While thus thinking, you conclude when you go to Congress that you will have a black coat and tall hat *just* like the minister's.

Your turn comes—you hear your name called, but somehow you do not move as speedily as you anticipated; you feel as though your boots were too heavy, and you mentally acknowledge that you are afraid of your fellow playmates. You put forth every effort and try to start off very brave, but your

hands—what shall you do with them? How limp and useless they seem. Your boots have found a resting place. There is something bigger in your throat than what Atlas carried on his shoulders, and you take a hasty glance at the curly head, just as she is exchanging a look with Billy Bold, who recited “The boy stood on the burning deck,” in a singsong way, without stop or hindrance. You make several efforts to point toward England, and when you speak of God, you would like to point reverently heavenward; but your poor hands refuse to do your bidding, and for the time being you would not have cared if they had been amputated. You stop—somebody laughs—are prompted, and again fail. There is a suppressed titter in one corner of the room—you see the exultant look of Billy Bold, and make an effort to

proceed—and in your heart you cry, “Peace, peace,” but they laugh, and there is “no peace.” After several attempts to proceed the room is in an uproar, and you conclude the “war is actually begun,” and you rush to your seat and sit down. You hate curls, and as for making a sidewalk of your coat, you would just like to take it off and thrash that boy “on the burning deck.”

You go home ahead of all the rest. Every branch and twig seems quivering with laughter—and if you only had had George Washington’s hatchet you would fell every tree in the forest. You kick the gate-post, and yes, you resolve to be a farmer. You won’t wear a tall hat—you won’t go to Congress—you will resign your Fourth of July orations to any one who will covet the position. You will.

MRS. COLONEL CALICO.

THE WOOD PEWEE.

I know a little pewee’s nest,
With jutting rock for cover;
And from its overhanging edge
The water trickles over;
And when at times the stream is high
A rushing torrent surges by.—*Miss Ainsworth.*

ON a limb of a tall oak, one of many which lined the walk in front of my home, hung the nest of a wood pewee; or, as the naturalists term the wee bird, *muscipapa virens*. It was by dint of much scrutiny and patient watching that I discovered it. My attention was first drawn to the spot by the impertinent behavior of two dusky-backed and ashen-breasted pewees, and I peered, and pried, and spied until my neck seemed in imminent danger of dislocation. At last I observed upon a horizontal limb what appeared to be a tuft of lichen; but from its being saddled upon the heavenward side of the limb, and from the fact that the pewees scolded and berated me every moment that I stood beneath or in very close proximity to it, I conjectured that this was what I was looking for. Events proved that my view was right.

It was the tiniest bit of a nest! and as I afterward secured it for my cabinet, I will describe it. It was about three inches across the top; very compactly built of moss and lichens, lined with a downy substance, and so shallow that the wonder was that the little things could stay in it.

There seemed to be no attempt to conceal this nest; yet it was so small and somewhat hidden by leaves of other limbs, and withal so near the color of the foliage, that perhaps the hawks would have found as much difficulty to discover it as I did. At all events, this family reared their brood in peace, apparently, with the exception of my assiduous attention.

It was some time ere I was positively convinced of the identity of the nest. But one day my doubts were all put to flight by discovering a little, live lump of feathers

protruding from that tuft of moss, and a little mouth stretched alligator-fashion to receive a tid-bit from mamma pewee. But how big and brave he seemed! standing bolt upright in that tiny nest, that looked as if the veriest breath might blow it away.

There is an excitement about this bird-study which is absorbing in interest to the student, and doubtless sometimes furnishes amusement to "outsiders." Picture, if you can, yourself standing beneath the branches of a tall oak, gazing upward with your whole being, for the moment, concentrated into eyes. Your hat has fallen off, and with mouth open you stand, quite unconscious that several passers-by are regarding you with an amused expression of countenance, and entirely oblivious of aught else save that three young birds are standing upright in that mossy nest. Now one hops out upon the limb, wavers a little, and you fear he will fall; but no—he balances himself, and then hops a little further, but soon returns to the mother-nest, fatigued with his trials and perils. A second and a third try the same experiment, and every day it is repeated, until all of a sudden naught is left but the empty nest; and, if a

man, you climb the tree and secure the dainty treasure; if of the other sex you hire a small boy to do it for you. This happy



THE PEWEE.

ending does not come, however, until all your neighbors have voted you a fit subject for the lunatic asylum.

OLIVE A. DAVISON.

"A BAD BEGINNING."

CHAPTER IX.

AS illustrative of the general sentiment in relation to the matter, we copy the following letter from Ariel to Madam Lacrosse, written in fulfillment of her request that, during the trial of Jarl Darley, he, remaining a witness, should keep her informed of the proceedings and the event.

"MY DEAREST MOTHER: The hope I expressed in writing you yesterday has not been justified—our dear friend Jarl is not acquitted, but the jury this morning brought in the verdict—guilty of murder in the first degree.

"Perhaps, as the world goes, there was no sufficient reason for expecting any other result, though the fact that men, guilty of far blacker crimes, have been not only cleared, but exalted into heroes, did in-

spire me with a faith that there might be some softening of the severity of the law in this case, until I remembered that on the side of Jarl Darley there was neither money nor social influence, while with his victim there was a preponderance of that element which does sway the judgment and action, if not the conscience, of the people. Nevertheless, Jarl's dignity of bearing through out this trying ordeal has exerted an unconscious power over the minds even of those who unite in denouncing his crime and his sentence of condemnation was delivered in a deprecatory, half-apologetic way, as though there was felt the necessity of an explanatory clause to justify it. Wherever a group of men is seen discussing the affair—and little else is discussed in Wood-

burne to-day—you would find them, if you listened, gravely excusing themselves for their judgment of the criminal, who, in the very face of the evidence, and his own confession of guilt, seems to them, in some unaccountable way, irresponsible, and undeserving the penalty which their reason, or that falsely educated sense which they call reason, accords as just. There is an universal feeling that if Jarl Darley had told the whole truth of this matter there would have been found ground for his acquittal, but a subtle sentiment of honor, which would hardly have controlled another man, has held him obstinately silent regarding the facts which led to the deathly struggle and final catastrophe. I have no doubt that many look on this forbearing silence as a deliberately planned artifice to produce an impression of martyred innocence; but we who know Jarl Darley, mother dear, would not think of charging him with the slightest taint of hypocrisy, or the shadow of a purpose to deceive.

"I wish you could have heard his speech yesterday, my mother. I can give you no better expression of it than to say it was Darleyish to the core. All the man's keen, bitter sense of the wrongs and injustice, the oppressions and the inequalities of human life or society, cut and stung through the words which were slight in themselves, perhaps, but powerful with the energy of his earnest, if misguided spirit. The same evils under which my poor father despairing sank, he has fought bravely in his limited, short-sighted way; yet he, too, at last, has wrought his own destruction by an act no less suicidal than my father's. Can it be that I, also, with as vivid and painful a realization as theirs of the wrongs that need redress, will make shipwreck of my life and opportunities to benefit my fellow-creatures? Heaven preserve me from such failure, as I fully trust the blessed faith and courage with which you, my mother, have inspired my nature, will preserve me. I have not for an hour lost sight of the promise I gave you at the death-bed of my father, nor faltered in my purpose to fulfill it; yet the desire is so much greater than the ability to perform, that I am sometimes

afraid I shall never satisfy myself nor you in good works. But if one honestly and earnestly strives to the extent of his power to carry out his best convictions of duty, he need not surely grow morbid and morose because success does not instantly crown his efforts. One's faith in the unerring law of cause and effect ought to give one patience to wait the sure, if slow, result of one's good endeavors—is it not so, my mother?

"I told you, did I not, of the great interest which Grace Staunton has taken in the prisoner? It seems very singular to most people, very few being able to comprehend how she can feel anything but aversion and horror of her father's murderer. And in the beginning, I think it was only her strong, religious sense of duty that enabled her to overcome the natural antipathy she would not suffer herself to cherish, and go on a mission of mercy and love to her supposed enemy. But, you know, she could not discuss these deep matters of the soul with Jarl Darley without coming to a clearer knowledge of the real nobility of the man's character, and in her first interview with him she was compelled to an involuntary respect for his individual right of faith and feeling in affairs of conscience which has restrained her from further officious intermeddling, and made her half a convert to his opinions.

"Mother, it seems to me there is the stuff heroes are made of in this girl, and with right influences and proper training she would be capable of accomplishing a vast amount of good in the world. With her zealous nature, you know, she will always be pursuing some object which appears to her eminently worthy of attainment, and it will depend altogether on the education of that faculty we call conscience, whether she works good or ill by her most earnest and eager efforts in the direction she is moved. I can not help wishing, dearest, that she might be under the guidance of your calm, clear wisdom, until she is so thoroughly imbued with the principles and purposes of true living that her ardor could not by any possibility lead her into error. But her social standing is, as the world views

it, so far beyond ours, that I think of this only with desire, not with the expectancy of determination, as in other matters.

"To return to Jarl, and Miss Staunton's interest in him. Since she is satisfied, or, at least, silenced in regard to the condition of his soul, she has set her heart on saving him from his impending doom, and she has been very active with me to-day in obtaining signers to a petition appealing to the Governor for some mitigation of the severe sentence of the law. Scarcely anybody refuses his name to this entreaty, and we are confident in the hope that it will be heard and granted. The bare fact that the daughter of the murdered man is deeply concerned in the matter of securing the release of the criminal from the extreme penalty of his misdeed, is not without its influence, though she is bitterly opposed in her efforts by her mother and brother, who regard her action as little less than a freak of lunacy. So much for to-day's report, which invites, my dear mother, a fuller account of your own and Nora's welfare, happiness, and progress.

"Lovingly, ARIEL."

To this there came the following response:

"MY DEAR SON: I don't know that I had any expectation of a different result from the trial than that you have reported, yet the event none the less fills me with unexpressible sadness. The shadow of a life crossed and marred by ills not of its own making or choosing, has cast too often in the past its chilling blackness across the brightness of my spirit to be to-day an unfamiliar thing; but I do not find the returning cloud less charged with storm and oppressive gloom than when it first swept over me. I have learned, however, to dwell as little as I may on evils that I can not remedy, and to find the sunny side of the darkness that would else engulf me utterly. And you will mark, my Ariel, that there is no shadow nor blackness of darkness that does not bear close or intimate relation to light, if we had the simplicity of wisdom and the eye of loving faith to penetrate its mystery. In this matter it may be difficult to see who will be benefited by the

execution of our dear friend Jarl, but I must believe it has an end higher and farther-reaching than any in the thought of those who planned the measure simply as a punishment. Good will come of it, though it come through travail and suffering. The martyrs of this generation are the saviors of the next.

"You do not need to tell me of the stoicism of Jarl Darley in this extremity of justice which touches injustice. His is a nature that bears with calm, heroic courage the heaviest strokes of fate, while it chafes and frets with passion under the stinging needle-pricks of every-day trials. There are the elements of a grand, noble manhood in Jarl Darley, but I can not help thinking that his mother sadly betrayed him, and fastened upon him her woman's superficial vision and impatient haste to grasp, by methods not consistent with the law of order, at results not fully developed by time and labor.

"If this be true, it is no sin of his, though he must suffer the penalty. Stand by him staunchly, Ariel, to the last. Do not falter a moment in the offices of love and sympathy. If I have seemed to deny him these in the bitterness of his trial, he must feel that I have given him what is better—my son.

"You told me, I believe, that he had never inquired after Nora since we left Woodburne. Should he do so at any time, however, do not fail to give him comfortable assurance of her welfare—I can not say happiness, for in that clear light upon which he may shortly enter, the truth may not be hidden, yet he will read it with no limitation of human vision. As for the child, herself, she asks no question concerning her father, but moves slowly about, or sits for hours in that dreamy, apathetic state which repels approach, as though she had dropped out of every interest in life.

"I have enlisted the sympathy of kind hearts by the simple recital of her sad story, and a haven of quiet and seclusion is provided for her until her trial is past. Mournful as this stupor of despair seems, it is better than the sharp, poignant stings of conscious suffering, and I trust that she

will in good time emerge from the shadow with young energies, fresh and eager for struggle with the realities of life.

"For myself, Ariel, my heart rises with perpetual rejoicing and thanksgiving for the many blessed opportunities I am finding in the way of helpful, satisfying employment for body and mind. It is all the better, I believe, that I have no money to carry me through the course of study preliminary to my chosen work, since I enter at once upon the discharge of duties leading directly to the observation and experience which I need to hold my interest and strengthen my convictions in the all-saving grace of obedience to law. No office is menial which ministers to the well-being of another, and I feel elevated rather than degraded by the humblest tasks that fall to my portion. Many of my duties, too, bring me in close contact with the very subjects that I am most deeply interested in, and afford me opportunity for study and investigation which are of infinite value to me as suggestive of the scope and power of my vocation. Ah, my Ariel, when I trace the tangled network of causes and effects in the wrecked and stranded lives that are cast upon our care, I grow into a larger sense of the wide mission of the true physician, which—I say it reverently—is like even that of the Son of God, for it is a mission of salvation, through the knowledge and dispensation of truth—a mission of reconciliation and atonement for sin, through unwearying effort and perpetual self-sacrifice, to bring the last transgressor into harmony with the laws of being, to appease offended justice by restoring the offender to the ways of holiness. If I exalt my office, it is with humility, as feeling myself unworthy to fill it, yet with earnest hope and devout prayer that I may not prove recreant to the trust, nor lax in the duties of my sacred calling.

"I can only desire, dear Ariel, that you may but feel equally satisfied with your elected work, for which I know you are burning with all the enthusiasm of youth to begin your preparations. If I seem to impede and delay your action by my request that you stay with Jarl through the

stress of his bitter fortune, it is because I feel that there is culture for heart and mind in such an experience, no less than in the duties from which you are briefly withheld. I am singularly interested in what you tell me of Grace Staunton. Her's is truly a character which needs the influence of right associations to save her from sometimes working evil where she sincerely intends good.

"I have no sympathy with your fear of Miss Staunton's social standing, my son. I recognize no rank but that of soul in human brotherhood, and whenever you see opportunity for helpful word or deed, I pray you do not withhold it through any foolish sense of inequality. Often those most high in worldly station have deepest need of aid which the lowest may render.

"I trust neither you nor Grace will slacken your efforts in behalf of Jarl Darley, but believe if they fail, it will be to the furtherance of some grander end than could be accomplished through his pardon. He will tell you this.

"Your truest love,

"MOTHER MARY."

CHAPTER X.

THE SATISFACTION OF JUSTICE.

The petition for the pardon of Jarl Darley being refused on the ground that so clear a case of conviction would not admit of any interference with the ends of justice, the day appointed for his execution was near at hand, and the whole community shuddered under the shadow of the tragedy about to be enacted in its midst.

Perhaps no one talked of the event with more calmness than the condemned himself, if he talked of it at all, which was seldom when he could succeed in turning the thought of his visitors to other matters. His mind seemed to dwell on subjects which had agitated it more or less for years; to be devising schemes for the relief and elevation of the oppressed classes of society—schemes which, however impractical, he regarded as infinitely more important and agreeable topics of discussion than his own shocking fate.

"What will it matter in a thousand

years?" he said, smiling, when Grace and Ariel brought with tears the denial of the petition for his life. "If my existence has any part in the Divine Plan—which I would fain believe—the event you bewail will be ruled to wise ends. Take no thought about it, my children, and don't let us waste words over the matter. The time is too short to say all I could wish of things much closer to my heart than my own life. If I felt in myself the power, or rather the wisdom which should control the power, to carry into execution the plans I might devise for the benefit of the toiling masses groaning under ills that are a disgrace to the age, I might have a stronger wish to prolong my earthly days; but the spirit aroused, the work will go on without me.

"There is a vast field of action opening for you, children," he went on with flashing eyes; "and I pray God you may act your parts bravely and well—so well, that when you come as near to the border land as I am come to-day, you will feel no sorrow and regret for opportunities lost, no sharp, careless anguish for wrongs unrighted, for good that lay in your power undone. The keenest pang I suffer at this moment is the thought that I have made so little of my life. I doubt if all eternity can make up to me the golden chances I have wasted. Boy—girl—I wish I could impress you with my sense of the great work which I see, as in prophetic vision, waiting at your hands; and if some time in the future years you feel the pressure of a force that seems to you outside your wills, the urgent impulsion to do and dare what, of yourselves, you think you would not attempt, believe it is your old friend Jarl striving with the clever wisdom of the spiritual life to accomplish by your aid that which he failed of in the weakness and blindness of this. Oh, my children, toward whom I am drawn by a tie stronger than of blood, you will not refuse me, if I am permitted thus to seek it, a place among the laborers in the field that is white already to the harvest!"

So he talked whenever he had them near, till their souls were filled with a lofty enthusiasm that lifted them as far above the

ordinary thoughts and feelings of those about them as Jarl himself was living in those days.

Still, with youth's strong attachment to life, they could not contemplate without shuddering the doom of this man in whom they had taken so filial an interest.

"I will tell you, Ariel," Grace said, as they moved away from the gloomy prison on the occasion of this last visit, "I will tell you. Since one man now holds the life of Jarl Darley in his hands, I will go to him in person and plead on my knees for the boon which he has refused to the petition of those less deeply concerned—those with not so much to forgive; surely he can not turn a deaf ear to my prayer, Ariel," she added, looking up at her companion for assurance in her bright confidence in the success of her plan.

"Dear,"—Ariel checked himself, flushing at the word of tenderness into which he had been betrayed, but the hand upon his arm gave him a sympathetic pressure. "I don't see how it is possible to refuse your appeal; but do you reflect how short the time is? Taking the first train, and returning at the earliest possible moment, you can not reach here until late in the morning of the day appointed for the execution; and if there should be delay in obtaining an interview and accomplishing your errand, the next train does not arrive in Woodburne until forty minutes past the hour at which Jarl is doomed to die."

They looked in each other's pale faces an instant in horrified silence, then with quick-drawn breath Grace replied:

"I will make the venture, Ariel, I can only fail, and this inaction is intolerable. I know you feel it so, but you must stay by Jarl, and if by any chance I should not return with the pardon before the fatal hour, in Heaven's name find some means to delay the execution for those forty fearful minutes on which life or death may hang."

"God speed you! I will do what I can," was the earnest response of the boy as he bowed low over her hand.

And so they parted.

* * * * *

The sun rose as divinely, smiled as se-

renely over this day on which Jarl Darley was to expiate his crime as though it had been the gala-day of the year. It seemed to Ariel, as he made his way for the last time to the prison, that there was something cruel and mocking in the brightness; that a sky draped with clouds, and air heavy with storms, would be more in harmony with an occasion so full of horror. He could not endure this spring-like smiling of nature, as though she sanctioned the perpetration of a wrong which curdled his young blood even to think upon. The hour had past which should have brought back the suppliant for the prisoner's pardon, and it seemed now nothing less than miraculous intervention could save him from his close impending doom. Ariel's brain was busy with schemes for securing delay in the preparations going forward for the tragic event of the day, but only one of the many plans occurring to his mind appeared at all practicable, and this without the co-operation of the condemned man could not be made available.

He found Jarl dressed with care, and calmly awaiting the summons of which he manifested no sign of dread, whatever might have been his feeling regarding it. But he had so many tender words of admonition, so many farewell messages for absent ones, that the poor youth found no opportunity for his secret proposition until, desperate with the thought of flying moments, he suddenly broke in with impetuous interruption.

"Jarl Darley, there is something you can do for me closer to my heart than even the precious words you are saying."

"What is that, my son?"

"Feign a deathly sickness which shall delay your execution but three-quarters of an hour."

"Not for the universe; Jarl Darley can not feign," was the prompt and firm reply.

"But if Grace should return with your pardon the fraction of an hour too late; oh sir, oh sir—for her sake consent to this bit of harmless stratagem."

"Poor child! poor child! the reaction will be hard for her," Jarl said, with tender regret; "but," shaking his head, "I can not

act a dissembling part. It shall never be told that Jarl Darley saved his life by a trick, even were it possible to save it."

There was no use arguing the matter. Ariel had had experience enough with his old friend to be sure of that. But would his next plan prove more successful?

With doubt he sought the officers who had in charge the horrible ceremonies of the day, begging of them a brief delay in the discharge of their duties; but they would not consent to so disorderly an action—the fact of their being largely under the control of the Staunton faction having much to do with the quality and direction of their consciences.

In desperation the boy rushed out among the gathering throngs of curious people, mad with a momentary purpose to incite a mob which should effectually stay the day's proceedings; but the vision of Jarl's calm, disapproving face rose between him and the execution of his will, and the awesome sense of a controlling power transcending in wisdom the narrow aim of his puny, short-sighted efforts steadied his soul a little in the whirl of impulse that threatened to plunge him headlong into action which might be wholly evil in its results. A shuddering, sickening feeling of disgust and shame crept over him as he watched the crowd surging into the prison yard, until it was filled to the number of the lucky holders of tickets issued for an exhibition that might rank with the barbaric horrors of the dark ages.

Then it was pitiful—oh, it was pitiful to see the disappointed throngs setting back from the gates and swarming to the prison walls, to the housetops, to the hills, to any place where they might catch a glimpse of the ghastly spectacle toward which some depraved instinct of human nature urged them, while they inwardly shrank and shuddered with dread and abhorrence of the thing they were to witness.

Faint and dizzy, with mingled emotions of horror, grief, despair, Ariel re-entered the prison, from which they were already preparing to lead forth the condemned. The sight of the pale, yet perfectly composed face so soon to be distorted by the

agonies of death smote his sorely-trying heart with a fresh pang.

"Oh, my God!" he groaned, in anguish of soul—"Oh, my God, must this terrible wrong be permitted?"

Jarl's preternaturally sharpened sense caught this strained note of appeal, and a quick shadow of pain darkened and disturbed the serene composure of his features as his clear-seeing eye discerned the figure of his young friend shrinking in the dimness of the corridor.

"My boy, you should not subject yourself to this trial," he said, tenderly, as he passed him in charge of his keepers. "Flee from sight and sound."

"No," answered the youth, bravely, straightening himself and stepping forward with sudden recollection of the strength and courage demanded of him. "I promised my mother to stand by you to the last. I shall not fail."

"God bless her! God bless you!" was the fervent, low, uttered response, with a look more eloquent than speech of love and gratitude and comfort.

There was a stir of expectancy, an eager thrusting forward of heads in the motley crowd as the man whose death-throes were to furnish the amusement of the hour came in view, bearing himself with a majesty and sweetness of mien that struck a feeling of awe and reproof to the most insensible soul gaping greedily for something to gratify its morbid craving for the horrible and shocking.

But if we are to have public executions, are they not less degrading in effect on those who witness them when the subject is one who challenges admiration and respect by native manliness and heroism of character, than when, as is often the case, he is a poor, brutal, ignorant, cowardly, misbegotten wretch, whom it is our duty and privilege to protect, restrain, and regenerate by wise reformatory influences, rather than to pitch headlong out of the world, as though, forsooth, his power of evil were stayed by such a disorderly process!

A hush like death fell upon the intently gazing multitude, as with firm, unshrinking

step the doomed man passed through their midst and ascended the gallows, followed closely by Ariel, who seemed himself caught in the fearful toils of some evil enchantment from which only the shriek of the flying locomotive bringing pardon to the condemned could ever release him. As he glanced up at the infernal machinery suspended above their heads, a sickening sensation of dread swam over him, and for a few moments he was only vaguely and dizzily conscious of the scene transpiring about him, hearing as in a dream the solemn, clerical monotone of a voice in exhortation and in prayer that seemed to rise no higher than the lips that uttered it. Then a charge to the silently waiting victim at his side sent the wild lightning of hope flashing in electric current through his being, and he plucked at the sleeve of his old friend with eager, breathless whisper—

"For God's sake speak for a long, long time. It will stave off the end, and Grace may come."

Jarl Darley pressed the boy's hand with lingering, sorrowful tenderness, and stepping quietly forward stood for a space, which no one thought to estimate in moments, looking into the crowd of upturned faces before him with a pitying, pardoning, entreating love that thrilled every heart with responsive pain, longing, and regret. Then slowly extending his arms, he lifted his eyes to the clear, noonday sky in wordless prayer that seemed to the excited sense of the spell-bound spectators an invocation of the invisible hosts of Heaven whose hovering presence already enveloped them like a cloud.

When at last, with a mute, tender gesture of farewell, the silent, yet speaking figure moved back, and with placid, upward glance quietly adjusted itself under the overhanging rope, there was a suppressed murmur and upheaval in the agitated mass of humanity beneath like that of the sea before the in-rolling wave of storm. But ere it could break into the revolt of nature against an execrable law, the hangman had finished his work, and at a quick signal the black-robed form of Jarl Darley leaped into the air to swing strug-

gling between heaven and earth—a sight from which strong men hid their faces and fled in dumb horror.

Ariel, flying madly from the scene that would haunt him to the last hour of life, was stayed by the shrill scream of the panting steam-god bringing in the train for which Justice had refused to wait, as though fearing to delay her chance of satisfaction.

With a throb of pain at remembrance of his vain anxiety for this arrival, but with thought to shield from the wide, eager eyes of his partner in hope the fearful thing which he felt would swim perpetually before his own vision, he turned in his aimless flight and hurried up to the station, stepping upon the platform with a shuddering dread of the expected meeting, just

as Grace Staunton sprang from the still moving car, her worn face lighting up with subdued joy as she perceived him approaching.

“Oh, Ariel, it is not pardon, but it is postponement,” she cried, hastening toward her friend with outstretched hands.

“Just God!” she breathed, the hands falling limp at her side as she caught the expression of his death-white, woe-stricken face. “It is not—it is not—too la——”

The paralyzed tongue refused to articulate the terrible words, and faint from exhaustion and the sickening fall of hope, the poor child sank senseless in the pitying arms outstretched to receive her.

“The wise old Governor—he planned that she should arrive too late,” commented the disinterested by-standers.

END OF PART I.

ARTIST TOUCHES.

CLIMBING a mountain, grand and high,
I saw a vast domain
In graceful undulations lie—
Outstretching in a plain.

The rolling waves were clothed in green,
And wore a brighter hue
Than did the dells which lay between,
So charmingly in view.

Still far away the mountains rose,
Wearing a regal crest.
The sunset gates behind them close
In glowing colors dressed.

The sinking sun had dipped his brush
To touch the plains below,
And spread thereon a rosy flush,
That warm and cheerful glow.

He lingered but a moment there,
Then brushed the hills with red,
And swept his colors, rich and rare,
Up to the mountain's head.

He touched its snowy crest with gold,
Which shimmered far away,
Its gilded beauty to unfold—
The gift of dying day.

He gave to clouds of leaden hue
A gold and purple fringe;
Scarlet and crimson quickly threw
O'er all a brighter tinge.

Oh, lovely colors, rich and rare!
Oh, sinking sun below!
You wore a tracery more fair
Than artist hands bestow.

R. M.

ROBERT WILLIAM HANINGTON, LANDSCAPE PAINTER.

THIS gentleman has a harmonious, mental temperament, and an organization which is distinguished by vigor, activity, ease of motion, and strength. Whatever he undertakes to do, he does with a promptness and a facility that are not often surpassed. His chest is large,

his limbs are tapering—facts which indicate muscular ease and strength. The fineness of his organization shows delicacy of feeling, with susceptibility and impulsiveness; also much mental intensity. He decides questions quickly, and is ready to act on the instant. His first judgments are

his best, after-thought or meditation rarely improving them. He is remarkable, indeed, for his intuitiveness, a quality which he inherits mainly from his mother, as he does also the tendency in general of his mind and intellect.

His perceptive organs are large, giving him a quick sense of quality, proportion, and outline. His power of criticism is

everything mapped out according to rule, and thinks methodically and systematically.

His large Constructiveness, joined with the faculties of Form and Size, gives him artistical and mechanical talent, power of combination, ability to take into account all the surroundings, and to create in the direction of mechanism and art. If he



PORTRAIT OF ROBERT W. HANINGTON.

well-marked, hence he detects error, inconsistency, impropriety, and lack of harmony in things and subjects.

The organs of Form and Size are largely developed; hence he appreciates outline; remembers countenances, shapes, magnitudes, and with large Locality he has a good idea of distance and direction. His Order is also well-developed, hence he has

were to devote himself to machinery, he would be likely to invent. He has an appreciation of the essentials in business management; if he had given his attention to merchandizing, or to financial operations, he would be skillful in the management of pecuniary affairs; would be able to transact more business in one hour than most people are able to do in a day. Everything he

touches, whether it belongs to labor or to pleasure, must be done with sprightliness and rapidity and vigor; otherwise he does not care to have anything to do with it. He is opposed to slowness or dullness in thought and action.

He has a very positive character, is determined, persevering, and very independent, is ambitious to rank well, and suffers much if censured, or ridiculed, or neglected, and would rebel against the relations or surroundings which contributed to such treatment, because he is plucky, and proud, and inclined to do battle against that which is disagreeable or offensive. He is not one of the kind who cringe, and let the lash of public scorn fall upon them with impunity; but would make a bold defence, and vindicate himself so far as he might, and with manly straightforwardness. He is ardent in his social attachments, quite warm in his temper, but his spirit is not essentially aggressive.

His sympathies are strong, rendering him quick to help those in trouble, but he has very little encouragement to offer those who shirk duty and responsibility. He feels the sense of responsibility; respects his word as a law and a bond, and looks to others to meet their promises and obligations squarely. Notwithstanding his intensity, and his active energy in all that pertains to his line of life and duty, he is likely to live to a good old age, and carry his faculties undimmed to the last.

The above outline of character is based upon a brief personal interview, but the portrait is sufficiently faithful to confirm its particulars.

The writing of the lives of living men is a delicate as well as a very responsible undertaking, and should not be done without an impartial study of their character. The suggestion of this sketch came from one

who recognized talent of a superior order in the subject, and in its presentation we deem it scarcely necessary to remind the intelligent reader that many, very many, men of genius and cultivated talent have been consigned to oblivion because the hand of friendship had failed to write their names upon the page of history. It is true that Mr. Hanington has not distinguished himself in painting as a Salvator Rosa, or a Van Dyke, yet, in an unobtrusive sphere he is rendering valuable service to society, and not only meriting but winning a distinguished name among his professional brethren, and earnestly competing in the foremost ranks for honors in his noble profession. His wonderful facility of execution in *mezzo tint* on wire cloth challenges rivalry, and elicits the admiration of all who visit his studio in Brooklyn. In order to give some conception of Mr. Hanington's dexterity in handling the brush of an artist, we would state that he sometimes paints on wire cloth upward of three hundred square feet of beautiful landscape in a single day! And this rapidly executed work, in perspective and faithful outline may challenge the criticism of the most fastidious *connoisseur*. For our part, we have at leisure hours often looked on in silent admiration at the magic touch of his brush, as skies, mountains, hills and dales, grottoes, groves, towers and castles, houses, bridges, trees, foliage and flowers, rivers, gondolas, rocks, and cascades were successively unfolded to the view, till a complete and charming picture was created.

Mr. Hanington has now on the canvas at his studio a very large picture (8x11 feet), the subject being the country seat at Rock City, Saratoga, of that munificent patron of art, Mr. Chauncey Kilmer, of New York.

There can hardly be a stronger and more beautiful landscape than this in richness and harmony of color, force of expression, and softness of outline. The cool green lane, the tasteful rural buildings and silvery creek, with the shadowy trees, excite an irresistible desire in the spectator to visit the enchanting spot that has contributed studies for such a picture. We can not but admire the masterly skill with which the

artist has painted the low meadow-land, partly hidden by the water of the foreground, and the horses grazing in the meadow, all giving life and purpose to the beautiful scene. The tastefully arranged gardens and their varied surroundings render the picture notable for its effective distribution of light and shade.

Mr. Hanington is a native of New York, and was born August 1st, 1836. His father was a native of England, his mother of French descent. Robert and his two sisters while quite young were taken by their parents to Europe, and placed in schools in France, in order to secure for them a practical knowledge of the French language. Subsequently they were taken to London, where the boy was intrusted to D. J. White, of College House, Edmonton, and here he first manifested his aptness and love for drawing. His father, although not an artist, was passionately fond of pictures, and during his stay in Europe accumulated a collection of paintings numbering some two hundred and fifty, among which were originals by Rubens, Titian, Corregio, Carravaggio, Van Dyke, Nicolas, Poussin, and others of superior talent.

After Robert's return from school he cultivated his talent and amused himself in his father's gallery, which on one occasion was visited by Her Majesty the Queen, at which time the father broached the possibility of obtaining a permit to enter Robert in the school called the "Blue Coat School," an institution under her supervision, and attended by the children of the nobility as well as by some from the poorer classes. But the regulations being very strict, and embracing a rule that none should be admitted over a certain age, prevented its accomplishment. However, young Hanington received a liberal education in France and England, and was placed in charge of his father's gallery, there improving himself in drawing and attending the art classes at Somerset House. This experience did not last long, as his father removed his gallery to New York, and opened the Academy of Design in Broadway, 1851. Robert being now in his fifteenth year, left the gallery and began

the study of the glass staining business under his uncle W. J. Hanington, who was then located at 864 Broadway, New York. He became a master of the art in a few years, but the vacation not agreeing with his health, he was obliged to leave it in 1855, accepting the position of bookkeeper and corresponding clerk in the house of James L. Jackson & Bros., iron founders, where he remained till 1857, when he married; then his uncle offering him an equal partnership in his glass staining business, he accepted it and remained in the firm two years, when his health being again impaired he was compelled to abandon the business altogether. He then removed to Philadelphia, where he commenced painting on wire cloth for the trade, an art which he had acquired in New York. This proving successful, he established a store, and furnished the leading banks, insurance companies, public and private buildings with wire shades. About this time Fox's old theater was destroyed by fire, and when the new building was near completion he submitted proposals to paint the scenes, and was accepted. Now, this was an entirely new thing for him to undertake, and we give the incident to show the versatility and confidence of our artist. Premising that he never had painted a scene for a theater, the great difficulty with him in this emergency was the nature of the colors—the latter being in water, or as artists term them, distemper. Hanington had, however, the good fortune to secure the services of a boy assistant who had worked with the previous artist, and who was found to be quite handy at mixing colors and tints, and so could help Mr. Hanington materially at the start. The latter having asked Mr. Fox what scene he would like him to commence, that proprietor replied that he wanted him to begin with the Tormentor Wings. This was a puzzler to our artist. "Tormentor!" exclaimed Hanington turning to his assistant. "Boy, show me the wings!" They were at once produced, but spread out upon the stage floor, owing to the fact that there were many mechanics working, some of whom were above, below, and on all sides,

to expedite the general work. Hanington immediately commenced with a piece of charcoal to sketch a rough design. Fox stood by watching him. Dashing away with the charcoal in a most independent manner, Hanington in a few minutes had a design which elicited from Mr. Fox, who had gone to the other part of the building, the remark, "That man understands his business!" But that only remained to be seen. The assistant having returned with buckets and colors in order to mix a tint for the ground-work, Hanington began mixing, as he thought, a delicate purple for that purpose, which, when made, the unsuspecting boy informed him, had no sizing in it. After a pause, Hanington said, "put in the usual quantity," thinking that was the best way of getting out of it. He then applied a delicate tint, and it being late the Tormentor Wings were left till morning. Imagine his utter surprise next day when he found them as white as they were before he painted them. He felt very uneasy, and hastily putting on his coat he sped in pursuit of knowledge under difficulties to a friend, an artist in the Chestnut Street theater, to tell him of his trouble and torment with the Tormentor Wings. He good naturedly laughed at him, and said, consolingly, that he would soon get acquainted with the manner of mixing his colors; and to be always sure to test the color by touching the stove or stove pipe with a little of the mixture, which by that means would dry instantly and show exactly the

strength of the tint. After that he had no trouble, and the scenes gave entire satisfaction.

Mr. Hanington remained in Philadelphia three and a half years, when he removed to Chicago, and introduced his wire painting there with much success; leading banks and public buildings, as well as private, adopting his landscape shades. He prosecuted an extensive business in Monroe Street, opposite the Post Office, now and then painting scenes for the theaters and opera houses. He painted for Joseph Jefferson the "Midsummer Night's Dream," at McVickar's Theater, and supplied scenes for Hooley's New Opera House. He then made the setting of several plays for the Crosby Opera House, the Standard Hall, the Eagle Opera House, and other theaters. Returning in March, 1871, to New York, he resumed painting on wire cloth for the trade on an extensive scale, in the meantime appropriating every available hour to painting pictures on canvas, some of which have been exhibited in this city and Brooklyn. Prominent among his many commissions are the names of the Messrs. Belding Brothers, George West, Bernard Peter, O. H. Smith, and Charles E. Girdler, Esqs.; Messrs. G. De Witt Bries, Richardson and Rich; the firm of Reynolds & Co. The wire painting, which by many is supposed to be printed, is done by hand, and to be properly appreciated requires a visit to the artist, who makes it a specialty. Mr. Hanington has an order for twenty thousand feet now under way.

THE PEASANT BOY.

THERE'S poetry, boy, in that step of thine,
Firmly and free on the green sward pressed;
And the locks that over thy temples shine
Flow wild in the wind of the soft sou'west.

Care lurks not, boy, in that laughing eye;
No frowns o'ercaast thy forehead's snow;
And the mellow tints of the morning sky
Lend to thy cheeks an eloquent glow.

Thy helloom is pure, unbroken health,
A cheerful heart to endure thy toil;
And all thou need'st of this world's wealth
Thou can'st sturdily win from the grateful soil.

With the lark's first song thou art up and away,
Brushing the dew from the glistening sod,
And chanting the simple roundelay
Which innocence sings to the ear of God.

From the ardent sun of cloudless noon
Thou seekest the shade of a sheltered nook,
Where the ring-dove murmurs its amorous tune,
To the answering sound of the gushing brook.

There, resting thy limbs on the mossy brink,
Thou takest in peace thy poor repast,
Bending thy thirsty lips to drink
From the wave that glideth so cool and fast.

Then to labor again, till the waning sun
Fadeth away in the western sky,
And the shades of twilight are creeping on,
While the birds nestle low in the covert high.

They are coming to meet thee, the peasant band,
The fair-haired girl and tawny boy,
While the baby prattler clasps thy hand,
And breathes thy name in lisping joy.

To the cottage away! to thy mother's knee,
To thy father's side—thou art welcome there;

That mother's smile is ever for thee,
And that father gives thee his warmest prayer.

And thou shalt rest in slumber sweet,
Pillowed beneath the raftered eaves,
While the summer rain-drops gently beat,
And the night wind stirs the woodbine leaves.

There's poetry, boy, in that form of thine,
And the gazer covets thy painless life;
Would that thy stormless lot were mine—
Passionless, careless, and free from strife!

CHARLOTTE CUSHMAN.

A DANGEROUS REFUGE.

SACRED feasts are common in nearly all religious systems. With the ancient Jews these feasts were numerous. In the Christian system our Saviour instituted but one. He made it a duty for all His Disciples to partake. The provisions were symbolic more than nutrient—monumental more than appetizing. The bread unleavened—the “fruit of the vine,” unfermented—such only the Passover-feast allowed. The Christian feast supplanted the Jewish, but used the same elements with a far higher and more vital significance. The “Bread,” the “Cup,” nothing more. How simple, but how vividly expressive! “My body,” “my blood,” symbolized; spiritual life identical with faith in Christ. Sincerely accepting these symbols, our Lord incorporates Himself with the loving believer, “I in them, that they may be made perfect in me,” said He. What marvel that every one seeking to learn of Jesus should eagerly, though humbly, desire to come to this feast “in remembrance of Him!” Here surely is a secure refuge, here a safe retreat for the lowest and weakest.

Can there be danger in this symbolized “refuge?” Alas! that there should be, But how? By sadly perverting one of the symbols. Take a case: Mr. P. had been for years a victim of the drink curse. He had fallen very low. A devoted Christian mother agonized in prayer, and the heart cries and long suffering efforts of a God-fearing wife finally prevail. He is brought to reformation and repentance. He tremblingly gropes and creeps his way up to faith and hope in a Saviour's love. He seeks to honor Him by a public profession.

He needs—he longs for a place of *refuge*. He hears the call of the Master to His Disciples, “Eat, oh, friends; drink, oh, beloved.” He comes—he eats of the bread, and by faith is strengthened and blessed. He takes the “Cup” and puts it to his lips. This little sip—aye, the very fumes and taste pierce his heart as if an arrow tipped with the fires of hell had searched his soul. The slumbering demon is aroused. He tries to resist, but brain and heart cower and tremble under the violent clamors of the old tyrant. The strife is terrific, but the demand is imperative—irresistible. He forgets all but the raging thirst. He leaves the church and rushes to the drug store. He drowns his agony with brandy, and gains temporary oblivion. But the reckoning day must come. A new disgrace is found in Church discipline. He repents and is restored. But the same sad experiment is tried over and over just as long as that Church set before its communicants intoxicating liquors to symbolize the great love of Jesus to poor, weak sinners. This case may seem incredible to many, but is one well known to the writer. Scores and hundreds of similar experiences, only in many instances with sadder and more fatal ending, are occurring throughout the churches. Not only the reformed drunkard, but his offspring are involved in this terrible hazard. More, and sadder still, the habitual “moderate drinker,” often as surely as the drunkard transmits his vitiated vitality and dipsomaniac tendencies to his children. To such children the one “first glass” has many times proved the fatal opening to a drunkard's grave. Dr.

Willard Parker, President of the N. Y. State Inebriate Asylum, and no better authority can be named, asserts that "this devastating curse follows the law of descent with more certainty than scrofula, heart disease or insanity, and a hundred fold more numerous." Other eminent medical men give the same testimony.

Can the Church of Christ afford to betray His "little ones?" Can it be that to obey His loving invitation to remember Him in the "bread" and the "fruit of the vine" necessitates the possibility of peril? Nay, does it not *prima facie* preclude such peril? Would not the use of unfermented instead of alcoholic wine, or what our Lord always called "fruit of the vine," be a perfect protection? Most assuredly, in every case. * * *

[The preparation of fruit juice known as the "fruit of the vine," is free from alcoholic taint. This is asserted on high chemical authority. The process of fermentation destroys the essential fruit property of grape or other juice. Many of our readers are doubtless familiar with the "fruit of the vine." Some earnest church people make the "wine" to be used on communion days so as to insure its purity, and not to throw a stumbling block at the very "table of the Lord" in the way of a weak brother. For our part, we do not see the necessity of using wine on such an occasion. What is simpler, purer than water as a testimonial of remembrance and symbol of sacrifice? And would not the sacramental celebration be just as acceptable to Him Who reads all hearts?—Ed. P. J.]

HINTS TO AMATEUR PRINTERS.

SO many lame young men, poor news-dealers, and struggling stationers in country towns are purchasing small hand printing presses to eke out a slender income, that we have thought to write a short article, giving advice how to expend their money most economically, how to learn printing with the least possible loss of time and material, and such other instructions in the matter as shall be of the greatest use to the greatest number.

The first thing to be considered is the selection of a press. There are many different ones in market, some are worthless, some are tolerable, some are really good. If you live in a city, you may, by taking a little trouble and care, find opportunities of seeing the different presses work, and can decide which you prefer; but this course is not open to all; those living in the country must often decide wholly from hearsay, or from advertisement simply; now, nearly all advertisements must be taken at about half what they promise, for some even more allowance must be made. People are naturally apt to think that what they have manufactured or have for sale, is the very best thing of its kind in market, and then *occasionally* a dealer is met with, who intends to

deceive, deliberately *intends* to steal under the protection of the law; he thinks and says he "has a right to make his own prices," utterly regardless of the higher law that exacts "value received." "These things being thus," as the lamented Artemus would say, there is nothing for it but to gird on a triple armor of caution in buying or ordering a printing press as well as any other commodity.

But to return to the boy in the country village who can not see what he wishes to purchase, we would say, find out all the dealers in presses you can, almost any paper or magazine has a notice of two or three. Send to all of these and get cuts of the press, estimate of cost, etc. Read these carefully three or four times over, study the construction as far as possible, notice the number of springs, joints, and other parts that appear complicated and would be likely to get out of gear or be broken easily. If possible, take your notices to some person who knows something of presses, or to the printer of your county paper, and get an opinion of the probability of the working value or capacity of them; some presses have side-arms, some are without, some work only by hand, some work both by

hand and treadle; decide which you would prefer.

Next, obtain the address of some dealer in printing materials, as ink, paper, type, leads, reglets, quoins, quadrates, etc. Compare this price-list with your press-dealer's; they seem to coincide pretty well, and, therefore, you may as well buy of the press-dealer and have all come together. Not at all, my dear sir, that is just the way you bury money that no digging will restore. At the foundries or regular dealers you pay so much per pound for ink, leads, quadrates, spaces, so much per foot for brass or steel rules, so much per dozen or hundred for wooden reglets and quoins, and you receive what you pay for. From your job dealer you may receive about forty cents worth of material for every dollar you invest. It is very pleasant to pick golden fruit off trees; but what if you are the tree and can not afford to lose the fruit?

Buy your press, then go or send to the regular dealer of printing materials and obtain your types, furniture, etc. You will thus save almost one half the money you would otherwise invest.

Then as to selecting type, the advertisement pamphlet will doubtless say, "select as great a variety of type as you can afford." Now I say, do nothing of the kind, unless you want to increase vastly your expense and trouble. Buy your variety of types from one or two different *sorts* of type, and be sure to select those that will set up together, as great saving is thereby made—for instance: Long primer and two-line pearl are alike in body, and the same spaces and quads answer for both. Pica and two-line nonpariel have the same body. Canon and four-line pica are alike in body. Now, there are many varieties of each of these kinds of type, and by selecting from two kinds that will fit together, great saving in the purchase of quads and spaces is effected.

Again, I would advise a beginner to buy few type at first; you will know better what you need and what will be most suitable after having printed somewhat. It is best to select a plain type like Roman long primer or pica to learn with, they show the letters large and clear, and are much less

confusing and troublesome than very small letters or those highly ornamented.

No good printing can be done unless the ink is of fine quality. Its color must be deep and intense, and it must be ground to perfect smoothness upon the marble, or ink-table, by a miller or else in a mill. It can be smoothed and worked by a knife upon the iron ink-table of hand-presses; then if the roller and paper are good, the type new and sharp, and the workmen skilled, fine work may be made. Different inks are used for printing with paper wet or dry; hand-presses use dry paper generally, it being less work, and requiring less skill in the management. Colored inks must be worked or ground upon a marble, or slate slab, as the iron table would change their tints. A soft varnish is the disolvent or menstruum used with colors, and as they dry quite rapidly, rollers must be often washed and care taken that they do not choke up the form.

Good paper is of the first importance after good ink. The best printing paper is made wholly of linen rags, and moderately sized. Very handsome work may be made upon various soft shades of tinted paper. Black ink looks well upon any shade; deep green ink looks nicely upon a light green paper, that is if both be blue-green or both yellow-green. A light-blue ground with a deep blue letter printed upon it is very pleasing. A pink tint with a carmine ink suit admirably, and clear white paper with fine black ink is always in taste.

Great care must be taken of the roller. It is best kept in a covered box where it will be excluded from light and dust. It should not be washed until a half hour before using, then in tepid water and only so little lye used as will clean it; lye should never be used upon an entirely new roller, but a little oil rubbed over will loosen the ink, when it can be scraped, taking care not to break the surface, with a case-knife.

A roller is ready for use when it is sufficiently dry to permit the fingers to glide smoothly over its surface. If it will not admit of this, but stick to the fingers, it is not sufficiently dry, and should be exposed to the cooler air. They can not be dried by

the fire, as many compositions will melt and run if only warmed slightly.

The ink ought to be thin and equally rubbed out on the ink-table, so that it may be spread smoothly over the surface of the rollers. It is well to rub the ink over as constantly as possible, the friction warms it slightly, making it spread more evenly.

Neatness, exactness, and patience are three important elements in the character of a printer; no one must imagine he can do "good work from the first." Practice is as necessary, nay, more necessary, than in

many other employments. If one is not certain that he can learn the art so as to make it profitable to him, it would be advisable first to purchase a small font of type and a composing stick, and learn type-setting. If he does not become discouraged, but learns rapidly and finds the work pleasant, then it may be well to go further; it is not difficult to learn printing if one has patience, determination, and some mechanical skill; yet there is, in this as in every art, no real excellence to be attained without great labor. AMELIE V. PETIT.

HAVE FAITH IN YOUR CHILDREN.

A LADY once told me of a little scene which occurred during her childhood, and, though years of change had come and gone since then, it had left such an impression on her mind that she could never entirely banish it from memory. She was quite a child when it happened, and her mother, a good Christian woman, was yet one of those strict, stern parents who demand and expect, perhaps, too much of their children, forgetting how hard it is, even for us grown children, tried in the rough discipline of life, to submit to our Heavenly Father's will and yield instant and perfect obedience to His laws. But this child was gentle and yielding always. I well remember her mild, amiable manners and sweet disposition when we were children together—ever giving up her own will to that of her parents. Above all, she was perfectly truthful; never had her lips framed a falsehood, or uttered one deceitful word; she had never tried to screen herself when at fault, or to escape the punishment of her childish errors. And her mother knew this—knew that her child had never spoken ought to her but the plain, honest truth.

There came a day at school when it was found that some grievous act of disobedience had willfully been committed by one of the pupils, and, in some strange way, it was traced to this little girl. The teacher accused her; she denied the charge, but the proof seemed strong against her, and the teacher even accompanied her home, carrying the accusation to her mother.

It seems an unnatural thing for a parent to do, yet she accepted the teacher's statement in preference to that of her own child, who had never deceived her, and tried by every means in her power to make the little one confess the fault.

"Mother, mother, I did not do it; won't you believe me?" was all the reply she could obtain. For a long time she sat by the child, pointing out to her the horror of falsehood, and beseeching her to confess that she had committed the error and ask forgiveness. The child's spirit became at last so affected, and her whole little being wrought up to such a state, that she actually confessed herself guilty, and asked forgiveness for a wrong she had never committed! From that moment

a feeling of reserve grew up between the mother and child, and, though years have come and gone, and the child is grown up to womanhood, she still remembers that dreadful day; not, however, with any undue blame to her mother, "for," she said, "I know she *thought* she was doing right."

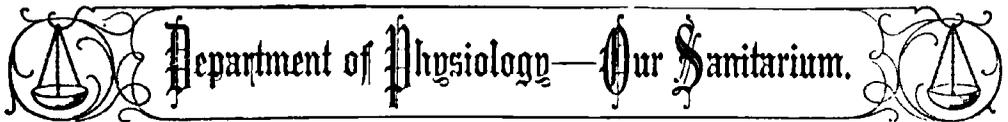
Oh, what a feeling of forlorn wretchedness must come over a little innocent child when it sees its mother looking with suspicious eyes upon it, and refusing to believe its expressions of innocence!

Oh, mothers! let your children see that you have faith in them; that you can trust them whether near or far away, and it will be to them a cheering thought that will doubly endear to

them the sacred name of mother—checking them in temptation's hour, and leading their souls to lofty purposes and noble aspirations.

A mother's love and trusting belief—what a safeguard it has been to many a boy fighting his way in the world! It has helped him to conquer many an enemy, and brightened many an hour of struggle and sadness to know that a loving, praying mother has faith in her absent boy. A mother's trust has kept many a daughter's feet from straying, and bound their hearts together in affectionate sympathy and confidence until death alone has broken the tie, and then was left the sweet influence of a devoted life as a guiding star.

Mothers, have *faith* in your children!
SARAH KEABLES HUNT.



Cultivate the physical man exclusively, and you have an athlete or a savage; the moral only, and you have an enthusiast or a maniac; the intellectual only, and you have a diseased oddity—it may be a monster. It is only by training all together—the physical, intellectual, and spiritual—that the complete man can be formed.

FORMATION OF THE WHITE BLOOD CORPUSCLES AND FUNCTION OF THE RED.

TO THE EDITOR OF THE PHRENOLOGICAL JOURNAL:

AS it is not often that I indulge myself in critical communications to the JOURNAL, I trust you will permit me to review one or two of your propositions in the April number, in which you devote considerable space to Dr. Flint's voluminous "Text-book on Human Physiology;" not in the way of defense of the doctor as a microscopist, for his volume on the "Nervous System," the only one I have carefully read, shows very clearly that he is not a practical master of the instrument; but, on the other hand, for the purpose of laying some original investigations before the scientific world, which tend to the conclusion that the older microscopists were not so far from right in their views as to the

origin of leucocytes as it is now fashionable to suppose.

In my own experiments I employ the highest powers of my instrument—600, 850, and 1,100 diameters. Taking care to adjust the stage so that it is exactly level, as a preliminary, and to make all due preparations as to light, focal distance, and so on, with an extra slip of the same thickness as the one I am about to use, which is being heated to a degree sufficient to destroy all organic matter, I draw a drop of blood from my finger in the ordinary manner. While I am doing this, the slip and its covers are cooling under a bell glass. At blood heat I bring the middle of the slip in contact with the drop which is oozing from my finger; cover it, and press down the cover with the tip of the finger,

armed, for the purpose of excluding oily substances, with a strip of clean cambric, until the light is readily transmitted through it. At a power of 1,100 the blood is seen to be composed of lymph granules, perfectly round and uniform, white corpuscles (leucocytes), and red corpuscles or hematica. The first are very numerous, of the uniform diameter of about 1-1200 of a millimeter, and have a peculiar consensual movement very difficult to describe, that causes them to move about in their narrow streams meandering across the field. This circulation is best observed with the larger field that a power of 600 diameters affords, and continues for about five minutes. The fully-developed white corpuscles have the appearance of large nucleated or non-nucleated lymph granules, and vary in diameter from 1-350 to 1-100 of a millimeter. The red are a little smaller, and vary a little less—say from 1-450 to 1-200 of a millimeter. The leucocytes are not always or often nucleated, although dilute acetic acid speedily develops such an appearance; but tests with ammoniacal solutions of carmine always show a difference in constitution between the center and the periphery, by developing a red spot in the interior of the body. Red corpuscles, suspended in balsam, and subjected to a light heat, generally exhibit a marked tendency to symmetrical self-division into six parts, just as one cuts a round cake, and these parts are organically so distinct and regular that it is impossible to regard the division as an accidental phenomenon. I have never seen red blood-cells dividing, but I am inclined to think that such spontaneous division actually occurs. Under similar conditions the white corpuscles separate into groups of symmetrical granules, differing in no particular from the lymph granules, the consensual movements of which I have just mentioned. That is to say, they are decomposable into granular components.

The question whether they originate or may originate from a granular blastema is one that I have no hesitation in deciding in the affirmative, although, of course, your reviewer is justified in following the latest

received authorities. I have seen them produced in that manner, not only now and then, but very frequently, and have observed the process in its inception as well as in its completion. In a word, the question is purely one of fact, upon which a man should have no opinion at all unless he has ocular evidence for it. I have a dozen drawings of leucocytes in different stages of organization, in which the granules are arranging themselves into component bodies—generally in threes, or fives, or sevens, or nines, or elevens, or thirteens, or fifteens; never in even numbers. The most frequent numbers are five, nine, and fifteen. By making a weak solution of hypophosphite of ammonia, and introducing a little of it under the cover before pressing it down, the process I have just been describing can be very appreciably stimulated, and hence observed with more certainty of decisive results. The variations in diameter and in the apparent nucleation of leucocytes are, I am inclined to think, due to the number and arrangement of the granules, and furnish no certain or even proximate indications of age or stage of development. In my studies of the blood of fishes I have always found that the formation of the corpuscles from the plasma could be more readily followed than when the blood was taken from my own circulation; and I have often, in the lower animals, observed the granules of a corpuscle in rapid molecular action.

There is no doubt, therefore, as a matter of fact, that white blood corpuscles, in many instances at least, are generated in the blood plasma—one positive observation is conclusive against a hundred theoretical dissertations. I have not only seen them forming, and counted the granules and noted their arrangement in numerous experiments, but have also observed them in every stage of formation from a state in which the granules are highly visible as independent and active components, to the final state in which a thin pellicle operates to obliterate all optical evidence of granular constitution. There are such abundant sources of error in this field, however, that one is excusable for blundering a little.

In consumptive persons, for example, one frequently finds a white matter existing in abundance in the form of spherules of from 1-150 to 1-100 of a millimeter in diameter, and corpuscles of a peculiar kind occur in the splenic and supra-renal veins. Purous and mucous corpuscles, again, are not specially distinguishable from blood corpuscles, and the former have generally been held to be identical with them. There is, however, this material difference between corpuscles taken from blood and those taken from an abscess or from a sore during the suppurating process, namely, that when mounted in the ordinary manner blood corpuscles are tolerably permanent, while purous and mucous corpuscles granulate in from twenty-four to thirty-six hours; conclusive evidence that the received view is erroneous.

Again, as to the cause of the attraction in color produced by oxygen, nervous blood having a bluish tint, and arterial blood a scarlet one, I have, although very reluctantly, to dissent from the views of Heule, Nasse, Harless, and I can not say how many more. The hematin (coloring and colored matter) of a red corpuscle constitutes about 5-100 of the mass; the globulin (cell-wall) about 65-100. In blood taken from an animal after death I have always found that the hematin refracts light a little less clearly than in experiments with living blood; and the consequence is that the cell-wall, though really colorless, is apparently a blue pellicle enveloping a dull red central mass. In venous blood the same phenomenon is apparent in a less degree. The fact that carbonic acid appears to operate to produce a convexity of the corpuscles, which previously appeared to be concave, taken in connection with the preceding facts, seems to sustain Heule's view; but, in further investigation, a cause less dependent on purely optical principles presents itself. Hematin, when burned, yields a considerable percentage of peroxide of iron. Now, there is scarcely a better test of the presence of carbonic acid in large quantities in the atmosphere of an apartment than peroxide of iron. A piece of paper saturated with it in solution,

when immersed in carbonic acid gas, assumes a dull bluish red hue, which, on exposure to free oxygen, is rapidly converted into an opaque scarlet by the oxidation of the carbonic acid. That is to say, a body containing an appreciable quantity of soluble peroxide of iron readily absorbs carbonic acid under the proper conditions, and darkens—for the presence of the bluish tint is only a symbol for diminished refracting properties—while on exposure to free oxygen it gives off the carbonic acid and recovers its scarlet. This function of the peroxide is, let me remark, altogether independent of the question whether it is wholly responsible for the color of the blood; for, after extracting it as thoroughly as possible, the red corpuscles redden alcohol intensely by simply boiling them in it. The fact, however, that dilute muriatic acid turns the corpuscles white, while dilute carbonic acid renders them dark and opaque, is pretty conclusive evidence that the peroxide is mainly the seat of color; and I am sure that, on careful consideration, you will agree with me, even against the weight of authority, that Heule's view is an erroneous one, and that the peroxide of iron, as an ingredient of the hematin, is the seat of the familiar alteration in color as to which our venerable doctor is so much in the dark.

And this brings me to a view I have long entertained, but have never ventured to express, as to the function of the red corpuscles in the animal economy. In a general way their higher development accompanies the less diffused respiratory organization of the higher types of the animal kingdom. They are present in a few fishes, as, for example, in the squatina, with a diameter of about 1-50 of a millimeter. In the siren, their so-called nuclei show from twenty to thirty spherical granules, and in the lower animals generally their nuclei appear to project in a rounded form. But I have never been able to find any conclusive evidence of their nucleation in the higher mammalia, although dilute acetic acid develops granules in the center in abundance. I have seen them occasionally in the circulating plasma of the fly,

but never in that of any other insect. Their number in the human race varies with sex to such an extent that their proportion in the blood of a man averages about 140 to the 1,000 parts, but may be as high as 186 or as low as 110 without ill-health, while in women the average is about 112, but the number may fall as low as 71 or range as high as 167. Open air life augments their number, while sedentary habits diminish it. Their average diameter, like that of the white corpuscles, varies materially in different temperaments, being less in the blood of persons of nervous temperament, and greatest in those of glandular and vital temperament. In all the lower animals they bear a strong resemblance to Barry's embryonic corpuscles; but, as the investigation ascends higher and higher in the animal kingdom, the resemblance is gradually obliterated. Now, my view is that they are excreto-respiratory in their function. That is to say, they absorb the carbonic acid element evolved in the decomposition of tissues, and carry it to the

lungs, where, in contact with free oxygen, it is exhaled as an excretion. Hence their convex and swollen appearance in venous blood, and their concave and collapsed state when taken from an artery. That they perform this function the facts conclusively show. But I will not, by any means, insist that they have no other, having long since learned to be wary of theorizing.

In conclusion, gentlemen, I trust you will pardon my dissent from your views and from those of the eminent authorities you have quoted. Believe me, I should not have troubled you with a dissent based upon mere theoretical grounds, and I have tried to give a brief but faithful transcript of the leading facts that I have gathered through a long series of original investigations, hoping that they might serve to assist physiologists at large in arriving at some coherent theory of the function of the red corpuscles and the origin of the leucocytes or true organizing corpuscles of the blood. Very respectfully yours,

FRANCIS GERRY FAIRFIELD.

TOWN LIBRARIES.

NEARLY three years ago several gentlemen of our village concluded to organize a Town Library. As the most feasible plan, we placed the value of each share at \$5, *payable in cash or in books suitable for the library*. Each stockholder was entitled to the use of two books, or one book and one periodical, on loan at a time. The library is kept open all day Saturday, on which day exchanges of books take place, and all persons not shareholders have the privilege of consulting and reading the books, periodicals, and newspapers.

Each shareholder pays \$2 per year, or fifty cents per quarter to pay for incidental expenses, including hall rent, librarian's fees, and fuel, etc. We take ten periodicals, which we purchase of Messrs. S. R. Wells & Co., at reduced rates.

We have now accumulated a considerable library of about 1,500 volumes, besides 800 volumes of periodicals, stitched to-

gether after they become six months old. What surprised me most was the large number of valuable and useful books that were paid in on shares. We have 140 shareholders, all of whom paid in books except about 20 shares which were paid in cash. We find that novels, travels, poets, and periodicals are most in demand; occasionally works of science and biographies are also read. We have increased our library by donations, concerts, and lectures, and regard the institution as an established educator and moralizer of our people.

I am persuaded that there are abundant books lying unused in every community which could be collected and organized into a village library, if a few energetic and literary people would but give them time and make the effort. To promote that object and indicate the method most certain of success, I contribute these hasty suggestions and history of our operations.

O. S. PARTON.



True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

HOW TO TEACH,
ACCORDING TO
TEMPERAMENT AND MENTAL DEVELOPMENT;
OR, PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.
BY NELSON SIZER.

WHAT THE TEACHER SHOULD BE.

WHEN we consider the duties required of the teacher—the amount of labor, care, anxiety, patience, and worry which attach to the profession, and when the amount of talent, knowledge and wisdom absolutely essential to the highest success are taken into account, the question naturally arises: “Who is sufficient for these things?”

As to what the teacher should be, constitutionally, we may say, it is eminently desirable that he should be well-organized in every respect, both bodily and mentally. He should have an energetic, enduring, and elastic constitution, which can work easily, and work long, and maintain its strength and activity. A person who is constituted like a slack-twisted string, like soft and porous wood, or like mellow metal that is easily impressed, and who has a character corresponding to such constitutional qualities, has no proper place in the school-room as a teacher. He should have the characteristics of the fiddle-string for toughness and density, of the steel-spring for elasticity, and of oak and hickory for sturdiness and endurance.

With these strong qualities there should be mingled susceptibility, sympathy, power of adaptation and conformity; in other words, there should

be a strong and active temperament; the Motive and Mental temperaments predominating, with enough of the Vital to convert food into nutrition rapidly and abundantly, in such a manner as to sustain both the physical and the mental powers. This would give ample support for all the duties pertaining to his labor, both of mind and body.



Fig. 1—THE GOOD TEACHER.

We introduce an engraving representing the good teacher. It is remarkable for the amplitude of the lower and middle sections of the forehead. If a line be drawn square across the brow to the outer angles, and two other lines be drawn from the corners of the brows to the top of the forehead, just where the hair is parted in the center, thus forming a triangle, it will embrace that part of the head which Dr. Gall in his early studies of Phrenology denominated the region of “Educability.”

The separate organs for acquiring education located in that region of the forehead have since been discovered and named. His was a generic idea full of meaning and of truth, and time has fully proved his wisdom and sagacity.

“ EDUCABILITY.”

The perceptive organs, located across the brow seem to be prominently developed in the portrait, while the middle section of the forehead, and the central portion of the upper part of the forehead are very strongly developed. In other words, the region of “Educability” is largely developed. By “Educability” Dr. Gall meant the power of acquiring education, the ability to gather knowledge and information, and to analyze and remember it; and this set of faculties is very marked in our illustration. The forehead has something of a retreating appearance, but this grows out of the fact that the head is very long from the opening of the ear forward to the root of the nose, and the lower part of the forehead is therefore very strongly developed. The perceptive somewhat predominating over the organs in the upper part of the forehead, serves to give it a retreating appearance. The eye, it will be seen, is full and prominent, as well as large, and there seems to be a fullness, or sack underneath the eye. This prominence of the eye and the fullness below it constitute the sign of a large development of Language, which gives the power to explain fully and easily what the person thinks, knows, or feels. The teacher especially needs this faculty, for one may be ever so wise, may be rich in all the knowledge and information pertaining to scholarship, and not be able to communicate it.

FORCE OF CHARACTER.

The head also appears to be broad in

the region of the ears, indicating courage and force of character, which the teacher requires in order to command respect. We find also the crown of this head, and that part which is located a little forward of the crown, to be large, showing ample Self-Esteem and Firmness; hence there is dignity, self-reliance, independence, stability, and steadfastness, and the power to wield government with state-like ease, and strength. Such a person has weight of character, as well as courage to impress it upon others, and it would enable the teacher to carry himself in the presence of pupils in such a way as to command their respect, and thereby secure their obedience without any friction or worry on his part, and with little thought of rebellion or disobedience on the part of pupils.

The teacher should also be well-developed, in the top-head, or the region of the moral organs, so that he may be kind, just, upright, and capable of impressing his pupils not only with his authority, but with the justness and the forbearance of his government. Nothing so seriously impairs authority anywhere, and especially so in school, as an exhibition of tyranny, unreasonable anger, unjust partiality, or favoritism in any form; and if the teacher also have large Veneration combined with Benevolence, he will not only be kindly and respectful, but devout in his bearing, and thereby enforce upon pupils the thought that there is a Higher Power, even above the teacher, and that an active and sincere reverence for authority is not a mean submission, but a virtue.

POLICY, PRUDENCE, SELF-CONTROL.

The wideness of the middle section of this head indicates a full degree of the organs of Secretiveness and Cau-

tiousness, which serve to give prudence, and a proper control of the feelings and expressions. Though the teacher should be free and easy in conversation, he needs that sagacity and reticence which is able to regulate his words and countenance; he should be able to "be angry and sin not," to feel annoyed and not show it; or to be delighted, or chagrined, and not have the pupils read the state of his mind. Nearly all teachers will readily remember incidents in which something superlatively droll or ridiculous has happened, that strongly provoked laughter, but which, if indulged in by the teacher, would break up all order in the school, and set the fun-loving children wild with merriment.



Fig. 2—THE POOR TEACHER.

The poor teacher has a head very different from the other. It is wide at the temples and forehead, and runs back to an edge at the rear, becoming thinner and thinner. Though there is considerable meditative power indicated by the upper part of the forehead, which gives the ability to understand theories and appreciate principles, yet the lower part of the forehead is not very well developed. He is not practical nor brilliant. Notice, also,

how small the eye is, and set far back, indicating small Language. A lack of power to appreciate particulars, and deficiency in the ability to express himself, are marked on the whole face and forehead. He has a dreamy, stupid look, as if facts were slow to impress him, and tardy and weak in expressions. Observe, also, how the top line of the head slopes backward, indicating small Firmness and Self-Esteem. The crown of the head is low and light. He lacks dignity and determination; he lacks sprightliness of thought, and power to talk and teach. His head, from which was procured a photograph to be engraved, is very narrow at Destructiveness, just above the ears, and at Combativeness, just back of that point, and he is deficient in courage, force, and energy. He lacks also that strength of the social affections which is necessary to give deep and tender love for children, and which is requisite to call out their sympathy and love, and make them feel that the teacher is a friend as well as an instructor. This head, then, is thoughtful, slow, sound, and sympathetic, but unpractical, lacking in self-respect, pride, ambition, and in those faculties which give force, energy, and thoroughness, and the power to command and to control. Such a teacher would be a failure in the matter of giving instruction, even though he might pass a good examination as a scholar. He would also lack the governing and supervising forces that would insure respect and enable him to carry the school onward in an orderly and successful manner. We need hardly add that as a teacher, fig. 1 would be cheap at any rate of compensation, because he has a favorable temperament and such mental developments as qualify him to obtain knowledge rap-

idly, understand it clearly, remember it tenaciously, and explain it quickly and fully; while fig. 2, though he might possess scholarly knowledge, it would be like the richness of dried quinces, reluctant to come forth, and he would be dear as a teacher at any price.

WOMEN AS TEACHERS.

If a woman must earn her living in the performance of duties other than those which belong to domestic life, we regard teaching as the best occupation for her as a whole. It demands, in the first place, good culture, which, in itself, is a desirable acquisition, and eminently useful to her in any department of life, after teaching may have been abandoned; so that the acquisition of education, such as may qualify her for a teacher, will not come amiss though she might not engage in that calling, or continue in it permanently as a life-pursuit. With the exception, perhaps, of medicine, we think a woman ranks higher to be engaged in teaching than in almost any other occupation which she could follow as a means of earning her living. Probably it would be found, if inquiry were made covering a given number of years, that more teachers find themselves invited to desirable positions in society through marriage, than from any other department of industry.

TEACHERS PREFERRED IN MARRIAGE.

Of course there are some reasons for her preferment which may be taken into account besides the position of teaching which she occupies. In order to be a teacher, she must have brain-force to acquire an education; and to enable her to succeed in teaching she must have vigor of body to give support to that brain; and these two conditions, from which come clearness and force of mind and physical endurance, make her superior to most women.

Besides this, it is an intellectual profession, and tends to give a woman more culture and power in her personal contact with society than she otherwise would have. There are many men of first-rate talent who have had less education than is desirable, and they feel the want of it; yet having been successful in business, and having attained to a higher position in society than their educational attainments would seem to warrant, they feel inclined to make up the deficiency, or rather, so far as may be, supply the lack of their own education by obtaining a wife who has been educated. Such a man, by selecting a successful teacher for a wife, obtains in her strong common sense, energy of character, and mental culture, which are great advantages to him, and much more useful, indeed, than would be the more artistically educated one, though an adept in elegant manners, trained in luxury, and passively carried forward by the current of social influences, without any serious exercise of intellect, talent, skill, and force. Besides, the teacher, like himself, has not been raised in luxury, but has been obliged to think and work, and knows how to appreciate a man who, though he lack culture, has the talent to make his mark in the world.

INFLUENCE OF CULTURE AND ECONOMY.

Moreover, a teacher acquires a certain earnest, straight-forward strength of character, that enables her to command respect, especially from sound, thinking, business-men, and more especially so from men who have been professionally educated. She thus learns to be self-sustaining, to despise sham, and pretence, and all that is soft, deceptive, and hypocritical, and thereby impresses men of sense and strength of character with the idea that she would, indeed, be a helpmeet, and not a drag

and a dead weight on their prosperity. Many a clergyman is wise enough to pass by the butterflies of fashion who have been educated in the ornamental branches to be merely elegant and extravagant pets, and wisely seeks as his companion one of those noble girls who has gained strength and culture in the profession of teaching, who would not be too proud to lighten the burdens of life with domestic industry as well as to cheer and encourage him in his labors by a sound and vigorous intellect.



Fig. 3—Mrs. E. P.—A STRONG CHARACTER.

Though this engraving shows the form of the forehead, the strength of the features, and the power of character, it hardly does justice to the original in smoothness and delicacy of expression. But here is a forehead that would carry knowledge and communicate it, that would gather facts, remember and impart them, that would analyze, discriminate, illustrate, and reason. What fullness in the outer angles of the brow, where Order and Calculation are located! What fullness across the middle of the forehead where Eventuality, or memory of facts, and Locality, or memory of places, are

situated! What a broad forehead in the upper region of the temple, how massive on the whole! what generous strength of face, what courage, what endurance, and determination are depicted!

Her eye is full, and her Language is sufficient to enable her to talk and write well. That head would make a first rate mathematician, and would impart knowledge in such a manner as to impress it upon the pupil for life. She takes in all surrounding knowledge, remembers facts, places, faces, and experience with remarkable clearness; and, fortunately, she has body enough to give support to her brain, so that there is vigor and endurance, both to the body and to the mind. She has a remarkably strong character, and if her history were given in connection with her management of hospitals for soldiers during the war, in which she spent thousands of dollars, and manifested eminent organizing and governing ability, her character as an able and large-hearted philanthropist would command the highest respect.

OVER-WORK OF BRAIN.

As society is at present organized, American girls who take to books and culture are very apt to develop the brain at the expense of the body while growing up to womanhood, and those who attempt liberal culture and professional duty are very liable to over-work with the brain, and break down through lack of that proper support which would come from a healthy and well-developed body. Teachers, therefore, should endeavor to cultivate physical strength and endurance as a basis on which the mental and moral qualities can be exercised. Though we have known a good many successful teachers who were neither large nor strong physically, yet certain it is that size and

weight, added to talent and culture, are no mean factors in the great work demanded of the teacher. A grand, personal presence has its advantages. One who is small is necessarily obliged to make up in tact, wisdom, and talent for the lack of power and presence, or fail in exerting the requisite amount of influence; and it is no disparagement to those who are slight, slender, and measurably deficient in muscular strength to say that it would be all the better for them if to their talents they could add size and physical power. There is a certain respect paid to size as a sign of power, especially by boys whose law is that of muscle; and though many can govern well by wisdom and sagacity, they could govern all the better if they had excellent bodily proportions. He, or she, therefore, who would be teachers, and who are fortunate enough to possess the best physical development in connection with excellent mental capabilities and culture, should rejoice and be thankful.

PLEASANT FACE AND VOICE.

It is also desirable that the teacher should have a pleasant countenance, and especially a pleasant voice. A calm, generous, and benign expression of face is very soothing in its influence; while a sour, frowning face casts a chilling shadow wherever its influence falls. If there is anything that signally disturbs the harmony of a school, and provokes acrimony and sets the nerves of every pupil in a state of irritation, it is the rasping voice of an irritable teacher. We have known some men whose voices sounded like the barking of a dog, and some women whose voices, to say the least, were not soothing to sensitive nerves. Though there are natural differences in voices as to relative mellowness and melody, those that are least smooth, rich, and

sweet, can be modified by effort; for it will be observed that persons with unfortunate voices frequently assume pleasant tones when they feel pleasantly, and have an agreeable mission to perform. Let the disposition, then, be kept as sweet and amiable as possible, especially by those whose voices are unfortunate in their tone and key.

OBSERVATION AND MEMORY.

It is of great importance that the teacher should be well endowed in the realm of mental development. The perceptive organs, located along the brow, should be large, so that the mind shall be quick to take in all the phases of the surroundings, and shall see all that is going on among the pupils. A person amply developed in this region carries his knowledge as it were in solution, and can recall on the instant all he knows of a subject. If a teacher is obliged to ponder and cudgel his brain for an answer when a pupil asks a question (see fig. 2), there may be half a dozen pupils in the school who have the answer ready before the teacher gets it. How much respect will they have for such a teacher? A smart boy or girl very soon comes to think, if the teacher requires a long time to recall his knowledge, that he is not really the mental leader in that school; but if the teacher carries in memory all he knows, and can launch it forth the instant he is asked (see fig. 1), every pupil in the school, and especially the dull ones, will think he is the prince of knowledge, and he will be likely to command the respect of all. The middle and upper portions of the forehead, in the regions of memory and reflection, also ought to be large. In short, the teacher ought to have a practical, a historical, and a reflective cast of mind. All his faculties being well developed

will enable him to be master in every field of knowledge, and he will not only be able to lead the school in all its departments, but command the respect of those most advanced and most brilliant, and this is a point of great importance to the teacher.

TALKING TALENT—SOCIABILITY.

The teacher should also have a full and prominent eye, which indicates facility of expression (see fig. 1), in order that he may be able to explain with ease, vigor, and gracefulness whatever he may know. He should also have a full back-head, where the organs of friendship, and affection, and love for children are located. He who can not gain the love of the pupils and awaken their friendly regard, is not likely to win their intelligence or hold their respect. A teacher may have breadth of mind and richness of culture, but if he lack the ability to talk as well as

think; if he can not express what he knows freely and promptly so as to instruct and edify, he is out of his place. He is like a pencil without a lead, or a musician without voice.

There is less training of students in the matter of oral expression than is needful; especially with those who are not by nature adepts in talking, or those whose diffidence tends to keep them silent. The good talkers monopolize in school and elsewhere the opportunities for speaking, and teachers permit oratory to be an ornament to the school rather than a matter of utility to the persons who are not gifted with free speech, and are glad to have the "poor speakers" not wish to speak. The result is a few speak well, but the majority are silent, or awkward and embarrassed if they attempt speaking, and many are thus made to suffer besides themselves.

[TO BE CONTINUED.]

FRANCES ANNE KEMBLE ON GEORGE COMBE.

EDITOR PHRENOLOGICAL JOURNAL:

IN the *Atlantic Monthly* for April of this year, there is an article under the head of "Old Woman's Gossip," and signed Frances Anne Kemble, a large portion of which is devoted to the subject of Phrenology and Mr. George Combe; and while in many respects the sections referring to these subjects are intensely interesting to every student of Phrenology, and readers of the works of Mr. Combe, yet I am sorry to say the so-called "Gossip" will not bear that scrutiny which every lover of the science of mind desires to subject not only his opinions, but also everything that may be brought under his observation purporting to be fact. As a piece of historical knowledge relating to Mr. Combe, we are extremely obliged to Mrs. Kemble for the information, but while admitting our indebtedness, we can not ignore the miscon-

ception and consequent misstatements contained in her reflections, so far as they deal with what every disciple of Mr. Combe knows to be the fundamental truths upon which Phrenology rests its claims.

Courtesy toward the eminent authoress of "Old Woman's Gossip" compels us to be lenient in our judgment of her references to Phrenology, but we can not consider the title of her article any passport to, or warrant for, what may prejudice the public mind in regard to a subject of which we are too well aware ignorance has already deformed many of its prominent features. Truth demands that errors, though unwittingly fallen into, shall be corrected, and the public mind enlightened, or at least directed into channels calculated to prepare the ground for its reception.

Although we are very sorry not to be able to say with Mrs. Kemble that we en-

joyed the friendship of Mr. Combe, we are happy, notwithstanding, to inform her that for the past twelve years we have been acquainted with his writings, and from a very intimate knowledge of them ought to be qualified to speak with confidence as well as accuracy of their contents.

The first statement to which we desire to call the attention of the many readers of this JOURNAL is to be found on page 457 of the publication alluded to, where the lady says, in reference to Mr. Combe: "He was a man of singular integrity, uprightness, and purity of mind and character, and of great justice and impartiality of judgment; he was extremely benevolent and humane, and one of the most reasonable human beings I have ever known." This is a very admirable recommendation, beyond which the most ardent lover of the works of Mr. Combe, and the science to which he devoted his brilliant talents, could not well proceed without exceeding the bounds of moderation in language. But when this encomium is contrasted with the next quotation, our high expectations fall, for a little lower down on the same page as the above, the fair writer says: "Although Dr. Combe completely indorsed his brother's system, he was far less fanatical and importunate in his advocacy of it, nor are his writings, like his brothers, so completely saturated with the theory of Phrenology as to detract from their general interest and utility."

It is somewhat difficult to consider Mr. Combe to have been "one of the most reasonable human beings" the writer had ever known, and yet at the same time to have been far "more fanatical" than his brother, which is what Mrs. Kemble asserts. Nor is it easy for Causality to perceive how Mr. Combe should be so reasonable, and all the while advocate, champion, and defend a system which, having saturated his works, "detracts from their general interest and utility;" unless it be maintained, as it tacitly is, that if he had been less reasonable, his works would have been more interesting and useful.

We regret for some reasons that our views on this matter differ from those of the illustrious author of the sentiments under

discussion, and if by any means she should ever become apprised of the fact, we beg to assure her that it is from no captious spirit that we except to her rendering.

So far from thinking that Phrenology has detracted from the general interest and utility of his writings, we most firmly believe, and confidently assert, that had not Mr. Combe made Phrenology the basis of his works, he would not have been able in a more extensive degree than his predecessors to give to the world those enlightened ideas on moral philosophy which have rendered him the immortal author of the "Constitution of Man." Without this their glory would fade—nay, more, they would have no existence, and, consequently, his reputation must stand or fall upon the foundation of Phrenology, which we humbly submit is not what Mrs. Kemble terms it, a "theory."

As to the statement at the head of page 454, charity and gallantry admonish us to say it must have been written with a partial knowledge only of the system and principles of the science of mind. The paragraph reads: "In the minute division and subdivision of the brain into separate chambers for every conceivable quality to which a specific name or place could be assigned, I do not believe."

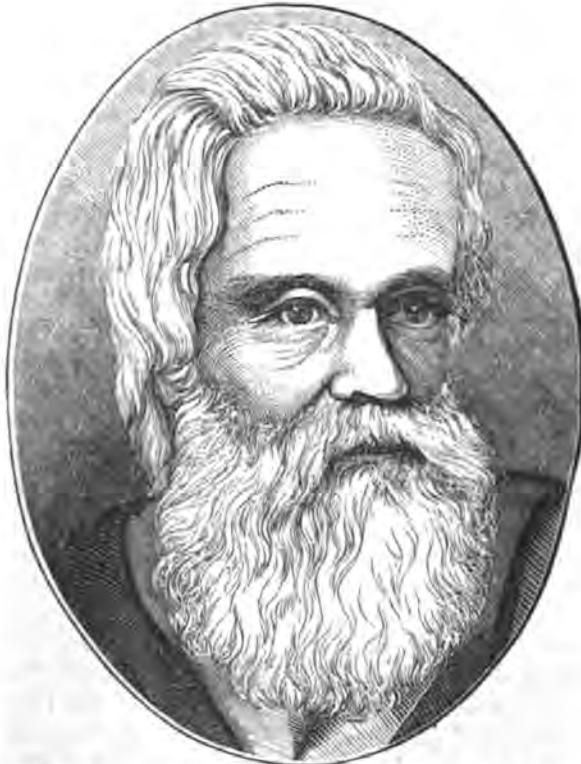
If Mrs. Kemble means to assert in this statement that Mr. Combe, or any other intelligent phrenologist, ever attempted to divide the brain into separate localities, and afterward assign names to the subdivisions, she must have written inadvertently, or as unacquainted with the writings of Mr. Combe. But if she denies that the functions of the several parts of the brain were discovered by observation and induction, and afterward established beyond the power of cavil to disturb, then her disbelief becomes unfortunate; because the standard writers upon the science never admitted any organ or faculty into the list until it was proved to exist. No name or place ever was assigned—except temporarily—to any portion of the brain which was not in the course of time, and by a multitude of observations demonstrated to be the seat of special qualities of mind. The manifesta-

tions were first observed, then the localities, and subsequently names applied to the localities of the brain, which were found invariably accompanied by those manifestations when the parts designated respectively were large and active.

There are other references to the subject of Phrenology in the article referred to, but as they have chiefly to do with the writer's opinions and not with facts, we pass them over for the present without special allusion, and in conclusion wish to say that we feel some pleasure in acknowledging Mrs. Kemble as "convinced of the general accuracy of some parts of the phrenological theory." It would however, be far more gratifying, considering the illustrious

family to which she belongs, to have seen her name subscribed—not as a believer in a theory—but as fully convinced of the system of Phrenology as expounded by her eminent acquaintance, who could, after a thorough and patient examination, affirm, "I speak literally and sincerely when I say, that were I at this moment offered the wealth of India on condition of Phrenology being blotted from my mind forever, I would *scorn* the gift; nay, were everything I possessed in the world placed in one hand and Phrenology in the other, and orders issued for me to choose one, Phrenology, without a moment's hesitation, would be preferred." Yours, very truly,

THOMAS TURNER.



SOCRATES, THE ANCIENT SAGE.

THE era of Greek philosophy was, without doubt, the most brilliant epoch in the world's history. It arose like an intellectual sun, casting beams of resplendent thought athwart the horizon, dispelling the darkness of primeval ignorance that still

rested upon the race. This era was heralded by the courageous and mighty efforts of Thales to solve the problems of nature and of life, and it reached its climacteric when that unrivaled intellectual luminary, Plato, touched the zenith of his power. It began

to wane with the advent of Aristotle's system of dogmatic empiricism, and it went out amid the wild orgies of sensualism evoked by Epicurus, and was succeeded by a gloomy night of materialistic atheism, whose dark pall has not been lifted from Greece and Rome to this day, under which those grand republics perished, and the civilization they had nurtured perished with them.

Previous to the advent of Thales, the Greeks had been soldiers and poets, Ulysses and Homer being true types of national character. They were an intellectual race, but they used their intellects almost solely in the interest of war. They were a poetic people, but their poets exhausted the resources of their genius in songs of praise to Ulysses and other heroes.

Thales conceived the idea that the human intellect had a higher mission than this. He devoted his life to the effort to discover the constitution of nature. He failed, but the noble and heroic effort inspired others, his successors, and for three hundred years the greatest minds of that country followed in the footsteps of the master, and earnestly sought for the key that would unlock the Temple of Knowledge and reveal to them the secrets of nature.

Like Thales, Anaxagoras, Anaximenes, and their successors, all failed of the great purpose, the discovery of the "laws of nature." But they had planted the seeds of thought, and the harvest came ere long. It was not the sort of harvest they counted on, but it transcended in its quality, as well as in its profusion, their most sanguine anticipations. The cumulative force of thought they meant to expend in the realm of fact, had been correlated into the highest form, that of metaphysical truth, and the era of philosophy is inaugurated.

Socrates was the first ethical philosopher of Greece, Plato the first metaphysical philosopher. This distinction is necessary to a proper understanding of these, two of the greatest thinkers whose names have been preserved in history.

Socrates confined himself to ethics and logic, and in his sphere of thought he has probably never had a rival worthy the

name. Plato, the favorite disciple of Socrates, is the author of metaphysics, and the most profound ontological dialectician the world has known.

Much confusion of opinion has resulted from Plato's magnanimous effort to glorify his master by giving him the credit of his own grand and beautiful thoughts by publishing many of his chief books under the title of "Dialogues of Socrates. One need only turn from these dialogues to those recorded by Xenophon in his "*Memorabilia* of Socrates" to be convinced that while Plato has truly represented his master's ethics, he has adorned them with a beautiful robe of Platonic transcendentalism.

Xenophon, being also a pupil and disciple of Socrates, is as credible a witness to his doctrines as is Plato, and being a historian by profession, and a soldier by trade, his record would naturally be more in the form of chronicle than of romance or poetry.

I have no thought, in presenting these views, of detracting from the fame of Socrates, nor do I hope to add to that of Plato, but I deem it of interest to be set right on historical questions that each great character may take his proper place, and be the more readily understood.

Socrates was born in the city of Athens, about 400 B.C. His parents were poor, hence unable to give him the advantages of a liberal education.

He was apprenticed to a sculptor at an early age, and acquired sufficient skill in that art as to be able to earn a living by it. His thoughtful and studious habits attracted the attention and won the admiration of Crito, an opulent citizen of Athens, and through his patronage he was enabled to secure an excellent education and the advantages of travel. After having read all the books of his time and country, and taken private lessons from the greatest teachers of art, science, and philosophy, Socrates felt called upon to evolve a system of moral philosophy that should lift men up to a higher moral plane than they had occupied before. With his strong, clear, honest mind, it was no difficult matter to discern the errors in the prevailing thought of the people, and to arrive at a sound sys-

tem of morals. But to get the average Greek to understand him and appreciate the beauty and truth of his views was not so easy. Indeed, it was a most difficult and dangerous task he had set himself.

The Greeks were pagans, whose gods were an ambitious, jealous, revengeful, capricious set, whom it were necessary to placate, flatter, and worship. Zeus (Jupiter), the father of the other gods as well as of men, a wise but imperious old fellow, resided with his wife Hera (Juno) on the summit of Olympus, where he held court and gave laws to the world, and conferred favors or inflicted punishments upon men through his subordinates (sons and daughters), Mars, Minerva, Mercury, Apollo, Venus, and others of still less note.

Piety consisted in a firm belief in these mythical beings, and morality in their opinions and actions. As no fixed principles of morality existed among the gods, right and wrong were questions about which room for difference of opinion existed among both the gods and the people. What was right at one time would be wrong at another, and *vice versa*.

Socrates secretly repudiated all faith in the gods, and based his ideas of morality upon the unvarying laws of nature and the true relations of men. But he was obliged to tacitly accept the superstitions of the people, and reason from their premises, for to deny the existence of the gods, or openly question their authority, would have cost him his life, and although he did not fear death, he wished to live for the purpose of teaching a sound philosophy, though he must do this in an indirect way. He was not an atheist, however; on the contrary, he believed most devoutly in one God, the author and ruler of the universe. And when he speaks as though he accepts the polytheistic theology of his race, it is to be understood that the gods he believes in are simply spirits of great and good men.

His mode of teaching was by a system of inductive reasoning, of which he was the author, and which proved very effective, especially with the better classes of minds. He would assemble the young men of Athens in the public market-place, and select-

ing one of the most talented, catechise him with questions of a semi-affirmative character so adroitly as to compel answers in accordance with his own views almost invariably.

Wisdom and virtue were his chief themes. Does not wisdom, he would ask, consist in the right use of knowledge? The youth addressed would answer, "In what else can it consist?" And is not knowledge that which we learn by observation and study? "How can it be otherwise?" replies the pupil.

"Crito, his early friend and patron, was one of his most devoted disciples, and the master often addressed himself to him, and so wise and well worded were his answers that the listeners could not fail to be deeply impressed with the truth and purity of the philosophy presented.

On proper occasions he would rebuke pride, ambition, or some other form of immorality, most severely, by a series of his peculiar sort of questions addressed to some young man addicted to the very vice he would condemn. His tact was something wonderful, but his sweetness of disposition and pathetic eloquence of speech were rarely equaled by mortal.

One of his disciples, Alcibiades, says, "When he speaks my heart leaps up, and my tears flow as the rain; and this I have often seen happen to others besides myself." He adds: "I have listened to Pericles and other excellent orators, but none of them affected me as does Socrates. Their discourse is pleasing, but when Socrates speaks of wisdom and virtue, I am filled with self-reproach and earnestly desire a better life. Surely his words ought to be obeyed as the voice of a god." Socrates was a law-abiding citizen, and, like all Athenian youths, he served as a soldier in his younger days, and it is recorded of him that his heroism was sublime, and his fortitude remarkable. By his coolness and courage he repeatedly saved the lives of his comrades, but he declined all honors, and refused office. He did not wish his name spoken in connection with any act of bravery or self-sacrifice. He had no relish for war, and only engaged in it as a matter of duty.

On his return from the Peloponnesian war he was chosen senator, and of such stuff was his integrity made that he could not be made to swerve from his principles by bribe or threat. Twice was his life in great peril, once from the rulers, and again from the mob, but nothing could move him. He at length decided that his mission was that of a teacher of philosophy, and resigning the presidency of the Senate, he took up the rôle of the philosopher, and spent his life in teaching the people without charge.

His wife, Xantippe, did not sympathize with him fully in this, but scolded a good deal because he would not have more regard for the advantages of wealth and position. It is not probable that Xantippe was more shrewish than a majority of the American wives of this age. I opine that few of them would be content with such a husband as Socrates.

The old philosopher strove to convince his spouse that he had chosen the path of happiness in selecting that of duty, but finding her incapable of appreciating his arguments, he ceased to argue with her, but listened in silence to her reproaches. It is said that he loved her sincerely, and did all in the power of a philosopher to make her happy, instead of seeking a divorce, as is the too frequent habit of men and women in these modern times.

It has already been stated in this article that Socrates was not a transcendentalist. On the contrary, he was eminently practical. He was the founder of that school of philosophy of which Dr. Franklin is the most illustrious modern disciple and teacher. Horace Greeley also belongs to the Socratic school of sages, though neither Franklin nor Greeley rank with Socrates in the matter of moral grandeur, ethical purity, or self-sacrificing devotion to truth. He disciplined his mind and body, says Xenophon, by such a course of life that he who should adopt a similar one would live in good spirits and uninterrupted health; and so frugal was he that I do not know whether any one could earn so little as not to procure sufficient to have satisfied Socrates. He took only so much food as he

could eat with a keen relish, and his appetite was the sauce he required for his meat.

"He drank only when he was thirsty, nor did he eat except when hungry, for, said he, such habits derange the stomach and cloud the mind. He was not only superior to all corporal pleasures, but also to those attendant on the acquisition of money, teaching the doctrine that he who loved money was in danger of becoming a slave to avarice, the most disgraceful sort of slavery."

Socrates taught chiefly the philosophy of practical life. He would converse with the mechanic about his trade, showing him the importance of being perfect in it. He discoursed with ambitious young men on matters of state, and, although they despised his noble principles, yet Critias, Alcibiades, Pericles the younger, and others who afterward gave bad laws to Greece, acknowledged their obligations to Socrates for teaching them the true principles of government, while he offended them by rebuking their vices. Social and domestic slavery were favorite subjects for discussion with Socrates, as were also friendship and the duties and responsibilities of parents and children, of ruler and citizen, master and servant, husband and wife. He taught entirely by conversations, and he wrote nothing that gives any distinct idea of his system of ethics. His efforts, so far as known, were confined to a few poems and a comedy, the latter intended, evidently, as a hit at some of the grossest superstitions regarding the gods. The charge of impiety was brought against him for this, but nothing came of it at the time. Some twenty years later, however, a notorious demagogue by the name of Anytus, seconded by the poet Miletus, accused him before the court of Athens of impious disbelief in the gods, and of corrupting the youth of the city by teaching doctrines not in accordance with the popular belief, citing the old play, "Clouds of Aristophanes," as proof of the charge. When brought before the court and asked to plead to the charge, he defended his doctrines with great eloquence, and refused to make

any concessions to the ignorance of his time and people.

A verdict of guilty was found, and the court sentenced him to die by poison. On hearing his sentence the old philosopher (now about seventy years of age) arose with that dignified and calm demeanor so characteristic of him, and delivered a most masterly defense of the philosophy he had lived and taught. Then turning toward the judges he said, "We must now depart, you to live and I to die, but which of us has the happier destiny is known to God only." The thirty days allowed him between the sentence and execution were spent in conversation with his friends on the great subject involved in his philosophy. I imagine I see that grand, pure old man, his form covered with a mantle, his white beard flowing upon his bosom, and his silvery hair resting upon his shoulders, sitting upon the prison floor in the midst of a group of his most devoted disciples, among them the immortal Plato, the world-renowned Xenophon, the eloquent Alcibiades, and the generous and loving Crito.

The master was about to leave them, and, although they had listened to his words of wisdom for twenty years or more, the fountain was not exhausted, and they hung on his words as though they had been the words of a god. Plato, though but a young man of thirty years, was a great favorite with his master, who strove to convince him of the truth of the immortality of the soul. This was the only doctrine of Socrates which Plato questioned. But this was so comfortable to the old philosopher, and life seemed so insignificant, if bounded by the limitations of time and sense, that he earnestly desired to convince his favorite pupil that this life was but a primary school. His arguments were, perhaps, the ablest ever presented by mortal on that subject.

When the time arrived for him to drink the deadly hemlock, and lie down in death, his friends were plunged into grief, but he was calm and undisturbed. What is it to die, he would say, but to remove from an imperfect to a more perfect state, where all the spiritual and intellectual powers are

quickened, and disease and physical disabilities are unknown, save to memory.

The chief thought of his last discourse was that man is a living, immortal spirit, who, starting on this planet, is left here as the plant in the hot bed, or the child in the primary school, until his parts are well formed and the foundation of his education laid. That he is then removed by death to a higher and better state of existence, where he is to live and learn forever. On account of these things, then (he said to his friends), man should have good hopes about his soul, especially if he has adorned it with those true jewels, temperance, justice, fortitude, freedom, and truth.

When he had expressed himself thus, Crito said, "We shall exert ourselves to act as you have advised us, but now tell us how we shall bury you. Just as you please; if only you can catch me and I do not escape from you. Upon this, smiling gently and looking around upon the group of friends, he said, "My friends, I can not persuade Crito that I am the actual Socrates who is now conferring with you. He thinks I am the person whom he shall behold a short time hence a corpse, and he asks how he shall bury me. But the argument which I urged at such length and for so long a time to prove that when I shall have drunk the poison, I shall abide with you no more, but shall take my departure hence for the happy state of the blest, this I appear to impress on him in vain, while I console by it both you and myself. Crito became security for me that I would not escape, but now I want you to be my security to him that I shall not remain, and that the body that is to be either burned or buried is not me. Don't say, 'thus we bury Socrates,' for to use incorrect expressions is culpable and injurious."

After further most affectionate and instructive communication he received the cup of poison from the officer, and quaffed it as one would a pleasant draught, and then having walked and talked awhile until the potion had nearly completed its fatal work, he lay down and expired. Thus Socrates died at the age of seventy-one.

T. AUGUSTUS BLAND, M.D.

SPRING.

A dreary mass, and lifeless,
Full long the earth has lain,
But now it is returning,
To life and bloom again.

The germ securely laying
Within the fruitful mold,
Will soon its blade and leaflet,
And blossom all unfold.

And freshly, soon, and greenly,
By all the paths we pass,
Meeting the sun serenely,
Will creep the cheerful grass.

The genial spring is coming ;
I listen, and I hear,
My heart glad with rejoicing,
Her welcome footsteps near.

With song the wild birds meet her,
The rills dance forth with joy,
The insect world, to greet her,
Their droning reeds employ.

And we from out the winter,
With cold and darkness rife,
Pass forth into the sunshine,
And take fresh lease of life.

MARIE S. LADD.

A PROBLEM OF FACIAL EXPRESSION.

LAVATER maintained that the minds of men are disclosed by the peculiarities of their faces. The fact that the minds of men are as different as their faces, calls attention to an argument from analogy that seems to point to the dissection of our mental peculiarities in such a manner that he who runs may read. Of course, Lavater's theory called forth the ridicule of many men of keen intellectual insight. The general dislike to become a walking sign-board for philosophical inspection excited much opposition to the theory. Lavater's theory implies that the body serves not only as the instrument, but as the expression of the mind. This is undoubtedly true, but it does not lessen the difficulty of observing the higher qualities of the mind by means of the coarser qualities of the body. Schiller pointed out the fact that the mind, when working at too high a pressure, shows a tendency to destroy the body, that beyond a certain point mental labor results in acceleration of mental action; and, further, that it is the lassitude of which thinkers complain so much which serves as a safety-valve, and which prevents the mind from destroying the body. This resistance of the body to the tyranny of the mind calls attention to the fact that the body is not entirely under dominion of the mind. Lavater assumes that the facial expression corresponds with the mind by a natural law. If this is true, then the influence of the mind in the formation of the features

by will-power is limited. The face expresses certain emotions of fear, joy, mirth, despair, anger; but these expressions are sometimes as mechanical as the movements of an automaton. They can be produced at will by an actor. There is apparently a confirmation of Lavater's theory in the well-known fact that constant repetition of an expression produces a permanent effect; but an assumed expression (like the look of benevolence in the face of Pecksniff) which may become habitual, would thus mislead the physiognomist. The wonderful inspirations of the mind by which it has flashes of insight, or the imaginary images which may appear in distinct outline to a man of genius, are higher qualities that can not be expressed by the face.

In fact, does not the attempt to narrow the mind to a mere mechanical expression of features seem an ugly limitation? Carlyle, whose views of life are often too desponding, calls man a "forked radish," and in his grotesque way pictures the people of London asleep at midnight with their heads full of foolish dreams. He also notices a self-evident fact—that man, with his wonderful possibilities of development, is united by an astonishing contrast to the most ridiculous weaknesses. We like to think, however, that the mind is complete master of the body; that our weaknesses are superficial defects of the body, to be easily remedied by force of will. Our ever recurring fallibility shows us the error.

But further difficulty in accepting Lavoisier's theory will be noticed if an attempt be made to classify minds according to faces. It may seem possible to discover superficial traits of the mind, and so from a part build the whole, as scientists build an entire geological animal in theory, with only a small bone to serve as a basis. Can the minds of men be as strictly classified as animals of pre-historic ages? Would it not be like trying to classify the millions of possible combinations in a game of chess?

The endless differences between minds, which we see faintly shadowed forth in innumerable lines of doctrine, or in religious and political beliefs, instead of lessening with advancing years, increase with the development of each mind, so that classification would be endless. In men of genius, these mental differences are so strongly marked that their work shows a peculiarity of tone which it is utterly impossible to imitate. This individual trait never re-appears in the work of other great men who follow the genius. It dies with the man. Great men are often so dissimilar that it is out of the question to compare the work of one with that of another. We measure their influence, and find that by different methods they have exerted astonishing power. If a mere physiognomist can reconcile the enormous differences between minds, with the apparently slight and superficial differences between faces, we must look to his science for something new and possibly valuable.*

WILLIAM A. EDDY.

COMPULSORY EDUCATION IN NEW YORK. A recent report submitted to the Board of Education of this city exhibits the practical working of the compulsory education law, which went in force on the 1st of February, 1875. By comparing the figures showing the average attendance on the above date, and those showing the same at

* Physiognomists, so far as we know, do not claim to be able to trace the very minute distinctions of character which exist among men, but to give the general bearing and tone of individuals, and what would be their probable conduct in a given relation of circumstances.—ED. A. P. J.

the close of December last, there appears an increase of 6,443 in the number of pupils registered, and of 6,515 in the daily average attendance. Including the increase of average attendance at the industrial schools also, the last mentioned figures are augmented to 7,614. In other words, in ten months, and at an expense of \$14,355.88 for the period, nearly 8,000 children have been induced to abandon a course of idleness and vagrancy, which was only fitting them to become paupers and criminals, and to enter upon a course of industry and instruction. This is a very encouraging showing for the early application of the law, and promises much for the future of young society in the metropolis.

TYNDALL ON SPONTANEOUS GENERATION.

FOREIGN exchanges communicate the information that Prof. Tyndall recently read a paper before the "Royal Society," on the above subject. The nature of his remarks and experiments, according to the *London Athenæum*, surprised and gratified his hearers. He showed, by brilliant experiments, that spontaneous generation is an absolute impossibility, and that if solutions open to the air soon swarm with life, it is because they have been impregnated by living particles floating in the air. It has long been known that air which has been thoroughly freed from floating particles by fire, the action of acids, or otherwise, will not produce life; and further proof was given by Dr. Tyndall's researches in 1868 and 1869, with the additional facts that filtering through cotton-wool clears the air as effectually as fire, and that air thus purified will not transmit light. A glass chamber filled with the purified air remains dark, even when placed in the track of a concentrated beam of light. There is nothing to reflect or scatter the light; and it may now be accepted as an axiom that air which has lost its power of scattering light has also lost its power of producing life.

Hospital surgeons have been for some time aware of the fact that air which has passed through the lungs will not cause

putrefaction. It has been filtered, and may be allowed to enter the veins without hurtful consequences.

The bearing of all this on the question of spontaneous generation is obvious. Pasteur has pronounced the spontaneity to be a chimaera, and that, this being the case, it should be possible to banish parasitic or contagious diseases from the face of the earth; and, from this point of view, it is easy to see that the subject has a wide bear-

ing on the phenomena of putrefaction and infection.

Dr. Tyndall now finds that air can be rendered optically pure by merely leaving it undisturbed three or four days in a close chamber. All the floating matter subsides, and the confined air will not transmit light. Solutions placed therein remain unaltered, though left for months, while similar solutions open to the ordinary air swarm with bacteria in twenty-four hours or two days.



Mrs. C. FOWLER WELLS, *Proprietor.*

H. S. DRAYTON, A.M., *Editor.*—N. SIZER, *Associate.*

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JUNE, 1876.

SELF-STUDY AND DEVELOPMENT OF
CHARACTER.

TO one living in a great city a vast variety of character is presented, and if he seek for some realization of complete manhood—of a mind developed harmoniously and working effectually, its success being clearly indicated in the serene happiness and contentment of its possessor—he will be likely to find it, at least in approximation, somewhere among the hundreds of thousands of the great population. We will not say that such a harmonious condition should be sought amid the temptations and perplexities of political life, or in the busy commercial mart, or in those walks of professional life which render a man rather the servant of those who employ him, than master of his own time and duties. Now

and then, indeed, commanding nobleness of character meets one in the official chair, or in the world of trade, and we are not wrong in making much account of it, however exhibited, whether through forces of circumstances acting happily upon faculties naturally strong, or as a spontaneous outflow of a highly-endowed organization.

It is said that the public men who elicit our admiration because of the part performed in some measure of state importance, are usually lacking in some qualities deemed essential in the true man; that the brilliancy of an official career is often deeply marred by private delinquencies. But, on the other hand, it can be said that there have been men related to prominent places of trust whose discharge of their duties won general favor, but who were not as highly esteemed as they deserved; the very publicity of their position serving to screen from common view the depth of character which they possessed. Only in the quiet haunts of the family-circle was it known how much of sympathy, simplicity, earnestness, and devotion lay within them.

It is in the retirement of the home and of the closet that the development of our nature in the direction of sympathy and pure affection finds its best opportunities. The strength of one's character, in the way of fortitude, courage, steadfastness, may be brought out in the whirl, excitement, and

contest of business and out-of-door life ; but much of that strength is found, upon analysis, to consist in an intense regard to personal interests, while the warm sentiment which looks upon the things of others generously and kindly is lacking.

The mighty ones whose history affords some glimpses of their personal habits were given much to solitary reflection ; their outer conduct among men was complemented by seasons of withdrawal from common observation. Who will say that it was not in the quiet of their retirement that were born the grand thoughts, schemes, and measures whose development in the affairs of men contributed to the progress of civilization? Plato, in his study, pondering upon the perfectibility of man ; Copernicus, in his tower of Frauenburg, contemplating the movements of the heavenly bodies ; Harvey, in his laboratory, musing over the mysterious movements of the life-fluid ; Gall, laboriously scrutinizing the conduct of men, and drawing parallelisms between mental characteristic and cranial contour ; Franklin, seeing in the lightning an agency of wonderful utility, are instances of the necessity of deep, searching thought if results pregnant with beneficial possibilities to man are aimed at. It is only in quiet, abstracted seclusion that the mind can yield itself up entirely to such thought. So in the study of the self-nature, for self-knowledge must precede the study of the world without, we must find frequent occasions for private and close reflection if we would acquire high capability in the adaptation of our powers to whatever work we may have in view, and would enjoy the best results as the fruition of our efforts. It may be, as Thales said, the most difficult thing in life is to know yourself, yet the necessity of self-knowledge is none the less paramount.

Montaigne sums up the importance of self-knowledge in an admirable manner, thus : " We find this great precept twice repeated in Plato, ' Do thine own work and know thyself,' which two parts, both the one and the other, generally comprehend our whole duty, and consequently do each of them complicate and involve the other ; for who will do his own work aright, will find that his first lesson is to know himself, and who rightly understands himself will never mistake another man's work for his own, but will love and improve himself above all other things ; will refuse superfluous employments and reject all unprofitable thoughts and propositions."

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THE ILLS WE SUFFER.

THE cry going through the land now-a-days is, " Corruption ! Corruption ! " No public officer seems to be considered above or beyond the reach of venality. The New York Canal ring, the Tweed ring, the Washington ring, the Credit Mobilier combination, the Whisky frauds, the bribes of Belknap, and the almost numberless other schemes for the robbery of the nation, or a state, or a community, have by their revelation induced a widespread belief that men who are intrusted with the functions of office will, as a matter of course, use the opportunities which arise for reaping profits outside of their salaries. In other words, the official, no matter how dignified the position, is expected to act the part of a knave, for large or petty gains. That there is much warrant for this opinion we regret our inability to deny, but we can not think that the times are so desperately bad that only

" The post of honor is a private station."

Furthermore, the spirit of investigation which animates political circles, and even the bruited suspicion concerning the con-

duct of men in high office, evidences that the principle of integrity, the sentiment of honor still exist in those who are related to civil affairs, and that back of them are the lay masses of the people, who would have justice meted to the guilty.

War in its continuance and in its sequels is fraught with great evil to a nation. We are still suffering the consequences flowing from the abnormal relations which were forced upon trade and society by the recent struggle, and have but now begun to look affairs in the face. Perhaps we have reached the bottom of our troubles. At any rate, the people have suffered enough and learned enough to organize a course of action in political as well as commercial affairs which shall be characterized by prudence and economy. They can, if they will, insist upon the honest and faithful administration of official duty. They can stop extravagant mannerisms and fashions in the domestic circle and in the walks of leisure and recreation. They can manage business with a closer regard to utility. There is no lack of intelligence, no want of competence for these duties. The people simply have to determine upon such a course, and in its energetic accomplishment will secure the revival of business and industry for which they yearn.

PHRENOLOGY IN GENERAL LITERATURE.

OUR attention has been directed to certain artistic expressions in two well known illustrated weekly newspapers, which have a bearing upon the subject it is our province to consider specially. *Harper's Illustrated Weekly* for April 22d has a neat engraving entitled "Reading for a Degree," the subject of which is a young lady absorbed in studies apparently bearing upon some department of science. The air and

appointments of the room in which she sits have a professional impress, and one of the prominent features of her surroundings is a bust marked after the manner of Phrenology. Evidently, then, the student deems her course of preparation incomplete without some researches in brain organization according to Gall and Spurzheim. This, we think, true enough, and would have all follow the example which the artist has thus discreetly set, and learn somewhat of the inner workings of the human mind as a prelude to the active prosecution of any calling.

In one of the editions of *Frank Leslie's Illustrated Newspaper* for April, a large cartoon was published which represents President Grant with a very bare head on which is outlined the names, for the most part intended for the nonce, of qualities supposed to be conspicuous in his character. Of course the phrenological symbolization is the method imitated by the artist. The bit is a political one, and has some point in its application to the President's firmness in opinion, etc., but the configuration is not true to nature, for President Grant's head is relatively higher and deeper than the cartoon shows it, and is, therefore, a much better head than the cartoonist makes it appear.

One thing, however, connected with those strokes of sentiment and humor, and which we deemed a reasonable association, is the apparent sincerity of their application, the artist resting confidently in the expectation that the reading and seeing public will comprehend the broad significance of their designs. Here is the presumption of a wide-spread knowledge of the principles of phrenological science, and as it is the rule for people to believe what is generally known, we are encouraged in the thought that the true mental science has taken a deep hold of the popular conviction.

THOSE OLD, OLD NOTIONS.

THE editor of the *Prattsburgh News* has been inquiring into the influence of the "unlucky day" notion upon steam travel. We quote:

"We remarked to a conductor on the Central road west of Syracuse on Friday last, 'You have a light train to-day, travel must run very light.' 'Yes,' he replied, 'this is Friday, people do not travel on Friday; I carry on an average 150 less passengers on this than on other days of the week. It is a fact, sir, people are superstitious.' 'Would you prefer to see the moon over your right or left shoulder?' 'Many an engineer nails a horse shoe on his engine as an omen of good luck; for the same reason New England people nail a horseshoe on the bottom of the churn to keep off the witches; fact, sir, though they will not own it, it is true, and every Friday on this train, there is evidence of the truth.'"

Probably this superstitious view of Friday is one of the most prevalent of unwarranted notions as it exists among all classes of people. We are frequently surprised by remarks on the part of persons having superior culture and refinement which indicate a superstitious regard for "signs and omens." A remark will be made something in the tone of a jest, yet the half-seriousness of the facial expression will convey to the close observer the impression that under the cloak of an assumed carelessness the speaker entertains a feeling that there is more truth than poetry in the old predictive saying. One of a group of well educated people sitting on a broad piazza in the evening twilight, says with the suddenness of discovery, "There's the new moon!" "Where?" "Where?" immediately respond several voices, the owners of which, assume involuntarily an attitude which may enable them to obtain their first glimpse of the silver crescent "over the right shoulder." Of course, none of

them *believe* that good or bad fortune has anything to do with the way in which they see the new moon. Oh, no, they would indignantly repel the intimation, but somehow they would prefer to see it to the right of them. And so it is with reference to many other prognostic notions which have come down to us from a remote and rude age, and seem to be so deeply implanted in our human nature as to forbid eradication. In fact, there are elements of supernaturalism in us which find their expression in one way or another, and the association of a prophetic significance to what are in most cases but common incidents of life, is but a phase of their influence.

 CONSOLIDATION.

THE publisher of the *Science of Health* has deemed it wise to suspend the issue of that periodical as a separate work, and to incorporate it with the PHRENOLOGICAL JOURNAL. In view of the excellent work which has been wrought by that monthly during the four years of its existence, its suspension is keenly regretted. However, it will not be entirely lost to the reading public, as it is proposed to give it a representation within the covers of the PHRENOLOGICAL. When the *Science of Health* was started, it was designed to embody in an elaborated form principles of physiology and hygiene which had been advocated through a department of the PHRENOLOGICAL devoted to the discussion of sanitary matters, and with its publication that department was suffered to decline in interest, although intimately enough related to Phrenology. Now, we shall re-instate Physiology and make the subject of Health a feature of prominence, as it certainly should be in a magazine which treats of the relations of mind and body. The July number, the first of

Vol. 63, will therefore combine the interests of the PHRENOLOGICAL JOURNAL and *Science of Health*.

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GIVE IT YOUR SUPPORT.

THE Woman's National Christian Temperance Union, of which Mrs. Annie Wittenmeyer, of Philadelphia, is President, and Frances E. Willard, of Chicago, is Corresponding Secretary, is an organization of which American women and American men should feel proud. It has taken so powerful a stand in support of the rights of society against licensed evil-doing, that much permanent good has already been accomplished. The enthusiasm which the late crusade movement created was not permitted to expend itself in mere sentiment, but was applied in a practical and energetic manner to the development of means and influences antagonistic to those so powerfully deplored by the liquor traffic. Some of the results are seen in the fact that twenty-five States have already organized these Unions, and others are falling into line. A National Temperance Union has been formed, and a paper, edited and published by women, has been established. Juvenile and Young People's Unions and Reform Clubs have been generally organized. Temperance Reading and Coffee Rooms and Friendly Inns have been provided as an offset to the "accommodations" afforded by saloons. Religious services, conducted by women, have been regularly held in towns and cities in all parts of the country.

Now that the women of the land have buckled on the armor and entered the lists, we feel confident that the enemy will no longer chuckle in security over the gains of his nefarious trade, but will tremble with apprehension of near defeat and total discomfiture. Feeling far more intensely than

men the moral and physical ravages of alcoholism, the women can not tolerate half-way measures, and will inspire the cause of Temperance and purity with such energy and method as it has never before experienced.

Part of the plan of the Union is to hold a Convention in Philadelphia on the 10th of June, and to follow that with discussions and exercises which will probably occupy several days. On the 13th of the same month a fair will be opened at Horticultural Hall, Philadelphia, under the auspices of the Union, its object being to procure the necessary funds for the prosecution of the work. The officers of the National Union have the matter in hand of providing accommodations at reasonable prices for the representatives of the different branches of the society, and of those women who desire to attend the Convention. The two ladies we have named can be addressed for information in regard to this important matter.

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HOW TO LEARN PHRENOLOGY.

WE are receiving numerous inquiries for circulars describing the course of instruction in the American Institute of Phrenology, the sessions of which for 1876 are to be opened upon July 6th and November 10th, and we have every indication of the assembling of very intelligent and full classes. The professional world is beginning to inquire as to the uses of Phrenology. Ministers are finding out that those who understand this subject are better able to treat the questions arising in their profession than those who are not equally learned. Teachers are beginning to ascertain that the way to apply their skill in the instruction of pupils with different casts of characters, is to find out

what Phrenology says on the subject. Many physicians are already well-read in Phrenology, and those who understand it know better how to manage their patients, how to encourage the hopeless and the extra cautious, and how to present the truth to patients and the families having care of them in a way that each class of persons will be rightly affected by the directions given.

College students who are looking forward to professional life are beginning to inquire how a thorough knowledge of practical Phrenology will aid them, and, though we do not exclude any from the July class who may desire to attend, we have special reference to ministers, teachers, and students whose vacations occur during the season in which the summer session will be held.

The eleven sessions which have been held have contained, in nearly every instance, at least one minister of the Gospel,

and generally one or more physicians. Our last class had two ministers, one being a Quaker lady. She now lectures on Phrenology during the week, and frequently preaches on "first day." Women are invited to learn Phrenology on an equal footing with men, as regards advantages, but at less expense for tuition.

We may not live to see all ministers and teachers in possession of the knowledge which our science offers, but if we had fifty years longer to work we should expect many thousands to become thoroughly imbued with the knowledge, and many other thousands to be largely improved in their information with respect to the mind and its methods, and the proper way of cultivating and guiding it.

Persons desiring to become students in either of the sessions for 1876, and all who desire information respecting the Institute, are invited to send to this office for a circular on the subject.

AGRICULTURAL HINTS.

[The mind is the man. Farming, in the highest sense, is not simply doing the hard work necessary. This can be done by muscle when directed by brains. The true farmer is he who can plan, direct, and control skillfully.]

Best Varieties of Grapes.—It is very difficult to say what varieties of grapes are best for different States; but where the Concord fails (and that is seldom) one will find it difficult to grow any variety with much success. That variety is at present the most popular everywhere of any in the United States as producing good crops with little labor. Rogers' hybrids prove to be very productive in some places, and are worthy of a trial in soils that naturally contain considerable lime—where the well water is hard. Some of them are very fine, as Wilder (No. 4), Agawam (No. 15). These are the best, and they ripen with the Concord. For earlier varieties, there are the Hartford Prolific, Adirondac, and Creveling, being about a week earlier than the Concord. The Eumelen, Israella, Senasque and Iona are some

of the newer varieties that ripen about the same time as the Concord, and have a fair reputation.

A Labor Saving Washing Liquid.

—Many laundresses save a vast amount of hard labor when washing clothes by employing the following preparation, which, it is said, will not injure linen nor cotton fabrics. When the number of garments to be washed is small, one-half or one-fourth the quantity mentioned may be employed: Dissolve two pounds of bar soap in about three gallons of water as hot as the hand can bear, and add one tablespoonful of turpentine and three of liquid ammonia. The mixture must be well stirred, and the clothes steeped in it for two or three hours, taking care to cover up the vessel containing them as nearly steam-tight as possible. The clothes after-

ward should be washed out and rinsed in the usual way. The soap and water may be repeated and used a second time, but in that case a teaspoonful of turpentine and a teaspoonful of ammonia must be added. The process is said to cause a great economy of time, labor, and fuel. The clothes will not be injured at all, as there will be little necessity for rubbing, unless there are places exceedingly dirty. When wristbands and collar bindings have been saturated with perspiration, and the dirt has been dried in, there is no washing preparation in use that will remove the dirt without some rubbing.

Fruit Tree Trimming.—Of all the blunders, says the *Gardener's Monthly*, that the common farmer and some others make with trees, none is so common or so hurtful, and which he is long finding out, and of which he might know so certainly, as the practice of cutting off lower limbs. All over the country nothing is more common than to see mutilated trees on almost every farm. Big limbs cut off near the body of the tree, and of course rotting to the heart. This is a great sin against nature. The very limbs necessary to protect the tree from wind and sun, and just where limbs are needed most, are cut away. But the greatest injury is the rotting that always takes place when a big limb is sawed off—too big to heal over, it must rot, and being kept moist by the growing tree, is in the right condition to rot, and being on the body, the rotting goes to the heart and hurts the whole tree. It is common all over the country to see large orchards mutilated in this way. We often see holes in the trees where big limbs have been cut away, where squirrels and even raccoons could crawl in. Perhaps the only reason these trimmers would give is that the lower limbs were easiest got at, and some would say they wanted to raise a crop under the tree.

What Crops Leave in the Soil.—It has been found by some remarkable experiments made in Germany by Dr. Weiske and others that the stubble and roots left in the earth by crops that have been harvested add to the soil much more nutritive value than is commonly supposed. These experiments fully explain the great value of clover as a preparatory crop for wheat, and for all other crops which are not manured with nitrogen, potash, and phosphates.

The clover of a single acre has been found to leave nitrogen enough for 116 bushels of wheat, phosphoric acid enough for 114 bushels, and potash enough for 78 bushels. Moreover, it is found that most of this valuable material is left in the best possible condition for use. Whether the nitrogen of the clover comes wholly or partly from the soil, or from the air, it is certainly taken from a condition in which it is of little use to most crops, and is converted into an available one, so that practically the clover is a creator of nitrogen in the soil, as it is also an efficient purveyor of potash and phosphoric acid.

Small Seeds in a Pound.—The number of seeds of wheat in one pound is 10,500.

The number of seeds in one pound of barley is 15,400.

The number of seeds in one pound of oats, 20,000.

The number of seeds in one pound of rye, 23,000.

The number of seeds in one pound of buckwheat, 25,000.

The number of seeds in one pound of red clover, 249,600.

The number of seeds in one pound of white clover, 686,400.

Don't Hitch Horses to Trees.—Why not? Because almost every horse will surely commence *gnawing*, gnawing the bark until the body of the tree is thoroughly girdled. Most horses appear to be endowed with a passion for gnawing large trees and nipping the tops of small ones, whenever they are driven so near that they can stretch out the nose, and snatch a mouthful of thrifty branches. It is an inexcusable practice to hitch horses to ornamental trees, or even to large fruit trees that have a large and tough bark.—*Practical Farmer*.

Planting Potatoes.—A writer in the *Columbia Republican* concludes that his experience of the last twenty-five years goes to prove that the only advantage in planting large potatoes is the sustenance they afford to the growing tubers. If a large potato be planted uncut, it acts in some degree as manure, till decomposed, and is a great aid to the growing plants in times of drouth, while a small one would produce neither of these benefits. But in rich soil, and in seasons of abundant rain, small potatoes will produce as

good crops as large ones. The usual practice of cutting large potatoes into several pieces may be continued with general good results, according to the practice of farmers, for generations of time; but they should be cut lengthwise, each part to contain a portion of the eyes of the seed ends of the potatoes. Planting in hills, about three feet apart, produces about the same crops that planting in drills does, the seed being placed a foot apart in the drills, but in less quantity than on the hill system.

A Horse and a Donkey.—Some animals have been known to act very much as some boys and girls sometimes act. Two horses shared the same stable, one of whom became very angry whenever the groom came in and petted the other horse. She would not eat, but showed her displeasure by kicking furiously. In another stable were a cow and a donkey. When the milk-maid came in and sat down on the stool by the cow, the donkey always came close to the woman and rested its head on hers until the milking was done; thus wistfully asking for a share of her attention. Which do you think was the wiser animal, the horse or the donkey? I have seen little children act like both of them.

Exhaustion of Soil.—The exhaustion of the soil by constant cropping is a subject that farmers can not study too carefully. It shows that where the drain upon the soil is continually going on, the supply of manure should also be unceasing and abundant. The four crops that make up the usual rotation in this country are wheat, grass, corn; and oats. These crops require for their growth the following mineral substances, and, therefore, invariably abstract them from the soil in such proportion as the peculiar need of each crop calls for. The following table shows the number of pounds of each mineral element taken from the soil by the several crops:

	WHEAT.	HAY.	CORN.	OATS.
	Grain, 28 bu. Straw, 2,500 lbs.	2½ tons.	Grain, 80 bu. Stalks, 4,000 lbs.	Grain, 40 bu. Straw, 2,000 lbs.
Potash.....	30.81 lbs.	129.79 lbs.	76.3 lbs.	41.71 lbs.
Soda.....	4.04 "	4.30 "	2.5 "	6.10 "
Lime.....	9.57 "	35.46 "	20.9 "	15.00 "
Magnesia...	7.03 "	9.62 "	15.8 "	9.54 "
Chlorine...	—	39.61 "	—	5.75 "
Sulph. acid.	3.87 "	16.57 "	10.3 "	5.18 "
Phos. acid..	19.38 "	91.79 "	31.7 "	32.42 "
Silica.....	73.90 "	133.67 "	72.5 "	75.12 "
Total.....	148.60 "	391.31 "	230.1 "	192.42 "

Wire Fences.—Says a correspondent of *Inter-Ocean* who has had much experience with wire fences: "I would not recommend straight wire with patent barbs, as it is liable to break in cold weather. There is a twisted wire with barbs that does well, as it is said the twist will allow it to expand so that it will not break. Of this kind I have some on my own place. It is a perfect fence for any cattle or horses. I have three wires, and posts two rods apart, but on level ground they might be three or four rods apart."

The Use of Dynamite in Clearing LAND.—The value of this explosive in agricultural operations has been favorably shown in a recent clearing of a tract of land in Ireland. The land was so covered with bowlders as to be useless on account of the cost of removing them, until dynamite was tried. Charges of two ounces in a six-inch hole shattered immense sunken bowlders, so that they could be removed with ease, and the pieces used in building walls without dressing. Loose bowlders were broken up by placing charges of dynamite upon them and covering these with other bowlders. The explosion broke both the bowlders into fragments fit for building stone. We have seen dynamite used with perfect success in blowing stumps to pieces preparatory to the final clearing of forest-land.

A Good Apple to Keep.—The writer in the *Springfield Union* says that on the 19th of July he ate the last apple of several barrels of Northern Spies, put into the cellar of a gentleman at South Deerfield, Mass., and which had only ordinary care. It would not be true to say that this specimen was as it would have been three or four months earlier, but it was the best apple, by all odds, that he ever ate so late in the season. It was not preserved by withering and partly drying up, as is the case with russets preserved till summer, but was fresh, crisp, juicy, aromatic—a real apple, and not an apology for one. With more Northern Spy trees in our orchards, and a little more attention paid to keeping them, it would be possible to have apples in New England the entire year round.

The plowman must go up and down, and whatever else may be done, there is no other but this long way to do the work well
—*Dutch Proverb.*

Our Mentor Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

Go Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

INTUITIONAL IMPRESSIONS.—"How could the oracle that Cræsus consulted at Delphi, in Greece, give a true answer concerning his employment at that hour in Sardis, Asia Minor?"
E. M.

Ans. There is a medium or ethereal substance of inconceivable subtilty pervading the cosmical universe, which mirrors and transmits the impression of every action, whether mental or physical. Persons of exquisite sensitiveness can detect these impressions, and those skilled in such matters are able, in addition, to render and interpret them. "I can see the present and the future," says Apollonius, "as though it were in a clear mirror." Young girls were usually appointed to the mantie office at Delphi, as being especially pure and in wholesome bodily conditions; and their sensitiveness was intensified by the inhaling of a gas that oozed from the earth, which enabled them to perceive by preternatural powers matters at a distance, as, for example, what the Lydian king was doing. The faculty is innate, though generally smothered by our every-day life. Yet it crops out frequently. Persons coming into the vicinity of others impress themselves upon their thoughts so as to be spoken about, before their presence is actually noted; and it is asserted that an individual, by concentrating his mind upon another, however distant, will make him conscious of him, sometimes even to seeing his form and hearing him speak. See 2 Kings, vi.: "Elisha the prophet, that is in Israel, telleth

the King of Israel the words that thou speakest in thy bed-chamber."

ONE-SIDED SYMPATHY.—"Why is it that some persons who are constantly giving comfort to others, and sympathizing with them, rarely, if ever, receive the same in return; but are treated instead as though they were above the want of either?"

Ans. Sometimes from incapacity, sometimes from heedlessness, ignorance, or even a low selfishness on the part of those who received the benefit. A lesser nature can not take the measure of a greater, any more than Sir Peter Parker's negro servant could measure the Atlantic ocean with a quart pot. No one is recorded as more sympathetic than Jesus; yet when in his agony the red sweat oozed from him the three chosen disciples slept, and he had to endure his anguish alone. Many never think that a person who has aided them can ever want aught of the same kind. Besides, in these days, gratitude has degenerated to the Talleyrandic character; good offices and sympathy which have been received may be forgotten or disregarded; but only those may be remembered from whom further favor or benefit is to be expected.

REGIMEN FOR WEAK LUNGS.—"Please prescribe the diet, exercise, and work most suitable for a person with weak lungs."

Ans. Any food that will not create dyspepsia is good—the more nutritious the better. Unbolted wheat flour is excellent; fine flour and fermented bread are to be generally shunned. Flesh should generally be used sparingly; also starchy foods. Tea and coffee are seldom beneficial. The exercise should be regular and abundant, but always stopping short of fatigue. It should be taken in the open air, and, as far as possible, in the sunlight. But special precaution should be taken against raw winds and rain-storms. The work should be attractive, so as to occupy the mind, not too sedentary, not in a room with close atmosphere or draughts of cold air. It should never be prosecuted to fatigue, or to a late hour at night. Weak lungs are generally an effect of disordered digestion, and too much brooding over one's ailments and gloomy lot. There are also personal habits, especially of a mental character, that promote nervous disorder, and the lungs fail to act freely

when the integrity of the system is thus impaired. But disease seldom originates in the lungs; it comes oftener as a secondary matter.

CHARACTER FROM LIKENESSES.—"Can you give a correct description of character from likenesses, if they are properly taken for the purpose? I live more than a thousand miles from New York, and I am anxious to obtain a description of my character from your establishment if it can be done from portraits."

Ans. We have done thousands in this manner, and the numerous cordial letters we receive respecting them assure us that the work is well done. We have on our table a letter just received from a man in Colorado, to wit:

"Messrs. S. R. Wells & Co.: I received the description of my character in due time, and am pleased with its truthfulness, for it describes my character to a fraction. I am going to follow your instructions in regard to a pursuit. E. W."

Persons who desire to avail themselves of our aid in this way, or any who would like to know about it, may send to us for the "Mirror of the Mind," which will inform them how to have likenesses taken, what measurements of head and body are desired, and also what description of complexion and temperament would be useful to us in estimating the constitutional health, adaptations to particular pursuits, and also how parties would be adapted to each other in marriage, etc.

RED NOSES.—"I am troubled with a red nose. Please tell me what is its cause. I use no tea, coffee, tobacco, nor alcoholic liquors.

J. W. M."

Ans. You may be troubled more or less with indigestion, which conduces to an irregularity, or lack of balance, on the part of the glandular system. One prominent cause of red noses is cold feet. Another cause, not so frequently thought of, is the wearing of a tight collar. At any rate your circulatory system is not in the state of freedom which is desirable, and the suffusion of your nasal protuberance is a symptom of some congestion.

DOMESTIC INFLUENCE.—S. R. W.—Some persons possess a powerful magnetism which may be exercised upon individuals of a certain temperamental susceptibility. The man you mention in such strong terms has a powerful organization, a dominant will, and a fondness for showing his power, while the woman, his wife, is of a comparatively weak, subservient nature, lacking in the elements of positive individuality. Send stamp and we will furnish the circulars, catalogues, etc., you request.

DEAFNESS.—A. T. S.—A personal examination only could determine the cause of

your deafness, whether it arise from an affection of the nerve, or injury to or thickening of the tympanum. It may be hereditary, as your ancestors were so affected. Yet there is hope if you experience any improvement.



INFLUENCE OF PARENTS IN MOULDING CHARACTER.—About thirty-five years ago, the writer lectured on the Science of Phrenology in Northern Ohio. On one occasion he was examining the heads at his hotel, and the sitting-room was nearly filled by visitors. A boy about ten years old was presented by his father for examination. A description of his natural character was given, and the boy disappeared in the crowd.

An older brother was then examined, after which the father remarked: "You have given this boy's character correctly—better than I could have given it myself. Then, as I supposed, the boy first examined was again presented. The father remarked: "I would like to have you examine this boy again, I am not quite satisfied."

On re-examining, as I supposed, the first description of character was re-affirmed. When suddenly, another boy—who to all appearance was the same boy I was examining stood before me—he was really the first one examined. The joke was now understood. The boys were twins—exact mates. With a deep interest I then examined each head, and carefully compared them. No perceptible difference could I discover in the two heads, and it was claimed that the natural character of the two boys should be alike.

The father then stated that the character of one of the boys was correctly given, and that the other was like him excepting in one particular, that he was more fretful and peevish in temper. I then remarked that if what the father had said was true, there must have been a difference in the training of the two boys. The father then told us that the boy with a peevish disposition was nursed by his mother, who was sickly and fretful at the time, while the boy whose amiable disposition was what his phrenological developments indicated, had been nursed and trained by a healthy, good-natured aunt.

The father further informed us that their school teacher could never distinguish one from the other by their looks or their capacity to learn—if one was absent it was scarcely known which one of the two it was.

H. BUCKLEY.

MOUNTAINS AND THEIR INFLUENCE.—

I was born under the shadow of a lofty range of the Green Mountains. Thank God for that. The uplifting of soul, the longings for the grand, the heroic, with which they inspired me, has never vanished amid the stern realities of this work-a-day world. The dreams that I dreamed lying on the grass of our door yard, while gazing at their far summits, the merry times I had later, in climbing them with gay parties, the exaltation of soul with which panting and exhausted I had gained their highest point, and with spread arms gave one grand "all hail!" e'er sinking down to rest, comes back to me at this moment like a rush of wings. To me the very sight of mountain or hill is uplifting. I seem to breathe freer, to rise above for the time being earth's drag-downs. But, I am aware, many are quite otherwise affected by them.

The first time I visited my native home, after my marriage and removal to a distant city, taking with me my eldest daughter, to whom I had often described enthusiastically the charming scenery, how was I surprised as the fine, old mountain range green with the luxuriant foliage of June burst upon us, to see her shrink somehow within herself as though oppressed with a nameless fear. As the cars swept along she grew sadder, and upon arriving at our friend's house, she sat down and burst into tears. And every day of our visit, which I shortened on the account, she seemed ill and desponding and tearful. We could not elicit a word of praise. No, she shiveringly declared, she did not like B—. Now, my younger daughter, visiting these scenes, agrees with me in their loveliness, their grandeur, their uplifting, strengthening influence.

We have a friend, a young married lady, who with her husband has recently removed to the Far West, to a small settlement nearly opposite Astoria, Oregon. She writes us, "I wish I could give you an idea of the scenery about our home. Around on all sides but one, rise lofty mountains covered to the top with tall pine trees, some of them dead and fallen over," and then she describes the appearance of some of them, and adds, "Oh, it seems so awful to me, these mountains, somehow, that I am homesick all the time." Now these persons to whom mountains were so oppressive, were much alike in temperament. Both have a weak physical organization, are of a strong social spirit, very much dependent on society and pleasant surroundings for their happiness, and not able to absorb themselves in books or literary pleasures.

I believe it has passed into history that the natives of mountainous countries are more daring and courageous, with more enthusiasm and sublimity of imagination, than the dwellers of

plains, or the rolling prairies of the west. It has been said, "You never can make a slave of a mountaineer." Judging from my own feelings, I think it would be a difficult matter at least. I tried to comfort my young friend at the west in my reply to her letter, by saying, "that to me, the 'terrible' mountains all about her would seem like the near presence of God himself with great protecting arms; that I should need no better sanctuary (there was no church or place of worship in the settlement), and that I should call to mind constantly in my loneliness, were I in her place, the words, 'As the mountains are around about Jerusalem, so the Lord is around about His saints.'" She was motherless, and had buried her only child on the journey out, and that, doubtless, contributed much to her depression.

How often and how prominent in Old Testament descriptions do mountains and hills find place! I recall Ararat, Moriah, Sinai, Horeb, Pisgah, Mount Ephraim, Carmel, and a host of others, all memorable for the display of God's power. I recall the words of an old and beloved missionary now in Syria. He was visiting his home in Massachusetts some ten years ago, and at a meeting at which he presided, he said these words, which could not fail to find a responsive chord in my own heart.

"I once took my two sons, and with a tent and provisions made a journey to the highest and loneliest portion of Mount Lebanon. We tarried there for a week far from the sight and sound of human beings, and, brethren, it was good to be there. And let me advise you when wearied with labors, harassed by cares, or desponding in your religious life, to go away entirely from your fellow men into the mountains and commune with God."

Never shall I forget his words, his look, and I fain would often follow his example in thus seeking the heights, but alas, for the time, the means. Who shall give me these? But to those who can, "Flee to your mountains."

Cousin CONSTANCE.

WISDOM.—"Wisdom is the principal thing; therefore get wisdom; and with all thy getting get understanding."

This is the estimate and the advice of Solomon, confessedly the wisest of men. This language indicates that wisdom is not a thing that men are born with, that they bring into the world with them; it is not altogether a gift of nature, though organization has much to do with it; but it is also what may be acquired, may be begotten. James, in his Epistle, says, "If any man lack wisdom, let him ask of God." There is a sense in which wisdom is the gift of God. God gave to Solomon a wise and an understanding heart, and this in answer to his prayer. No man can

be truly wise who does not believe in God and worship Him, for "the fear of the Lord is the beginning of wisdom." The highest wisdom comes through communion with Him.

But there is a wisdom, or a part of wisdom, which does not come exclusively and alone by prayer. Everything good is God's gift to us; yet many of these gifts only come to us by our own personal labor and effort. A good harvest is a rich blessing from God, yet we do not realize it without man's work on the farm. It is so of wisdom; it is of God to us, yet not without effort and endeavor on our own part. Now, wisdom is knowledge, and the ability to use it rightly, the right use of knowledge. The first part of wisdom, then, the first effort toward its acquisition is, to obtain knowledge; and as "the fear of the Lord is the beginning of wisdom," the first knowledge, or that which is of first importance, is the knowledge of God. It is important to remember that this does not grow, like the weeds in your garden, spontaneously and of themselves; it is necessary to seek for it, to labor to acquire it, to dig for it as for hidden treasures. To know God one must think about Him, study Him in His works, read of Him in His Word, read the thoughts of other men that are written, and compare with them your own reflections; study them in the light of the revelation God has made of Himself. Correct views of God are of the highest importance. Wrong notions may make men afraid of Him, while true and correct apprehensions will imbue the mind with a genuine and blessed Godly fear.

Other information is necessary, also, to wisdom. Knowledge of ourselves, of our nature, and constitution, our capabilities, the object of our life and our destiny beyond, and the relation of the present to the life to come. This will be both an interesting and a profitable study. In the prosecution of this one will come upon sources of mental strength that he before was partially ignorant of. He will discover likewise, it may be, evils and causes of failure that will need to be avoided and guarded in order to wise conduct and life.

A knowledge, also, of our fellowmen is important; of the traits of character by which they are distinguished; of the various differences among men in these respects; of the motives which actuate them, and the consequences of this and that course of life. Also some observations of the world, of God's government of it and providence in it. To observe God's dealings with men, and to note the effects of certain actions, and the application and operation of certain laws in connection with life, is of great moment in the estimation of a wise man, and, in fact, go to make up his wisdom.

These and a thousand like branches of knowledge will open up to the active mind, and these

will be the materials, so to speak, of wisdom, or for its manifestation. I have said that wisdom consists in the right use of knowledge; this, then, involves or necessitates the culture and development of the mental faculties employed in the exercise of wisdom. Now, the first of these is Perception. By this we mean the power to receive and understand and evolve ideas and thoughts in the mind. There must be some capacity to evolve ideas from the mind itself, to originate thoughts. A well-cultured mind has within itself a well-spring of constant activity, and from this arises ever a variety of entertaining and inspiring thoughts; and this is in itself a constant source of pleasure and enjoyment, it realizes this in its own exercises and activities. But the primary capacity is the power to entertain and comprehend ideas and to exercise the mind upon them. All persons have this more or less, but wisdom requires it in a large degree.

Some persons only see half the thought that is proposed for their consideration; their power of perception is small, and they fail to grasp the idea in its entirety. It is not a little matter to be able to comprehend great thoughts in their breadth and fullness, to perceive them readily and at once; this is a power that only comes by exercise and culture, and is one of the characteristics of a wise man, or one of the powers requisite to wisdom.

Judgment is the next faculty or power necessary to wisdom. This is the ability to discern the similarity or dissimilarity, the propriety or impropriety, the advisability or unadvisability of certain thoughts or principles or courses of conduct. This, acting with perception, gives the ability to entertain a variety of thoughts and principles, and out of them to choose and select that course which will be most proper and judicious under the circumstances. Together they embrace and comprehend such a power of perception, and such an exercise of judgment, as leads to a ready and prompt and judicious decision in the premises. This is what we call common sense, but which, in the high degree necessary to wisdom, is rather an uncommon quality.

One other faculty is needed, and that is will, force of character, executive power, the energy, the force, the ability to put into practical operation, to execute the decisions of the understanding and judgment. We place this will-power, this force of character, last, because it does not come into operation until perception and judgment have done their part, and not because it is not of equal importance and necessity with the others in the exercises of wisdom.

Other mental qualities are employed and act in harmony and subordinately to these; and that exercise of the mind which brings into play the largest number of its powers, and in the greatest degree of efficiency, will result in the highest manifestation of wisdom.

The importance, therefore of cultivating and maturing the mind in its entirety, will commend itself to every one, and in so far as one does this, he is getting wisdom, getting understanding.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

To see what is right and not to do it is want of courage.—*Confucius*.

A **DEAR** plaat wi' a mon's naam on's a vaary goad thing, but a dinner plaat wi' a mon's dinner on's a better.

WHEN Lord Clive wrote to Jenner, the discoverer of vaccination, assuring him that if he came to London he would earn £10,000 a year, Jenner replied, "Shall I, who even in the morning of my days sought the lowly and sequestered paths of life in the valley, and not the mountain, shall I, now my evening is fast approaching, hold myself up as an object for fortune and for fame? Admitting it as a certainty that I obtain both, what stock should I add to my little fund of happiness? And as for fame, what is it? A gilded butt, forever pierced with the arrows of malignancy."

THE soul's dark cottage, battered and decayed,
Lets in new light through chinks that time has made.

Stronger by weakness, wiser men become,
As they draw near to their eternal home;
Leaving the old, both worlds at once they view,
That stand upon the threshold of the new.

—*Waller*.

I AM strict and scrupulous in matters which do not much thwart my will, nor bear too hard upon flesh and blood. So pride thrives, and conscience is kept from being troublesome.—*Rev. T. Adams*.

A MISSIONARY society is said to have adopted a device found on an ancient medal, which represents a bullock standing between a plow and an altar, with the inscription, "Ready for either—ready for toil, or for sacrifice."

HAVE the courage to insure the property in your possession, and thereby pay your debts in full.

It is vain to put your finger in the water, and pulling it out, look for a hole; and equally vain to suppose that, however large a space you occupy, the world will miss you when you die.

HAVE the courage to cut the most agreeable acquaintance you have when you are convinced that he lacks principle; a friend should bear with a friend's infirmities but not with his vices.

ONE of the illusions is that the present hour is not the critical decisive hour. Write it on your heart that every day is the best day in the year. No man has learned anything rightly until he knows that every day is doomsday.—*Emerson*.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

"YOUR colors are beautiful," said a highly rouged young lady to a portrait-painter. "Yes," said he, "your ladyship and I deal at the same shop."

A CONFECTIONER who, twelve months ago, taught his parrot to say "Pretty creature," to every lady who entered his shop is now a millionaire. [Guess not—all women are not such fools.]

A CANDY store window displays, in worsted letters, the inspiring text, "The Lord will provide." A boy who passes daily says it ain't so, and "you can't git no candy in there on the credit of Providence. Nickels is the only thing that gits them gum drops."

THE following note was picked up on the bridge the other evening:

"Deer O——, for Heving's sake don't even look at me agin when paws about, hes just a ragging round, and I am hid in the seller a riting to you, good by.

Here I am in the seller

A tryin to write while I beller

But, then, oh deer, I must make haste

Good by you bunk of jujupaste. M."

THE Detroit *Post* thinks Dean Stanley was not equal to his opportunities in conducting the marriage ceremony of Prof. Tyndall. The dean might have asked the bride if she would take that anthropoid to be her co-ordinate, to love with her nerve-centers, and to cherish with her whole cellular tissue, until a final molecular disturbance should resolve his organism to its primitive atoms. But he didn't.

ART received another awkward criticism from a free-and-easy young man who recently met a sculptor in a social circle, and addressed him thus, "Er—er—so you are the man—er that makes—er—mud heads?" And this was the artist's reply: "Er—er—not all of 'em; I didn't make yours."

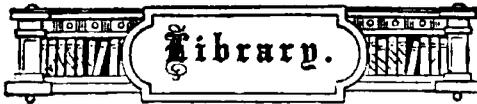
As a colored resident of Detroit was breasting the storm, with a new umbrella over his head, he was hailed by a friend and brother, who asked, "Is dat your umbrella?" "Yes, sah—cost me two dollars," was the prompt reply. "Mr. Savage," said the other, very solemnly, "when a man will buy a two-dollar umbrella to keep the wet off'n a fifty cent suit of clothes, what am de use to talk about economy?"

A FEW weeks since a Chicago drummer saw a young lady plowing a field in Maccoupin, Ill. He stopped to ask:

"When do you begin cradling?"

"Not until the heads are better filled than yours," was the sententious reply.

The young man passed musingly on.



In this department we give short reviews of such NEW BOOKS as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books tending from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

ON ALCOHOL.—A Course of six Cantor Lectures delivered before the Society of Arts. By Benjamin W. Richardson, M.A., M.D., etc., Fellow of the Royal College of Physicians, etc. 12 mo; pp. 190. Price, —. New York: The National Temperance Society and Publishing House.

This series of lectures have awakened deep attention in England, and their publication in America must have some effect, not only with the masses but also in that circle which is only affected by weight of authority in the consideration of important questions. An introduction to this American edition is given from the pen of Dr. Willard Parker, whose opinion is highly respected on this side of the Atlantic. In the course of these lectures Dr. Richardson discusses the various forms of alcoholic beverages in common use as well as the forms of alcohol known to chemistry, and their effects upon the human system. The effect of alcohol upon the blood is one of disturbance, causing the red corpuscles to run too closely together and alter in form, and to become impaired in function. One of its primary effects is the quickening of the pulse, and a corresponding weakening of the strength. But the most important effect is that which it produces in the brain, both physiologically and mentally. Dr. Richardson does not regard alcohol as a substance out of which the animal tissues are formed, but at the most a heat producer; in this respect, however, his own careful experiments, extending over a space of three years, led him to the conclusion that alcohol "is decomposed by oxidation at the expense of the oxygen which ought to be applied for the natural heating of the body," and that while it may produce an increase of temperature at the surface, there is a decline at the centers of the body, a condition which is certainly in a high degree injurious. He is also of opinion that "the systematic administration of alcohol for the purpose of giving and sustaining strength is an entire delusion." Taken altogether, the work is an admirable campaign volume for the use of temperance advocates, coming, as it does, from an indisputable scientific source.

LADIES' FANCY WORK.—Hints and Helps to Home Taste and Recreations. By Mrs. C. S. Jones and Henry T. Williams, author of "Household Elegancies," Vol. III. William's Household Series. One vol. octavo; pp. 301. Price, in muslin, \$1.50. New York: Henry T. Williams.

Our "Excursion" friend Williams has added another to his useful and beautiful "Household Series," in which he has succeeded in exhibiting his usual degree of taste, leaving very little, if anything to be desired in that direction. It is very fully illustrated, printed on new and clear type and fine paper. The following are the topics treated of in these pages: "Paper Flowers," with 33 engravings; "Feather Work," 23 engravings; "Hair Work," 25 engravings; "Rustic Pictures," 16 engravings; "Easter Crosses," 64 engravings; "Fire-place Papers," 25 engravings; "Shrines," 2 engravings; "Straw-work," 8 engravings; "Shell-work," 40 engravings; "Bead-work," 18 engravings. The miscellaneous department contains 108 illustrations. An interesting book truly.

THE RELATIONS OF THE SEXES. By Mrs. E. B. Duff, author of "What Women Should Know," "No Sex in Education," etc. 12 mo; cloth; pp. 320. Price, \$2. New York: Wood & Holbrook.

This book is another contribution to the literature of human sexuality, but unlike most of the books of the sort which are permitted to circulate, it is not the production of a mercenary "doctor" who sends it out to advertise himself, and some "wonderful" medicines which he only knows how to compound. Therefore it is far from being a superficial consideration of the important topics naturally embraced by the subject, but an earnest, thoughtful treatise by a lady who has given herself to the special study of the human organization in its primary stages and early development.

But this volume, after all, is only a discussion of topics which, as Mrs. Duff properly says, "form the basis of nine-tenths of the novels of the day, which are read with delight and approved by a large and not even wicked class of readers," and she mentions "Cometh up as a Flower," "Red as a Rose is She," and "Ouida's" fictions in illustration of the truth of the remark. Vouching the grave importance of the statement she has to make, she aims to "be reverent but plain, that no one shall misunderstand." A woman, it is but natural that the author should incline to some special pleading in behalf of woman's superiority and ancient wrongs, but in this she tells some hard truths which it would be well for society were they appreciated in the light of their practical effects. A good deal of interesting incident in the history of human social life is embraced in the discussion of the different phases of sexual relationship, and in-

ferences to the shame—or credit—of our “civilized” methods of fashion are drawn from the practices in heathen and barbarous lands. Although she is extravagant sometimes, nevertheless, we like the spirit with which Mrs. Duffey defends the institution of marriage against the aspirations of corrupt free-loveism, and also the strength of her denunciation of the sentiments tolerated even in our best society with regard to prostitution. Taken altogether, the book is worthy of an extended and careful reading.

FIRST ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN FOR THE YEAR ENDING SEPT. 30th, 1873.

THIRD ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN FOR THE YEAR ENDING SEPT. 30, 1875.

FOURTH ANNUAL REPORT OF THE SECRETARY OF THE STATE OF MICHIGAN, RELATING TO THE REGISTRY AND RETURN OF BIRTHS, MARRIAGES, AND DEATHS FOR THE YEAR 1870.

FIFTH ANNUAL REPORT OF THE SECRETARY OF THE STATE OF MICHIGAN, RELATING TO THE REGISTRY, AND RETURN OF BIRTHS, MARRIAGES, AND DEATHS FOR THE YEAR 1871.

LAWS OF THE STATE OF MICHIGAN, RELATING TO THE PUBLIC HEALTH, COMPILED AND PUBLISHED UNDER THE SUPERVISION OF THE SECRETARY OF STATE IN PURSUANCE OF JOINT RESOLUTION NO. 18, OF THE SESSION LAWS OF 1875.

The above documents have been received from Mr. Henry B. Baker, the Secretary of the Michigan Board of Health. They show that the authorities of Michigan are keenly alive to the need of sanitary regulations if the public health is to be promoted. They are valuable as compilations of important statistics relating the health and disease of communities, the use of poison in agriculture, the influence of occupations upon health, the architecture of public buildings, the disposal of garbage and waste products, etc. The First Report contains an extended account of investigations made into the character of the illuminating oils in common use, and exposes many of the dangerous compositions which have been hawked through the country.

Accompanying these documents are several forms such as are issued to local officers and agents for the more effectual procurement of the data required by the State Secretary. The thoroughness of detail exhibited is a model worthy the imitation of States older than Michigan.

MAGAZINES AND PERIODICALS RECEIVED.

A NEW PORTRAIT OF GENERAL BOLIVAR. We have received from Mr. F. Duque, of 763 Broadway, an excellent portrait in lithography of the late Simon Bolivar, the founder of the South American republics, Bolivia, New Grenada,

Venezuela, Ecuador, Peru. The character of the head and face is forceful, ambitious, intense, aggressive, in a marked degree, showing that the artist has done his work well in portraying the features of the adventurous man.

THE Delineator, for May, from Messrs. E. Butterick & Co., of New York. It illustrates and describes the freshest novelties of costume for ladies, misses, and children, and gives detailed information respecting dress materials, trimmings, millinery, lingerie, and pretty work-table knick-knacks. Subscription price, \$1.

THE WEATHER REVIEW of the War Department for the month of March is interesting for its array of statistics covering the whole country. The most noticeable features which it reports for the month are: The large number of extensive and destructive storms; the excess of precipitation in all the districts but two; the low average temperatures except at the Pacific coast stations; the rising of the Mississippi River above the “danger line” from Cairo to some distance below Vicksburg, and the destructive floods in New England and portions of Illinois at the close of the month.

MESSRS. DODD, MEAD & CO. are about to publish “A Life of Benjamin Franklin,” the concluding volume of Abbott’s Pioneers and Patriots; and a Pennsylvania mining story entitled “Free, Yet Forging their Own Chains.”

THAT BANNER A HUNDRED YEARS OLD. Old Words by B. Devere. Music by Eddie Fox. Price 50 cents, including five views of Centennial buildings 50 cents. F. W. Helmick, Cincinnati, O.

METRIC SYSTEM OF WEIGHTS AND MEASURES.—An appeal to the public for the general adoption of this excellent method of determining quantity. By the Boston Society of Civil Engineers.

THE BANKER’S MAGAZINE AND STATISTICAL REGISTER for April contains a good list of subjects. An article on stock speculation treats the subject in a candid manner, discussing it as nothing better than gambling, and so to be avoided by the wise. To quote an admonitory passage—“Most of the outsiders who enter the street (Wall) with money, not only lose every dollar they possess, but sacrifice their reputation and oftentimes their health besides.”

THE RESULT OF THE BROOKLYN ADVISORY COUNCIL OF 1876, together with the Letters of Dr. Leonard Bacon, Timothy Dwight, etc., etc. A. S. Barnes & Co., New York. Price 15 cents.

F. W. HELMICK’S LIST OF COUNTERFEIT NOTES now in Circulation in the United States; also a Description of Genuine Bank Notes. Price, 25 cents. F. W. Helmick, Cincinnati, O.

THE
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VOL. LXIII OLD SERIES.—VOL. XIV. NEW SERIES.
JULY TO DECEMBER, 1876.

H. S. DRAYTON AND N. SIZER, EDITORS.

NEW YORK:
S. R. WELLS & CO., PUBLISHERS, 737 BROADWAY.
1876.



“Quiconque a une trop haute idée de la force et de la justesse de ses raisonnemens pour se croire obligé de les soumettre a une expérience mille et mille fois répétée, ne perfectionnera jamais la physiologie du cerveau.”—GALL.

“I regard Phrenology as the only system of mental philosophy which can be said to indicate, with anything like clearness and precision, man's mixed moral and intellectual nature, and as the only guide short of revelation for educating him in harmony with his faculties, as a being of power; with his wants, as a creature of necessity; and with his duties, as an agent responsible to his Maker and amenable to the laws declared by the all-wise Providence.”—

JOHN BELL, M.D.

“To Phrenology may be justly conceded the grand merit of having forced the inductive method of inquiry into mental philosophy, and thus laid the permanent foundations of a true mental science.”—*Encyclopaedia Britannica*, 8th Edition.



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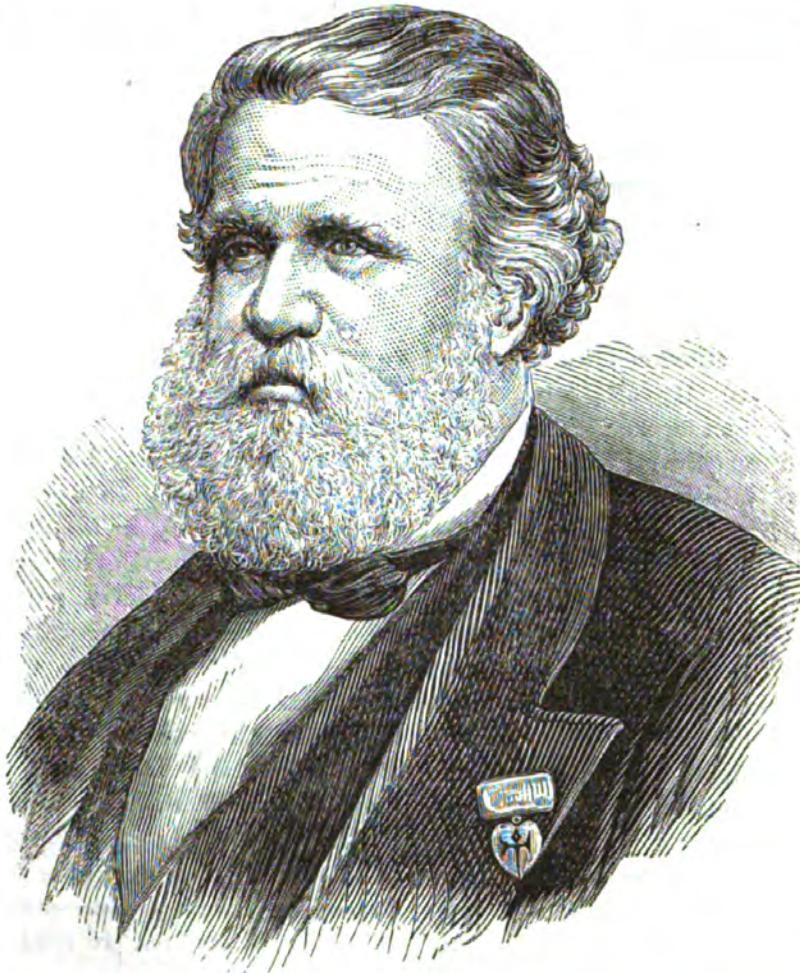
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DOM PEDRO II., OF BRAZIL.

AMONG the distinguished persons of foreign countries who have been drawn hither by the Philadelphia Exhibition the Emperor of Brazil will

be accorded by common consent a special prominence, as much, probably, for the qualities which are his as an individual, as for the fact of his being

the ruler of a vast domain. In person, Dom Pedro is very striking. Over six feet by three inches in height, and possessing an athletic frame, with a face whose expression is gentle and winning, and manners that are simple and dignified, he reminds an observer of the knightly kings of romance. His large head shows considerable breadth of intellect, ability to appreciate causes, relations, principles. His view of a subject is not a passing, transient glance, but an inquiring, searching survey. He is practical in judgment, and his large firmness and rather broad lateral organization incline him to be emphatic and trenchant in his treatment of ordinary topics. The contour of his forehead shows excellent memory, and his eyes indicate ability to talk with precision and clearness. He has good mechanical ability, can understand the laws of construction, and the relations of physical force. He could have made a good engineer, or manufacturer of complicated machinery. He is well adapted to investigation in natural science, particularly a department requiring out-of-door effort and contemplation.

He is steadfast in opinion and appreciative of personal right, but not an unscrupulous dogmatist. He has too much Benevolence not to be humane and sympathetic, and too much Cautiousness not to be prudent and painstaking.

By blood he may be said to represent three royal European houses, Braganza, Bourbon, and Hapsburg.

The existence of the Brazilian Empire may be said to commence with the advent of the royal Braganza family, which was driven from the throne of Portugal by the legions of Napoleon I. in 1807. Brazil was then a province of Portugal, and in its loyal arms the

fleeing court was received with unbounded enthusiasm.

To Dom Pedro's father the independence of Brazil is mainly due, as in September, 1822, he renounced all allegiance to Portugal, and was proclaimed "Constitutional Emperor of Brazil." A series of internal dissensions led to his abdication in April, 1831, when the present Emperor, then but six years old, was declared his successor under the title of Dom Pedro II. For awhile the government was administered by a Council of Regency, and then by a single Regent, and at no time during the critical period of 1831-5 was the constitution violated. In July, 1840, Dom Pedro II. was declared of age, and assumed the sovereign power. In 1843 he married the Princess Theresa Christina Maria, sister of the late King of Naples, from which union were born two princes, who died young, and two princesses, one of whom died a few years since.

At an early period in his career as a ruler he determined to work for the abolition of slavery in his dominions. He began his scheme of reform by inviting European colonists, particularly those possessing a mechanical or industrial experience, and gave every encouragement for their settlement. By these means he attracted the attention of planters and large employers to free labor, and their support of his project was so strong that he felt fully justified in 1871 in decreeing the total, although gradual, emancipation of all slaves in his empire. In 1862 a quarrel broke out between his government and that of Great Britain, during which he maintained a firm and judicious attitude. The matters in dispute being submitted to the King of the Belgians for arbitration, were settled in favor of the Emperor, which circumstance

greatly increased his popularity at large and strengthened his government.

In 1865 he entered into an alliance with Uruguay and the Argentine Republic against Lopez and his Paraguayan supporters. The war opened in the following year. The Count d'Eu, a grandson of Louis Philippe, who had married the Emperor's eldest daughter, Isabella, in 1864, took command of the entire military force as Marshal of the Empire. For six years the struggle lasted, with varying success, and was closed March 1st, 1870, by the death of the Dictator Lopez, who was cut down at the head of a small body-guard that had remained constant to his fortunes.

In 1871-72 Dom Pedro made a visit of eight months to Europe, during which time he devoted himself with the ardor of a private student to the investigation of everything that could tend to the advantage of Brazil. He astonished specialists in every European country by his acquaintance with their own subjects, and everywhere made the strongest impression by his intellectual ability, his amenity, and his utter freedom from pretensions of all kinds. In London he was particularly liked. By eight in the morning he had usually taken his breakfast, and was in his carriage visiting all manner of interesting localities long before the English fashionable world had left the table.

Foreigners complain of his court as more than republican in respect to the absence of pomp, ceremony, and display; but the Brazilians are well pleased with a sovereign who thinks more of bettering the condition of his subjects than of dazzling travelers at their expense. Few subordinates in a public office in Washington are so

easily accessible as this ruler of ten millions of men.

His lack of pretension has been seen during the stay of the royal party with us, and it has made friends for him everywhere. In fact, he has always indicated a high regard for America and Americans, giving a cordial greeting when at home to all travelers from our nation with whom he may come in contact, and showing a special interest to those who go to Brazil for scientific purposes. The particular courtesy he showed to Professor Agassiz, and the valuable aid he rendered to that scientist in his Amazon expedition, must be long remembered.

The Empress, who is also a visitor in company with her husband, is a lady of modest and unassuming demeanor. Her health has not been good since the death of the princess, yet during her stay in America she exhibits much activity in the endeavor to become acquainted with American life.

Both were present at the ceremonies of the opening of the Centennial Exposition, and shortly afterward departed on their tour through the country.

Dom Pedro from his earliest years showed a rare passion for study, and made great progress, especially in the exact sciences, in military art, mechanics, and in natural history. He is a fine linguist, speaking and writing well French, Spanish, English, German, and Italian, as well as his native Portuguese. In February, 1875, he was elected a corresponding member of the section of Navigation and Geography by the Academy of Sciences at Paris.

During his absence from home, which is to embrace a period of eighteen months, his daughter, Isabella, Countess d'Eu, and heiress apparent to the throne, acts as Regent of the Empire.

THE CONFORMATOR—ITS LESSONS.

THE reader may not find the word "conformator" in the dictionary. And I must confess I have not looked up the word in the encyclopedias, if it exist in any of them. I got the name from a hatter, and afterward found it used by other hatters, but have never seen it in print, and have spelled it as it sounded to my ear. One hatter told me that the instrument was of French origin. [The word is French, and is spelled *conformateur*.—Ed.] Anyway, it is a nice affair. The last one I saw cost \$125. The arrangement is compound. It is placed on the head, to every inequality of which it will fit, and then punctures a piece of paper, the line of perforations showing exactly the size and shape of the head where the hat is to rest. I should state that the delineation upon the piece of paper is *in diminuendo*—just so many times less than the head itself. This ratio the maker of the hat understands, and then he can construct a hat which will precisely fit the man who ordered it.

It is common for the man who wants a hat made "to order," to write his name within the circle of the little dots or holes. He generally has to look at the dumb image awhile to see how his own dear head is shaped. It will not surprise the merchant who deals in hats, caps, etc., if his customer makes "one big mistake" "to begin with." Anyhow, he may be astonished that his cranium is wider—further through—at and behind his ears than in front of them. It is really astounding how the orbit of some heads extends and expands as it goes back from the forehead. How much greater the depth of the majority of human skulls, even, from top to base, back of the ear. But we will keep our eye mainly on the

periphery pricked for us by the cunning conformator. Our polite friend, the merchant, may have several of these "paper patterns" at hand, showing us what shapes the nice prospective hats of our neighbor will have to press.

Agassiz has given the best connected description I have seen of the beginning of a brain in the lowest orders of animal existence, and its further unfolding in the higher, until man is reached. At first, the end of a nerve serves for a brain. With the least addition of brain-matter or nervous tissue, another sense or power appears, and the whole life of the creature is lifted. He might have gone on to show how any difference in volume, excellency, or configuration of brain distinguished one individual from another of the same species. This brain-scale is infinitely significant. The greatest creative skill has been to enlarge the forehead and augment the altitude of the mass of the brain. If the reader should call at 737 Broadway and look at the specimens, he will observe how the skulls of animals seem whittled every way toward the forehead. The lower the order of animal, the more conspicuous this fact, and that of the flatness or lowness of the entire skull. We, of course, respect all science, but take this occasion to remark that a prominent phrenologist of New York has developed a theory of the facial angle, worth unspeakably more for a sophomore to study than Newton's analysis of conic sections.

Now, I imagine myself at a New England town meeting. Some exciting matter is "up," and there is a "full" meeting. I fancy myself favored with a seat on the platform

near the "select men." I suppose myself to have no "part or lot" in the matter, and am free to observe and reflect. No higher popular gathering can be assembled anywhere on earth. Some noblemen are there; but it may be, on the whole, I am rather disgusted. At times the moderator is troubled to preserve order. There is a penetrating smell of liquor, and the air is loaded with tobacco smoke. A father to the town, who has served it most uprightly for twelve years, is dropped with acclaim because he is in favor of a needed road. A prohibitory clause is voted down, and uproarious applause follows. During its discussion two Irishmen make speeches in favor of the negative. They are doubtless bright men, yet they throw no light upon the pending question. They are in good "spirits," however, and a friend whispers that they are among the leaders of a political ring. When they take off their hats to speak I notice how wedge-shaped their heads are, the ears being well along "to the front," to say nothing about a lack in the "upper story." My friend's conformator put upon either head would click and record the impression of a small, very tapering egg. Yet they are the equals of some Yankees, and the superiors of a few, and they represent a nationality that has had, and now has, members exceedingly gifted.

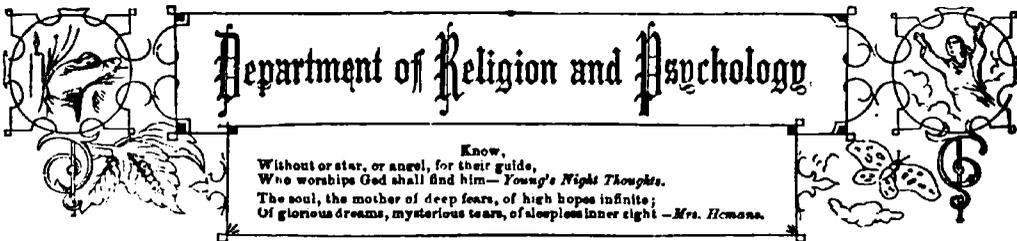
With the quickness of thought I leave the "polls;" then yield myself to musings such as these: What a long way it is from an oyster to a monkey. Well, neither the monkey nor gorilla understands "voting." The prehistoric nations have left no relics or fossils, so far as I know, of a "ballot-box." Suffrage has had only a very limited sphere upon our planet. It is some distance from a man to a *free* man, in any

sense of the word free. So far my cogitations are complimentary. On the other hand, remembering the faithful record of the conformator, and other lines my eyes trace and the calipers would describe, I see plainly enough why there has been so much lust in the world; why so many wars; why so much oppression; why progress is still so slow and labored. Contemplating the average craniology—I will not say of a savage—but of a living citizen of a foremost nation, I behold the possibility of drunkenness, gluttony, hate, pride, obstinacy, vanity, selfish fear, deceit, and dishonesty. Looking at the people who "live and move," we discern the reason of no more appetite for science, no more desire for knowledge in general, of awkwardness, filthiness, meager sympathy, hollow worship, low living, unspirituality. We discover roots of national animosities, race hatreds, clanship, un pitying monopoly, dark hypocrisies, hot sectarianism, bitter partisanship—in what elements the superstitions and imperfections of the past are welcomed and perpetrated. The cause of so much very crafty management, of the strength of the "loaf and fish" motive, of multitudinous inconsistency among the avowed followers of the adorable Son of God, looms up to the plainest vision.

But we are determined that no hater, no irresistible phrenologist, "or other person," shall render us misanthropic or despairing. The caravan moves toward the greener side of the desert, thanks to the Father in Heaven. Every week's travel demonstrates to a close observer the comparative rapidly-increasing development, just now, of the frontal and upper convolutions of the human brain. Walk over to that stately structure where convene a num-

ber of graded schools. Fix, if you please, your eyes upon the girl—for woman soonest indicates a dawning tendency—see the bulging foreheads, the splendid developments, also, of Benevolence, Conscientiousness, and Hope. What exact, comprehending scholars of both sexes! How harmoniously they amuse themselves in their recesses! How mild the government that suffices to control them! What friendship between teacher and taught! What genuine politeness among the pupils, some from the

richest, some from the poorest families, "white, black, native, and foreign!" As yet there may be too much burden of the memory, too much time given to ancient tongues, and a development of brain to the expense of body and limbs; still, it must be admitted, softening and correcting ideas and arrangements are extant, and what may we not hope for when these dear children we have visited for illustrations, and "such as they," shall have become the reigning men and women of society? REV. L. HOLMES.



PROPHETIC INTUITION AND THE DEMON OF SOCRATES.

AN infinitude of study has been bestowed upon the memorable words of Socrates to his judges: "I am moved by a certain divine and spiritual influence. It began with me from childhood, being a kind of voice which, when present, always dissuades me from what I am about to do, but never urges me on." We are conscious of a propensity in us all, when in perplexity, to seek admonition and guidance from a source superior to ourselves. Men who have ordinarily felt sufficient for all occasions, when they chance to encounter some exigency for which they had not been prepared, are disposed, perhaps above others, to seek out some occult means for knowledge of what to do or expect. King Saul, visiting the obeah woman of Æn-Dor, was no isolated example. Alexander of Macedon, in like dilemma, also sought aid from divination. Julius Cæsar had with him a Chaldæan. But we care not to explore this department of human research. Except the denizens of another form of life shall have

attained a superior moral altitude, and are able to take wider views of the great interior world of fact, they can render us little service, but rather will do us harm.

Nevertheless, there are periods in the life of every one when he desires to obtain a suggestion which will facilitate the forming of a right conclusion, or the adoption of a purpose which will be purely wise. It is easy to declaim about superstition and credulity, but we do not see why a person should be impugned in that manner, because, after having exhausted the finite powers at his command, he looks beyond them for aid and instruction from a source above himself. If we approve the young and inexpert when they ask for advice from those who are older and more intelligent, the same logic will carry us further—even to the fountain of Infinite Wisdom itself. It is an instinct in the savage, and we do not perceive that our more erudite civilized man has got on much further. All that has been lost of the instructive perception,

there is good reason to apprehend has been characterized by an equivalent sacrifice of moral sentiment, and of conscientious regard for the right. Such maturity we have no ambition to acquire.

We are not precluded from learning anything that it is possible or wholesome to know. Nor is it to be presumed that we shall ever be able either to measure ourselves or what is above us. But an intelligent conception may be attained of the facts which underlie our being, and we may hope to ascertain how our actions are directed.

It ought to be considered in this connection that no faculty is possessed by one person and withheld from another. The superiority of one person to another is, therefore, only in degree; and whatever one has ever attained or performed, another can do or attain. Every person must make the path for his own feet. It is his right to exercise his mental powers, and to cast off whatever restrictions others may desire to impose upon his thought. Nay, more, there can be no important progress made in a divine life except this freedom shall be exercised.

There are in every neighborhood traditions and anecdotes concerning individuals possessing certain occult powers that enable them to obtain a knowledge which transcended the ordinary limit of human faculties. Sometimes the possession of these gifts appears to constitute a religion, but the fact, we think, is more frequently otherwise. However, what was denominated prophetic power in ancient times was denounced as magic and sorcery in the Middle Ages. At the present day there exists a form of spiritualism which seems to have seized upon these ideas and cognate facts as its exclusive province. We do not quite relish this appropriation; it savors to us too much of a diverting of what may be interior wisdom into the avenues of charlatanry, into which we desire not to go. Nevertheless, in all ages the highest truth possessed has been employed for the greatest wrongs; and the alternatives are offered to us, to reject it for having been thus penetrated, or to rescue it and set it

again in its proper place. We propose to accept the latter. We will not refuse faith or spirituality because of any error or aberration of spiritualism.

It has been propounded by Lyell and other geologists that there have been no catastrophes or miraculous changes in the physical condition of the earth, but a steady progress from century to century and from age to age. So far as we can apprehend the matter, this is plausible. By an analogous principle the human soul undergoes no catastrophes or supernatural transformations, but steadily moves forward in its career toward the Infinite. Yet being capable of volition, passion, and moral action, it becomes a legitimate subject of inquiry whether it may not so approximate the diviner nature as to receive therefrom a certain quickening of its powers.

If we were to attempt an answer it would be in the affirmative. Believing that all evolution in nature is the bringing into phenomenal life a potency which must have been first involved; also that the human soul, as it is developed in higher life, exhibits powers which it has derived from the divine, we are of opinion, and were of the conviction, that it is capable of direct inspiration and enlargement of its faculties by a communion with that source of its existence. It is no abnormal condition, but one incident to our nature; not the establishing of a relation with a duty outside of us, but emphatically the bringing to light of a divinity within us.

I suppose that this was the "demon" which Socrates indicated as his interior guide. When Demodocus brought to him his own son Theages, to discourse about the acquiring of wisdom, Socrates named the several branches of knowledge and referred him to distinguished teachers, because he was himself illiterate. "I know none of that blessed and beautiful knowledge, although I wish I did," said he. The young man, however, was not willing to drop the matter in this way. Others, who knew nothing before they associated with him, became in a very little time better than those to whom they had been inferior.

"No," protested the philosopher, "you

do not perceive how this occurs; I will tell you. There is by a divine allotment a certain demon that has attended me from my very childhood. It is a voice which, when it is perceived, always signifies to me to relinquish what I am about to do; but it never at any time incites me. And if any one of my friends suggests anything to me, and the voice is heard, it dissuades me from that very thing, and will not suffer me to do it."

Socrates also explained to Alkibiades that he had refrained from speaking to him for this very cause. That impediment had now ceased. It appears, also, that Alkibiades, at this time, gave heed to his great teacher, and that his conduct was praiseworthy.

Apuleius gives a reason why the demon of Socrates was generally in the habit of forbidding him to do certain things, but never exhorted him to the performance of any act. Socrates, being of himself a man exceedingly perfect, and prompt to do whatever he ought, never stood in need of any one to exhort him, though he sometimes required to be forbidden, if danger happened to lurk in any of his undertakings. Being thus admonished, he was enabled to use due precaution, and desist for the present from his endeavor, either to resume it more safely at a future period, or enter upon it in some other way. It was usual for him to describe those warnings as "a voice proceeding from the demon."

In no case did Socrates speak of it as an omen. In this particular it would seem to have differed somewhat from the oracles and *Bath Kol* of the Jews, which appear to have been the utterance of an object, a scene, or an impression, by which an effect is produced on the mind. "The Lord God hath spoken, who can but prophesy?" (Amos, iii. 8). If Socrates had derived his admonition from an omen, he would have said as much. But he employed no such method of divination. Yet it was the day of such things. About that time a king of Babylon, from the very headquarters of theurgy, having set out on an expedition to reconquer his rebellious vas-

sals, and in doubt which route to choose, made use of sortilege, divination, and augury. He took his position at the parting of the ways which led to the metropolis of Ammon and to Jerusalem. "He shuffled his arrows, he consulted the teraphim, he looked into the liver—in his right hand was the divination of Jerusalem" (Ezekiel, xxi. 21–22).

Apuleius was of opinion that Socrates used to perceive indications of his demon, not only with his ears, but with his eyes, as he frequently declared that it was not a voice but a sign which had impressed him. The Pythagoreans were in the habit of expressing surprise when anybody denied having seen a demon. The prophet Elisha is recorded as evoking a vision of this nature. His servant being terrified at the appearance of a body of troops sent by the King of Syria to apprehend him, "Elisha prayed and said, 'Lord, I pray thee open his eyes that he may see.' And the Lord opened the eyes of the young man and he saw; and behold, the mountain was full of horses and chariots of fire round about Elisha" (2 Kings, vi. 15–17). If we receive either of these narratives as true, there is no reason for doubting that Socrates beheld spiritual forms, as well as perceived their presence.

It would be easy, in such case, to have regarded his demon as a familiar spirit or guardian genius; and those who regard all demons as evil have accordingly imagined the great philosopher to have been the subject of magical or diabolical influence. But it is not clear that he ever assigned to it an actual individual or personal existence. He always calls it *ti daimonion* or *daimonion ti*, and never *daimon*; and Cicero has rendered this designation by the phrase "*divinum quiddam*"—a something divine. It was a divine, or rather a spiritual entity, a sign or voice to which he attached quality and source that were superior to his own unaided powers. It acted as a curb, and was in no sense a stimulus to passion. Of course, every intelligent reader knows that a *demon* is properly a spiritual essence, and by no means of an evil character. Greek scholars often trans-

late it God or Divinity, and it is about synonymous to our word spirit.

We have already declared our belief that this interior divine or spiritual something was not a supernatural or miraculous endowment. Marvellous displays are superficial and external, however glorious. When Elijah, the Israelitish prophet, was at the mystic cave of Horeb it is recorded that "a great and strong wind rent the mountains and broke in pieces the rocks before the Lord, but the Lord was not in the wind; and after the wind an earthquake, but the Lord was not in the earthquake; and after the earthquake a fire, but the Lord was not in the fire; and after the fire a still small voice" (1 Kings, xix. 11-12). The prophet then went forth covering his face in his mantle. Very similar to this was the voice or sign of the demon to Socrates.

The writer of the book of Deuteronomy is, however, most significant and emphatic. "The word is not hidden from thee, neither is it far off. It is not in the heaven, that thou shouldst say, 'Who shall go up for us to heaven and bring it to us, that we may hear it and do it?' Neither is it beyond the sea, that thou shouldst say, 'Who shall go over the sea for us, and bring it to us, that we may hear it and do it?' But the word is very nigh unto thee, in thy mouth and in thy heart, that thou mayst do it." It is not speech nor desire, but a 'divine entity interior to both. But is it subjective or objective—is it uttered in the heart or into the heart?

To answer this question intelligently requires to know both God and man. From one standing-point the divine sign and voice appear to emanate from the individual; from another, they are seen to be from above. The Delphic inscription, "*gnothi seauton*"—know thyself—is, therefore, full of emphasis; it involves all that we can learn.

There is within the compass of our being a faculty of understanding which is capable of maturing thoughts into perceptible truths. This faculty does not pertain to the *soul*, the *epithumetic* or emotive nature which is immersed in the body, and is

allied to the world of sensible phenomena. Animals have passions and sensations like mankind, and so far are on a common plane of existence. In that respect by which we differ from the animals we are intellectual, spiritual, and divine. Thus may we distinguish our higher from our lower nature. The latter is indicated by its vivid sense of pleasure and suffering, the former by the intuition of right and wrong. The higher nature is irked, bruised, and benumbed when it is dragged down and placed under the custody of the psychical and sensual. With the back turned toward the light, there are only shadows to be seen, and the besotted intellect imagines these to be tangible, and, therefore, the sole realities.

From these propositions it will be perceived that the human soul is two-fold, the passional part knowing and choosing whatever pertains to the natural world, and the noëtic or spiritual part, often called the mind or reason, which is a denizen of the world of spirits. The one is denominated by Plato "corruptible," the other is regarded by him as immortal and incorruptible, having its origin in eternity. It is of this that Menander speaks: "The mind is our demon or spirit—a divinity placed with every man to initiate him into the mysteries of life, and requiring all things to be good." Is this the solution of our problem? We will consider.

This spirit or mind is the entity capable of determining right and wrong. It has within itself the standard, the criterion. It may be undeveloped and unformed, but even then the germ is there. There are in it ideas or principles, embryonate it may be and requiring to be brought to perfection, which govern unconsciously all the processes of thought. By reflection, therefore, man can apprehend and recognize the truth. That there is truth is as certain a fact as that there is light; and as the latter is apprehended by an organism conveying its phenomena to the mind, so also the former has the mind for an organ to receive and assimilate its knowledge. If it is objected that two minds do not regard the same thing alike, it is evident enough that this is a condition arising from the blend-

ing and immersion of the spiritual nature with the emotive, by which the mental faculties are more or less obscured. Every soul, remarks Plutarch, hath some portion of reason, and an individual can not be man without it; but as much of each soul as is mixed with flesh and appetite is changed, and through pain and pleasure becomes irrational. Some souls are wholly mingled and eclipsed in this manner; others only partially so. "The purer part still remains outside of the body; it is not drawn down into it, but floats above and touches the extremest part of the person's head; thus it is like a cord to hold up and direct the subsiding part so long as the soul proves obedient, and is not overcome by the fleshly appetites." The soul is that part which is thus immersed and mingled with the body; but the incorruptible part which retains its integrity is denominated the mind or spirit. People commonly suppose that this higher faculty is within themselves, as they imagine the image reflected from a mirror to be in the mirror. "But," says Plutarch, "the more intelligent know that the mind is outside and distinct, and they call it the demon or spirit." By this element of our being we are rendered capable of perceiving truth. An open eye, a single purpose, an honest mind, prepares us to receive light when it comes.

There is but one perfect, infallible truth; there can be no variant, discordant, rival truths. When there seem to be such, the mind sees them from a lower altitude, in which it is obscured from the passions of the soul and corporal nature. All who really apprehend the truth, apprehend it alike. That principle within us that perceives it is capable of such perception, because it is of like nature with that which is perceived. Truth is divine, and we know and love it because of the divine principle in us by which it is perceived and appreciated.

"Held our eyes no sunny sheen,
How could sunshine e'er be seen?
Dwelt no power divine within us,
How could God's divineness win us?"

—Goethe.

We are thus brought, so to speak, face

to face with God, to discourse with Him as a man talks with his friend. In the most interior part of our mind is the foundation of all real knowledge, of all truth, of all certitude, because there we and the Divine Being are one. The Supreme Mind, we apprehend, must have been always self-conscious, knowing right and all that is good. Nature, as proceeding thence, must be good, excellent, and beautiful, like the Divine model. The mind which this Supreme Mind shall produce will, in a peculiar sense, apprehend that which is exterior to it by a light from within itself, and know all things by their likeness or unlikeness to itself. Thus is given from the Divine source the intuition of that which is good, the instinct to perceive what is true. "There is a Being," said Socrates to Aristodemus, "whose eye passes through all nature, and whose ear is open to every sound; extended to all places, extending through all time; and whose bounty and care can know no other bounds than those fixed by His own creation."

It is, therefore, apparent that the demon or divinity of Socrates was not a spectral manifestation, but rather a sensible perception of a voice, or an apprehension of certain words, which affected him in a peculiar manner. His mental perception being pure, and not clouded by passion and external matters, was apt and ready for impression. It was not a voice which he heard with his ears, but the operation of his interior mind, by which the thing which it declared was immediately and without audible voice represented to his mind.

But why did not this divine something inspire him to action as perceptibly as it restrained him? It is recorded of the Hebrew prophets that God directed them to do this and that. The busy activity of Elijah in public affairs and the mandate to Jonah, that he should prophesy against Ninevah, seem to vary widely from the negative moving which characterized the demon of Socrates. It is suggested by Goethe in *Wilhelm Meister* that in the cases of perplexity as to what undertaking he should begin, that he should do first that work

which was nearest to him. This is a short method to solve many a painful doubt. Something of the same nature must also have existed in the case of the prophets.

It is also noteworthy that one charged another with speaking a vision of his own heart and not of the Lord. The *Pentateuch* abounds with laws and directions for sacrifices, and a ritual of sacerdotal usages; yet Jeremiah affirms explicitly: "Thus saith the Lord, 'I spake not unto your fathers nor commanded them in the day that I brought them out of the land of Egypt concerning burnt-offerings or sacrifices.'" All that these men taught and did is, therefore, to be weighed and measured, with no preconceived idea of their infallibility in the matter. They brought forth to the day the things which they had; and while we have the inspiration of Isaiah and his fellow-laborers, we do not suppose that Dante and Milton wrote unaided by a similar endowment. The clearness of perception, the instinctive conception of the true idea, the intuition, were common to the prophet, poet, and philosopher; and they doubtless all were restrained by the something divine which Socrates described. Certainly the Hebrew prophets are represented as commanded to make predictions, the accomplishment of which was postponed; the direction to Elijah to anoint Jehu and Hazeal was reserved for his successor to accomplish.

Having attested our belief in the existence of the divine principle in the human mind, and the power of the mind to apprehend the truth in an immediate, direct, and intuitive manner, it is time to treat of this faculty of intuition. It is a power which the rational soul, the spirit, has, by virtue of the nature which it possesses, kindred and even homogeneous with the Deity. Its ideas, the conception of what is good, true, and beautiful, are to the world of unseen realities what the sun is to the external world. They reveal to the consciousness the facts of the world of real being. The idea of the good is that which sheds the light of truth and gives to the soul the power of knowing. Inasmuch as that idea is obscured, the truth can not be perceived.

"Blessed are the pure in heart," said Jesus "for they shall see God." They live a life not amenable, like a common earth-life, to the conditions of time and space, but in a peculiar sense dwell in eternity; and, therefore, they are capable of beholding eternal realities, and coming into communion with absolute beauty, goodness, and truth—in other words, with God Himself.

But here interposes the curious inquiry whether such a person has the power of prophesying. Unhappy word, that of prophesying. We are obliged to use it, and yet are compelled to explain it, that we may be correctly understood. It came illegitimately into our language, and stays there to help mislead the unwary. It is not from the Bible itself, where the better word *nebia* is used as seer or clairvoyant, but from the Greek, where it meant the interpreter of an oracle. The Hebrew term signified one who saw interior truth as with an epoptic vision, who brought forth knowledge from within. It related to the perception of the future only incidentally. "Coming events cast their shadows before," we freely admit. In the eternal page the mind of God, which the pure spirit may read, there is no past or future as the external sense takes account, all is present time, a constant *now*, and it potentially includes the future. Whoever knows the present well, knows also what will come. He feels what is to be when brought into close contact with what now exists, for the present is transitory and is the future—"becoming"—rather than the stable fact. Hence, when the Syrian, Hazeal, came into the presence of the prophet Elisha, the latter gazed on him till his countenance fell, weeping in the meanwhile, "because," as he explained, "of the evil that thou wilt do." Hazeal protested: "But what, is thy servant a dog that he should do this great thing?" He was of subordinate rank in the kingdom, like a dog, that must follow and not lead. The prophet then stated his own errand to Damascus as the answer: "The Lord hath shown me that thou shalt be king over Syria" (1 Kings, xix. 15; 2 Kings, viii. 7-15).

But vaticination, we repeat, is a second-

ary matter. Men do not enter into the counsels of the Omniscient to learn something which may be divulged to further the selfish purposes of others. If the alchemist has learned to transmute baser metal into gold, he is not, therefore, permitted to fill the coffers of others with the wealth, nor to make such gain for himself. Though the Son of Man be lord of the globe, he may not have where to lay his head. "The gift of God may not be purchased with money," and if any one could fall so low as to sell it, he would speedily find that he had not in possession what he had proposed to impart. Hence, in all ages and climates the venders of prediction and interpretations have sunk down into cheats, and, from the perfect and entire men who minister in the presence of Jeremiah, become the dirty itinerant emasculates who perform the rites of the Syrian goddess. "Ye can not serve God and Mammon," is an axiom always pregnant with truth.

If all may be gifted with prophetic intuition, it seems somewhat marvellous that so many are not. "An exceedingly small number is left," said Socrates, "of those who engage worthily in philosophy, and as to what concerns myself, the sign or interior signal of my dæmon, it is not worth while to mention that, for I think it has heretofore been met with only by one other, if any at all." Is it, indeed, as Jesus declared, "a strait gate at which many who seek to enter are not able." But with this matter we have nothing to do; every man has his own capability, one in this way and one in that, and we are not appointed to judge them. If they and we belong together, there will be an elective affinity to unite us; but if otherwise, the world is wide enough to give room to all. Strife, dissension, and quarrelling, all belong to the external and sensual nature.

Some souls are especially prophetic, and even clairvoyant. Those which are not are in untractable conditions, headstrong with their passions, and feel the restraint of the higher nature as a galling chain. Sometimes they get the better of this and follow the right; sometimes, however, to be again

drawn away and sunk into the mire of the external existence. If, by its discipline, the soul is bridled and becomes gentle and manageable, it will perceive and understand the minutest direction of the inward monitor. "The soul is singularly prophetic," because it contains the spirit or mind that perceives the essence and soul of all things. This condition is *entheasm*, an automatic activity of the mind, as distinguished from the effort of the will—the ideas coming by inspiration. It is remote from the ordinary working-day habits of thought, but, nevertheless, not abnormal or preternatural. It is only the higher evolution of faculties.

In clairvoyant conditions, such as are sometimes incident to prophetic natures, especially when the external life has somewhat relaxed its hold, the spirit is at times loosened from the body and suffered to go abroad and witness many things which would otherwise be out of its power. Thus the celebrated Swedenborg would be rapt from exterior consciousness, and for periods of considerable length hold only communication with persons, dead or living, who were elsewhere. On such occasions his eyes would shine with a lambent fire. A similar account is given of Epimenides, of Crete, who is quoted in Paul's Epistle to Titus. It is related that he could leave the body and return, and that he did so for long periods, holding converse with divine beings. During these periods he appeared insensible and entranced. He possessed the power of prediction, and, it is said, caused a plague to disappear from Athens, in the time of Solon, for which he would accept no reward. Plato declared that he transcended all other Grecian sages (Laws, iii. 2). Plutarch, also, relates of Hermodorus, of Clazomené, that it was reported that his soul would leave his body for several days and nights, travel over many countries, and return after it had viewed things and discussed with persons at a great distance. In one of these periods his wife delivered his body to his enemies, by whom it was burned.

The explanation given of this is as follows: "The soul (*psaché*) never went out

of the body, but loosened the tie which bound it to the demon or spirit, and permitted that to wander." The visit of Paul to Paradise, or the "third heaven," was of the same character (2 Corinthians, xii.); also, the peculiar visions of the prophet Ezekiel, in which Magian theosophy and every-day apparitions of scenes in Judea are curiously interblended. It appears to have been the aim of the interpreters of the ancient mysteries in their *epoptica* to develop this power, and among the Israelites were schools or *naioth* of prophets, and likewise *nazers* and a tribe of Kenites, that also cultivated clairvoyance. But all such manifestations are subsidiary to a greater faculty, and no phenomenal display can satisfy one who cares to go to the root of the matter.

The skeptic and the superficialist can abundantly gratify themselves with Mark Antony's description of the crocodile: "It is shaped, sir, like itself; and it is as broad as it hath breadth; it is just as high as it is, and moves with its own organs; it lives by that which nourisheth it, and the elements once out of it, it transmigrates." It may be that where no appeal can be made to experience, each person creates his own facts for himself; but we are not writing for those who know and care nothing for any wit or wisdom which is above the capacity of a drunken man.

The physical constitution is peculiarly adapted to these trance conditions. Analogous to the psychical and noëtic or spiritual duplex nature is a two-fold nervous system, one consisting of the brain and its dependencies, and the other of the vaso-motor or sympathetic nerves. Upon the latter our life intimately depends. The faculties which transcend these are associated with the former. All animals are endowed with a sympathetic nervous system, but only vertebrates with a cerebro-spinal axis. Man surpasses all these in the possession of a brain approximating that typified in the Apollo Belvidere—absolute divinity. The sympathetic system may preserve its integrity when the functions of the other are suspended. Hence comes catalepsy and apparent death, associated in

this money-maddened country, and others like it, with the perils of being buried alive. Ecstasis, like that of the persons whom we have named, and of Willson, Newart, Doddridge, and even the Fakir buried at Sahare for six weeks, in the year 1832, are more or less of this nature. If we are so constituted as to be susceptible to these peculiar states, there are normal conditions for entering them. But, like all other things which we do, the right and the wrong do not consist in what is done, but the incentive by which we are moved.

The intuitive faculty is the highest of all our powers. In its perfect development it is the instinct peculiar to each of us, matured into an unerring consciousness of right and wrong, and an equally vivid conception of the source and sequence of events. We may possess all these by the proper discipline and cultivation of ourselves. Justice in our acts and wisdom in our life are, therefore, of the utmost importance. These will bring us in due time to that higher perception and insight which appears like a child's simplicity to those possessing it, but an almost miraculous attainment to others.

In the end we come to the golden knowledge of our own selfhood, no more an egotism, but an atonement with the Divine source of being. Birth, however noble, is the merit of parents; wealth, the boon of fortune and industry. The benefits are uncertain. Old age will impair all physical endowments. But the possessions of the interior mind are permanent. We are rendered like Ulysses in the Homeric poem. Attended by Divine wisdom (Pallas-Athena) he encountered terrific danger, and rose superior to all adverse circumstances. He entered the cavern of the Cyclopes, but escaped from it; he saw the oxen of the sun, but abstained from them; he descended to the kingdom of the dead, but came back alive. With the same wisdom for his companion, he passed by Scylla, and was not seized by her; he was surrounded by Charybdis, and was not retained by her; he drank the cup of Circe, and was not transformed; he came to the Lotophagi, yet did not remain with them;

he heard the Sirens, yet did not approach them.

Assertions and half truths, emotions and excitements, are insufficient. Infidelity and blind worship are alike to be discarded. The love of the good is the leader to the intuition of the true and right. Then we

may not be quite certain whether the interior monitor is our own spirit quickened into infinite acuteness or perception, or the Infinite Wisdom acting through, in, and upon us; nor need we be eager to inquire, for the two are one.

ALEXANDER WILDER.

THE RESPONSE.

I AM wandering and I murmur
At the long and tiresome road,
That is leading me so slowly
To my long and last abode;
For I'm weary of life's burden,
Weary of its heavy load.

Then my Father whispers near me,
"Thou art chastened, but I steer thee."

I am striving and am toiling
In the heat and in the cold—
'Mid the selfish, 'mid the wealthy,
For a little of earth's gold;
For they tell me I shall need it
By and by when I grow old.

But He says, "Lay up no treasure,
As thou needest I will measure."

I am longing, and I covet
Something noble, something grand;
Something that will live forever—
Not a name upon the sand!
Why 'tis never to be given
Can I ever understand?

Sings there, then, an angel choir,
"Striving sister, look up higher."

I am grieving, and I sorrow
That I tread life's path alone,
For I've nothing now to love me,
Nothing now that I can own.
So I'm sad, and weak, and lonely,
Nothing bright unto me shown.

Then my dear Father looking down
Smiling holds a glittering crown!

LITTLE HOME BODY.

INDEPENDENCE OF CHARACTER.

IN this short article it is not our purpose to treat that subject to which the minds of Americans generally, and quite naturally, turn when they see the word *independence* at the head of an article. We shall prate of no "glorious declaration," nor of how our ancestors "fought, and bled, and died to achieve our liberties, and to establish the glorious principles of independence." So, do not expect anything to stimulate a fevered imagination. We would not have any disappointed.

It is our purpose to speak of an independence declared by no council, achieved by no bloodshed, maintained by no contests at arms; an independence of which national liberties are but the reflection—*individual independence*. This, though we are quite apt to overlook the fact, when we see a person who has a high degree of independence in thought and action, is that from which national liberties and free institu-

tions are but the natural outgrowth. In this lies the germ of that power which rebels against subjection and smites the hand of the oppressor, which overthrows dynasties, and establishes free governments.

A nation's independence is obtained only at the demand of the free and independent spirits of its individual inhabitants. In vain were all the blessings of freedom placed within the easy reach of a servile people; in vain were all attempts to form an independent people of servile and parasitical individuals. Nationalities are individualities combined and nationalized.

It is true that no man can extricate himself from the rest of mankind, and stand independent of the thoughts and actions, the likes and dislikes of his fellow-men. It is not desirable that he should. It is right that he be influenced in a measure by the customs, tastes, and preferences of those who surround him. Yet a certain

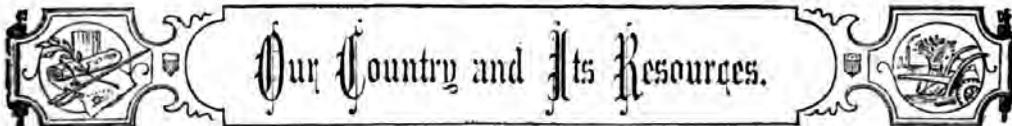
amount of individuality or independence of thought and action is an essential quality of true manhood. Every man is an individual. Notwithstanding the intricate relations existing between individuals and communities, no man has a right to be merely a part of any aggregate. He is necessarily a part; but he has a right to be an individual, within himself a whole, in addition to being a part. Nature throughout all her works abhors the idea of absolute independence, but it does not follow that she disavows distinctive functions.

We will not run into a very common error, and say that independence makes the man. It does not. It only helps to make him up; only furnishes a necessary part of the building material. In treating such subjects as the qualities in man's organization, one is very apt to commit absurdities. Thus, he who treats of soci-

ology, is in danger of saying that the social qualities make the man; he who writes for intellect and worships genius, that mind makes the man; he who treats of benevolence and our finer feelings, that sympathy makes the man; he who writes on ethics, that morality makes the man; and I, who write of a rather unpopular trait of character, am in danger of saying that *independence* makes the man.

We are all wrong. No one, two, or ten qualities make a man. It takes them all—all the qualities of our nature. But one of those most essential to the making up of an effective man is individuality, or independence of thought and action. A man that is a man, has a right to do what he believes to be right irrespective of what people may think or say of him. If a true man satisfy himself he is not far wrong. Aim right, do as you please, and take the consequences.

E. T. BUSH.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*

GLIMPSES OF WASHINGTON.

THE site of the city selected by President Washington is fourteen miles in circumference, covering 6,000 acres, in which avenues, streets, spaces, squares, and Government reservations find ample room. The city lies four miles along the Potomac, and about three and a half along the Anacosta, or eastern branch. The present extent of the District of Columbia is sixty-four square miles, the four sides facing N. E., S. E., S. W., and N. W. The center of the original territory is marked by a gray free-stone, about a mile due south from the President's house.

Fruits and vegetables in great variety are grown in the neighborhood, supplying the markets of the capital, which, by the way, are not the least interesting places for the stranger to visit. If you do not wish to purchase, go and be amused. On all sides will be heard the voices of the colored venders eulogizing their edibles. "Nice, sweet grapes, lady, only fifteen cents a pound," mingled with the yauping of chickens fluttering in cages, or in the hands of the consumers, the gruff voices of the fat man or woman at the meat counter, the childish tones of the candy and cake

sellers, the disputing of vender and purchaser, and other sounds innumerable. Saturday night is *the* time to go, the markets being closed every other night. Everybody is there then, with huge baskets to be filled for Sunday. The goods are all arranged so tastefully and systematically that even the mere gazer is constrained to buy.

The finest views of the city may be obtained from the Dome of the Capitol, the West Portico, and from the higher of the north-central towers of the Smithsonian Institute.

From that dream of architectural beauty, the Dome, the scene is enchanting, bewildering. As you gaze from the dizzy height the broad avenues, princely mansions, public buildings, extensive grounds, parks, and imposing monuments combine with the Potomac on the west and the Anacosta on the east to form a picture more fairy-like than real.

The plan of the city was prepared in 1791 by a French engineer, greatly assisted in the work by Thomas Jefferson, who had studied plans of cities in Europe. The prevailing object was to secure positions for the public edifices, also squares and spaces affording fine prospects. Washington is said to resemble Versailles strikingly, and is every year becoming more worthy the greatness of the nation.

The President's grounds include North and South Parks, and Lafayette Square, and are tastefully laid out, and contain the White House, with its conservatories, stables, etc. Flowers and fountains glittering in the sunlight form an attractive picture, and the stranger is tempted to linger within the gates.

The Capitol Grounds, comprising between two and three hundred acres, are adorned with the Capitol, Agricultural Department, Botanical Garden, and Smithsonian Institution. The park extends to the banks of the Potomac, the grounds being occupied by the Washington Monument and Government Nursery. On the grounds of University Square, the Naval Observatory is open every day except Sunday, from 9 A. M. to 8 P. M. The Pennsylvania Avenue horse

cars will carry you within ten minutes walk of one of the leading astronomical establishments of the world, the Observatory, occupying a commanding site on the north bank of the Potomac. The central building is surmounted by a dome, over which a black canvass ball, two and a half feet in diameter, is hoisted daily a few minutes before noon, and by means of a steel spring governed by a magnet, is dropped on the instant of noon, thus giving the time by authority to the people.

Among other Government reservations are the Arsenal Grounds, Hospital Square, and Center Market Square, the last occupied by the principal market in the city. The building is very large and handsomely ornamented, so that it does not present the external appearance usual to a market.

The Navy Yard, comprising some twenty-seven acres, is an interesting locality, and some courteous sailor will be found willing to conduct the stranger to places of interest. The entrance to the grounds is by a gateway of stone, over which are small cannon and ball embellishments, and in the center an eagle resting naturally upon an anchor.

Within the entrance are large, captured cannon, officers' quarters, storehouses, copper-works, foundry, etc. On the river bank are two ship houses, where may be seen ships partly constructed. The massive timbers seem to say in their strength, "No freak of old ocean shall ever cripple us." On the opposite side of the river, crowning the hill, is the National Asylum for the Insane.

The view down the river is very fine. In the west part of the yard is the Ordnance Shop and Laboratory. Persons interested in the examination of death-dealing implements will find ample scope for observation in the Museum, which is open daily. A very courteous old man who is in attendance will give information from his inexhaustible store. The ceiling glitters with swords, cutlasses, sabers, pistols, etc. Among the relics is a Spanish gun cast in 1490. Torpedoes, shells, submarine rock-ets, and other monstrosities from the field of carnage, passively invite your attention.

The avenues of Washington are the finest in the world, numbering twenty-one, and named for the different States. Nineteen of them vary from one hundred and twenty to one hundred and sixty feet in width, with ten-foot sidewalks. Pennsylvania Avenue is the principal thoroughfare. Along its route are the Washington Circle, War and Treasury Departments, and President's House. It traverses the finest business section and fashionable drive, then winds up around the banks of the Anacosta.

Massachusetts Avenue is the longest, unbroken thoroughfare in the city, being over four and a half miles. The avenues

and streets. These are delightful breathing spaces that give the city a generous appearance. One does not have to walk or ride several miles to revel in nature's charms, for intervals of not many minutes' walk bring you to ornamental parks of seven, four, three, one, or six acres. These squares are artistically laid out in walks, with seats, and adorned with shrubbery, many of them rare species. Some of the larger and older spaces contain bronze vases, statuary, fountains, drinking fountains, rookeries, etc. Lafayette Square, a parallelogram, contains bronze vases weighing 1,300 pounds each, mounted upon granite pedestals. The work is from the



THE CAPITOL.

form one of the principal attractions of the city, being finely paved with a variety of materials. Among the noticeable is the wood, round block, compound wood and concrete, Belgian, and granite, cobble stone, macadam, etc. Universal cleanliness is a striking feature; many resemble *floors*, and are almost as clean.

The streets run from north to south and east to west, and are designated numerically and by letters. So systematic is the arrangement, that the stranger may find his way without difficulty.

Washington combines much of the country in the form of beautiful squares, circles, etc., at the intersection of various avenues

and streets. In the center of this Square is a statue of General Jackson which was cast from brass guns, mortars, etc., taken in battle. Its weight is fifteen tons, and its cost \$50,000.

In an unnamed square stands the colossal bronze equestrian statue of General Winfield Scott, mounted on his war steed, holding the reins in his left hand, and a pair of field glasses in the right. There he sits in full uniform, as if surveying the field. His noble charger with dilated nostrils and throbbing veins appears waiting to obey the first command.

Lincoln Square contains a mound to be honored with a statue of President Lincoln.

Washington Circle contains the equestrian statue of Washington. This horse is represented as if recoiling from the clash of steel, and storm of shot, while the rider maintains that equanimity of attitude and expression illustrative of his noble character.

On the bank of the Potomac is the Propagating Garden, covering some eight

open daily, contains marvellous productions of vegetation. At the foot of Capitol Hill this instructive and delightful resort is situated. There are two main entrances, consisting of four marble and brick piers with iron gates. All wheeled vehicles are prohibited in the Garden. A low brick and stone wall with iron railing surrounds the inclosure of walks, lawns, and flower beds.



VIEW IN A CONSERVATORY OF BOTANICAL GARDEN—FAN PLANT.

acres. In 1872 upward of twenty thousand papers of flower seeds were assorted here. These, with hot-house annuals, roses, geraniums, etc., were given to members of Congress, to be distributed among the people. The public parks are supplied with trees and shrubs from a nursery connected with the Garden. The Botanical Garden,

On either side of the main walk hardy plants are arranged in summer, with colossal century plants, cacti, etc. A large fountain with an immense marble basin throws its stream to a height of sixty feet. The lovely effect of the sun upon the shimmering globules can better be imagined than described.

The main conservatory consists of a central dome corresponding to the large dome of the Capitol towering above it, and two wings. This dome is supported by a brick column which also serves for a chimney. Around the column winds an iron, spiral staircase which leads to a cupola. There are ten smaller conservatories, in one of which is a botanical class-room, with

carefully. Members of Congress are supplied with seeds, plants, and frequently bouquets from this liberal educating and distributing garden. The strictly tropical plants occupy the central conservatory. Here, all the prominent varieties of palms are assembled. One of the most interesting is the Scripture or date palm, nearly every portion of which is utilized



VIEW IN THE CONSERVATORY OF THE WHITE HOUSE.

accommodations for students. Progress must be the inevitable result of study amid such surroundings.

All the conservatories are heated by hot water supplied by five boilers, and many of the tropicals require such an amount of heat that it is very uncomfortable for visitors to remain long enough to examine them

by the dwellers upon its native soil. While in the heated department, you will naturally turn with imploring glance to the fan palm, for a breeze from its great motherly leaves; but their tranquil repose tauntingly asserts, "We are not the servants of men!" The royal rattan, the sago of Japan and China, Panama hat, oil, wine,

coco de Chili, sugar, and cradle palms, all rear their tops here in stately grandeur. The East Indian bamboo, the tree fern from New Zealand, the screw pine from Australia with its corkscrew leaves, the banana, the great stag and elkhorn ferns from Australia, and dumb cane of South America, with countless others, form an exhibition of exotics rarely seen. Space will not allow the mention, even, of the names of specimens kept in a cooler temperature, from Brazil, South Sea Islands, etc. The India rubber tree, bread-fruit tree, candle-nut tree, and queen plant, bearing a bird of paradise flower, are also noticeable.

In the west wing are the tea plant, custard apple, camphor tree, and a South American plant, the sap of whose root has the power to take away *speech*. Humboldt was eight days speechless from tasting it.

Near the Garden is the Capitol, occupying nearly the center of the city, its dome, that marvel of beauty rising to its home in the clouds, being visible for many miles around, and imparting to the city a magnificence that its paper representations can convey no idea of. The east front of the Capitol is embellished by three grand porticoes, reached by broad flights of steps, and from these open the principal doorways of the Capitol. Here the massive columns and colossal group of figures representing the Genius of America, cut in sandstone, invite attention and study. On the south buttress stands a group of statuary representing the Discovery of America, with Columbus holding on high a small globe, on the top of which is America. Crouching at his side is an awe-stricken Indian girl. It is said that the armor of the discoverer is a true representation, having been copied from a suit preserved by his descendants at Genoa.

A group on the north buttress represents the First Settlement of America. A hunter is seen rescuing a woman and child from a murderous Indian, while by his side is a faithful dog. This work consumed about twelve years in its execution, and cost \$24,000.

The east portico of the Senate extension

is reached by a broad flight of marble steps, broken by four landings. This portico is also adorned with columns, Corinthian in style. The group of figures on the tympanum symbolizes the progress of civilization in the United States. The figures represent America, in the center, with War, Commerce, Youth, Education, Mechanics, and Agriculture on her right, and the Pioneer, Hunter, and the Aboriginal on her left. The last is represented by an Indian and squaw with infant in arms, seated by a filled grave. The cost of this group was nearly \$50,000.

The great bronze door opening into the Rotunda from the grand Portico is a magnificent work of art, and hours of study are necessary to appreciate it. Its entire height is nineteen feet, and it weighs 20,000 pounds, and cost \$28,000. It was designed and modeled in Rome. It is divided into panels, each of which contains a complete scene in *alto relievo*, portraying events in the life of Columbus and in the discovery of America. The facial expressions are life-like, and the attitudes and forms so strikingly natural one can scarcely believe that the whole is a mass of bronze. The casing is also of bronze richly wrought, on the arch of which is a head of Columbus.

Passing through this door you stand under the soaring canopy of the Rotunda. Seats are arranged for visitors, affording opportunity to scan the historical paintings between the doors, which illustrate the discovery and settlement of America, and leading events in the struggle for independence. The circuit of the sides is divided into eight panels separated by Roman pilasters, supporting an entablature ornamented with wreathing. The upper portions of the panels are elaborately embellished with flowers, scrolls, etc. The wreaths over the panels encircle busts of Columbus and others identified in the exploration of the American Continent. The paintings in the panels represent The Declaration of Independence, Surrender of Burgoyne, Surrender of Cornwallis, and Resignation of General Washington, each costing ten or twelve thousand dollars. Wonder and admiration fill the mind in viewing and con-

templating this world of painting; for above, as well as below, the artist's hand has produced scenes that vie with life in form and color. Turning the eyes upward to the great, domical ceiling groups of figures in fresco look down from their dizzy height! From the floor of the Rotunda the scene is a sky of painting; the figures are at first only of medium size, but as you ascend the dome they increase until you reach the summit, where they are colossal. The cost of these frescoes was \$50,000.

To describe the ascent to the summit of the dome, the intricate flights of steps

session. The light may be seen from all parts of the city. The lantern is surrounded by a peristyle and crowned by the bronze statue over nineteen feet in height, which cost upward of \$23,000. The drapery of the figure is strikingly graceful, and the statue as a whole exhibits grace and decision. The weight of iron used in constructing the dome is said to be *three thousand tons*.

The grounds surrounding the Capitol comprise more than fifty acres, and are undergoing constant improvement. In front of the central portico is a broad, paved carriage court some three hundred feet wide, also a seat divided into eight



THE TREASURY DEPARTMENT.

winding around the wondrous mechanism, and the views of the outer world to be seen from the different balustrades, is impossible. One must climb, look, and wonder, climb, climb, gaze, and grow dizzy for himself, and an excitable nature will be overpowered with these works of man. The highest pinnacle reached by steps and open to visitors is just below the statue of Liberty crowning the top of the dome. Here an outer balustrade affords opportunity to step out, walk around and view the city and surrounding country. Just above is a lantern fifty feet high, in which is a reflecting lamp lighted only when Congress is in

spaces by piers of blue stone three or four feet high, surrounded by bronze lamps twelve feet high. A beautiful Mosaic pavement in colors is laid in front. Before the central portico stands half a dozen lamp piers some thirteen feet high, composed of blue stone and granite, and surmounted by bronze vases from which arise spray fountains, all very picturesque, and heightened in beauty by the Mosaic pavements around them. In front of the central western portico is an oval basin which receives the water from a blue and white marble fountain near by.

The Library Halls occupy the principal

floor of the entire west projection of the Capitol. The floors are black and white marble. The alcoves and shelves are embellished with panelled fronts, painted a pale, buff color and finely gilded. It is said to be the only fire proof library in the world. The Supreme Court room is semi-circular, with a rather flat dome, embellished with panels in stucco. On the east side Grecian columns of Potomac marble extend along the back of the range of judges' seats supporting a gallery. The floor is beautifully carpeted. Outside the wall are seats for visitors. The walls are adorned with busts.

After leaving the Supreme Court room, the visitor should proceed to the bronze door of the Senate, which is finely ornamented with scroll work, vines, maize, etc. This door is divided into panels, in which are represented events connected with the Revolution. Above the door are two reclining female figures in marble, representing Justice and History.

From this portico the bronze door opens upon a vestibule which consists of a range of sixteen fluted marble columns. The ceiling is composed of massive blocks of highly polished marble, some of them provided with stained glass for the admission of light. The walls are in imitation of marble, the floor tessellated in blue and white marble. On the right is the Senate Post Office, with doors of birdseye maple set in bronze frames.

The east staircase, ascending to ladies' galleries, committee rooms, etc. is magnificent, being of highly polished Tennessee marble. At the foot of the steps, in a niche, stands the statue of Franklin, in marble, by Powers. Against the east wall is the immense painting of Perry's Victory over the British. From the balustrade at the top of the staircase is the place to view this marvelous production of the brush. Light from stained glass windows illumines this brilliant 25,000 dollar picture.

The Senate Reception Room, the vaulted ceiling divided into sections, is beautified with allegorical figures in fresco. The walls are tinted and enriched with gilt and stucco, and divided in panels with medal-

lion centers, each of which is surrounded by wreaths and surmounted by an eagle. The furniture is of rosewood, with damask and lace curtains. On the east side is the Senate Post Office frescoed and elegantly appointed. The finest apartment of its kind in the world is the marble room, whose ceiling consists of massive, polished blocks of white marble, resting upon columns of Italian marble, while the walls are of highly polished Tennessee marble.

The Senate lobby is richly decorated with paintings, portraits, frescoes, mirrors, etc. Visitors are admitted to this. A luxuriously furnished elevator for the use of Senators runs from the basement to the second floor. The white marble staircase leading to the reporters' gallery is supremely beautiful in design and execution. At the head of the first flight of steps is a costly painting. The second floor of the Senate extension is occupied by corridors, with doors leading into the Senate galleries, committee rooms, ladies' room, etc. The Senate Chamber occupies the center of the principal floor. It is in the form of a parallelogram, and over eighty feet in length. Around the chambers are the galleries, which are reached by two marble staircases. Parts of them are devoted to reporters for the press, ladies, and families of Senators. A luxurious retiring room for ladies, the telegraph office, and reporters' retiring room are on the same floor. On the Chamber floor are seats for seventy-four Senators; the desks are made of mahogany, and arranged in semi-circles. The desk of the President occupies a raised platform. Different committee rooms are open to visitors, as those wherein naval, military, and Indian affairs are discussed. The National Statuary Hall is in form of a semi-circle, with vaulted ceiling. The floor is of marble, a gallery with cushioned seats for some five hundred persons, a very novel, marble clock, bronze and marble statues from different States, and portraits form the principal equipments.

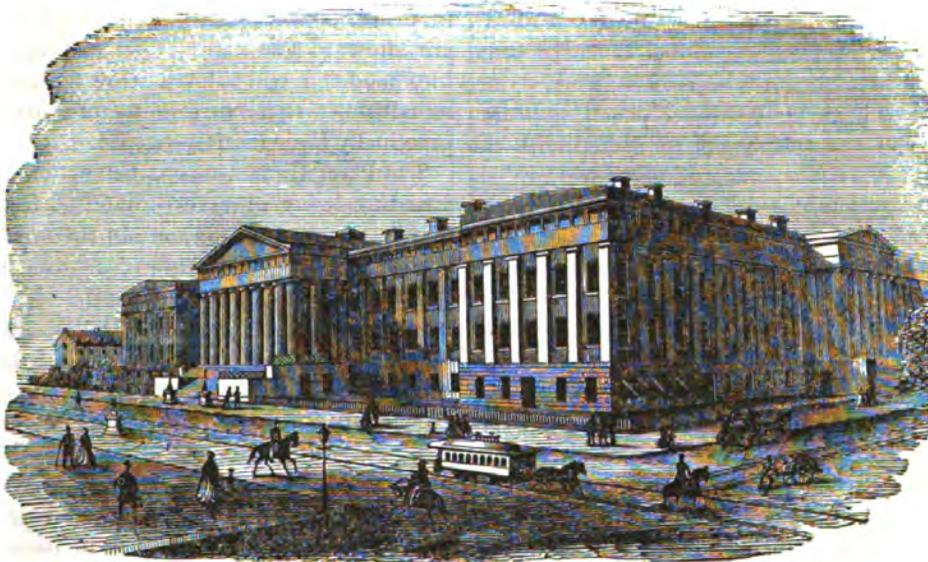
The House of Representatives corresponds in general features with the Senate Chamber, the hall of the former being the larger of necessity. The paintings

there are colossal, costly, and deserve study. One of the most striking is "Westward Ho," the snow clad peaks and rugged heights, the travel-worn faces of the emigrants, and the camp combining to form a scene vivid with life.

The President's residence, or White House, one and one-half miles from the Capitol, is built of freestone and painted white. The exterior is plain, as all pictures represent it. The south front is adorned with a lofty, semi-circular colonnade of six columns, and reached by two flights of steps. On the north is a grand portico supported on eight Ionic columns, with pilasters in

are four mirrors on the side walls, and two on either end. The mantle clock and other ornaments are unique.

The Oval or Blue Room is an exquisitely brilliant apartment, beautifully finished in blue and gold. The crystal chandelier with reflector, the French vases and upholsterings vie with the bright, blue sky in color, and combine to render this an attractive room on private and public occasions. The Green and Red rooms are equally luxurious. On the mantle of the latter is a fine gilt clock and unique vases; this room is also the family parlor. The private grounds consist of about twenty acres. On



THE PATENT OFFICE.

the rear affording shelter for carriages and pedestrians. The main door on the north opens into a spacious vestibule, frescoed overhead and divided into two parts by a sash screen. A crystal chandelier, resembling a mass of diamonds in appearance, is suspended from the ceiling with medallions on either side. Within the screen are portraits of former Presidents. The Banqueting or East Room is an elegant apartment, eighty feet in length. The style of decoration is Grecian, the ceiling being divided into three panels, all painted in oil.

The walls are covered with raised paper, and gilded and painted a drab gray. All the wood-work is white and gold. There

every Saturday p. m. during the summer, the Marine Band plays in these grounds. This is considered the finest band in the country, and the music is enjoyed, if not appreciated, by the assembling of old and young, colored and white people, who saunter here *ad libitum*.

The building set apart for the State, War and Navy Departments, on the west of the White House, though not completed will be a spacious edifice, constructed wholly of iron, and covered with slate. The floors are of iron and brick, and all the interior finish of iron. Some of the largest stones used for platforms of the porticoes weigh twenty tons each. The stone used

is granite, some of which comes from Maine. The estimated cost of the building is about \$5,000,000.

The Treasury Department has four fronts; the west, facing the city, consists of a colonnade and Ionic columns, with recesses and portico on either side. The east front, facing the President's House, is broken by a portico consisting of eight pillars in front and two in the recess in the center and each side, reached by broad flights of steps. The north and south fronts are of similar architecture, consisting of central portico and eight front columns. Steps descend to a broad, tessellated platform, on each side of which is a balustrade. The attractions of the front are heightened by a beautiful fountain. On either side of the steps and platforms flowers and shrubs lend their rainbow hues to the scene. To attempt to describe the immensity of this building would be vain.

The objects of special interest to strangers are the Cash Room and Vaults. The particular features of the former are the walls, which are of highly polished marble of many varieties. Some of the more beautiful is the dove marble from Vermont, and the white-veined Italian and Pyrene. The different tints are arranged to produce a charming effect.

The vaults are of steel and iron, in size about twenty by fifteen feet. The amount usually in the vaults is \$10,000,000, which is kept in packages or bags stored in wooden casks. Near the door of the vault is an elevator for conveying money between the vaults above and the express office below. The counting of currency is done entirely by ladies.

About equi-distant from the Capitol and White House stands the Patent Office, occupying two squares. This structure covers nearly three acres, and its massive proportions impress the beholder. The Museum of Models occupies a suite of four magnificent halls on the four sides of the building, where may be seen machines of every describable variety, and a number of relics of historic value. One case contains relics of the Washington family, among them an entire uniform of General Washington as

worn in 1783, with his sword, secretary, cane, sleeping tent, etc. A set of blue china, some of the pieces worn and cracked, are viewed with interest. The original Declaration of Independence, yellow with age, a treasure chest, andirons, camp chest, curtains worked by Martha Washington, tents and poles, and other curiosities may be seen in case 32.

The General Post Office is a magnificent edifice, constructed of New York marble. The Department of Agriculture contains much of interest; it is constructed of brick with brown stone bases, cornices, and trimmings. The interior is divided into halls, officers' rooms, Museum, etc. Here the agricultural productions of the United States are shown. The many fruits and vegetables modeled and colored represent nature so faithfully that one feels tempted to test practically their lusciousness.

The Plant Houses are extensive, the main structure being over three hundred feet in length. The pavilions contain the orange-ry and other semi-tropical fruits. The grounds are elegantly laid out. In the rear of the building are the Experimental Grounds, covering about ten acres. Here small fruits, seeds, etc., are tested, and plants cultivated and propagated.

The Army Medical Museum (formerly known as Ford's Theater, and the scene of the assassination of President Lincoln) is open daily, and contains much of interest, especially to the medical faculty. Since that tragedy the interior has been remodelled and made fire-proof. The locality of the terrible deed may be seen, and the height from which Booth jumped after his fatal act. The specimens, numbering sixteen thousand, are divided in sections. A Surgical section, embracing specimens of the effect of missiles on the body, etc.; a Medical section, with Microscopical, Anatomical, Comparative Anatomy, and Miscellaneous preparations. Just opposite this building is the private house where President Lincoln was conveyed and died.

The Smithsonian Institution is interesting to old and young. Built of freestone and fire-proof, with its nine towers, its appearance is imposing. The main hall, some

two hundred feet in length, contains specimens and relics of animals and birds, living and extinct. The various apartments are furnished with rare curiosities, exciting awe and admiration. The Corcoran Art Gallery is open three days of the week free. It is constructed of brick with ornaments of freestone, consisting of carved wreaths, enscrollments, monogram of the founder, etc. The entrance on Pennsylvania Avenue opens into a vestibule, from which the broad stairs lead to the picture galleries in the second story. The foundation of this collection of statuary and paintings is

ington, and occupies a site south of the President's House, near the Potomac. When completed it will rank with the loftiest works of modern or ancient times; the proposed height being six hundred feet, and the estimated cost \$1,120,000.

Much might be said of the environs of Washington, including Georgetown, Mount Vernon, and Arlington—that hallowed retreat where loving hearts and willing hands have joined with Nature in producing a resting place for all that remains on earth of thousands and thousands of our country's martyrs; but my purpose has been



THE SMITHSONIAN INSTITUTION.

the private collection of Mr. Corcoran, the founder and donor. The halls containing the statuary are furnished with seats, and the gazer is soon engrossed in the vast assembly of speechless, though life-like forms in marble. One of the most exquisite of these is Power's Greek Slave, which occupies an octagon room fitted up with special reference to its exhibition. Rare bronzes and antiquities combined with the magnificent collection of paintings and statuary, render this a specially attractive and instructive resort.

The Washington Monument, under process of completion for the Centennial, is a long neglected tribute to George Wash-

accomplished in a brief review of the leading features of Washington city proper.

GRIZEL.

A THOUGHT FOR THE HOUR.—The fundamental principles underlying government and citizenship the true Centennial spirit is peculiarly competent to teach. They must be learned at any cost, and fearful cost there has already been in the teaching of them. We must learn that we can not "be found fighting against God" by disregarding the eternal laws He has set upon His universe and all His people. We can not get a day's wage without a day's work—unless somewhere and somehow we rob

our neighbor. Nor can we make "money" without dollar for dollar of labor put into it. Work can not be done without workers, and the State, democracy, America, is safe only as every man does his duty by it. Leaders must lead, else demagogues will. We can not get honest work out of dishonest men, if we permit them to be elected to office or to put themselves forward in practical control. We must discriminate at the polls both among issues and between men. The party that is the honest one in the nation may be practically the dishonest one in State or city issues, and since there is no hope in human nature for a party which shall have all the good men on the one side and leave all the bad men to

the other, the true citizen must still vote the one ticket on this ballot because it means honesty here, and the other on that ballot because it in turn means honesty there. The independent voter may be a Republican in a national, a Democrat in a State, and a third party Reformer in a city issue, and *therefore* be the one consistent man in the crowd. Finally, we must not be afraid to look facts in the face, and, for instance, if a tariff picks our pocket without our knowing it, so that we are not on the watch for thieves, let us have direct taxation for that reason alone. Eternal vigilance is the price of liberty, and apathy is the one danger to democracy.—*Christian Union.*

A LEAF OF NATIONAL HISTORY.

SO much of the early history of our country has been published in the numerous magazines and newspapers during the past year that the people, young and old, have had good opportunities to "read up" on the subject. Our readers, we are quite sure, need but a suggestion to recall to their recollection the exciting scenes in the Revolutionary councils, where noble men, who preferred to be loyal to the mother country, if they could, felt themselves driven to extreme measures in the endeavor to protect their firesides against tyrannous exaction.

It was in Carpenter's Hall in Philadelphia that the first Continental Congress assembled, on the 5th of September, 1774. This assembly was in response to a circular issued a few months before by the patriots of Massachusetts, who had been driven to desperation by the Boston Port Bill. Carpenter's Hall still stands at the end of an alley between Third and Fourth streets, running south from Chestnut Street. Its name is derived from the fact that it was built to be used as a place for the

meetings of the Society of House Carpenters. Afterward the building was used for several years as the business office of the first bank of the United States. Then it was appropriated for baser uses for a long time. It is now occupied by the Carpenters' Society, as at the beginning. In that building were discussed and matured the plans which were subsequently carried into effect, with respect to armed opposition to the encroachments of England.

The battle of Lexington aroused the whole country to arms. That event occurred on the 19th of April, 1775, and before the close of the following summer the power of every colonial governor from Massachusetts to Georgia had been destroyed. The Second Continental Congress assembled at Philadelphia May 10th of the same year, and only two days before the battle of Bunker Hill, June 15th, 1775, George Washington was elected commander-in-chief of the army to be raised in defense of the colonies.

The war had gone on with varying

success, but enough encouragement had been afforded by the experience of the colonists in their struggle with England's finely-equipped armies to inspire them with the idea of entire independ-

lution: "That these united colonies are, and of right ought to be, free and independent States; that they are absolved from all allegiance to the British Crown, and that all political connection



FIG. 1—OLD INDEPENDENCE HALL, PHILADELPHIA.

ence. It was while the Continental Congress was in permanent session in the old State House at Philadelphia, now known as Independence Hall, that Richard Henry Lee proposed the reso-

lution: "That these united colonies are, and ought to be, totally dissolved," which may be taken as an embodiment of the popular sentiment. This resolution was adopted on the 2d

of July, 1776, nearly a month after Lee had proposed it, and on the 4th of July, after a debate of two days, the Declaration of Independence, written by Thomas Jefferson, chairman of the committee appointed to prepare it, was adopted, and the thirteen colonies rep-

and commenced in 1729, but not completed until 1734. The steeple which originally decorated it was taken down in 1774 on account of its decay, and only a small belfry was left to cover the Bell until 1828, when the present steeple was built, and designed to re-

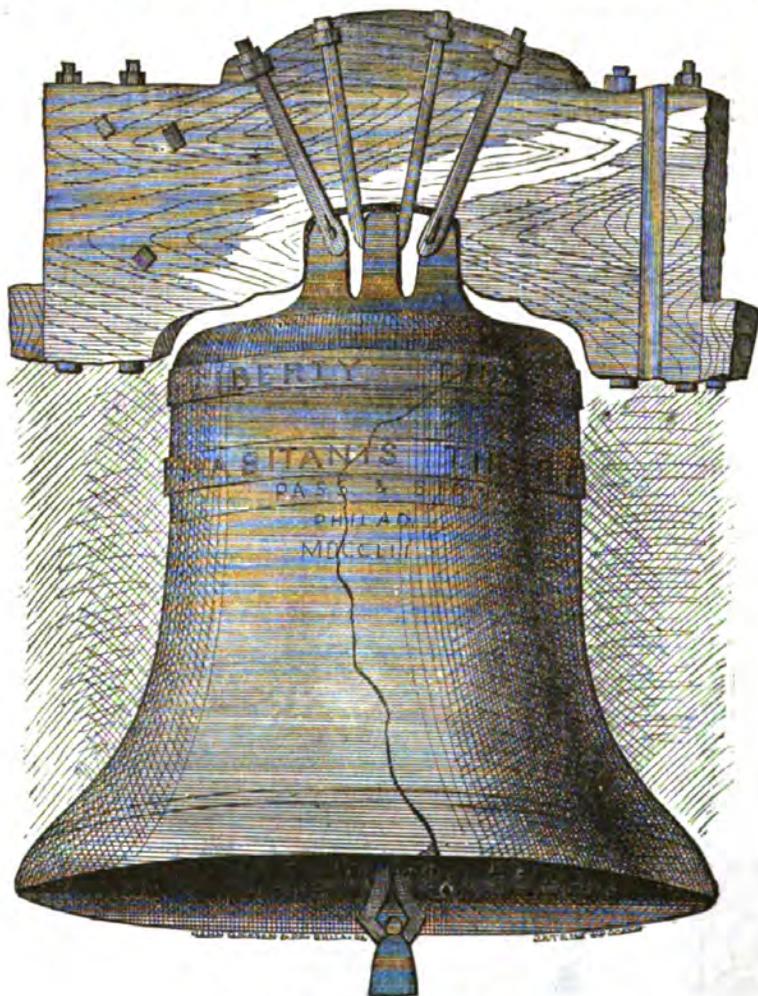


Fig. 2—THE OLD LIBERTY BELL.

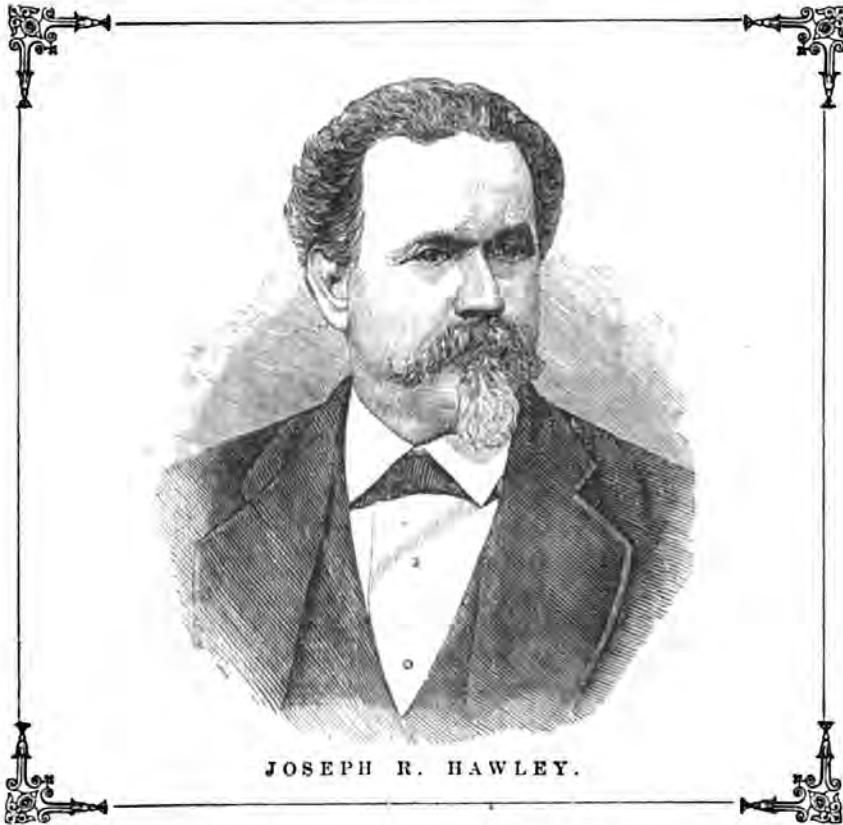
resented at the session declared free and independent States under the name of The United States of America. The room in which this great measure was considered and passed is known as Independence Chamber. The building stands on Chestnut Street between Fifth and Sixth. It was designed for the use of the Provincial Assemblies,

semble the old one as nearly as possible.

The old bell, on which so much of pleasant interest rests, was imported from England in 1752, but cracked in its first ringing. Subsequently it was re-cast in Philadelphia, and the famous inscription, "Proclaim liberty throughout the land and to all the inhabitants there-

of," put upon it. This was more than twenty years before the independence of the colonies was more than dreamed of. The bell had been previously used for the clock, but very appropriately served to announce to the waiting, anxious inhabitants of Philadelphia, and, we may add, metaphorically, to the whole liberty-loving land, the act which consecrated our national life. It now occupies a place with its original armature in the south vestibule of the build-

ing. The old hall of Independence is preserved in much the same condition which distinguished it in the days of the Declaration, and portraits of nearly all the signers adorn the walls. There may be seen a copy of the original draft of the Declaration in Jefferson's handwriting, interlined by Franklin and Adams. The table on which it was signed, the chair occupied by John Hancock, and other relics are there, all of which are free to visitors.



JOSEPH R. HAWLEY.

CENTENNIAL MATTERS.

THE exercises which opened to the world the Exposition at Philadelphia on the Tenth of May were exceedingly interesting and very successful in general arrangement. The day was not ushered by a "Sun of Austerlitz," but the weather proved favorable enough during the ceremonies to keep the immense assembly in good feeling.

It is estimated that more than 100,000 persons were on the ground at the time—a well-dressed, orderly throng. Music was a prominent feature of the occasion. Overture, national airs, hymn, cantata, filled the air with harmony and inspired the hearers with a patriotic enthusiasm. We are becoming more and more musical as a people,

as exemplified in the growing use of band and chorus on popular festivals and celebrations.

On this occasion President Grant delivered an address, perhaps the longest effort at public speaking which he has yet made, in response to the presentation speech of the President of the Commission, Mr. Joseph R. Hawley. One paragraph is so full of practical wisdom, exhibiting at once commendable modesty, the spirit of international sympathy, and patriotic fervor, that we quote it even at this late date :

“One hundred years ago our country was new and but partially settled. Our necessities have compelled us to chiefly expend our means and time in felling forests, subduing prairies, building dwellings, factories, ships, docks, warehouses, roads, canals, machinery, etc., etc. Most of our schools, churches, libraries, and asylums have been established within a hundred years. Burdened by these great primal works of necessity, which could not be delayed, we yet have done what this Exhibition will show in the direction of rivalling older and more advanced nations in law, medicine, and theology; in science, literature, philosophy, and the fine arts. While proud of what we have done, we regret that we have not done more. Our achievements have been great enough, however, to make it easy for our people to acknowledge superior merit wherever found.”

Mr. Hawley's address was a very happy one, well delivered, and to the point. We think that in selecting him to preside in their deliberations the Commissioners showed a sound discretion. He is a prompt, energetic gentleman. Considering him phrenologically, from the data furnished by the portrait, we would say that he has a strong body, excellent health, and amplitude of brain-development. His head is broad from side to side, indicating courage, earnestness, and severity, when it may be requisite. He is prudent, has a fair degree of policy, and a good share of the desire to acquire; hence he is able to conquer the difficulties, appreciate the business phases of life, and to push his enterprises to successful completion; and

though he has large Benevolence, and is very ambitious, and sensitive with reference to the good opinion of his friends and the world, and therefore would be likely to use money pretty freely in the promotion of friendship and sociability, he knows what a dollar is worth, and, when engaged in the acquiring of property, evinces skill and talent.

He has mechanical ability, as indicated by the fullness of the temple. He has reasoning power, as evinced by the abundant development in the upper part of the forehead. The perceptive organs, situated across the brow, are well developed, enabling him to gather facts rapidly, and to appreciate their uses; but his power to comprehend their meaning and adaptation to promote results, is the strong part of his intellect. He is a real critic, detects errors and inconsistencies in what he hears or sees, appreciates fallacy in argument, and knows how to show it up to ridicule.

He is very fond of fun, must be sociable, companionable, and entertaining. He is agreeable, knows how to put the smooth side of a subject in front; can persuade, soothe, and conciliate people readily, and at the same time he has a squareness of statement and conduct which is not very compromising.

He has Hope enough to look on the bright side of life, and we judge that he has reverence for sacred subjects, and decided ambition to be known and approved. He is firm and determined, but his Firmness will work more strongly and steadily in conjunction with his executiveness than it will when he is in a passive condition. It is not so natural for him to “stand still, and see the salvation of God” as it is to buckle on “the sword of the Lord and Gideon,” and strike and push to achieve results. There is a good intellect for literature, for public affairs, for science, and for general scholarship, and the use of scholarship in the departments of literature, science, or business.

Mr. Hawley was born in Richmond County, North Carolina, October 31, 1826. His parents removed to Connecticut when he was about eleven years of age. After graduating at Hamilton

College, New York, in 1847, he studied law, and entered upon the practice of that profession in Hartford. After a practice of six years, becoming very deeply interested in the slavery question, he was made editor of the Hartford *Evening Press* (an organ of the new Republican Party) in 1857, and took a very active part as a speaker in the political campaigns.

On the breaking out of the war and the publication of Mr. Lincoln's first call, he drew up an enlistment paper, and headed the list as the first volunteer from Connecticut.

He served throughout the war in different capacities and at different points, winning honors and preferment until he was appointed a general in 1864.

Returning home in the fall of 1865 he became again interested in the political movements of his State, and was nominated and elected Governor in the campaign of 1866, which proved one of the fiercest ever known in Connecticut. His administration was characterized with much vigor.

At the meeting of the Centennial Commissioners, which was held on the 18th of May, Mr. Hawley was elected to the Presidency of the Commission for a second term.

It may not be out of place here to give entire Mr. Hawley's speech at the opening of the Exhibition, comprising as it does in brief a history of the events relating to the origin and progress of the Centennial movement. It is as follows:

"MR. PRESIDENT: Five years ago the President of the United States declared it fitting that 'the completion of the first century of our national existence should be commemorated by an exhibition of the natural resources of the country and their development, and of its progress in those arts which benefit mankind,' and ordered that an exhibition of American and foreign arts, products and manufactures should be held under the auspices of the Government, of the United States, in the city of Philadelphia, in the year eighteen hundred and seventy-six. To put into effect the several laws relating to the Exhibition, the United States Centennial Commission was constituted, com-

posed of two commissioners from each State and Territory, nominated by their respective Governors, and appointed by the President. The Congress also created our auxiliary and associate corporation, the Centennial Board of Finance, whose unexpectedly heavy burdens have been nobly borne. A remarkable and prolonged disturbance of the finances and industries of the country has greatly magnified the task; but we hope for a favorable judgment of the degree of success attained. July 4th, 1873, this ground was dedicated to its present uses. Twenty-one months ago this Memorial Hall was begun. All the other one hundred and eighty buildings within the inclosure have been erected within twelve months. All the buildings embraced in the plans of the Commission itself are finished. The demands of the applicants exceed the space, and strenuous and continued efforts have been made to get every exhibit ready in time.

"By general consent the Exhibition is appropriately held in the City of Brotherly Love. Yonder, almost within your view, stands the venerated edifice wherein occurred the event this work is designed to commemorate, and the hall in which the first Continental Congress assembled. Within the present limits of this great park were the homes of eminent patriots of that era, where Washington and his associates received generous hospitality and able counsel. You have observed the surpassing beauty of the situation placed at our disposal. In harmony with all this fitness is the liberal support given the enterprise by the State, the city, and the people, individually.

"In the name of the United States, you extended a respectful and cordial invitation to the governments of other nations to be represented and to participate in this Exhibition. You know the very acceptable terms in which they responded, from even the most distant regions. Their commissioners are here, and you will soon see with what energy and brilliancy they have entered upon this friendly competition in the arts of peace.

"It has been the fervent hope of the Commission that during this festival

year the people from all States and sections, of all creeds and churches, all parties and classes, burying all resentments, would come up together to this birth-place of our liberties, to study the evidence of our resources, to measure the progress of a hundred years, and to examine to our profit the wonderful products of other lands; but especially to join hands in perfect fraternity, and promise the God of our fathers that the new century shall surpass the old in the true glories of civilization.

And, furthermore, that from the association here of welcome visitors from all nations, there may result not alone great benefits to invention, manufactures, agriculture, trade and commerce, but also stronger international friendships and more lasting peace.

"Thus reporting to you, Mr. President, under the laws of the Government and the usage of similar occasions, in the name of the United States Centennial Commission, I present to your view the International Exhibition of 1876."



OUR SIBYLS.

IT is an old Roman fable, this story of the sibyl who came to the Emperor Tarquin the Proud with nine mysterious volumes. Being repulsed on account of the great price, she departed only to return with six, asking the same amount; but disappointed again, she disposed of three more, and then the monarch, astonished at her pertinacity, paid her for the third what he at first refused to give for the whole number. Alas! with true childlike faith we would fain believe this an authentic tale, but even as a fable it comes to us through many centuries bearing in its records a most valuable lesson. This is an age much given to moralizing, and I suppose this very characteristic tendency is our only laudable excuse for borrowing morals from the ancient literature of Rome. It seems that the works of the sibyl contained such information as to recommend them at once to the emperor, and although realizing their worth and feeling his need of them, yet he could not sacrifice the gold requisite for the possession of them. In all the walks of daily life with every class that is bound together by the indisputable ties of humanity, we perceive there is ever a desirable something held out to them to

satisfy the present need, which they will not purchase at such a price as is required. It is the parent's duty and desire to instill into the yet prattling child the impulse to obedience, for people believe it a meritorious quality which will reflect credit to the instructed and the instructor. Perchance the child refuses to learn this valuable lesson, then it is placed before it again perhaps from a motive less tender and kind, but at the same cost to pride and self-esteem. Disobeying repeatedly the commands or injunctions of a parent, the youth is often brought under the iron rule of subjection and admitted to the enjoyment of mutual sympathy and affection, by showing that humility which would previously have been so easily rendered. Young man and young woman, have you not often paid the penalty for disrespect and insubordination in childhood, and is it not a bitter experience to pay the price of pleasures that have never been realized, and the value of luxuries that have never answered the wants of mind or body? Among the blessed privileges that come to us in this life there are few superior to that of sincere friendship, and few that contribute so largely to the making of an honest

man and woman. Yet how often have we witnessed the refusal of friendly cheer and aid because the suffering one is not willing to make a return of this pure feeling. Ay! solitary one, if in your conceit and independence you rejected that generous love and protection, there is a day dawning when you will gladly sacrifice that selfishness now so proudly assumed and exhibited. Do you slight the friendly hand held out to you with true hearty feeling, and answer that genial smile with a careless and indifferent nod? then know that you will at some time humbly seek or desire a friend amid groups of comparative strangers. Murmurer, did'st thou say there was no work for you in the great world? No work perhaps within reach of your vision, then gaze abroad and seek it. No work, perchance, within your grasp, then stretch forth thy arm with all its muscular power, and thankfully perform whatever thy hands find to do. There is not, I think, so great a dearth of work as of courage. Labor that lies unaccomplished before us is oftentimes abandoned because we seek for something pleasanter and more profitable; but are we always correct in our estimate of the profitableness of the varied occupations of daily life? Many a great and wise man has been laughed to ridicule for expressing seemingly absurd ideas before the world had advanced far enough in science to understand and appreciate them. The supposed scapegrace of

many a village has acquired in the course of years sufficient to purchase every acre within its limits. How often we seek while in the midst of difficulties and embarrassments employment that was once most scornfully rejected; and yet we give ourselves up to the task with the same sacrifice of ambition and dignity that was required of us at the commencement of our struggle. While we hesitate and endeavor to select the most agreeable from the numerous vocations of earth's inhabitants, Time, our prophetic sibyl, is robbing us of the yearly volumes of our life work; and if we continue to dream and muse till we shall have reached the last chapter of our earthly record, how sadly shall the fainting heart beat when our disabused conscience shall for the last time question us as to what we have done for the world when we had a vigorous body and strong mind.

There is yet a more sorrowful lesson taught by this fiction of the sibyl, and it is our rejection of the Christian hope and faith. Ever knocking at the door of our hearts, and soliciting an invitation to hold the feast of love within the inmost chambers of the soul, the Great Father is repulsed because men are not willing to exchange their supposed birthright to sensual gratification for the blessing of a purified life. How much precious wisdom and happiness we lose in rejecting the principles of religion in our youth! for is it not purchased at the same price when the years have become as months, and our day for labor and usefulness is with the silent past?

GENE ATKINSON.

THE WAY IT ENDED

PART SECOND OF A "BAD BEGINNING."

CHAPTER I.

AFTER EIGHT YEARS.

THE motor power of the new radical journal—*The Agitator and Reformer*—in the person of Sebastian Seymour, turned a piercing eye on the young man who sat at the opposite side of the table carefully balancing his pen-holder on the standish in absent, meditative mood.

"Then you do not accept the position which I offer you?" said S. S., with an accent of displeasure in his voice.

"I scarcely can," replied Ariel Lacrosse, with slow deliberation. "As associate editor of a paper devoted to reform by violent and denunciatory methods, I should be required to work in a manner inconsistent with my ideas of the true processes of reformatory work, and you would find me a less efficient coadjutant than you do me the honor to suppose."

"On the contrary," returned the confident

friend and assumptive patron, "I believe just the change of idea and method in your work which the plan of our journal suggests would develop your resources and multiply your power to a degree which would give you ten-fold greater influence, and make you one of our ablest leaders in the field of reform. Associated as you are with the interests of a popular and conservative press, you do not have the scope or freedom of expression in relation to affairs affecting the life and well-being of the social and politic body that you would have in an organ of free thought and free speech like this whose clear open page is frankly offered you. Marking, as I have, the character of your genius; knowing, as I do, the hope and purpose of your life, I have felt annoyed at the limitations and restrictions under which I have seen you laboring, and grieved at the muffled tone in which you were compelled to utter yourself on subjects near to your heart, and demanding the most fearless and candid treatment."

Lacrosse turned his clear, expressive eyes full on the face of his friend. "Believe me, Mr. Seymour, I am deeply gratified by your estimate of my ability and your appreciation of my aims, but it is possible that you and I might differ in our method of arriving at the same end. It is true there is a kind of delight and exhilaration in giving free rein to thoughts and convictions which we have perhaps reached a little in advance of our fellows whom nature and circumstance have conformed to the established law of opinion; but when we come to mark the effect of our bold, unqualified utterances, we find that we have simply shocked, not removed, the prejudices at which we aimed—"

"Good!" interrupted Seymour, watching the play of light in the eloquent countenance of his *vis-a-vis*. "Good! Shocking is a preliminary step in the process of removing prejudices of any sort. I never expect to do much in the way of correcting evils until I have first administered to the system a strong, hearty shock, capable of shaking the whole solid superstructure of errors."

Ariel smiled the rare, mellow, sunshiny smile that seemed an illumination from the warm radiant, sympathetic soul within. "It may do to treat healthy, well-balanced natures in that heroic fashion," he said, "but the proportion of such is so small as to necessitate a different law of approach in a majority of cases. The great mass of sensitive, imperfectly organized humanity with which we have to deal would be, by such management, either more deeply confirmed in erroneous opinion, or totally unsettled and demoralized; and I scarcely know which state is to be the most deplored. You have more years than I, Mr. Seymour, and have had wider experience, but perhaps some peculiar quality of inheritance may have given me a more sensitive appreciation of the idiosyncrasies of people, and made me less severe and sweeping in my denunciation of their particular vices and follies. There are multitudes of persons whose faults of judgment, and general wrong estimate and distorted views of things are so inwrought by birth and education in the very fiber and constitution of their being, that any rude jarring of their cherished beliefs and sentiments is like a thrust at their dearest life. If once they are betrayed into reading the shocking diatribes directed at their weaknesses, they will never again be guilty of such hobnobbing with the devil, but will take it upon themselves as a religious duty to warn all unwary ones against the horror of heresy which they have discovered, and which they feel must be frowned down in every attempt to subvert the law and order of long-established customs and opinions. It is with such as these that I think I hold advantages superior to yours in the medium of approach which should be so gentle and gradual as not to startle, but insensibly win them to a reasonable consideration of many things which they have accepted without reflection as to their intrinsic truth and justice. As a rule, this class never think or act individually, but collectively, and you can only move them in the mass. If you are satisfied with the humble opportunity of speaking in what you call a 'muffled tone' through their acknowledged and approved

oracle of the press, you may be able in time to penetrate their whole concrete body with a ray of light which shall serve perhaps to reveal to them the darkness in which they are unconsciously groping, but you must be content to wait the slow processes of their nature in arriving at a full illumination. You may smile a little disdainfully at such folly, Seymour, but I have a tender patience with these inbred prejudices and obliquities of understanding, which possibly gives me a peculiar fitness for the whimsical task of dealing with them. Thinking of the errors and bigotries which through successive generations have been steeped in their blood, I can not, with reason, hope for any sudden transformation of principle, but a kind of respect that I have for their tenacity of opinion inspires me with courage and faith to labor for their conversion to ideas more worthy of such stubborn devotion. I am of the people, my friend; my sympathies and interests are wholly with the people; and I must work for their emancipation from the thrall of ignorance and error by such methods as commend themselves to my judgment, however distasteful I may sometimes find those methods."

"Well, I can assure you, my boy, you will get small reward for your labor, and that of a most unsatisfactory kind," was the emphatic response. "You are like a man carrying his light around through the obscuring atmosphere of filthy alleys and reeking sewers, instead of setting it bravely as a beacon on the breezy hills."

The face of the young philanthropist blazed with the fire of a fresh, undamped enthusiasm, and he half started to his feet with the restless energy that pants for action, and chafes impatiently under the restrictions and the tortuous delays which reason and necessity enforce.

"Don't tempt me, Seymour," he said, settling back in his chair, and setting his teeth with stoical firmness. "A breath from your breezy hill-top intoxicates me with the thrilling joy of a freedom which I have no right to taste until I have done what I can to deliver my brethren from the bondage which hinders their participation in a like enjoyment. It is glori-

ous to set my light as a beacon on the heights, but only those whose eyes are lifted upward will catch the golden gleam, while the great sweeping tides of humanity, rushing darkly through alley and sewer, will send no ray of the slow-breaking illumination if I do not flame my torch along their deep underground channels. So it would be the rarest, most exhilarating delight to put all my strength and talent to the issue of a purely radical journal, which should adequately express my views of the truth and the urgent claims of the hour; but only those of similar thought and feeling would be attracted by the stirring bugle-call of such a bold pioneer in the work of reform, while the crowd of perishing, husk-feeding souls who would never hear, or, hearing, would flee from such call as from the voice of the devil preaching in the market-place, must be reached, if they are reached at all, through the familiar organs of conservative speech which they dare to trust—must be fed, if they are fed at all, on such scattered grains of truth as they can be induced to swallow along with the poison of errors to which they have become so accustomed that any sudden deprivation would be a dangerous experiment, since they are far from the state in which a diet of pure, unadulterated truth can be safely enforced."

"But, my dear Lacrosse, do you realize how far you are dwarfing your own God-given powers of mind, and blunting your fine sense of truth by this slow filtering of your light through a miry, pitchy darkness which you illuminate less than it defiles and overshadows you?" ejaculated the friend, with vehement bitterness. "Surely, a man's first duty is to himself. He can not reasonably expect to profit others except by the free and perfect development of his own possibilities—the grand, fearless assertion of his individual rights and liberties."

"To thine own self be true,
And it must follow as the night the day
Thou canst not then be false to any man."

And Lacrosse caught a quick breath, with that swift transformation of countenance to which his extreme sensitiveness of feeling subjected its mobile features.

"I can argue that side of the question, Seymour, as sharply as you may do," he answered, warmly, "but after thoughtful, even prayerful consideration, I must believe in my present comprehension of the case, that simple right and pure, unselfish, brotherly love lies with the part I have chosen. It leaves, I know, no smell of martyrdom on my garments—the generations of the future will not worship me as their deliverer from the bonds at which I am quietly striking, yet, I swear, no ranting radical, no brave, bold, defiant come-cuter ever suffered from stripes and persecutions the torment which I daily endure in compelling myself to these unheroic labors in common-place fields, uninspired by the lofty sense of separation from the unclean, and affinity with the storied prophets which supports your thorough-blood, root-and-branch reformer in his mad onslaught upon established law and custom, with its consequent social ostracism and slow crucifixion. But you know as well as I, my friend, that no practical reform is possible until the popular mind is made ready for the casting of the seed, which will then yield a rich harvest in protest, and revolt against evils which it is vain to attack unless you have the enlightened conscience and inspired purpose of the people at your back. And, as I have said before, this point can be gained only through such appeal as it is practicable to make by the power of the press, which power controls us all to a degree that we only partially realize. It is not a purely radical press, either, that will work this much-desired result. Strong meat is not to be fed to babes. I tell you again, it is through the mediums of conservative thought that we must aim if we would rouse the popular heart from its deadness to human wrongs, and fire it with the zeal of a love that will ultimate in helpfulness. It may be a slow process, but all permanent good is of gradual growth. One clear, honest, unequivocal voice, ringing here and there through the cant and whine of bigotry and superstition, of bribery and corruption, will work wonders in the revelation of truths to such as will not go outside the limit of their ac-

cepted authorities in matters of public and even private concern. They do not know what Ishmael of society utters the burning words, but so long as they are uttered under the sanction of their oracles of wisdom all must be well, and they are greedily swallowed and warmly discussed in circles where your open and avowed dissenter in journalism would not find an entrance."

"Bah! what earnest, eager, aspiring, and ambitious soul could be content to work in such a fettering harness?" burst forth Seymour, indignant and disgusted.

"Content is not to be expected as a condition of an aspiring soul," Ariel smiled, with sweet seriousness, "But when one has practical usefulness as an end in view, one must sadly consent to work in chafing fetters until as good results can be obtained in freedom."

"And then," went on Sebastian the cynical, with a growl, "it requires a fine stroke of finesse to get a decently fair plea for truth and justice fathered by this conservative editorial craft, who are as much under the control of some master as any slave that was ever bought and sold in the shambles."

"Not always," was the generous protest. "You will find nowhere a class of men more inclined to liberality of spirit and freedom of speech than this same editorial fraternity, though perhaps, in the main, a little too heavily weighted with a sense of responsibility and obligation to cater for the tastes and opinions of supporters, on the same plea that 'mine host' deals poison, because he is bound to furnish what the appetites of his customers demand. Without question a more solemn realization of the magnitude of their office in shaping and elevating public sentiment would be an improvement in our editorial friends; but you will find the most of them ready to stand sponsor for any measure of reform which is not urged in a spirit too combative, and in terms too offensive to the sense of their patrons."

"And you will toil like a slave, chained hand and foot, and with the fear before your eyes of offending some conservative, old fogey, blind as a bat to the light that

will shine in spite of his owlish predilections for darkness," said Seymour with cutting scorn. "Knowing your thoroughly radical spirit, and your rare natural power of expression, I am surprised and pained at your persistence in a course which separates you from the rank and file of earnest and open reformers, to which you belong."

"Friend!" Ariel Lacrosse answered, solemnly, laying his hand on the shoulder of his visitor, who had risen to depart, "in my eight years' upward struggle to attain a place to speak at all after the promptings of my heart, I have learned some lessons that I can not disregard, and one is that to

keep my hand lifted in perpetual protest against my brother, is not the wisest way to convince him of his errors. I have the warmest respect for your opinions, Seymour, and the deepest interest in the success of your plans, but I think it better that we should each pursue our own method until satisfied that higher good would result from change of course. If, at any time, I feel the need of coming to you for expression, you will not refuse me because now it appears to me better to speak directly, though softly, to those who would not rise at present into the high, rarefied atmosphere of your journal to hear the truths which I am called to dispense to them."

[TO BE CONTINUED.]



MRS. MARY SPRAGUE, 101 YEARS OLD

ONE OF OUR CENTENARIANS.

TO a Western friend we are indebted for this sketch and portrait of Mrs. Mary Sprague, who is now living at New Hartford, in Grundy County, Iowa. She is over one hundred years of age. She was born on the Mohawk River near Albany, New York, on the 9th of July, 1775, of sturdy Dutch stock, that which has given so much

physical stamina to whole communities in the beautiful valley watered by that storied river. Her maiden name was Shears. She survives three husbands. After her second marriage the family removed to Cayuga County, New York. There they lived on a farm for several years. Her third husband, Mr. Sprague, was also a farmer,

of thrifty and energetic habits. Two or three children were born in her first and second marriages, but none were the product of the third union. Mr. Sprague, however, was a widower with children, and after his death Mrs. Sprague was taken into the family of one of his sons, and has continued therein. For several years since 1863 they resided at Pecatonica, Winnebago County, Illinois, where our informant became acquainted with the old lady. This spring the family removed to New

Hartford, Iowa, having made an exchange of their property at Pecatonica for a farm in the farther west region. The old lady is lively and vivacious in mind, and able to walk in a really brisk manner, although her sight and hearing are much impaired. Her skin is yet fair and possessed of much color, showing a remarkably vigorous condition of the vital organs in one so aged. The photograph from which our engraving is copied was taken expressly for us, Mrs. Sprague walking to the artist's rooms for the purpose.

JANGLED AND OUT OF TUNE.

IS there some analogy between bell metal and the human brain? The cracked bell gives out harsh and discordant sounds and spoils the whole chime. Nothing will do but to take it down, melt it over, and recast it. The cracked brain is like a slackened chord—the master chord—in the harp of a thousand strings, but the remedy is not so plain and so patent when it once jangles out of tune. The flaw is not so easy to get at. We can not harmonize the discordant integrals by fusion, and when there's a screw loose somewhere 'tis not so easy to make all tight and taut again, like taking up dropped stitches or reknitting ravelled work. Yet there is a way, though to some extent dubious, of setting this confusion of the house of the brain in order—of knitting up that frayed structure, which care of one sort or another has ravelled out, of drawing the slackened string back to a healthy tautness again—if so be the previous tension has not been so great as to wear it too thin, draw it out in too great an alternation, or to snap it utterly. Or, considering craziness figuratively, as a crackedness or fissure of the brain, we might, still speaking metaphysically, say that perhaps recasting, at least in a limited sense, is possible for it. But that signifies a renovation of the whole man, mental and physical. Still, if as physiologists say, we all change utterly, from a fleshly point of view, every seven years; and as theologians hold the

doctrine of a thorough spiritual change, which comes under the head of mentality, may not such a thorough recasting for the jangled brain be among the possibilities?

I know a worthy physician who says he aspires only to be a cobbler in ordinary cracked brains, though I think he accomplishes far more than he is willing to own that he aspires to.

Music and dancing are among his methods of dealing with mental discordance; and it may be that the grand law of order which pervades music and the poetry of motion, and which is the corner-stone of their every charm, will sometimes bring up the missing key-note out of that dreary ocean of chaos, a discordant brain, or at least help to diagnose the most vital point of the mist the brain has sustained, even as quicksilver in a loaf of bread will, it is said, indicate the precise place in the turbid waters where a sunken corpse may be confidently dragged for.

One night I went up to this doctor's *Quisisana*, his hospital for sick minds, to look on at this modern similitude of the old Oriental scene of David singing and dancing before Saul, to exorcise the evil spirit that was in him. First, the musicians played for awhile some sweet strains, by and by quickening the time to that of a lively dance tune. Then some of the people who had been invited, and who considered that they were not sick of their minds, got up and

took some initiatory steps, and thus the fashion of dancing was set for the evening, and before long the floor was crowded with quadrille sets made up of those other people who were considered sick of their minds by the decision of a majority, with a sprinkling of minds considered sound, and which might be regarded as so many light-houses on an unknown and tumultuous sea, to a fleet of dismantled ships, liable to drift without aim or order helplessly here and there; or to veer with every changing wind, if they went out of the reach of those friendly lights.

But among them were a few who showed plainly that upon the etiquette of the ball-room, at least, their ideas were in perfect order and their memories unshaken. Nor had tastes originally correct on this subject at all deteriorated; while others danced in a fitful uncertain sort of a manner, every now and then confusing or leaving out some figure, while some were inclined to put the end foremost and the beginning last, or to dance to side neighbors and ignore opposite couples.

The very best dancer of them all was a man of thirty-five or forty. He had murdered his wife, his two children, and his sister in one night, and it was with the greatest difficulty that his neighbors had been prevented from executing lynch law upon him before he could be hustled into the shelter of the asylum. His appearance and manner were those of a man accustomed to good society. He observed scrupulously the etiquette of the occasion; but he was polite to his associates in such a way as to give them the impression that he rather honored them in deigning to mix with them. His affability was of the patronizing sort, but quietly so rather than pompous. His movements were noiseless, stealthy, and gliding. He was of about the medium height and of medium build, with rather sharp features, intensely black and bright curling hair, with profuse whiskers and mustache of the same; gleaming white teeth and gleaming black eyes, but withal as quiet and gentlemanly seeming a person as you would care to stand up and dance with. So I thought until I saw a

little private recourse between him and his partner. She was a pale, washed-out looking girl, with that strange air of dissonance, of lostness about her which is the most afflicting thing in the personal appearance of a woman with whom absence of mind is chronic. There was a hesitancy in her movements, and something like the sudden losing of the clue at the most critical moment of the dance, which seemed to aggravate her calm partner, who was so full of *savoir faire* himself. Nevertheless, he concealed his irritation under an assumed air of bland indifference until at last she wavered and broke down for the twentieth time in a figure in which he was doing himself great credit. Then, as with a sudden dexterous twitch of his hand he turned her in the right direction, there came a sudden and most devilish flash of baleful light into his otherwise sleek eyes. It was like the hiss and the suddenly protruded fangs of a rattlesnake; and one could well imagine this reptile in human shape, if suddenly roused by interference of any sort, striking with a promptitude equal to that of his prototype in the animal kingdom. As to the girl, she blanched like a poor little fascinated rabbit. But in a moment all was calm and smooth again, and I saw only a dark, handsome man of polished manners, and soft, gliding movements, handing with formal politeness a timid and inexperienced girl through the intricacies of a quadrille.

I now turned my attention to some of the other dancers. The women all had the pale, unwholesome, washed-out look to which I have already alluded. The skin and hair in most of the insane women whom I have seen always looks dead, and the eyes have a lack-luster appearance in repose. The change wrought among men has not seemed to me to be so very conspicuous externally. And I never remember to have seen either a crazy man or woman healthfully-colored and fleshy. The disordered mind seems so to wear on the body, and to beat its frightened wings so violently against the fleshy barrier.

There was a dissonance, a painful want of natural grace in all the movements of

some of these insane dancers most sad to see; as if they could not keep their feet in time, any more than they could keep their brains in tune. And the attempts at adornment among the women were of the forlornest I ever saw anywhere. Some poor things were all stuck about with faded buds and ends of finery, in a style so incongruous as to pain the eye to the extent of almost making the madness infectious. To look at the stark, streaming hair of some of them was nearly enough to frighten one out of their wits. But dress was one of the last passions to desert any of the women. Such strings of glass beads! Such ends of faded ribbon! Such polished up bits of jewelry! and such prim, old-fashioned and tarnished finery altogether! But still it was finery, and they clung to it.

One old lady, very youthfully dressed, danced with a sort of wild passion and a vigor that was startling, and with the queerest attitudes. She was the only one with anything like an approach to jollity about her. The others were like the pale and distorted specters that might glide through an uneasy dream. Oh! I forgot one queer fellow, who, toward the end of the evening executed a *pas seul* something between a jig and a break-down, at his own special request, in the middle of the floor, which was cleared for the purpose. He came to his enterprise in his stockings, and with the greatest solemnity did the most absurd and brisk things therein, till I was very much exercised with thinking what big holes he must be wearing in the bottom of them—his stockings, not his feet—for somebody to darn. HOWARD GLYNDON.

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

“The age culls simples;
With a broad clown’s back turned broadly to the
Glory of the stars.”—*Mrs. Browning.*

CHAPTER XI.

THERE was a quarterly meeting of the Society that evening in the chapel after supper, beginning with some simple religious services. Alice Templeton, who has a powerful and well-trained voice, then sang with fine effect—

“Mine eyes have seen the glory
Of the coming of the Lord.”

After the necessary business had been transacted, Pastor Hartwell, who was presiding, sat a few minutes in deep thought; and then, without rising, began to talk. His voice was usually a tender, musical monotone, with a tinge of sadness in it, reminding one of that of Chancellor Frelinghuysen, of the New York University, when he sat in the chapel at morning prayers exhorting the students to “remember their Creator in the days of their youth.” It fell upon the ears of perturbed listeners like

“The harp of David breaking through
The demon agonies of Saul.”

He was often abrupt and spasmodic in his utterance. He began thus:

“My well-beloved, you call me pastor, and not without reason, I trust. I certainly strive to guide you in many respects, but I feel that you less and less need authoritative guidance. You see the way yourselves. I was reviewing our remarkable history as I sat here. What days those were in New York, when the Judge and I and the chief men of the little congregation had concluded, after so many years’ waiting, to try to call together into practical unity some of the lost, wandering sheep of the house of our Israel—the Associationists. How they were scattered abroad, often in absolute isolation, sometimes in absolute penury, scattered and peeled. How often I had dreamed of ‘making up my jewels,’ of gathering into unity of life and action the many noble and beautiful souls whom I had

found vainly struggling to lead their ideal life. How anxious were those first days, as one after another eccentric though honest person responded to the call, and so few who showed fitness. How dead the doctrine of association was since the Owen and Fourier excitements had died out. The Shakers and a few others had kept this gospel in feeble life, like the Waldenses among the mountains. But the great world, wise in its own conceit, had tried the doctrine and found it wanting. It was a 'stone that the builders rejected.' It will be the 'head of the corner' in genuine normal social reorganization.

"Men wrote to us about their property. They had so much real estate, so much cash, and such and such opinions. They wished to find an association that suited them. We shook our heads. The answer of our prayer to Heaven came not in gross manifestations of power. It was not in the earthquake—not in the whirlwind. But there came at last from here and there over the land a still, small voice, 'We number so many here who have rallied around the grand old standard again. We meet weekly. We surmount great obstacles to attend these meetings. Some of us ride twenty miles to them. We were longing—with groanings that could not be uttered—for the perpetual communion of saints, for the perfect unity of living and working. The hour had struck for the revival of the movement. It needed but your simple call to rouse us to action. We only needed a rallying point, a definite programme, a sense that some competent persons were somewhere preparing the conditions. We number so many men, so many women, so many children. We are of the following trades and professions. The schedule of our property

available for association is this. Though in most cases strangers to each other before, we are now closest friends. We love as brethren and sisters. We are so united that, in default of acceptance with you, we shall feel constrained to start a new association.' When such messages as this came to us from various quarters, we did, indeed, 'thank God and take courage.' We saw that deliverance was nigh.

"Then, when in the fullness of time, we called the convention in New York, inviting those who, after long correspondence seemed sufficiently in unison with each other and with us to form the nucleus, we found that we had not miscalculated. How harmonious was that meeting! What a genuine spirit of brotherhood breathed through the letters of those who could not be there in person! There was none of the heedless enthusiasm of thirty years ago. You had studied the history of past attempts, and knew that the undertaking proposed was no child's play. Sweetest of all to me was the genuine humility displayed by some of you now reckoned among our best members; when, through lack of sufficient acquaintance, we of the original nucleus invited you only to the court of the Gentiles, the business affiliation, and not to our Israel. The look and action of such was, 'Though they slay us, yet will we cling to them.' They were in such hearty sympathy with the movement, so ready to do and die for it, that they were eager to show devotion in the most heroic way. Singularly interesting was the disposition of many, possessed of large property even, to advocate Communism. It was as when 'those who were possessors of lands or houses, sold them and brought the price of the things that were sold and laid them down at the Apostles' feet.'

Although we were not and are not proposing Communism, these proofs of confidence were none the less touching.

"Singularly, also, to some who looked for it only among church members, we found the true Christ spirit of self-denial and fraternal love among some who 'knew not so much as if there be a Holy Ghost;' while the only ones who showed any bitterness of disappointment at not being invited into the Central Council were certain nominally pious.

"Some of you whom, through acquaintance, we were induced to invite at once into the center, could not then, and still can not, pray to a Heavenly Creator. You admit the possibility, but deny the probability, of the existence of a Supreme Being. As I have told you many times, I think that this is caused by the undue predominance of your reasoning over your religious faculties. I have no mathematical demonstration of the existence of Deity, but my spiritual nature so emphatically asserts that existence, and reaches out so hungrily after Him, that I do not hesitate to yield to its impulses."

The pastor, as was his wont, had risen from his seat and begun to pace up and down the middle aisle as he talked. He was so used to walking there in religious meditation that he often thus found readier utterance to the assembled flock. The New Yorkers, especially the young clergyman, were much surprised at this lack of ceremony.

Passing with noiseless feet up and down the carpeted aisle, the speaker continued: "You hard-headed, stiff-necked reasoners can not see that there is a God, but you see that there is an absolute good, and strive earnestly to live up to it. This sufficeth us. You

are not as happy as we are, but you would be less happy than you are if you did violence to your intellectual perceptions. Some day abounding grace will show you the Father. You do not nominally join with us worshippers, but somehow you find it good to meet with us, and you doubtless join inwardly in our worship much more than you suspect."

Pastor Hartwell here stopped suddenly, and, passing his arm around the neck of a venerable man of massive brain, said: "Joseph, true spiritual brother, the grandest triumph of the new time and of the new life and light is, that such as I can thus greet such as you, and take sweet spiritual counsel with you without wrestling with you for what some would call 'the salvation of your soul.' I feel that your soul is safe enough, though you lack some of the best helps to a good and happy life. Your refusal to appeal to Deity is, to my thinking, much as if a morning-glory should say, 'It may be all very true, this talk about the blessed benefit that would accrue to me from my opening myself toward the sun, and I do feel a queer warmth through me when it shines upon me; but I don't believe it will help me any to deliberately open myself to its rays—so I won't.' A New England clergyman has well said, 'It rains and it pours, but I get nothing unless I hold up my cup. My prayer is the holding up of my cup.' How is that, St. Joseph of the Order of Negation?"

The venerable man passed his arm around the waist of the pastor and said, smilingly, "Almost thou persuadedest me to be an ordinary morning-glory and a cup-uplifter."

"Thus, then, do I, hoping for its fully-ripened fruit, do reverence to your predominant faculty;" and the

pastor stooped and kissed that massive forehead, and then resumed his walk, while a murmur of approval and sympathy arose throughout the chapel, and many nodded and whispered to each other.

"He continued: "But I was reviewing our history. We began to gather here such as we were, and so singularly united. Some upon whom we had relied implicitly for material co-operation disappointed us utterly. Others who had promised little, but intended much, came grandly to the front of the battle. We have been here these seven years like the Jews in Nehemiah's time, when they were rebuilding the temple. Every one has worked with his armor on and his weapon beside him, ready to meet the assaults of the enemy. We have been in perils oft by false brethren, by mistakes, losses, and attacks from both well and evil-disposed persons, who proclaimed our innovations dangerous.

"And now here we are in the full fruition of our dearest hopes. We are not taken out of the world, but are separated from it. We are not in the main eccentric, though a peculiar people. Though many who had no stomach for the ordinary warfare of the world are with us, we are not a 'feeble folk.' You are mostly full-pattern men and women, who were able and willing to fight a good fight. You are meek, but not pusillanimous, peaceable but not cowardly. You are free, but do not make your liberty a cloak for licentiousness. With what a great price we obtained this freedom. All representative battles of human hearts and lives had to be fought out in the persons of our prominent men and women, before such a life as this multitude now lives could be made possible for one week. Even now, established as we

are, I fear that the wavering and falling from duty of a dozen of our chief ones would destroy this organization. How great, then, their responsibility! I feel that we need not fear. The battle-scarred warriors who are at the front—victors in a thousand struggles against the greeds and lusts in themselves and those about them—will never waver. They have mostly passed into the region of serene self-control. They answer the description of *Hal-lam*, by Tennyson:

'Large elements in order brought,
And tracts of calm from tempest made,
And world-wide fluctuation swaycd
In vassal tides that follow thought.'

"Oh, the blessed fact that we are associated in all the relations of life. The old farcical pastorate is abolished here. It is my business to be a bishop of bodies as well as souls. Although we do no money-changing in the chapel, we very properly 'make the Father's house a house of merchandise,' by how much we consult here about our temporal welfare. I think that if even Christ were present he would be pleased to hear me question the chiefs of the series narrowly as to the provisions made for our bodily sustenance. I am in the mood to ask some general questions. I see the chief of the fuel-preparing series before me, and I ask—Brother, is the supply of coal and wood ample for the winter? As we hear the autumn winds whistling, and see 'the chestnut pattering to the ground through the sere and yellow leaves,' have we any occasion to fear that any of these dear friends, or their little ones, will be shuddering with cold ere spring arrives?"

To this replies a tall, bronzed, eagle-eyed man: "Pastor, the supply of coal is ample. Wood, of course, is always abundant. Three thousand tons of

coal lie here upon our wharves; as much more is above ground at the mine. I think that never again will old or young of this society suffer from want of fuel. We have thousands of tons of coal for sale."

"It is well. There is little use of talking to people about the balmy airs of Heaven when they are shivering over an empty grate. I see the chief of the series of clothing manufacture, and I ask him whether any person living on this domain who does not fall into unthrifty habits (a thing not impossible even here) will have occasion to face the wintry blasts insufficiently clad?"

To this that chief replies: "Dry goods of woolen and cotton and silk of our own manufacture are heaped high in the storehouses, notwithstanding continual sales. Now that summer out-door work is over, my series comes into extra activity. No thrifty person here, or the child or aged parent of such, shall lack clothing—not even underwear. The unthrifty do not find themselves at home here."

"It is well," said the pastor. "Behold, how good and how pleasant a thing it is for brethren to dwell together in unity. Yes, to dwell—to *dwell* together. Not to come together on Sunday to talk hypocritical nonsense about Christian brotherhood—not to meet one day in seven to 'build each other up in the most holy faith,' and examine each other's bonnets, and spend the rest of the week pulling each other down by most unholy trade and fashion competition, wages slavery, legal warfare, and back-biting. Not this; but to dwell and work together in loving fraternity week in and week out."

It had been noticed by the pastor's New York congregation that he seldom wept during his early bitter struggles. But since his "heart's desire and prayer to God for his Israel" had been so bountifully answered, the fountains of his great deep heart had been broken up—he had become a weeping prophet. He would stand before his people with tears streaming down his face, making

no effort to conceal them. Thus was it now, when spreading forth his hands in guise of benison, he said, with deepest emotion, expressing all his heart's solicitude and yearning, "LITTLE CHILDREN, LOVE ONE ANOTHER."

He stood now silently for a few moments, with his eyes closed, and then said: "But again my mind turns toward our temporalities. I see the chief of the food series, and I say to him—We have here 3,000 human creatures to be fed through the dark, stormy, bleak, frosty days of half a year, before the earth will again yield her increase—through the six months when solid food is most required. How is it, brother, can we hold the fort? is the garrison provisioned for this siege of humanity's fiercest natural foe?"

To this replies the substantial-looking chief. "Pastor, our storehouses are full of all manner of meats, fish, cereals, fruits, and vegetables. Our barns are full of food for the cattle and sheep that roam our pastures. What of this provision is of our own raising has been produced at a minimum expense of cheerful labor; that which has been bought has been mostly obtained at the lowest wholesale price. No person hereabouts need lack food. Our only danger seems in the direction of too much luxury."

"It is well," said the pastor. "In these truly melancholy days of this autumn of the year of our Lord 1873, a panic is spreading through commercial circles in this land, which seems likely to endure for years and extend through the civilized world. Millions must lose fortune and many starve. This comes of the insane greed and folly of those fools and knaves who have been allowed to get to the head of affairs. I thank the Father that this society owes nothing, and is so self-sustaining that we could live right along if the rest of the world, outside of our own domain, should suddenly sink beneath the ocean. Truly to those who seek first the kingdom of Heaven as wisely as we have, all other things shall be added." The congregation was now dismissed. SAMUEL LEAVITT.

[TO BE CONTINUED.]



It is only by training all together—the physical, intellectual, and spiritual elements—that the complete man can be formed.

TEMPERAMENT, AND ITS RELATION TO HEALTH AND CULTURE.

TEMPERAMENT is a word in very common use, but the meaning attached to the term by different people of intelligence is vague and varied. We meet with many who regard it as a condition of disposition, a peculiar state of the emotions. With such people, a man of harsh and rough disposition has an *excitable* temperament. One who is meditative and cautious, has an *equable* temperament. One who is hopeful and careless, has a *sanguine* temperament. One who is lacking in courage, firmness, and force, has a *dull* temperament. One who is active, care-taking, solicitous, and spirited, has a *nervous* temperament. These popular misapprehensions, as to what temperament really is, in an anatomical and physiological sense, ought to be corrected, and must be, before any well-based and useful information on that subject can be made available to parents and teachers.

TEMPERAMENTAL DIFFERENCES.

Scarcely two persons can be found, not even twins, who are so nearly alike in body and mind that they can not be easily distinguished, the one from the other. The word temperament is here used to express the original organic constitution, with its qualities and functions. Temperament may be defined as "a particular state of the constitution, depending upon the relative proportion of its different masses, and the

relative energy of its different functions." But temperament has generally been looked at by physicians and others who profess to be well-informed from a physiological and pathological point of view, as a result of conditions of health, rather than from that of anatomy, embracing form, color, and constitution; though health, strength, endurance, liabilities to different forms of disease very largely depend on unbalanced conditions of temperament.

POPULAR ERRORS ON THE SUBJECT.

The former names of the temperaments, *sanguine*, *bilious*, *nervous*, and *lymphatic*, have tended to promote the erroneous ideas of people respecting their meaning, even among those who understood that temperament related to the bodily conditions, and not solely to the mental states. Sometimes when a man was told by a phrenologist or physician that he had a sanguine temperament, he would object, and say that on the contrary he was gloomy, meditative, irresolute, and by no means sanguine in disposition. He misunderstood the meaning of the word as applied to him. Another person, when he was said to have a bilious temperament, would warmly deny the truth of the statement, and say that he had not had a bilious attack for years. Another one, described as having the nervous temperament, would demur, and assert the steadiness of his nerves to thread

a needle, decapitate a chicken, or stand by and assist the surgeon in an important and painful operation. The lymphatic temperament was looked upon as the mother of laziness and stupidity, and no one was willing to have that temperament attributed to him.

To avoid these unfortunate and continued misapprehensions, it was thought desirable to employ names for the temperaments which would express their real physiological significance, in a manner at once true to nature, and liable to no such perversion of their meaning.

NEW AND CORRECT NAMES.

There are in the human body three grand classes of organs, each having its special function in the general anatomy and physiology of the system.

First, the Motive, or mechanical system, including the bones and muscles.

Second, the Vital, or nutritive apparatus, including the entire digestive system, and also the heart and lungs; covering the ground of organs formerly attributed to the sanguine and the lymphatic; these combined, manufacture vitality, support the power, and repair the waste of the body.

Third, the Mental, or nervous system, including the brain. On this natural basis rests the doctrine of the temperaments, of which there are three, primarily, corresponding with the three classes of organs just named. We shall speak of them under the head of the *Motive*, *Vital*, and *Mental* temperaments.

I. MOTIVE TEMPERAMENT.

The motive temperament is marked by a superior development of the muscular system, forming the locomotive

apparatus, and gives a strong desire for earnest, energetic, and enduring action. In this temperament the bones are comparatively large and inclined to be long, and the general form of the person indicates angularity. The muscles are full, dense, and firm, possessing a great deal of strength. The figure is inclined to be tall, the face long, the cheek bones high, the front teeth large, the neck rather long, the shoulders,



Fig. 4—R. B. W.—MOTIVE TEMPERAMENT.

broad, the complexion (generally, but not always) dark, and the hair strong and abundant. The whole system is characterized by strength and toughness, but not by great sprightliness, and is capable of much endurance.

These persons are generally masters among men, leaders in enterprises which require manly strength, determination, pride, courage, and thoroughness. As thinkers they are cool, strong, and stern. As speakers their words are measured, and uttered with dignity, deliberate emphasis, and often with terrible effect.

II. VITAL TEMPERAMENT.

The Vital Temperament, in which the digestive, circulatory, and breathing systems predominate, gives to persons depth of the chest, plumpness of the abdomen, roundness, fullness, and smoothness of face; not very large features, though often thick lips. They are plump in limb, and are full of warm blood, and mental zeal and ardor, and like to acquire knowledge by observation and experience rather than by close, hard study. Such men are not generally very fond of hard work. They are full of business, driving about, but the team generally does the harder part of the work; they will be masters of steamers, and mills, and machinery, and occasionally we find one bending over an anvil and hammering out his living, but this is the result of circumstances rather than of choice. He may attend a trip-hammer, a saw-mill, or grist-mill—he may generally be found



FIG. 5.—REV. J. B.—VITAL TEMPERAMENT.

in a business where somebody else does the drudgery. Such people like to live well; they enjoy physical existence in

all its phases—are cheerful, mirthful, good story-tellers, fond of laughing and frolicking, and as children they are fond of mischief and fun.

As scholars these persons succeed well if they inherit a full, plump forehead, and are fortunate enough to have a teacher who understands their qualities of mind and body, and does not insist on quietness as the prince of virtues. As public speakers they generally employ a colloquial style, are not closely confined to notes, and are often eloquent and impassioned in style, especially as lawyers, lecturers, and on "the stump."

III.—MENTAL TEMPERAMENT.

The Mental Temperament depends upon the predominance of the brain and nervous system; it is characterized by a frame rather slight, a head large as compared with the size of the body, and especially as compared with the face. In this temperament we see the high, pale forehead, broadest at the top, delicacy of features, and expressive countenance; fine hair, thin, sensitive skin, and a high-keyed, sharp, but very flexible voice; the figure is often elegant and graceful, but seldom strong or commanding. Such persons are generally sensitive, refined in spirit, have taste and love for the beautiful, vividness of impression and feeling, and their inclination is toward study, thought, and mental manifestation. The thoughts are quick, the senses acute, the imagination lively, and the moral dispositions are strongly marked.

TEMPERAMENT SHADES CHARACTER.

Now, it will not require argument to prove that children organized according to these temperaments will be marked by decided differences in tone, temper, and tendency.

One of these strongly marked with

Motive Temperament will be comparatively slow, deliberate in thought, but strong in conclusion; will require con-

gin to astonish the world by their power. Pupils of this temperament require varied, repeated explanations,



Fig. 6—BISHOP J. T. LEWIS—MENTAL TEMPERAMENT.

siderable incitement to awaken his ambition. He does not warm up quickly, and is not inclined to be quiet and steady, prefers athletic sports and work rather than study; but if by study he wakes up something of the Mental temperament, gets the brain into more active condition, he becomes a very strong scholar, and we have noticed that these persons are rarely brilliant when young. They are like winter apples, a long time in ripening; but when they do ripen, and induce something of the Mental temperament upon their strong, muscular organization, they are the ones who bring up the rear—who live longer than graduation day, and, after ten or fifteen years' service in a professional field, be-

kindly assistance on the part of the teacher; and if a class could be made up of boys and girls of this temperament, and they should be compared one with another in their attainments, there would be less annoyance to the teacher, and less discouragement on the part of the pupils.

THE STRONG AND SLOW.

We have seen a heavy, dark-brown or iron-gray horse that disliked to trot, but he would pull a heavy load if he could take his time for it. If he were harnessed with a "dexter"-ous horse, we have no doubt one would be annoyed with the slowness of the other, while the slow one might be vexed to think that the speedy animal was in

such needless hurry. Two pupils having this difference in disposition and temperament, placed in a class together, will either annoy each other, or the one will outstrip and discourage



Fig. 7.—BOY, WITH MOTIVE TEMPERAMENT.

the other. Remember that this strong, dark, enduring organization, if it can be made to work in the field of culture, will ultimately make a grand mark. But it might, perhaps, be suggested that a good business education for such a boy would be the best; let him become an engineer, a navigator, a miner, a builder, a manufacturer of heavy and substantial articles, and he would, probably, be successful. But as pupils in school, the proper thought is to push each one as far as he may go, and to do it in such a way as to be in harmony with his natural constitution, and the talents with which he may be endowed. He should not be snubbed and sent to some rough work because he is not so apt at learning as are the more brilliant of his class. It need not be said that one of the most disastrous things that can occur to a boy or a girl is to be so distanced by class-mates as to seem left out in the cold; and so it happens that these physically strong and enduring persons are apt to get behind the other students; and, as a consequence, ball-playing, boat-racing,

wrestling, and other muscular games are cultivated by them sometimes to the exclusion of school studies. If we had a class of these pupils—say half a dozen, all that there might be in a school—we would let them work together and compare with each other. They would be as ambitious as those of a different temperament, and going on hand in hand in the path of progress, they would be comparatively satisfied with themselves; but when comparing themselves with the more brilliant—such as have a genius at study—they would be disheartened and discouraged, and perhaps quit the school, when by proper guidance they might in due time be made excellent scholars, and take an eminent rank among the thinkers of the future.

THE "RESTLESS LITTLE WITCHES."

The Vital temperament, in which the blood-making system is strong, has many a good scholar in its ranks; but when this temperament predominates so as to become a characteristic, the mind is apt to be superficial, and the person, if fond of physical sports, will incline to restlessness, noise, fun, and amusement.

These fair, ruddy, plump-cheeked, blue-eyed, curly-headed boys will be



Fig. 8.—BOY, WITH VITAL TEMPERAMENT.

bending pins for others to sit on, or making paper-balls to throw across the school-room, or will be making up faces for others to laugh at, and will keep

ten feet of bench occupied alternately so that it shall never get cold, nor the dust be permitted to remain on it. They are what some teachers out of school call "wriggling, restless little witches," whose minds can not be kept on their books five minutes at a time. Yet these pupils will learn if they can be rightly trained. We would classify these together, if possible, and once in twenty minutes have them march around the room; we would let them study standing for five minutes, and then sitting. We would let one of them listen to the lesson of the others and alternate; they should have stories told—they should recite in concert, so that they may have a chance to make a noise. In short, every method should be devised to give them occasion for change. These children have generally a good memory of words; they will learn to recite by heart; they are good spellers, often have a talent for figures, and are very fond of geography, though they would like to study by taking the world for a map.

TEMPERAMENTS MODIFIED.

Frequently the temperaments become modified as age advances, especially if the person be studious. It will generally be found in colleges that persons of the Vital temperament are the jolly, companionable, "hale fellows well met;" fond of frolic and fun, liking fast horses, amusing and roystering games, and they generally have something in pocket to eat, and frequently smoke. Having good vitality, they can stand almost any kind of dissipation for a while, and they are more likely than any other kind of person to "go to the dogs," through their friendly sociability, and that spirit of companionship which draws others around them.

PRECOCIOUS STUDENTS.

Those having the third, or Mental

temperament, which is produced by a predominance of the brain and nervous system, and characterized by fineness



Fig. 9—BOY, WITH MENTAL TEMPERAMENT.

of structure; are natural students, and seek the sphere of mental activity. A little boy or girl with bell-shaped head, thin lips, and chiselled features, with eager, hungry eyes, peers into the book and looks far up the vista of mental culture. They are not of the uneasy, restless, vital temperament sort. If possible, such studious girls and boys will work together apart from the cool, stern, Motive temperaments, and separately from the jolly, rollicking, vital temperaments. They want to be where they can pore over their books and make rapid progress. These are the ones who are apt to overdo; they are generally the pets of the school, are made the lay figures for examination days, and are put forward as ranking high, having been advanced rapidly from class to class. If all of this temperament were classified together they would make very rapid progress, but the difference between them would not be such as is seen between those of the other two temperaments and themselves. These persons are likely to be

come precocious; they get pale in the face, are often troubled with headache, nervous excitability, and become listless as to exercise; and if they live to attain to the age of manhood, they very probably will have injured their constitution and health by early study and confinement, and the want of exercise. These are the ones who have to be urged to gymnastics or calisthenics; they do not want to row, nor play ball, nor run; and those who are accustomed to these games, and are successful in them, do not care to have them. We have seen a row of such boys stand under the shelter of the school-room shivering, while boys of the vital and motive temperaments would be scuffling and making snow-houses, and coasting, skating, or snow-balling. They may become the thinkers of the world, but they are not so strong and healthy and vigorous as they might be, if in school they could be classified, placed together where they could work in harmony, and were not allowed to be pushed forward as far as they might incline to go.

READING TEMPERAMENT AT A GLANCE.

A person familiar with the temperaments will look over a school, and instantly see how the pupils might be classified. But these temperaments are not always simple; they are frequently combined in a single individual in varied degrees and proportions, but a sagacious teacher will very soon understand by the build, figure, complexion, and appearance of pupils, to which class they belong. Where the mental and the vital are combined—where there is body enough to support the large and active brain—there the best results of scholarship may be expected. If such pupils are pushed they are able to bear it, though pushing is probably

a poor policy for those who are willing to take wing at the least suggestion.

Thus far we have described the extremes of temperament, but these are not very often found to exist in a pure state; they are more or less mixed. One person has a predominance of the Motive, with an average or moderate degree of the Vital and Mental. There should be a class of these selected to work together. Another person has an equal predominance of the Vital, with a moderate share of the other two. Another leads off strongly with the Mental, with moderate sustaining power from the other two. And these may properly be selected and classed with the best of consequences to pupils, teachers, parents, and the public. No wise man will harness two horses together expecting to get the best service of such a team, if one can travel six miles as easily as the other can travel four. But they are tried, tested, and changed until all the qualities of strength, endurance, and speed are found to be equal, then they work in harmony and wear out together.

HARMONY OF TEMPERAMENT.

When these temperaments are harmoniously and well combined, the best



FIG. 10—HARMONY OF TEMPERAMENT.
FREDERICK THE GREAT.

results may be expected; not the greatest brilliancy, but sufficient; not the greatest and most rapid progress, but that which is sure.

Permit us to refer again to horses,

since most people understand illustrations drawn from that source much better than they do those from the human race. Some years since a Broadway stage being full, the author climbed up and rode with the driver. One of the horses was very smooth, trim, and well proportioned, and trotted with a gay and happy gait. We ventured the remark that this horse could not have been long at work on the line, because he seemed light as a fox and perfectly sound, besides looking and moving as if he were young. The driver replied, "Sir, you are much mistaken. That horse has been running on this line for thirteen years. He has killed with work five mates, and the one he now has is, as you see, pretty well used up; yet he is sound as a dollar, tough as a knot, and gay as a bird."

The truth of the matter is, this horse was so organized in perfect harmony of temperament, and in all parts and organs of the body, that there was no weak point, and no strong part to prey upon and wear out weaker ones. Men whose temperaments are so balanced that all parts perfectly harmonize in action, manifest the physical qualities which work easily and enduringly, and

give us our octogenarians and centenarians; and if the mental organs can also co-exist in equal perfection and harmony, those characters are produced that adorn human nature, and elicit the admiration and homage of mankind.

We are certain that all schools could be classified more or less according to natural temperaments and mental tendency. At least teachers who understand these temperaments will know how to treat each one, if he does not classify them in all respects according to their natural characteristics. The slow, strong character will be treated with deliberation, suggestions will be given with time to think them up, while the jolly, plump, rosy, vital temperament will be kept as much as possible on the move in whatever is right and profitable. Sitting still to him is imprisonment, while the mental temperament would sit too much, would take too little exercise, and pore over books to the detriment of health and ultimate success. Quality of constitution quite as much as size of brain determine the power of thought and disposition, and the facility with which the person acquires knowledge and secures success in business or professional effort.

NELSON SIZER

STUDIES IN FAMILY LIFE.

OLD AGE—VII.

ACCORDING to the almanac, winter begins on the 22d of December, but there is no fixed date at which the winter of life—old age—begins. The date of its commencement varies indefinitely. In some lives that pass the allotted space of three score and ten, autumn melts so gradually into the lap of winter that the song of birds and the bloom of flowers last till the final frost dims the closing eye and stiffens the faded form forever. In many

lives, so wisely has been spent the spring time, the fervid summer, the glorious harvest season, that no painful consciousness of waning power haunts the closing years. As in the store-rooms of the thrifty housewife, there are provisions laid away for every month till the harvest comes again;—apples that ripen in February, grapes as fresh in May as in September, perishable fruits delicately and effectually preserved, to recall when the snow flies the fragrance

and beauty of the summer time, and substantial articles of diet stored away from the reach of frost; so in a happy old age we find the aroma of spring yet lingering though the blossoms are long perished, remnants of the glories of summer, and abundant store of autumnal ripeness and fruitage. The old renew their youth in their children and grandchildren, and in them realize the dominion spoken of in the blessing with which God blessed Adam and Eve in the Garden of Eden. They who are not so fortunate as to have children, may yet find in the realization of beneficent plans for the good of their fellows what shall give them the consciousness of not having lived in vain, and assure to them lasting and honorable remembrance among men.

There is, perhaps, no other thing that prolongs the period of vitality and removes to the very verge of life the decrepitudes of age as strong moral and intellectual aspiration and purpose cherished from youth up. Humboldt is a noted instance of this. When past eighty he wrote the crowning work of his life—the *Cosmos*. Mrs. Somerville is also a shining illustration. When nearly ninety she composed one of her most important and learned works, that on microscopical studies. In our own country we have numerous and noble illustrations of what may be accomplished by the aged. Vanderbilt still holds his own; there was no flavor of decay in Stewart at the date of his untimely cutting off; Bryant, long past the age of four score, is busy with his *Centennial History*; Woolsey is continually making valuable additions to the literature of his time; Mrs. Childs and Mrs. Mott, having worked diligently and faithfully for two generations, remain the examples of the third. There are scores of hoary heads in the land before whom the middle aged and the young bow reverently, venerable faces that from childhood have lovingly and constantly looked upon the fair face of truth and followed the celestial form of virtue, and whose white locks seem not the symbols of decaying vigor and pitiful decrepitude, but the fore-tokenings of the snowy robes they are soon to wear.

It is painful to look upon gray hair and see beneath it nothing to call forth reverence, to find no traces of virtue, of wisdom, of fine character in the face marked with the lines of age; to see no evidence that the seed-time was improved, to find the store-house of the mind empty, the heart grown over with all manner of tangled weeds. But we often do see it, and while we can but mourn that the harvest for such is past and the summer ended, our efforts are stimulated to so direct and counsel and instruct the young that they in age may command—

“Honor, love, obedience, troops of friends.”

That which a man sows he must reap. Dissipation in youth, intemperance, improvidence, vice, idleness, these produce in age their legitimate fruit. Unhallowed love of money ripens into avarice; love of self ultimately extinguishes all other loves; indulgence in unbridled passion consumes the capacity to enjoy, and leaves the individual a living sepulchre which the breath may be long in forsaking.

Unvarying uniformity of routine in the habits and occupations of daily life seems especially conducive to health and comfort in aged people. To sleep always in the same bed, to rise at the same hour every morning, to have little or no change in diet, to sit in the same sunny corner day after day and year after year, these become the necessities of the old. Novelties are no longer pleasing, fancy no longer craves change of scene, but to enjoy the treasures already laid up satisfies without further acquisition.

A happy old age is the natural conclusion of a youth spent in preparation for the duties of manhood, and a middle life industriously devoted to the accomplishment of noble ends, whether they concern the moral, the spiritual, the social, or the industrial welfare of the race. All vineyards must have their workers. He who has laid foundation bricks and stone with thorough workmanship and life-long patience, will receive his due meed of praise from the Great Master no less than he who has carved the architecture and frescoed the dome of the temple in which we all are called to labor.

Laura E. Lyman.

HAUNTED HOUSES.

NONSENSE! Superstition! Who in this enlightened age believes in them? *I do!*

Most emphatically I repeat, *I do!* I believe there are very few houses that are *not* haunted, and that the very reason for this lamentable state of things is that the age is *not* enlightened. Here again the hands are uplifted, and indignant tones reiterate, "Not enlightened, when none but a college graduate can be elected to teach a primary school, and our young ladies all study Latin and Greek, instead of embroidering cats and dogs on footstools, or painting the family record, with a monument and a woman crying over it."

One at a time, good friends. It will be best for me to explain the first statement, and then you may be more ready to believe the second.

A sentimentalist might here proceed to expatiate upon all the associations, the sweet and bitter memories, that haunt all spots where we have lived and loved and labored and suffered—but life is too short for such reveries, and the present is what we have to think of now.

How many houses do you know, into which you can enter without a desire to exclaim, "Throw up the window!" and if you can not truthfully add, with the poet, "Tis a morn for life," do you not often feel that the atmosphere of the room you enter is one of death?

How many homes there are in the land that are never free from the odor of tobacco, pork, whisky! How many more from which culture and cleanliness have banished these grosser fiends, which contain the damp, dead air from which the sunshine has been excluded by that very cleanliness! Few seem to realize that the air we breathe is, or should be, a living thing, and that each particle should be free to dance with its kindred particles in the sunshine, and make part of the life-giving breeze, or it will die as water dies. We call the water stagnant, and shrink with loathing from its touch or smell, and would call that person crazed who would drink or

use it, yet we keep the dead air in the very heart of our homes, confine it in our sleeping-chambers, treasure it in our libraries, lock it up with our costly furniture in our splendid parlors.

"I flatter myself that my house is one of the pleasantest in the town," said an intelligent and courteous gentleman, as he ushered me in at its front gate. I looked up at the words, and its prepossessing exterior, gracefully wreathed with all manner of climbing vines, its pretty porches, among whose pillars and hanging-baskets plants climbed and drooped and blossomed at their own sweet will, corroborated the assertion.

The neat and tastefully furnished interior deepened the impression, and when the pleasant wife and lovely babe, that cooed and crowed for the stranger as for her own mother, were added, I fully believed his words. So the pleasant rooms which were the object of my search were engaged without a thought that they were *haunted*.

The August days wore on, and the hot sun blazed down upon the little brook at the foot of the hill. No rain fell, so it was quickly dried to a slow, sluggish stream, then to a mere mud-hole, from which emerged each evening a swarm of mosquitos. *They* could be kept outside by netting, but with them came what would not be kept out, the ghosts of the bright waters, the lilies and arrow-head, the tall grasses, and mosses of its summer-time beauty, the fell miasmatic vapor which to breathe was sickness and death.

So we closed our windows at the sunset hour, nor dared open them again until the stars were bright above, and firmly resolved never again to engage rooms near a pleasant little brook. By and by came the heavy rains of autumn, and then the ice king chained all the ghosts of the outdoor world, and we breathed once more.

Only in the frosty realm outside, however, for in our lower rooms were always the ghosts of the dead vegetables in the unventilated cellar below, and in the chambers were always the subtle coal gas and car-

bonic oxide of the stove-pipes, which by no amount of tinkering could be made to carry their smoky contents upward toward the sky.

Sadly turning my discouraged thoughts to a less pleasant locality, where a vacancy was visible, I was informed by a neighbor that "every one who lived in that house was always sick," and several had died there.

"Do their ghosts haunt it?" asked a listener.

"It almost seems so," was the reply.

"It may be so," I mused, as I entered to investigate the premises, "for it is built upon the shady side of the street, and ghosts delight in darkness."

As if this were not enough, two porches, each half as large as the room it shaded, kept out what little sunshine might have stolen in; the large "summer-kitchen entirely shaded the sitting-room, and a larger building at the southwest completely frustrated the attempt of any sunbeams which might seek to reach the building in that direction. Perhaps I ought to explain that "summer-kitchen" is the euphonious title bestowed by Westerners on a shed intended to receive the cook-stove during the heat of summer, leaving the kitchen of the house a more comfortable place in which to work. In this instance it was the most desirable part of the house, for the sun shone brightly into its window, and the fresh air roamed freely in and out through its many cracks.

Ascending the stairs I was met by another ghost, the impure air of two otherwise pleasant chambers. Upon attempting to open the windows, I found them securely nailed—not a sash would be either raised or lowered. Hastily retreating, I remarked to a neighbor that those who had just left the rooms seemed desirous of leaving them well secured.

"Ah," she replied, "they cared nothing for that. They nailed the windows for fear of burglars."

"They surely did not sleep with those windows tightly closed," said I, still incredulous.

"Indeed they did," was the reply. "Day and night, it was all the same. Not a win-

dow or door, above or below, but was closed and fastened. They were terribly afraid of burglars."

Yes, they never dreamed that they were closely guarding and sheltering a foe more dangerous than a burglar, for burglars undisturbed seldom do aught but take money or jewelry, but the fetid and oft-breathed air of those chambers would soon take health, which no money could purchase, and lives more precious than jewelry. Is this an enlightened age?

The school-boy now understands laws of which the sages of the past were wholly ignorant. The babe who claps its tiny hands as the train goes rushing by, sees a sight which, if foretold, would have seemed fabulous to his grand-sire.

The little friction match with its instantaneous light, as contrasted with the steel and flint, or the two dry sticks of ancient times, is only one of countless symbols of superiority in the new times over the old. Not all our Centennial enthusiasm can for a moment lead us to forget the past, that desirous as we may be to commemorate the "good old time," we are still very glad *our* existence was reserved until the "new." Not one of us would go back to those days even to be one of its storied ones. Not the raggedest newsboy in New York would exchange places with George Washington himself, if obliged to live as George Washington did, without the "modern improvements."

Yet with all its intellectual culture, with all its progress in science and art, with all its mechanical appliances to assist labor, and its many modes of rendering labor conducive to comfort, we can not call that age an enlightened one whose homes are filled with ghosts. Some one has spoken of a home that was "always filled with the odors of dead dinners," but to nostrils accustomed to pure air, most houses are thus filled. Far less dangerous are they than the ghosts of the dead vegetables beneath, the dead air within, and the pool or ditch of dead water near by.

A few earnest ones are preaching the gospel of Air, Water, and Light, God's best gifts, freely bestowed upon all, but by too

many despised and rejected, as was His blessed Son.

Yet they toil on, and a portion of the seed sown has fallen upon good ground. Perhaps their best success may be found in the modification of the views and practice of former opponents. Allopathy no longer keeps the doors of its sick-room closed, or their windows darkened; no longer denies to the parched lips of fever the cooling draught, nor bleeds and blisters. Homœopathic physicians are appending "and Hygienic," to their cards, while "Eclectic" seems to be a fashionable title among M.D.'s.

May the good work continue until the free air is admitted to every home, and sunshine is an indispensable part of its adornment; until we drink of the water of life, and receive daily the baptism which saveth daily from the sin of uncleanness. Then shall the age be indeed an enlightened one, and our homes be no longer haunted. May it not be with them as with the old Boston Elm, of which a parodist has said,

"You may break, you may ruin the tree if you will,
But the ghost of its witches will dance round it still."

MRS. JULIA A. CARNEY.

BORN RIGHT.

IT is one of the best things that can happen to a person to be born right—with a well-balanced nature, with brain and body healthy and strong, and all the faculties acting harmoniously. There would then be no "will of the flesh warring against the will of the spirit," as the good Apostle Paul complains of, and which we of to-day have full as much cause to deprecate. No. The current of life would glide smoothly then. The storms of snow and hail and rain might beat upon you, but would not hurt you, for the fire burns warm within, and the light there is ever bright. They are not stormy seas that you sail upon, but seas of quiet content, of achievement, of victory. Life is no battle for you. It is beautiful, and full of promise.

If everybody were born right—tremendous thought!—why, everybody would go right then, and this world would be all

right. There would be no battles to fight. There would be no sin; no clashing of interests; no envy, or hate, or malice; no backbiting or slandering; no tearing down other people's reputations, or business, or homes, or happiness to build one's own upon; no cloaks of piety, or politics, or false friendship, to hide a seared and blackened heart; no souls or bodies would be bought or sold for money, or for social or political position.

Then the rich would not "grind the face of the poor," for there would be no poor. The poor would not envy and hate the rich, for there would be no rich. All would be equal, because, if everybody were right, they would possess a strong sense of justice, which would not permit them to take more for themselves than they give to another, and if no one took more than enough—if there were no Rothschilds, or Astors, or Stewarts, to catch everything within their reach into their hungry maw—there would be enough for all. Enough to eat, to drink, and to wear; enough of love, enough of kindness, enough of pity, enough of power; enough of hope, of emulation, of aspiration; enough of work, of play, of achievement; enough of worship, enough of happiness. Then we would not need to die to go to Heaven, for Heaven would come to us.

But we are not born right. We are all warped and crooked everyway. And so were our forefathers, and so were theirs, etc., away back to the time when poor weak Adam ate of the forbidden fruit from the resistless hand of woman, and we lost our Eden. So we are born wrong, inheriting the sins of our fathers, with unbalanced minds and bodies, where disease and death find easy prey. And this is the way everything has become so mixed that we can scarcely tell right from wrong, or good from bad. Our brains are clouded and sluggish, our bodies are clogged and crippled.

Oh, the battles we must fight against temptation and sin and death!—spiritual as well as physical death! Surely, if such an one comes off conqueror at last, does he not deserve to wear the victor's crown? Heaven holds no place too high, or happiness too great for him. What though he be scarred and covered all over with wounds and bruises? They are only bright jewels in his crown of glory—landmarks by which to trace his pathway to the higher life.

Which is better—to be born right, or to overcome the misfortunes of birth and circumstance, and to grow right afterward?

JOCA DAN.

HOUSEHOLD AND AGRICULTURAL.

THE RASPBERRY.

BY JULIA COLMAN.

Early History—Varieties—Wholesomeness—Uses—Drying—Culture.

RECIPES.—Raspberry Pie, Sweet Dried Raspberries, Short-Cake, Kolla, Crusted Pudding, Canned Raspberries, Blackberry Dessert, Traveler's Breakfast, Visitor's Breakfast, etc.



RED ANTWERP.

THE raspberry is what some call a collective fruit. The individual seed with its pulp can be readily separated from all the others, and may be recognized as a separate berry. It grows on a fleshy receptacle like the strawberry, but this is dry and spongy, and it remains on the stem when the fruit is pulled. In the blackberry, it remains within the collective berries when gathered, and is eatable, but it is not so highly flavored as the outside of the fruit. The mulberry furnishes still another variety, in which the fruits are joined together so closely that they are not readily separated, all very much like those of the pine-apple.

EARLY HISTORY.

The ancients called the raspberry the "bramble of Mount Ida," because, as they averred, it was first found growing in that classic spot. The fruit, however, was not mentioned with so much favor as the strawberry, and it was not known to have been cultivated until long after the sixth century. At that time, a writer mentions it as growing wild in many places in France, but calls it inferior to the blackberry. A similar estimate of its value was placed upon its merits in

England at a later date, so that very much of the value of the European varieties must be due to the improvements of cultivation. Its name was due to the roughness of its leaves and branches, and at an early period it was also called the "hind-berry."

In our own country, we can judge for ourselves of the difference between the wild fruit and the cultivated, the black and the red being both found in a wild state, and very much sought after. They are possibly quite superior to the wild fruits of Europe, though their cultivated varieties are thus far finer than those originating from our native fruits, only not quite so hardy.

VARIETIES.

New varieties are readily produced, both by raising them from the seed, and further, by crossing the red with the black; and it has been said that at least one good variety has been produced by crossing the red raspberry with the blackberry. We cannot vouch for this, and we frequently find the blackberry and the black raspberry confused with each other; still it remains true that many new varieties are placed on the market every decade, if not every year. This is a berry, however, which has the bump of locality developed still more largely than even the grape and the strawberry. Varieties which do well in one locality do nothing at all in another, and one superlative variety is confined to a narrow strip on the west side of the Hudson, refusing even to cross that stream and take its delicate flavor with it. There are a few kinds which will bear a wider dissemination, but the experimenting cultivator will need to make sure of the adaptation of the variety to his locality before investing very largely in plants, if he wishes to secure himself against loss. One horticulturist of some note says: "There is still great room for improvement in this fruit, and he who

can originate a large, firm, bright-colored berry, growing on hardy, productive, vigorous canes, and adapted to a wide range of country, ought to greatly advance his own fortunes, and he certainly would confer a benefit on the country at large."

In the market, this fruit always bears a much higher price than strawberries and blackberries, and probably always will, because from its hollow form it can never become a very firm berry for long carriage. The black variety does better, and is lower in price, but it is not so luscious as the red.

WHOLESOMENESS.

The wholesomeness of the raspberry is unquestioned, I believe; certainly, if not, it ought to be. Dr. Pereira, the great critic in all such matters, recommends it, and especially the drink called "Raspberry Vinegar," which is made by pouring vinegar over successive portions of the fruit, a very certain way, it seems to us, of spoiling good fruit.

It is curious to notice his style of reasoning about the matter. He allows, first, that "the employment of a vegetable acid, as an aliment, is necessary for the preservation of health." He quotes vinegar as one of these acids; but immediately afterward shows that vinegar is of no value in keeping off the scurvy, though he gives this as one good proof of the value of other acids. I am inclined to think that people cannot learn these primary truths so long as they hold on to their belief in drugs.

USES.

Decidedly the best use for the berry is to eat it fresh, and as soon as possible after it is picked from the bushes. Scarcely any other berry deteriorates so rapidly as this. A few hours will suffice to destroy its fine aroma, and a day or two renders it quite insipid. This is also the case with the wild berries, especially of the red kind, and many a country housewife spends her evening, after the children have been out berrying, in putting up those which are to be preserved

or dried. A few may be reserved for fresh use the next day, but to try to keep them longer she thinks would be folly. They form an excellent trimming for oatmeal mush, split barley, and crushed barley and rice. In this respect, they surpass most other fresh fruit. They are delicious made into pies, and into a pyramid, after the fashion of the strawberry pyramid. Both the red and the black are very good dried, at least the wild ones; but the process should be very rapid, and they should be kept in cans afterwards. Scalding in the oven and watching closely are indispensable if the best result would be attained. Berries that are crushed, or messed in any way, may be disposed of to good advantage by scalding and straining out the juice as directed for strawberries. The English serve them very commonly with strawberries at dessert. We prefer them with currants, partly because they ripen at the same time. Black raspberries with red currants make a very showy dish, and if some of the currant juice is added, duly softened with sugar, it will be found a rarely delicious trimming. The same is true of the strawberry-juice flavored with pine-apple, of which it is hoped a generous supply has been canned. Red raspberries, with white currants strewed over them, do not make quite so showy a dish, but it is much more delicate, both to the eye and to the palate. This will not need a juicy trimming, as the berries are so much more juicy in themselves.

DRYING.

Plain dried raspberries are among the choicest of our home-dried fruits, and, we must add, among the most expensive. They usually retail at from thirty-five to forty-five cents a pound, wholesaling at five to ten cents less. We see no necessity for this so far as the ease of production is concerned. Black raspberries are easily grown, easily gathered, and easily dried, and when dried the transportation, so difficult when fresh, is a small matter. We believe there are many sections of country where women, who are at a loss for remunerative employment, might go

into this with both pleasure and profit. There is even a thornless variety or two, if tender hands are afraid of the scratches, though they are not quite so productive as the others. But we need not talk thus to women; they do nearly all our berrying now, and will readily brave the thorns, or devise some shield from them.

It is very little trouble to dry black raspberries. When it is to be done by the quantity, the hot-bed sash affords an excellent protection from the flies, dust and unexpected showers. Under this they dry very quickly in favorable weather. If the hot-bed frames are used, clean boards should be placed under the sash, and at the same inclination. On these the plates of berries should be placed.

Another excellent device is to have several shelves made of slate, one above the other, in an upright frame, not having the whole so heavy but that it can be moved to the side of the kitchen stove, when there is a fire, and out into the sun when that is desirable. This should be closely covered with netting so as to quite exclude the flies. If there is dust, make a similar covering with paper, leaving a chance for ventilation. The plates of berries should be placed on these shelves. We know of nothing better than plates in common use. Wood absorbs too much of the juice; tin taints the fruit. Japan ware is admissible, though its first cost is much greater; and the same may be said of "rubberized" trays and paper-ware.

When thoroughly dry, the fruit should be carefully tied up in paper bags and kept in a clean, cool, dry room; or it can be closely packed in tin cans, the covers of which should be carefully fastened down with a strip of pasted paper.

FOR TRAVELERS.

These dried berries are valuable to the hygienist because they can be used in many ways without sugar. We hope there will yet be many such fruits; as yet they are few. These are especially valuable to the traveler who cannot get fruit with his meals. They require little space, and a small quantity in a glass of

water, put asoak over night, will make an excellent preface, or accompaniment to his breakfast. A smaller quantity will make a satisfactory drink with hard water when soft cannot be had, and the enforced eating of salted food has made the victim thirsty. Those who would enjoy the results of right living when away from home, must needs study devices; and they will find dried raspberries an excellent help.

CULTURE.

The fact that raspberries lose their flavor so readily, and carry with so great difficulty will always prevent their being very cheap or very plentiful in the market. This will make it desirable that those in the vicinity of large cities, and much more those in the country, should raise their own. When the right varieties are secured, the culture is not difficult. They will grow well in a light, rich loam, in a clayey soil, or in a sharp sand. They are not quite so impatient of shade as the strawberry, and they do well when trained up to walls, fences, or sheds. Many a city lot would produce as many as a large family would need, if the proper care and culture were bestowed. Either the red or the black may be cultivated, or both. The yellow or the white are not considered so hardy as the darker colors. For a fertilizer, use barnyard manure and muck, or muck with lime or ashes, or bonedust, or poudrette composted with muck, sods and leaves. Deep plowing or trenching prevents loss from drouth, and is indispensable to the best success. With these precautions, it is believed that there is not a garden in the country in which some variety of raspberries will not thrive.

RECIPES.

Raspberry Pie.—Polish the pie-plate with a little sweet oil on a cloth; then sift evenly over it barley, or fine oat-meal, or Graham cracker-crumbs to the thickness of one-eighth of an inch. On this crust spread the berries, two layers deep; sprinkle on a little sugar, if required; sprinkle evenly over this about two-thirds as much water, by measure, as there was material in the crust; then sprinkle a little of the same meal thinly over the berries, and bake gently from twenty to thirty

minutes or more, being careful not to let it burn nor dry up. The time required will depend entirely on the heat of the oven.

Dried Raspberries.—Oil a pie-dish, and spread three or four layers of red raspberries on it, sprinkling over them a little sugar, say three or four spoonfuls; set them in the oven till they are scalded through; then let them stand where they will dry quickly; a shelf over the kitchen stove is a good place, or a few hours' exposure to a hot sun each day until they are dry; peel them up from the plate before they are dried hard; put away in covered cans, and use instead of figs or raisins for a lunch, or to make up in gems, short-cake, or pudding crust.

Raspberry Short-Cake.—One cup of oatmeal or hominy porridge, one cup of water, and one and a half cups of fine Graham flour, and one-half cup of sweet dried raspberries; mix all intimately, and spread on a pan half an inch thick, and bake half an hour in a moderate oven. Let it stand ten minutes to steam before serving. It is impossible in such recipes to allow exactly for the different consistencies of different porridges, but by the exercise of a little judgment this may be made very tender and nice.

Raspberry Rolls.—To one pint of fine Graham flour add one gill of sweet dried raspberries: mix well, and then wet with scalding water to a consistency proper for biscuit, making up with as little kneading as may be necessary to make it homogeneous (the success of the rolls depends on its being done adroitly); roll out to half an inch thick, cut in squares with a sharp knife, and bake twenty or thirty minutes in a moderate oven. Serve warm or cold.

Raspberry Crusted Pudding.—Make a crust, as above, for the rolls, and spread it over a nappy, filled with cut, sub-acid apples; bake till the crust is done; then invert it on a plate, pour the cooked apples upon it, mash with a spoon and sweeten them, spread out over the crust, let it stand fifteen minutes, cut in pieces like a pie, and serve.

Canned Raspberries.—They may be canned quickly, like any other fruit, by stewing a few minutes, and dipping into the hot cans and sealing at once. Another way which makes them much richer, especially if they are not to be sweetened, is to fill the cans with the fresh berries, set them in cool water in a boiler, let it boil, and as fast as the berries settle add more, till the juice reaches the top of the can; then seal as usual. These have more of the flavor of the natural berry, being undiluted with water.

Black Raspberry Dessert.—To one pint of black raspberries, looked over and rounded up in a glass dish, add one gill of clean large red currants, scattering them mostly over the top. Then mash another gill of currants, add one gill of water, strain through a hair sieve, sweeten to the

taste, and pour it over the fruit in the dish. Let it stand half an hour in a cool place and serve.

Dried Raspberry Drink.—To one pint of the best water available, add one-half gill of dried raspberries, cover close and set in a cool place. Let it stand three or four hours or over night; then eat the fruit and drink the water. The former will aid in correcting the tendency to constipation so often felt in traveling, on account of the constrained position, as well as of unnatural food; and the latter will assuage thirst better than any "hard water," to any person not accustomed to it. It is better than lemon-juice, which is apt to be harsh and acrid without sugar.

Traveler's Breakfast.—One who is long away from home or obliged to leave without preparation, can make a tolerable breakfast dish as follows. All of the materials for this can readily be obtained fresh from every good grocer in any thriving village: One-half pint of oatmeal (Schumacher's "A," or the "Canadian,") one spoonful of desiccated cocoanut, two spoonfuls washed zante currants, and one and a half gills of cold water. Mix well and serve at once. Tastes will vary about the proportion of water desired, and also as to the time it shall stand after mixing before serving. Instead of the currants, raisins may be put into it, or eaten with it. Either of these kinds of oatmeal also makes a satisfying drink, using two teaspoonfuls to a tumbler of water, and drink within five minutes.

Visitor's Breakfast.—People who are visiting where they cannot get wholesome food, and who yet wish to make as little trouble as possible, can greatly facilitate matters by the following device—provide what is commonly known as a "three-pint tin pail," with a close cover. Provide also a supply of Schumacher's "C" oatmeal, or Bogle and Lyles' Irish oatmeal. To prevent taint, keep it covered in a tight tin can. At night measure into the pail, one pint of water and one gill of the oatmeal, and ask the mistress to have this put on in the morning when the breakfast is started, in a kettle of boiling water, and boiled half an hour or more, as time may allow. If there be time to boil it an hour, the meal need not be put in till morning. If porridge be preferred, let the proportions be one of oatmeal to six of water. Some of this mush or porridge may be served cold for dessert at dinner.

This provides a dish with little trouble to servant or mistress about "the new style of cooking," of which, perchance, they know nothing. For want of some simple device, many a Hygienist loses the pleasure of the visit, if not health itself, by eating bad food. The hostess will gladly take so little trouble as that, and may perchance learn something that she will prize and practice.



FRANCONIA.

Food Items.

SCHOOLS OF COOKERY.—In many of the leading towns of England and Scotland, these schools are already in existence, and a recent note mentions that they are in the course of formation in no less than eight of the large towns. It is well to study about cookery; we trust that this will open the way to study about wholesome cookery.

"**VEGETARIAN SUPPER**" in London is reported, with plates for twenty, each of whom paid his proportion of the cost. The bill of fare included marmalade, brown bread, and butter, currant cake, plum puddings, with melted sauce, fig pudding, rhubarb pie, jam tarts, orange jelly, cress, celery, biscuits, almonds, muscatels, figs, oranges, grapes, dates, apples, and two kinds of jam. The beverages were water, chocolate, coffee, and tea.

In Liverpool the Dietetic Reform Association met at a dinner, the bill of fare for which comprised the following articles: Pea-soup, macaroni omelet, Haricot beans (our common garden beans), potato pie, and vegetables, with fruit tarts, and moulded rice. Would it not give eclat to the hygienic diet in this country to give a breakfast or dinner occasionally?

THE AGRICULTURAL Hall at the Centennial Exposition is an immense building twelve acres in extent. It contains a great many things besides foods and food preparations. Of these, however, it is wonderful to note how many are poor foods, spoiled foods, or simply poisons, and how much pains is taken to show off many things which at best have small claim to being of any value whatever to the human family. Among these of course stand foremost the intoxicating drinks, the tobacco, etc., of which there are immense quantities.

FISHES.—Various kinds of fish used for food, are shown in tanks on the east side of Agricultural Hall. For the salt water fishes, their own element is daily brought from the ocean to replenish the tanks. The Gloucester fisheries show representations of the wharves of 1776, and of 1876, with men and women engaged in fishing and all the fishing gear in common use.

BRAZIL sends to the Exposition seven kinds of tea, fourteen kinds of snuff, twelve kinds of

fine sugars, and ninety kinds of beans, besides macaroni, rice, cocoa nuts, and the prepared or desiccated cocoanut.

ENGLAND makes a great show of pickles, potted meats, and fancy biscuits, or, as we should call them, "crackers." Holland has an attractive display of fruits and vegetables in glass, Edam cheese, and a great variety of liquors. Our own seedsmen are showing grain in the sheaf. Of fruits we will give a more complete account as the season advances. In the Horticultural Hall there are orange and lemon trees in bearing, a banana and a sago palm.

VALENCIA RAISINS are becoming the favorites in the market, because the grocers can buy them by the pound. Formerly all raisins were sold to jobbers by the box. Of late the practice became very common of putting up the boxes in short weight. Within a year or two past a great effort has been made to have all raisins imported and sold by the pound. But the importers do not agree to this, and the effort has been successful only so far as the Valencia raisins are concerned; hence they are favored by the grocers. It is to be hoped that the California raisins, of which we shall ere long have a good supply, may come into the market in honest guise, and keep up a reputation for honesty. We like to have good honest layer raisins as well as Valencias, the former being preferable for many uses.

CANNED CORN.—Some of the canned sweet corn now in the market is about as good as if it had been Shaker-dried corn, soaked out and put into cans. If people were shrewd, they would prefer to buy the Shaker corn and soak it out themselves. It does not improve it to put it into cans awhile before using it.

MEASURES.—Grains and seeds are measured by striking the surface level. Fruits and vegetables are heaped upon the measure, which requires about one-fifth more, or six and two-fifths quarts to the bushel. The old style flour barrel, holding 196 pounds of flour, will hold three bushels of vegetables. The new style barrel, holding 100 quarts of grain, holds about two and a half of vegetables. The difference between the two barrels is about the same as that between dry measure and vegetable and fruit measures. A barrel of apples, therefore, may be either three bushels, or two and a half bushels, according to the size of the barrel.



True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

HOW TO TEACH;

OR,

PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.

GOVERNING POWER WITHOUT MIGHT.

THE teacher should have a high crown of head to give ambition, dignity, determination, and the power to govern. (See deficiency in fig. 2.) Some persons even of slight proportions will govern a school with a wave of the hand, a mere suggestion seems to come with such expectation of being obeyed that it is obeyed. The very tone has authority in it, yet it may not be rough, boisterous, or pugnacious.

The author once employed a teacher for a winter school where there was a considerable number of large boys, broad-shouldered sons of farmers who had been accustomed to behave rudely, with impunity, and sometimes had threatened to carry the master out of the house, merely for the rough fun of the thing. The teacher we employed was a girl of twenty-two that weighed ninety-five pounds, but her head was high at the crown and not very broad at the base. She was dignified, upright, firm, but not passionate nor uneven in temper. The wise men of the district were alarmed that a girl was to be put into the school as teacher, and especially one of such slight organization. The writer recognized her character for dignity, morality, intelligence and self-possession; and, as he expected, she worked that school till

spring without a ripple of disorder or disobedience. She had no bluster, no loud talking, no confusion of thought or purpose, and provoked no opposition or anger by rudeness of speech. The pointing of her finger at some great boy grown to man's weight and stature, would make him cower and seem to say, "Pray what have I done, what do you want, how shall I adjust myself to your wishes?" and when he found out that his long legs and coarse boots were sprawling in an awkward manner, and that was the only trouble—he readily adjusted himself, when a dignified inclination of the head of the teacher would seem to say, "that is all," and she would quietly walk on. The people of the district wished her to teach the school the next summer and the next winter, and the parents as well as the pupils learned a lesson.

"Not by might nor by power, but by my spirit," is a thought as applicable to human as to divine government, and is often exemplified in the home, the shop, and the store, as well as in the school-room.

MORAL QUALITIES.

The teacher should have a high head to give morality, dignity, justice, reverence, benevolence and sympathy. These will enable him to awaken the higher sentiments in the pupils, and to

fill the school-room with an atmosphere of serene uprightness. The teacher who goes into the school with a broad, low head, that seeks to battle his way to victory, will arouse every element of battling in every pupil who has enough courage to battle anywhere, and it will be might against might. Such a teacher will stir up all the low propensities of the pupils, and God help him and the usefulness of his school when he seeks to bruise his way to success.

RECAPITULATION OF ENDOWMENTS.

The teacher, then, should be robust, and healthy, of ample dimensions. Though, as we have intimated, small persons sometimes can govern well, but they would be all the better if they weighed one hundred and forty instead of ninety-five pounds, with the same head to think and work. The teacher should be also quick of perception, retentive in memory, sound in philosophic understanding, sympathetic, respectful, upright, hopeful, persevering, steadfast, dignified, ambitious, and affectionate. In short, the more there is of the teacher in harmonious mental vigor, and in extended and minute culture, the better. The teacher should have an equable temper, a pleasant voice, and self-control. We think good government is greatly promoted by a low-toned voice, indicating that the teacher is not hasty or angry, or in any way exasperated, and as if he expected obedience without noise or force. It would thus seem that a teacher needs an excellent organization, mental and physical, and that he needs to carry all the Christian graces in a spirit of wisdom.

WHAT THE TEACHER SHOULD KNOW.

The teacher should understand human character as taught by Phrenology, and be able at a glance to

comprehend the leading traits of each of his pupils. He should understand the temperaments and their influence on the character and talents. Should know that a blue-eyed, sharp-featured boy or girl will be nervous and restless, and sometimes disturb the quiet of the school, and be very quick to get a lesson, especially if the lower part of the forehead be prominent and the eye be full; while a dark, sturdy, tough organization will be slow but sound, and will require patience and numerous explanations from the teacher. A high, square forehead will be comprehensive but not quick, unless the temperament be very active. A child with a high, broad crown of head will be ambitious and very sensitive to praise, while one low and small in that region will need much encouragement. One with a low, broad head will be selfish, tricky, deceitful, and sulky if provoked, or cruel if enraged. The teacher should know how to detect all these and many other peculiarities in order to treat each one in a way best adapted to produce the desired result.

EDUCATIONAL ATTAINMENTS.

The teacher needs to know thoroughly all he is expected to teach; and while young teachers are being trained in the primary departments for future usefulness in the advanced classes, they should be pushing their own studies to perfection, and qualifying themselves for teaching in the higher departments, so that when they enter upon a higher grade of instruction there shall be very little to be learned in that field of inquiry.

The teacher who has to study nights to keep out of the way of his advanced class, has double work to do, and is not really qualified to teach well that which the night before he has learned with his brain tired by the weary work

of the day; and in so far as he thus lacks the ripeness of knowledge and the power to impart it with self-poised vigor, he is a fraud and a false pretense.

A TEACHER "FRESH FROM HIS CLASSICS."

Some twenty years ago a young man came to the author and engaged to take lessons in phonography of our shorthand writer, stipulating that he must have his lessons Monday and Thursday evenings without fail. We afterward learned that he had engaged to instruct a pupil on Tuesday and Friday evenings, receiving for giving the lessons the same sum that he had paid us; thus obtaining a lesson Monday and transmitting it Tuesday to his student, never having laid up a single fact ahead. His student sometimes would ask him questions in regard to advanced portions of his text-book, such as the *l* hooks and *n* hooks, when he was suddenly and gravely informed that his proper course was to confine himself strictly to the lesson in hand, that much better and surer progress would be made in that way, and that when they came to the *l* hooks and *n* hooks, it would be time enough to get information as to them.

Old lawyers, old doctors, old ministers are applied to for their wisdom because they have had time to learn. Let the young teacher while engaged in primary instruction push forward inquiry, and become thoroughly familiar in the fields of knowledge which are to be occupied at a later stage, and thus the standard of instruction will be raised, and teaching will become what it ought to be, not only one of the most necessary but one of the noblest of professions.

WHAT THE TEACHER IS TO DO.

If the teacher can be what he should be, and know what he ought to know,

the field of doing will be well tilled, for if he be honest, and that is one of the prime ingredients, he will feel an earnest sense of duty to fulfill his obligations to the best of his ability to pupils, to parents, and to the public. He will not be satisfied simply to go over a given curriculum of study and advance the pupils in that; he will feel it necessary to imbue them with a high and holy hope of success and usefulness in the employment of the knowledge they acquire.

THE INTELLECT NOT THE ONLY FIELD OF THE TEACHER.

We see no reason why the teacher should not also be a moral instructor, nor why the soul and the manners should not be elevated and refined. The intellect is not the teacher's only field of effort; for while he is imparting the facts of knowledge and the deductions of philosophy, layer by layer, as the mason lays brick, why should not these facts of knowledge and the conclusions of reason be properly cemented by the mortar of morality, so that the mental culture shall not only be grand in its intellectual attainments, but solidified with principle, and built up in moral power.

How many teachers in a hundred can meet these requisitions? How many are there who fall below and yet might greatly improve, and from having indifferent success might triumph, and become not only highly esteemed, but popular and happy as well as successful in a pecuniary sense? We hold that the thinker, the brain-laborer, and especially the teacher, who instructs others in all that pertains to literature and science, is as really a producer as he who uses the knowledge acquired from the teacher toward the accomplishment of business purposes. Does not the teacher who instructs the pu-

pils how to keep accounts, and thus qualifies them for commerce, banking, and other business, contribute quite as essentially to the acquisition of property as he does who keeps the accounts, plans business, and works out the results? True, the grindstone does not cut down trees, nor hew timber, mow grass, nor plane boards; but the axe, scythe, and plane are useless without the sharp edge which the grindstone imparts. So the human mind sent out without the sharpening influences of education, and the refining elements of moral power, can not with facility cut its way to honorable and worthy success.

The teacher may properly feel that he is one of the main factors of the world's success, and while doing his duty faithfully and nobly, though he may not be appreciated nor properly rewarded, let him stand erect as one of God's noblemen. Let others construct fabrics and erect piles of architecture which must crumble by time and waste by the using; the teacher is working for that which is more precious than marble, and more enduring than columns, arches, and domes.

Since mental and physical development, and the proper training of the young are subjects of the first importance, anything which will aid teachers in imparting knowledge, with wise regard to the natural constitution and talents of pupils, and which will assist pupils in acquiring it, challenges attention, and demands adoption. School-books are assistants to teachers and pupils, but they are not all perfect, and in the nature of the case can not cover fully the ground of illustration, and much must therefore depend on the teacher, as to how rapidly education shall proceed, and how thoroughly the pupil shall understand the topics taught.

Perhaps the crudest of all subjects, the least understood by the masses, is that of mental philosophy; mind being regarded as an abstraction, as a mystery; and the usual mental philosophy, which aims to elucidate mental processes, is not easily understood, and altogether too general in its terms for clear appreciation or practical use. We doubt if any president, or professor in our colleges, who, following metaphysical science solely as his guide, has the remotest idea, when a class of students are first presented to him, which of them will succeed best in history, which will excel in mathematics, which in grammar and languages, and which in philosophy. Consequently such instructors as he are obliged to wait for the manifestation of talent as much as they are obliged to wait for the manifestation of character in each of their pupils before any opinion can be formed who will be pliable and conformatory in regard to rules and discipline, who will be restive under restraint, mischievous, idle, careless, or wicked, they can not predicate. In other words, the old mental philosophy does not pretend to criticise men at all, nor to understand who is prone to the good or to the bad, to the theoretical, or to the practical. The system of reading mind, called Phrenology, on the contrary, proposes to aid teachers and parents with respect to all these interesting points, and to classify pupils according to their natural adaptations.

NELSON SIZER.

[TO BE CONTINUED.]

ASTRONOMICAL NOTES.—Under the title "Astronomical Predictions," Prof. Kirkwood contributes to the *Tribune* a tabulated list of the phenomena to be observed in the heavens during the next twenty-five years. From this list, which includes eclipses, with solar and lunar occultations,

transits, comets, and star-showers, the following are likely to attract general attention in this country: On the 23d of August, 1877, a total eclipse of the moon will occur, partly visible in the United States. The great astronomical event of the transit of Venus will occur on the 6th of December, 1882, and will be visible in the United States. A maximum of sun-spots may be looked for in the year 1883, and also the return of the comet of 1812, whose period was estimated at seventy years and eight months. A considerable display of meteors may be expected on the 20th of April, 1884, and a total eclipse of the moon will occur on the 4th of October of the same year. In February, 1886, Winnecke's comet will return. The only opportunity of wit-

nessing a total eclipse of the sun on this continent during the remainder of this century will occur in Colorado, on the 28th of July, 1878. That part of the stream of November meteors which produced the showers of 1787 and 1820 may be expected to return between 1885 and 1888. A display of meteors derived from Biela's comet may be expected about November 24, 1892. On the night of December 27, 1898, the moon will be totally eclipsed. The maximum display of Leonids or November meteorers may be expected on the morning of the 15th of December, 1899; and on May 27, 1900, a total eclipse of the sun will be visible in Virginia. Besides these phenomena the astronomer refers to the numerous returns of the smaller comets, the transits of Mercury, and several steller occultations.

THE MIDNIGHT WATCH OF COLUMBUS.

THE destiny of the world has often rested upon the decision of a moment. When the cry of Victory! went up from the Grecian hosts upon the plain of Cunaxa, it told of the defeat of the barbarous hordes of Persia by a handful of brave men possessed of knowledge and discipline; and as the echo of that far-away cry of Victory, there came rolling in upon us tales of the conquests of Alexander, with their weighty results. Had the Roman forces shrunk back dismayed when that cry of terror went up to Heaven, "Hannibal at the Gates," the world's history would not have been the same which is her's to-day. Had it not been for the courage of Arnold's troops at Saratoga, the land we love would not have been the United States of America.

The critical point in the voyage of Columbus was not made immortal by a libation of blood. No martial tramp of soldiery was heard. No trumpet sounded to battle. No armor glittered in the sunlight. But the conflict, in the breast of that lonely man, was severe. It was a struggle for life. Its issue was to decide the history of a people and a world.

Man never started on an enterprise more grand or glorious than did Columbus. The

art of navigation was in its infancy. The deep was peopled with fabulous monsters. The sea was a never-ending desert of water. But the world was demanding more room. The explosive elements of the Reformation were gathering. Soon must the revolution come. Then the people, divided in sentiment and in religion, must have separate homes. There must be a land where freedom and liberty could be enjoyed for those who would worship God according to the dictates of their own conscience. Then Columbus appeared on the scene, telling of a fair land toward the setting sun, beyond the wild waste of waters; and, after withering discouragements, he sailed in pursuit of this land, which none expected him to find. Three little ships, scarcely able to cope with the mountain waves, comprised his fleet. Steadily they pursued their westward course. Weeks passed; thousands of miles of sea intervened between them and their homes. Still onward. Ever and anon as evening approached the cry of land had sounded forth from the mast-head, but as the morning light shot up the eastern sky, their hopes had vanished like the clouds they were built upon. Each time, as the indications of land failed, their hopes sank

lower. They called their leader a madman, seeking their destruction. Gladly would they have hurled him into the sea, turned the vessel's prow, and sailed back to Palos. But Columbus, with an unflinching purpose, steadily presses on in his course.

Night comes on once more. The sailors had been turbulent that day. Now they retire to their hammocks, but not to sleep. They roll restlessly—their hearts are heavy. They feel that they are going on, on, away from their homes, toward the end of the earth. They think of the friends they have left at home. They still see them standing upon the beach and waving a last farewell. Shall they see them more, and lovingly grasp their hands ere the sea shall give up its dead? They think of the dear old places where, with their loved ones, they were wont to stroll. How they longed to kiss the very dust they had trodden! But even the waves, and the wind whistling through the rigging, seemed sighing, "Never more." The Admiral has ascended the deck of the *Santa Maria*, and stands there straining his eyes into the darkness while night comes on and the blackness grows deeper. Discouraged he is not. As firmly as ever he believes in his divinely-appointed mission. When the prize is almost within his grasp shall it slip from him? No! No! He will quell insubordination with an iron hand. If not by bribes, then by force of will alone he will compel his faint-hearted men to obey him, and to press steadily on their way until that fair shore—the object of his life—be reached. Already, in dreams, he has found the new land, and again he breathes the balmy air of Spain. "Through camp and court he bears the trophies of a conqueror, and wears his monarch's signet-ring." His song of triumph swells with the mountain breezes.

Suddenly his eye has caught in the dim distance a flashing light. Is it a vagrant meteor, or some phosphorescent fire? It vanishes! But again it sends its gleams over the ocean. Can it be a torch, borne in some Indian fisherman's bark, dancing upon the waves? or some camp-fire betraying a savage home upon the shore of some

beautiful island? A sailor at the mast-head has also seen the welcome signal, and has caught a glimpse of the shadowy land looming up against the sky, and "Land! Land!" rings out sharp and clear on the midnight air, and the refrain is caught up by the children of the night and laughingly re-echoed over the waters. The seamen leap from their hammocks, no longer thinking of home and friends. They rush to the decks and strain their eyes over the water. As the morning light breaks, before them lies a lovely island of the sea in all its virgin beauty. "Forgetful of the past, anticipating the glory of the future, from every vessel, from every tongue, the glad *Te Deum* swells where waves have roared and wild winds wailed." The great heart of their leader rises in his bosom, and is almost bursting with joy. He has conquered. The crisis is passed, and America, the land of the free, points the direction of the future.

Is there some discouraged reformer to-day, let him stand with a firm determination to pierce through the blackness of the future, spurning allurements to repose, and soon shall he see breaking from out the dim mists of the future a glimmering light which shall betoken success. Columbus stood at his midnight post watching for land, curbing discouragements with an iron will, and he triumphed. If we sail over the sea of life in a ship that knows no turning, we, too, shall triumph.

GRANVILLE M. TEMPLETON.

—♦♦♦—

TURKISH PROGRESS.—The Turkish government intends to educate the young and ambitious Turks at home, so far as facilities can be provided for them. In accordance with this determination the Turkish students at Paris have been directed to leave France. Only those studying medicine will remain. With the money hitherto devoted to the education of young men at institutions in France and other Christian countries, the Turks expect to found an educational institution at Constantinople, which shall embrace a curriculum offering the same advantages as the Paris faculties.



It is easy to believe that there are many invisible beings in nature. But of their kind who will inform us?—*T. Burnet.*

IT is an Ancient Mariner,
And he stoppeth one of three :
"By thy long gray beard and thy glittering
eye
Now, wherefore stoppest me ?

The bridegroom's doors are opened wide,
And I am next of kin ;
The guests are met, the feast is set,—
May'st hear the merry din."

But still he holds the wedding-guest—
"There was a ship," quoth he—
"Nay, if thou'st got a laughsome tale,
Mariner ! come with me "

He holds him with his skinny hand,
Quoth he, "There was a ship"—
"Now get thee hence, thou gray-beard
loon !
Or my staff shall make thee skip."

He holds him with his glittering eye—
The wedding-guest stood still
And listens like a three years' child ;
The Mariner hath his will.

The wedding-guest sate on a stone,
He can not choose but hear ;
And thus spake on that ancient man,
The bright-eyed Mariner !



[*And thus spake on that ancient man*]

“ The ship was cheered, the harbor cleared—
Merrily did we drop
Below the kirk, below the hill,
Below the light-house top.

“ The sun came up upon the left,
Out of the sea came he :
And he shone bright, and on the right
Went down into the sea.

“ Higher and higher every day,
Till over the mast at noon ”—
The wedding-guest here beat his breast,
For he heard the loud bassoon.

The wedding-guest he beat his breast
Yet he can not choose but hear ;
And thus spake on that ancient man,
The bright-eyed Mariner :

“ But now the north wind came more fierce,
There came a tempest strong !
And southward still for days and weeks
Like chaff we drove along.

“ And now there came both mist and snow,
And it grew wondrous cold :
An ice mast-high came floating by
As green as emerald.



The bride hath paced into the hall,
Red as a rose is she ;
Nodding their heads before her go
The merry minstrelsy.

“ And through the drifts the snowy cliffs
Did send a dismal sheen ;
Nor shapes of men nor boats we ken—
The ice was all between.

“ The ice was here, the ice was there,
 The ice was all around ;
 It crack'd and growl'd, and roar'd and
 howl'ed,
 A wild and ceaseless sound.

“ At length did cross an albatross,
 Thorough the fog it came ;
 As it had been a Christian soul,
 We hailed it in God's name.

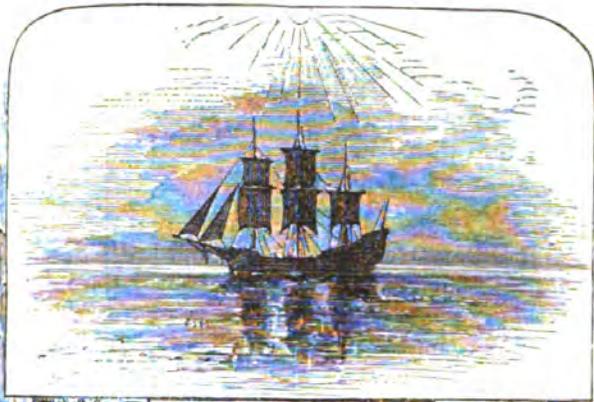
“ The Mariners gave it biscuit-worms,
 And round and round it flew ;
 The ice did split with a thunder-fit ;
 The helmsman steered us through.

“ And a good stout wind sprang up behind,
 The albatross did follow ;
 And every day for food or play
 Came to the Mariner's hollo !

“ In mist or cloud, on mast or shroud
 It perched for vespers nine,
 Whiles all the night through fog-smoke
 white
 Glimmer'd the white moon-shine.”

“ God save thee, Ancient Mariner,
 From the fiends that plague thee thus!—
 Why look'st thou so ? ” — “ With my cross-
 bow
 I shot the albatross ! ”





PART II.

THE sun now rose upon the right,
 Out of the sea came he;
 Still hid in mist; and on the left
 Went down into the sea.

And the good south wind still blew behind,
 But no sweet bird did follow,
 Nor any day for food or play
 Came to the Mariner's hollo!

And I had done an hellish thing,
 And it would work 'em woe;
 For all averred, I had killed the bird
 That made the breeze to blow.

Nor dim nor red, like an angel's head,
 The glorious sun uprist;
 Then all averred I had killed the bird,
 That brought the fog and mist.
 'Twas right, said they, such birds to slay
 That bring the fog and mist.

The breezes blew, the white foam flew,
 The furrow followed free;
 We were the first that ever burst,
 Into that silent sea.

Down dropp'd the breeze, the sails dropped
 down,
 'Twas sad as sad could be,
 And we did speak only to break
 The silence of the sea.

All in a hot and copper sky
 The bloody sun at noon,
 Right up above the mast did stand,
 No bigger than the moon.

Day after day, day after day,
 We stuck, nor breath nor motion,
 As idle as a painted ship
 Upon a painted ocean.

Water, water, everywhere,
 And all the boards did shrink;
 Water, water, everywhere,
 Nor any drop to drink.

The very deeps did rot; O Christ!
 That ever this should be!

Yea, slimy things did crawl with legs
Upon the slimy sea.

About, about, in reel and rout
The death-fires danced at night;
The water, like a witch's oils,
Burnt green, and blue, and white.

And some in dreams assured were
Of the spirit that plagued us so;
Nine fathom deep he has followed us,
From the land of mist and snow.

And every tongue through utter drought
Was withered at the root;
We could not speak no more than if
We had been choked with soot.

Ah well-a-day! what evil looks
Had I from old and young!
Instead of the cross the albatross,
About my neck was hung."



THE LOOM OF LIFE.

ALL day, all night, I can hear the jar
Of the loom of life, and near and far
It thrills with its deep and muffled sound,
As the tireless wheels go always around.
Busily, ceaselessly goes the loom
In the light of day and the midnight's gloom.
The wheels are turning early and late,
And the woof is wound in the warp of fate.

Click, clack! there's a thread of love wove in!
Click, clack! and another of wrong and sin;
What a checkered thing will this life be,
When we see it unrolled in eternity!

Time, with a face like a mystery,
And hands as busy as hands can be,

Sits at the loom with its warp outspread,
To catch in its meshes each glancing thread.
When shall this wonderful web be done?
In a thousand years, perhaps, or one.
Or to-morrow. Who knoweth? Not you nor I,
But the wheels turn on, and the shuttles fly.

Ah, sad-eyed weaver, the years are slow,
But each one is nearer the end, I know.
And some day the last thread shall be wove in,
God grant it be love instead of sin.
Are we spinners of woof for this life-web—say?
Do we furnish the weaver a thread each day?
It were better then, oh my friend, to spin
A beautiful thread, than a thread of sin.

EBEN E. REIFORD.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRATTON, A.M., *Editor.*—N. SIZER, *Associate.*

NEW YORK,
JULY, 1876.

A SALUTATION.

VOLUME SIXTY-THREE greets you, reader, with this its initial number. In conformity with the notice given in a previous number, we now combine in one magazine the features of two. But the combination only renders more nearly complete our consideration of human nature. While Phrenology may be said technically to relate to the nature of mind, it has a direct connection with the body, the physical agent by which mind is expressed. So close is this connection that the state of the body is reflected by or through the mental operations, and the mental condition is reciprocally impressed upon the body. A system of Phrenology which did not embrace principles for the regulation of the physical health would be incomplete; and, indeed, a science of health which did not consider with due comprehensiveness the nature of mind would be very faulty.

With the incorporation, then, of the *Science of Health* more regard shall be given to the training and care of that part which is generally deemed "mortal," and whose strength or weakness measures the capacity or incapacity of man. In the discussion of the many questions which arise

in matters of sanitary practice we shall aim to keep clearly in view the methods of nature, and cordially invite the co-operation of our readers in the effort to supply the world with the best counsel and information which experience may contribute.

Not only in the department of physiology and hygiene do we need the best assistance which can be accorded, but also in all the branches covered by the scope of this publication. No other subject needs more a "multitude of counsellors" than Phrenology, for no other subject is so important, so complex. Its field is the world, and every man, woman, child, bears an immediate relation to it—is an exponent of its truths.

This magazine, good reader, is your organ as well as ours. If you are in the professional field, or in the commercial world, or in agriculture, whatever or wherever you are, make the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH the mouth-piece by which you may speak to thousands of mental and physical experiences, out of which have proceeded results which should be published and so preserved, and that the world may learn of you and be prospered.

1776. JULY FOURTH. 1876.

REVERENCE and patriotism are cardinal elements of human character. The deeds of honor and daring performed by ancestors will be kept fragrant in the memory of men as long as honor and virtue remain. As in the sweep of ages the anniversaries of great deeds recur, the inspiration of those deeds will glow in the hearts of posterity. If there be anything more than another which men delight to recall, with pleasure and pride, it is the deeds of valor and achievement of their honored ancestors; of their prowess, patience, and

power, of their trials and triumphs. A hundred years ago America had a straggling population, scattered along the coast from Maine to Georgia, without wealth, without the munitions and without the discipline or science of warfare, yet with a vast wilderness stretching thousands of miles for a country. Repelling the taxation and tyranny of the mother-country, our sturdy fathers entered into a conflict with the most powerful nation in the world, and for eight long, weary years the war was maintained through privation and hardship, with alternate retreat and battle, until freedom was guaranteed by the complete victory of the colonies.

Within the hundred years just closed how vast have been the changes in this western wilderness! From a population of three millions we have become nearly fifty millions, and while the forest has melted before the onward march of labor, civilization, and law, improvements in science, in education, in mechanism, in art, have kept even growth with the wealth and population of the country. Commencing with our charter of Independence at the close of the Revolution, with the forests full of beasts of prey and fierce savages, and being obliged to wage a second war of Independence with the same mother-country, thirty years after the first was closed, with the necessity of building every house and road and bridge and ship which has been added to our possessions and means of prosperity, we have found time to project and establish the public school system, which guarantees to every child, rich or poor, a substantial English education, and to invite the lightning from the clouds and train it to carry our messages around the world. The old countries to-day are using the reapers, the sewing-machines, the telegraphs, the cotton-gins, and the steamships

which our sons have found the time to invent, and the means to set in successful operation.

We entertain, we believe, a laudable pride in the courage and fortitude and self-sacrificing devotion of our ancestors in daring to strike a blow for liberty against the then most powerful nation in the world, without encouragement or assistance from any nation.

We remember, however, with devout gratitude, the aid which we received in our hour of trial and darkness from that gallant country, France.

But the day of war with grand old England, we trust, is forever past. There need be no unfriendly rivalry between the two nations. The blood of her sons courses through the veins of millions of our people. Many of our towns and of our people bear names similar to those on the other side of the water. To-day there is a friendly intercommunication between us, which should be perpetual. The interest of one people must necessarily be the interest of the other. Magna Charta, trial by jury, *habeas corpus*, and the sacredness of the homestead, and the guarantee of personal liberty, belong alike to England and to America, and we rejoice that we are able to present to the mother-country our escutcheon, freed from the stains of slavery, which, unfortunately, we inherited from our colonial condition, and which existed by the selfishness of our fathers, and by the consent of English law. Within the century England has freed her last slave, and we now have followed her example. Let England and America join hands on this joyful Centennial day, resolving that wherever the English language is spoken, English freedom shall bless the people, and that spirit of unity and comity which blesses a single community shall interblend and make both peoples

one in all that belongs to honor and progress, virtue and religion.

This new, free land has become a hope and home to men of all countries who seek relief from oppression or poverty. The fertile bosom of our broad land opens its wealth to their acceptance and bids them welcome to our shores, and the sturdy sons and blooming daughters of every country can find a place within our borders to build their homes and rear their children, and teach them to speak the language of Shakspeare, Bacon, and Milton. Our fathers having found a home in America for themselves and their children, it does not become us to withhold the welcome to all who are willing to work, and to cast their lot with ours.

The old Independence bell at Philadelphia, which first rang out Liberty to the people, and which to-day bears that flaming inscription, "Proclaim Liberty throughout the land, and to all the inhabitants thereof," offers the guaranty of welcome to every willing hand and every hoping heart that desires a home within our ample boundaries. Here there is room for a thousand millions to dwell together in peace. Let them come! LET THEM COME!

AMONG THE DEAF AND DUMB.

ONE fine day in May we had an opportunity accorded us for the study of character, in a sphere which is rightly deemed an unfortunate one. Having been invited to attend a reception at the Institution for the Deaf and Dumb in the upper part of this city, we presented ourself at the appointed hour, and was cordially received and shown through the extensive and well appointed establishment. A large company assembled in the chapel, where, under the direction of Dr. Peet, the me-

thods employed for the instruction of the deaf-mute pupils were illustrated; children, and young men, and young women from the lowest to the highest classes being brought before the audience, or rather before the *sight* of the visitors. The facility with which the youngest children read the hand language of their teachers was surprising enough to us who depend upon our ears, and the proficiency shown in penmanship by the little ones who were placed at the blackboards to translate the noiseless signs into chalk marks, would compare favorably with that of children of like age who rejoice in the possession of all the senses unimpaired.

There are upward of five hundred pupils in the Institution, two-thirds of whom are well grown, and nearly all are from the lower walks of society, and sustained by benevolence. The representatives of the advanced classes exhibited much familiarity with the principles of science, and wrote with ease and accuracy upon the blackboard in answer to the questions propounded them, showing that pains are taken by their teachers to give them a thorough training in the laws of syntax.

An inspection of the workshops, and direct inquiries, gathered the information that the beneficiaries are trained in trades of different sorts, like shoe-making, tailoring, carpentering, cabinet making, dress-making, etc., so that when dismissed from the Institution they were furnished not only with an excellent English education, but also with a calling of value to society at large. Said the foreman of the carpenter shop, "They make excellent workmen. Some of them are now getting even better wages at cabinet work than I do."

"Perhaps," we replied, "it is because they can give their attention to work more unreservedly than you and I can,

owing to our ability to hear what is going on around us."

We noticed several excellent specimens of wood fitting and finishing, and also some well made shoes and garments in the shops. The president informed us that since the opening of the Institution, in 1817, "nearly 3,000 deaf-mutes had received the benefit of its instruction, and had been made worthy members of society, who, otherwise, would probably have received no knowledge of their true relations to society, would have taken no responsibility upon themselves, and continued to be burdens to friends and the community."

We were much pleased by the healthy, vigorous appearance of the pupils. No artificial habits or fashionable extravagances are fostered, but a life in accordance with reason and nature. A phrenologist would find a rich field for observation among the heads there accumulated. As a class the motive temperament predominates, with a strongly-marked perceptive intellect. This is particularly noticeable in the older pupils, and may be accounted for in part by the great activity of the perceptive organs demanded by their mode of communication. Coming, as the greater part do, from the classes of society accustomed to labor in manual vocations, their heads are broad and their characteristics sharply defined. The spirit of to do is manifested in manner and feature. In view of the fact that in such organizations exist the best possibilities of usefulness, well did Dr. Peet remark: "There is no work more necessary to the State considering their numbers, and no work of greater importance to people as individuals, than such a means of instructing them."

Of one of the young men who showed us much courtesy and attention, we inquired (in pencil), "How long does it take one to

learn to communicate easily in your fashion?" He answered, "About one week. How simple the system that can be acquired in so short time!"

An interesting feature of the Institution just now is a boy who, like Laura Bridgeman, adds blindness to his lack of speech and language. Yet he has been taught to communicate in the sign manner, and to write with considerable ease. In conversing with him the manual signs are traced upon his hand, and he exhibits a facility truly marvelous in grasping their meaning. Some one in the company asked him (through a teacher's fingers), "Do you play ball?" He replied, writing the answer clearly upon the blackboard himself: "I can not play ball, but I can jump over the desk," showing pathetically enough his boy's appreciation of fun.

After a three hours' visit we left the Institution more firmly convinced than ever before that it is doing a work of which mankind should be proud, and that every State should have a similar establishment for the promotion of the welfare of its general population.

ALCOHOL AS FOOD.

A CORRESPONDENT writes to us in a highly "exercised" vein with respect to a paragraph he has read in a Western newspaper, which quotes the data of some experiments made by the late Dr. Anstie, to ascertain the nature of the change undergone by alcohol when introduced into the stomach. Dr. Anstie's experiments are of themselves by no means conclusive in establishing a food quality for alcohol, although they are so interpreted by some writers.

Dr. B. W. Richardson, also an authority in English physiology, is by no means satisfied on the subject, and in a course of lectures

before the Royal Society of Arts, which lectures have been republished in this country, takes the view that alcohol is generally detrimental to health, and doubts the expediency of its administration in illness, owing to its tendency to produce vascular engorgement, and its secondary depression of the organic functions. He says positively, that "the large majority of those who drink alcohol in any of its disguises are injured by it. As a cause of disease it gives origin to great populations of afflicted persons, many of whom suffer even to death without suspecting from what they suffer, and unsuspected. Some of these live just short of the first stage of natural old age; others only to ripe middle age; others only to adolescence."

But more recently still we have the testimony of certain experimentors.

Messrs. Lallemand, Perrin, and Duroy, of Paris, the last a chemist of high reputation, have boldly announced that alcohol possesses no salutary sympathy whatever with the human organization. After a long course of experiments they have concluded that alcohol, when introduced into the stomach, irritates the digestive function, and is directly expelled therefrom by absorption into the blood; that from the blood, which it corrupts, it enters into the substance of the nervous centers, all the tissues of the body, the brain, and liver being the organs in which it has the most marked tendency to accumulate; that its expulsion from the system is effected by the kidneys, lungs, skin, liver, without having undergone any change, digestive or chemical; that it has no claim whatever to rank as a food because of its excretion unchanged; and must be placed with those toxic substances which are antagonistic to the health and vitality if introduced into the human economy; that because the exact total

amount of pure alcohol introduced into the system can not be recovered from the excretory products, it is unreasonable and unscientific to assume, as Dr. Anstie did, that any part of it undergoes assimilation, and becomes of nutritive value, because in its expulsion from the body, by some of the outlets, it is more than probable that the most delicate tests yet employed are unable to reproduce and measure with infallible accuracy the total amount of alcohol so eliminated, and the whole accumulation of demonstrable evidence goes to disprove the assumption that any portion of the undetected alcohol is appropriated by the body as food. Further, they say: "It is a scientific and reasonable deduction that as the greater portion of a given quantity of alcohol, when swallowed, is excreted, unchanged as alcohol from the system, and can be so determined and measured, we may fairly conclude that the portion which remains undiluted either still continues in the system as alcohol also, or has been insensibly excreted; that the fact of some of the derivatives of alcohol, aldehyde and acetic acid, being discovered in the blood, even when death has been caused by alcoholic poisoning, both substances being easily recognized by chemical analysis when present, is a further and very conclusive proof that no metamorphosis of alcohol within the living body takes place by combustion or otherwise; that the fact of alcohol remaining so long demonstrably unchanged in the system after ingestion, even in small quantities, supplies additional and strong proof that it undergoes no combustive or analogous process. If it were subjected to any such process, or was, by some mysterious change, converted into nutritive material it could not possibly be detected in the pulmonary exhalations eight hours, and in the urine fourteen hours after ingestion."

WHAT IT COSTS TO SMOKE.

WE are told every day, in one way or another, that "Time is money"—meaning that every moment has an appreciable value, and it should not, therefore, be wasted. We believe this to be true, and often wonder whether or not he who so emphatically asserts the proverb can believe it. We meet with men of this practical turn of expression on the street and in the shop, at the bench and at the desk, whisking and working around at a high rate of speed, but with cigars in their mouths. It can not be that the use of the weed is conducive to efficient activity of the intellect, for the physiologists all agree in pronouncing its effects that of a narcotic, and, therefore, repressive and deleterious to the nervous system of the user. But much time is lost by every smoker in the various operations attendant upon smoking, from the selection and purchase of the "weed" in the shop of the dealer, till the final rejection of the stump. We presume that the average loss of time sustained by a business man in the consumption of a single cigar does not fall below fifteen minutes; and, as three cigars is the daily quota of a moderate smoker, forty-five minutes are taken out of his active or working hours, which are equivalent to two hundred and seventy-four hours, or seventeen working days of sixteen hours each. This time, if devoted to reading, would cover a considerable field in science, art, or language, and, in the course of a few years, render one well informed in a general way, or proficient in a particular branch of study, and conduce to our improved pecuniary condition.

The late Earl of Stanhope said in an address upon the fashionable vices of society :

"If the expense of snuff, snuff-boxes, and handkerchiefs be taken into consideration, it will be found that this luxury encroaches as much on the income of the snuff-taker

as it does on his time; and that by the proper application of the time and money thus lost to the public, a fund might be constituted for the discharge of the national debt."

The Earl alludes to the British national debt, which is fully four times that of the United States, but as the cost of snuff to the snuff-taker is much less than the cost of cigars to the smoker, the fund which might be accumulated upon a fair estimation of the expensiveness of the cigar habit, and of the value of the time wasted in it, would, in a few years, reach such grand proportions that it would extinguish altogether the pecuniary obligations of our Government.

"THE ANCIENT MARINER."

IN this number we commence the publication of the above poem, as announced in the PHRENOLOGICAL for June. The Ancient Mariner is the "most graphic of Coleridge's poems," to use the language of Freiligrath, and was written in the year 1798, that *annus mirabilis* in which were born the finest specimens of verse which the prolific fancy of Coleridge gave expression to. He lived at that time in Somersetshire, at the foot of the Quantoch Hills, at no great distance from the residence then of Wordsworth, with whom he became intimate, and whose association doubtless had its influence upon Coleridge's muse. Indeed, this poem was produced in accordance with an agreement entered into by Wordsworth and him to contribute a series of "Lyrical Ballads" to a certain literary publication in which they were both interested, Wordsworth's themes to be taken from nature, and Coleridge to discuss supernatural or romantic topics. The Reverend Alexander Dyce stated that the "Ancient Mariner" was founded upon a dream which a friend of Coleridge had, who fancied he saw a skeleton ship with figures in it.

Our Mentorial Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavallable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

CONTROLLING LABOR.—"What organs are most needed in order to be able to control laborers—especially negroes?"

Ans. The governing group of organs have their location in the crown of the head. They are Firmness, Self-Esteem, Conscientiousness, Hope, Cautiousness, and Approbativeness. The organs of Combativeness and Destructiveness to give courage and thoroughness should also be well developed, as well as those of the intellect to give wisdom and tact.

BRAIN QUALITY.—"Is the quality of the brain and blood of the white race superior to that of the negro race?"

Ans. If this question were proposed to a Chinaman, to an Indian, or to a negro, the answer might be that color gave strength and good quality; but since it is asked of one of the Caucasian stock, it may be supposed that his egotism would claim precedence. We may be partial in judgment but our decision is not final. We believe that the history of the races will show that the white race occupying cool regions is more highly endowed with brain, more adapted to study and science, and are more powerful in war, and more successful in the arts of peace. Therefore, we suppose precedence must be given to the quality and power of the white man's brain and blood.

DEATH OF DR. W. W. HALL.—

Two or three of our correspondents have asked us to explain the cause of the sudden

death of this long-time advocate of hygienic method of living. Dr. Hall was sixty-five years of age, and had been a hard worker for forty years. His head was large, his temperament mental, and so drained his vital resources that he rarely exceeded one hundred and twenty-five pounds in weight. For many years it was his custom to rise at five in the morning, and work almost incessantly until late at night, in this, if in nothing else, violating an important rule of health that he never ceased to impress upon others. It was this excessive labor that brought about his death. About a year ago he was attacked with something like apoplexy while attending a concert in Gilmore's Garden, but he made light of the trouble; and although he always expressed a hope that he might die suddenly, he never seemed to think that his life would be brought to an end by apoplexy.

PANIC.—The word panic, we are told, was derived from Pan, the name of a god in the old Greek mythology. Pan was the general of Bacchus. On one occasion when pursuing military operations, and the enemy was near at hand, he used the following stratagem: He commanded his soldiers to set up a hideous shouting in the night. The enemy, being struck with fear, fled in great confusion.

CORN-BREAD AND MOLASSES.—Corn-bread, properly made, is a form of hygienic food; molasses we do not so account. In the South, these articles are extensively used, and we think the trouble in the way of ague, rheumatism, and other congestive diseases so prevalent there is occasioned mainly by the blood excitement and irritation, produced by the excess of carbonaceous matter taken into the system by such a diet.

WEAK EYES.—C. W.—The condition of your eyes may be due to dyspepsia, or a low state of the nervous system. You should apply to a good ophthalmic surgeon, and have your eyes examined. Such symptoms as you experience should not be permitted to pass without the consideration of a skillful specialist. The advice which he would give you at one interview might save you from blindness.

FRECKLES.—A clean diet, free from greasy and oily food, the use of comparatively

little flesh-meat, and a frequent application of clean water and a coarse towel would accomplish the object desired, if any process will.

INCREASE OF BRAIN.—“Does the circumference of a person's brain increase after sixteen years of age, provided it is subject to cultivation? H. H. B.”

Ans. The brain of a healthy person grows about an inch after sixteen years; more volume than that may be acquired if it be highly exercised, especially in intellectual pursuits. We know of cases in which the brain has grown an inch after twenty-five years, the growth, however, being mainly in the anterior lobes. Some persons mature late, intellectually; some æsthetically, or morally; some rather late, socially. Examiners in Phrenology, in the course of years of practice in that profession, are conscious of a development of the organ of Human Nature. Being constantly brought in contact with people of all ages they acquire a clearer appreciation of character, and the organ of Human Nature, being thoroughly exercised, grows, increases in size, and that increase is perceptible on the exterior surface of the head.

FLESH AS FOOD AGAIN.—If flesh-meat and fish are not proper food for man—and from my own experience and observation I am inclined to think they are not—what part do animals play in the great economy of nature? Why do the fish swarm in our rivers?

Ans. The writer has propounded a query to the solution of which we confess ourselves scarcely equal. Perhaps some of our friends can come to the rescue and clear up the subject.

If the constitution of man show that dietetically he is herbivorous and granivorous, the case of the vegetarian is made out, and it is unnecessary to go into the consideration of extraneous issues. Some writers claim that flesh-eating depraves mentality, by rendering the physical economy deranged, and the moral nature more or less corrupt through the necessity of killing animals for food. Animals in the state of nature live in accordance with certain laws. Subjected to man's control, they are forced to violate those laws, and consequently become more or less diseased, therefore evidently unfit for use as food. Mr. J. Bradford Sax, in his “Organic Laws,” alleges that flesh-eating makes its subject old and imbecile in the prime, or what ought to be the prime of his days, bringing on premature dotage, stiffness, inactivity, etc.

EXPANDING THE CHEST.—“Will you inform me as to the best means of expanding the frame of the chest? My father measured forty-two inches when of my age, and I only measure thirty-five. I am engaged during the day at desk-work, keeping books. Should like to know some method of expanding my chest.”

Ans. Your father was probably differently or-

ganized from you, with a larger frame and more of the masculine habit, and heavier. Some men have lungs which are relatively short and thick, giving greater bulk of chest. Other men have relatively long and narrow lungs, and their measurement is apparently small; yet persons of the latter class may have as much lung-capacity as persons of the former; so that the mere measurement around the body is not a fair exhibit of it. Your business, to be sure, is not one calculated to develop the chest in a marked degree. You should, however, make use of such opportunities or facilities as are within your reach for strengthening it. Stand at the desk instead of sitting; be out-of doors as much as you can; walk erectly, the shoulders back, and chin up. Acquire a habit of breathing deeply and fully. Be careful not to get into a cramped or bent position while sleeping. If you use a pillow, let it be a low one. Moreover, be not excessively anxious with regard to the condition of your lungs, and adopt only natural means for improving your health in that, and in other respects. If one's general health be good, the lungs will be likely to maintain their integrity as well as the other organs.



THE LAUGHING AGE.—So much is gaiety, mirth, and a smiling face insisted upon by most writers of to-day, so terrible a thing does it seem to be for persons to allow any expression on their faces but a broad grin, that I think the truest title I can give my article is the “laughing age.” Are we then all becoming children, who must be constantly amused? Is there no longer room for thought, for serious investigation of the great and solemn problems of life?

One must really come to the conclusion that the human mind is no longer capable of digesting any solid truth, but by swallowing with it plenty of sugar-plums. Look over the daily papers, the weekly, secular, and religious, our public and Sabbath-school libraries; examine the lists of public lecturers, and see what books are most read and thumbed, what lecturers are most popular. Invariably, the funniest books, and the man who can dress up the few truths he may promulgate in the most mirth-provoking sentences, and keep his audience in a roar.

Who to-day are the most popular preachers? Those who truly estimate the solemnity and responsibility of their office, or the ones who keep their hearers smiling at their witty anecdotes, their laughable illustrations—who draw,

alas, a crowd to worship them, instead of the God they preach?

Our children can no longer find any stimulus to a higher life in the biographies of eminent Christians, such books as used to be sought and prized in our Sabbath-schools twenty years ago. Unless there is a gay little story, an exciting adventure related, they vote the books *flat*. Well, children must be amused, and we don't wonder so much at it, but when we find the same eager desire for amusement merely in their elders of all grades of society, we are forced to the conclusion that instead of the race attaining a higher mental stature, they are actually becoming dwarfed, childlike.

Once we believed a church the house of God, set apart for his worship. Now we might well believe many of them opera houses, theaters, etc. Even the great truths of the Bible must be acted out by church-members themselves, attired like harlequins, and the characters of it, instead of being venerated and copied by our children, are now made their amusement. Oyster suppers, theatrical entertainments, "the whole to conclude with a *laughable* farce" was lately advertised in one of our city papers to take place under the roof of the house set apart with solemn services to the worship of God. Is there nothing preposterous in these things, nothing that savors of madness in the mirth of these days? Is life, then, with its ever-enacting tragedies, its ceaseless under-tone of sorrow with which "the whole creation groaneth," to become the theater of mirth and jollity only? For all it says in a good, old-fashioned book that "sorrow is better than laughter," the clamor is for fun; ladies and gentlemen only give us fun.

Does nature always smile? Is she never convulsed with earthquakes, torn by volcanoes, ravaged by whirlwinds, or beaten out of beauty and comeliness for the time by fearful floods? Aye, would she ever be beautiful and productive were it not for these changes, and is it not possible that human nature can be made better, purer, by something else than perpetual smiles? Have we not examples without number of good accomplished, reforms inaugurated, and mankind benefited, by persons who rarely smiled, had no time for mirth, but full of a great purpose went their way with such profound sorrow in their hearts for sin-burdened humanity, such a longing for their ultimate welfare instead of their amusement, that they well earned the title of benefactors of their race?

Dear Editor of the JOURNAL, I have been led to this (as you may deem it) somber train of thought by a recent editorial of yours, in which you ask, "Who likes to see a gloomy-faced woman, etc.," and seem by the drift of your remarks to infer that none but smiling faces have any influence for good in this world.

Now pray don't set me down for a lugubrious individual. On the contrary, in a Phrenological examination by Mr. Fowler, years since, I was given large Mirthfulness, and I claim to be able to see the ludicrous (in *some* of the things of this vaunted age, for instance) as quick as anybody, and here let me say, that in the lecture I was so happy as to hear him deliver in our city recently, I failed to observe the mirthful element for which his lectures years ago were remarkable, and that I could not help feeling that he had passed into a higher region of thought, and I can heartily indorse his statement that "old mens' thoughts were ripe, and what they said amounted to far more than anything young men might think or say."

I can not better close this article than by referring to a late occurrence in this city, its result, and trial, and conviction, with sentence to fifteen years in the State prison of the actor in it, a man of most genial manners, and *always* smiling face. The papers also tell us that the "Dynamite Fiend," was "a most courteous, affable, *smiling* gentleman, to appearance." Is it Shakspeare who says, "one can smile and smile and be a villain?" I do not say these men were rogues *because* of their smiling faces, but I do say that when a deed of darkness is to be done, a wrong perpetrated, the actors in it are quite as liable to bring smiles to their purpose as frowns or gloomy countenances. Like Judas, they betray with a kiss, and I think that mankind are oftener tempted by the great adversary clothed as an "angel of light" than in the guise painters are wont to present him.

Cousin CONSTANCE.

BOBBY BARLOW'S EPILEPTIC FIT.—

Grandpa Roy is old. He was born eighty years ago, and his hair is very white, and his step feeble, but he don't call himself old yet. He only says: "I'm *growing* old." He can hardly believe that he has been in the world eighty years, and the reason, no doubt, is that his heart is young. His forehead is full of the wrinkles of old age, but it is very certain there are no wrinkles of old age in his *heart*, and his tongue is as lively as ever. There is no one within a hundred miles of the place where he lives who can compare with him in telling a good story. If any man were disposed to try it, he would have to get up early in the morning, and give his wits an early start too, and even then his story wouldn't be a match for one of Grandpa Roy's.

Dear old man. He is fast passing away to the world where everybody is young, and the news will soon be flying about that Grandpa Roy is dead. But as long as he lives he will sit in his easy chair, in the summer sunshine, and tell stories to the children who gather around him;

and there is one story that will always be ready. One very warm day when he was sitting outdoors, all bathed in sunshine, and with a group of girls and boys around him, he began:

"I wasn't always *Grandpa Roy*," he said, "I was once '*nimble Roy*,' as all the boys called me, and my skin was fresh and smooth, and my limbs so light and free that I could leap a fence at a bound, and almost go through a stone wall, but I'm sorry to say that my tongue was quite as free as my limbs, and it was sometimes free to say very hard things, so that the boys were often shy of me, and would say that my 'ugly words spoiled all the fun.'

"Robert Barlow, or Bobby Barlow, as I called him, was my best friend, and would bear more from me than from any other boy.

"One day I was playing with him on the green, and I lost my temper and talked very fast and very roughly. Bobby suddenly dropped his ball and started off with his hands in his pockets, and his tongue between his teeth.

"'Bobby Barlow! Bobby Barlow!' I called out, 'come back here and play. What's the matter? I haven't called you names or said anything bad. Come back, Bobby. Oh, come back!'

"But Bobby danced about on the green, keeping his tongue between his teeth, and himself a good distance from me.

"'Oh, Bobby, don't act so,' I began again. 'Has anything happened to you? Why don't you speak?'

"There was no answer. Bobby still kept his tongue between his teeth, and I began to be frightened.

"'He has been taken with the lockjaw, and his tongue happened to be between his teeth at the time,' I said. 'Poor fellow! What will become of him? I'll run and tell his father.'

"Away I went without saying a word to Bobby about the lockjaw, for I didn't want to terrify him.

"'Oh, Mr. Barlow! Mr. Barlow!' I exclaimed. 'Something has happened to Bobby, and I guess it's the lockjaw.'

"Mr. Barlow followed me immediately, and when we reached the green, we found Bobby rolling on the grass, and acting very hysterically.

"'He's in a fit! Oh, I'm sure it's a fit!' I said.

"'Well, Nimble Roy!' he burst out with, just as his father began to talk of going for a doctor. 'I hope you are satisfied now. You told me this morning to '*hold my tongue*,' and that's what I've been doing. I've been holding it between my teeth.'

"'Well, you've spoiled all the fun, and, besides that, have scared me and your father too, almost to death.'

"'But you told me to hold my tongue, didn't

you? And now, Nimble Roy, don't you ever tell me again to do such a thing unless you mean what you say.'

"A great many years have passed since this affair on the green, and I'm no longer '*Nimble Roy*,' but old *Grandpa Roy*, but never since the day that Bobby Barlow held his tongue between his teeth, have I told any boy or man to hold his tongue. I was taught a lesson in politeness and kindness which I have never forgotten."

Grandpa Roy does a great deal of good by telling this story, so he never gets tired of telling it, and he will probably tell it a great many more times before he dies.

A. A. G.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

ONE that can feast upon another's misery, vexation, or disappointment, has a most unhealthy soul.

CHINESE SAYINGS.—"Who is the greatest liar? He who talks most of himself." "We can do without the world—but we need a friend." "Great minds have purpose; others have only wishes." "My books speak to my Mind, my friend to my Heart, Heaven to my Soul, and the rest to my ears."

CENSURE is the tax a man pays to the public for being eminent—*Swift*.

If a man does not make new acquaintances as he advances through life, he will soon find himself left all alone. A man should keep his friendships in constant repair.—*Johnson*.

THE wealth of a man is the number of things which he loves and blesses, which he is loved and blessed by.—*Carlyle*.

A BOSTON preacher said: "If any society will take charge of all the cases of poverty brought on by intemperance, this church will take upon itself to relieve all the remaining paupers of Boston."

By relying on our own resources we acquire mental strength; but, when we lean on others for support, we are like an invalid who, having accustomed himself to a crutch, finds it difficult to walk without one.

You are not obliged to discuss your business or affairs with every one you may chance to know; but, in dealing with a confidential friend, be perfectly frank. Disclose the real motives of your conduct; then those who differ from you may still respect you.

THE wise man changes his mind; the ignorant man will not. The former will acknowledge his error and correct it, but the pertinacity with which the latter adheres to his opinions, always bears a just proportion to his ignorance.

MIRTH.

"A little nonsense now and then
Is relished by the wisest men."

"WHAT is your business, sir?" asked the court, in a sharp voice. "A conchologist."
"What's that?" asked the judge. "I open clams."

A WOMAN in Massachusetts fed a tramp the other day, after which he asked if he might go to bed long enough for her to wash and iron his shirt.

KANSAS TEACHER.—"Where does our grain go to?" Boy.—"It goes into the hopper."
"What hopper?" "Grasshopper," triumphantly shouted the lad.

"You have had a chance to see a good deal of us Americans," pomposly observed a sallow-faced New Yorker to Lord Houghton the other day, "Pray tell me, sir, what you think are our most striking characteristics." "Impudence and indigestion," quietly replied his lordship.

BEAUTY is but skin deep,
Ugly's to the bone,
Beauty fades all in a heap,
But ugly holds its own.

At a little gathering the other evening a young man asked a lady whether, if his small brother was a lad, he was not a ladder, and she kindly said she thought he must be, she could see through him so easily. It is pleasant to be a young man.

It used to be a gin mill, then a barroom, then bar, then sample room, then exchange, then parlors; now it is a picture gallery. "Go around to the picture gallery, and take a drink of the best whisky in the world," says an advertisement. Very good. We expect to see a groggery call itself a minister, or a public library, or a home for the friendless, or an academy of sciences, before we die.

A MAN who wears a very promising boot, went home the other night, and being asked to get a scuttle of coal, he refused because of weariness, said he: "It don't seem as if I could put one foot before the other." "What's the matter?" asked the miserable woman; "ain't there room?" He got the coal.

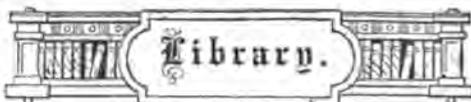
The other day a young man, decidedly inebriated, walked into the executive chamber at Albany and asked for the Governor. "What do you want with him?" inquired the secretary. "Oh, I want an office with a good salary—a sinecure." "Well," replied the secretary, "I can tell you something better for you than a sinecure. You had better try a water-cure." A new idea seemed to strike the young inebriate, and he vanished.

An exchange remarks: "If the time ever comes for the explanation of the mysteries of this world, we shall be glad to know why the young man who remarks on leaving church, 'I can preach a better sermon than that, myself,' is content to wear out his life over a counter at \$40 a month."



PULLING FOR THE PRESIDENCY.

JUST now there is a good deal of pulling for the Presidency by many ambitious men. Possibly our friend in the picture is one of them, and thinks his method a good one, it having the support of illustrious example, etc.



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

FREE, YET FORGING THEIR OWN CHAINS. By C. M. Cornwall. One vol., 12mo; muslin; pp. 378. Price, \$1.50. New York: Dodd, Mead & Co.

This is an entertaining story with a moral. The heroine, Julia, an heiress, frivolous, but not a beauty, visits her sister whose husband is partner in a coal-mine in Pennsylvania, the laborers of which are on a "strike." Their suffering families are visited by Julia, and her inquiring mind and sympathizing nature are stimulated to unwonted activity. On the occasion of a visit one stormy night to the bedside of a dying woman who wished Julia to pray and sing with her, the

folly of her "butterfly" life was forced upon her conviction, and she became more thoughtful, more appreciative of truthfulness, and eventually learned to love the good and true instead of the mere showy. The author has drawn upon the real events of a Pennsylvania mining district in a time of excitement for much of her material, and endeavors to show the unreasonable and inconsistent action of men on both the side of capital and of labor when their selfish endeavors are interrupted or opposed.

THE CREW OF THE DOLPHIN. By Hesba Stretton. One vol., pp. 232; muslin. Price \$1.25. New York: Dodd, Mead & Co.

The beauty of Faith seems to be the key-note of this story. The Dolphin was an unsound vessel, yet she was heavily laden and sent to sea to be lost for the benefit of the insurers. Some of the crew who engaged to go in her chose at the last moment to be sent to jail rather than go in a vessel whose seaworthiness seemed to them so suspicious. She was wrecked, and great consternation followed, as well as much distress, but some instances of the benefit of faith to members of the crew give a wholesome zest to the story, which has somewhat stimulated inquiry into a way for securing safety to those who go to sea in ships.

FROEBEL'S KINDERGARTEN OCCUPATIONS, for the Family. Nos. 1, 2, 3, and 4. Price, 75 cents each. New York: E. Steiger.

We have received the above neatly arranged apparatus from the enterprising publisher who is decidedly in the lead as a provider of Kindergarten material for American children. His elaborate catalogue of occupation material is, in itself, a revelation of the growth and utility of the Pestalozzian system of child training. There is no method of a mechanical sort which can compare with the Kindergarten for instructing the senses and for developing the infant mind and hand in a natural, regular manner. The system, we think, is a practical application of the principles of Phrenology to physical education.

The "Occupations for the Family" noted above, consists of: 1. Sticks for stick-laying, which are designed to teach numerical forms and relative proportions; 2. Drawing on slate and paper, the slate being grooved or lined so that the designs shall be accurate; 3. Perforating paper—designs and materials with needles being furnished—forming a very pleasant form of entertainment for little girls; 4. Weaving paper. Strips of paper of different colors are provided which may be woven into various designs according to the taste and invention of the child. Nos. 1 and 2 are adapted to the use of very young children, and would greatly aid the mother in diverting them, at the same time instructing their minds.

MAGAZINES AND PERIODICALS RECEIVED.

AMERICAN COOKING. A monthly Cook-book, and dining-room literature, conducted by Mrs. Laura E. Lyman. The Union Publishing Company, New York. Since the succession of Mrs. Lyman to the editorial management, this periodical has assumed a more practical and common sense tone; there is less butter, sugar, eggs, and spice conspicuous among the recipes.

THE LADIES' FLORAL CABINET. Published by Henry T. Williams, New York. We have received the numbers of this charming publication for five months of this year. It is in every respect appropriate to its sphere, and replete with valuable horticultural information, and other interesting matter for the home and social circle.

A BRIEF ANALYSIS of the Preventable Causes of Premature Death, in Forty Medical Cases. Selected from a large experience at Guy's Hospital, London. By John A. Bevan, M.D. The author presents statistics with some very sound views on the effect of alcoholic beverages, improper remedial treatment, overwork, immoderation in appetite, tobacco habits, etc.

THE HISTORICAL JESUS OF NAZARETH. By M. Schlessinger, Ph.D. New York: Charles Somerby. This volume purports to be from the pen of a rabbi. This being the case, it would not be expected that the Christian view of Jesus would be discussed affirmatively. We regard it as a labored and unsatisfactory attempt to refute that view.

KINDERGARTEN TOYS, and How to Use them. By Heinrich Hoffman.

FROEBEL AND THE KINDERGARTEN. SYSTEM of Elementary Education. By Joseph Payne.

KINDERGARTEN TRACTS, 5 to 13, explanatory of the object method of teaching.

E. Steiger, Frankfort Street, New York.

THE NORMAL STANDARD OF WOMAN for Propagation. By Nathan Allen, M. D., L.L.D. An interesting discussion in which the learned author clearly shows that the sorrows of childbed chiefly complained of are due to irregularity of life, and direct violation of natural law.

HISTORY OF THE FEVER AND AGUE WAR in Wallingford, Conn. An account of the experiences of the Wallingford Communists with intermittent fever, and how they found a remedy not in quinine and cholagogues, but in the Turkish bath.

THE THIRTY-FIFTH ANNUAL REPORT of the Concord Railroad Corporation. March 31, 1876.

SECOND ANNUAL REPORT of the Secretary of the State Board of Health of Michigan for the year ending Sept. 30, 1874. A valuable document. Contains much statistical and authoritative information concerning the use of alcohol as beverage, draining for health, school sanitation cerebro-spinal meningitis and meteorology.

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[WHOLE No. 452



RUTHERFORD B. HAYES,

REPUBLICAN CANDIDATE FOR THE PRESIDENCY.

THE gentleman to whom we have assigned the first place in the present number is the choice of the Republican

Party, as determined at the recent Convention held in Cincinnati, for President of the United States. With regard to his

Phrenology, the following inferences are deduced from the portrait before us, the gentleman not having come personally under our hands.

He is a tall, fairly-proportioned man, with a rather large head. That breadth and depth of chest indicate vital and physical power; the fullness and strength of the features seem to corroborate the idea of power and endurance. That large and prominent nose indicates positiveness; that broad and full development of the upper part of the face shows hearty earnestness; the length of the head, from the opening of the ear forward, and the width and height of the forehead from the same center, evince intellectual vigor. His force does not find its way through the channel of plodding persistency, he has an intuitional judgment, a quick, positive sense of truth and duty, and that kind of courage and dash which enables one to seize upon opportunity and take advantage of circumstances. As a business man we should expect him to make bargains quickly; to tell at a glance what was best to be done, and how to do it, and to resolve whether or not he was able to accomplish it. He has an uncommonly strong sympathetic nature; the height of the head, in the upper front portion, just back under the hair, shows large Benevolence, the desire to be serviceable to others, the spirit of sympathy and kindness, generosity, and large-heartedness.

He has the physiognomical signs of friendship and love and affection. The head, as we can view it in this picture, does not bring the organs of Firmness and Self-Esteem into view. So far as we can judge of him, he is a sincere, straightforward, earnest man, and if he err in judgment or conduct, it would be through the influence of his kindness and sympathy.

He is generous, sympathetic, affectionate, warm-hearted, and liberal; has a practical intellect, and is able to analyze and comprehend truth in its higher relations to life and duty.

As a lawyer we should expect of him something besides mere sharpness. The indications of magnanimity, geniality, breadth of feeling, and breadth of thought, are too well marked to escape notice. He is well calculated to inspire confidence and friendship; among strangers he would be readily accepted as a man of generous impulses, intelligence, and integrity; and such a man ought to be able to go into the vortex of political life, and carry himself with faithfulness and success, even amid the wrecks of those who have embarked with the best intentions but without the power to outride the storm.

RUTHERFORD BIRCHARD HAYES was born in Delaware, Ohio, October 4th, 1822. His parents were natives of Windham County, Vermont, and emigrated to Ohio in 1817. He is a descendant of George Hayes, a Scotchman, who settled in Windsor, Conn., about 1680. His mother was descended from John Birchard, who came over with his father's family from England in 1635, and became one of the principal proprietors and settlers of Norwich, Conn. Three of his ancestors, Daniel Austin, Israel Smith, and Elias Birchard, served in the Revolutionary army. In 1842 young Hayes graduated at Kenyon College. Of his class he was the youngest member, but received its first honors. He began the study of law at Columbus, subsequently attended the Law School of Harvard University, was graduated in 1845, admitted to the bar at Marietta, and began the practice of his profession at Fremont, Ohio, in partnership with General Ralph P. Buckland. In 1849 he removed to Cincinnati, and in 1852 was married to Lucy Ware Webb, daughter of Dr. James Webb, of Chillicothe. In 1856 he was nominated for Judge of Common Pleas, but declined the nomination. In

1858, the office of City Solicitor becoming vacant by the death of Judge Hart, he was unexpectedly elected by the city council to fill the vacancy, and in 1859 was re-elected by the people for a full term. He held this office until the spring of 1861, discharging his duties, as stated by the local press, in such a way as "to extort the highest praise from his political antagonists."

At this period Mr. Hayes was considered one of the most promising young lawyers of the Cincinnati bar, and had acquired a large business. He had been employed as counsel in several notable fugitive slave cases of that day, as well as in other law suits which attracted wide attention. Among the latter was the celebrated Nancy Farrar poisoning case, in which Mr. Hayes was appointed to defend the accused, and secured her acquittal on the third trial. In the course of his argument in this case he discussed at length the laws relating to insanity, and some of his propositions were afterward incorporated into the statutes of the State. He also distinguished himself in what was known as the James Summons murder case, tried, in the final hearing, before the Supreme Court of the State at Columbus. Judge (now Senator) Thurman was then on the Supreme bench, and about two hundred prominent lawyers from all parts of Ohio were in attendance. Among these was Hon. Thomas Ewing, Sr., who pronounced Hayes' opening the best opening speech he had ever heard.

On the opening of the war Mr. Hayes turned aside from what views of political advancement he may have entertained, or were suggested to him by admirers, and declared his intention of serving in the Union cause as a soldier. In the early part of 1861 Mr. Hayes and Judge Mathews undertook to raise a regiment, and in a short time they had companies enough for two. With ten of these the Twenty-third Ohio Infantry was organized, with W. S. Rosecrans as Colonel and R. B. Hayes as Major. Hayes and Mathews had been schoolmates together, and it was agreed between them, as neither had military experience, that a trained soldier must be placed at the head of the regiment.

Hence the selection of Colonel Rosecrans, who was soon promoted to a larger command, and was succeeded by Colonel Scammon, also a West Point graduate. The regiment, as thus organized, arrived at Clarksburg, West Virginia, July 27, 1861, and spent the remainder of the year in arduous campaigning under General Rosecrans, on whose staff, for a time, Major Hayes served as Judge Advocate. Subsequently he was promoted to the command of the Twenty-third, with rank of Lieutenant-Colonel, and in fact served during the whole war, evincing in every one of the many battles in which he participated high courage and sagacity, receiving now and then the encomiums of his superior officers and promotion. He performed important services at South Mountain, in the Shenandoah Valley, at Winchester, Fisher's Hill, Cedar Creek, and elsewhere. He was made Brigadier-General "for gallant and meritorious service in the battles of Winchester, Fisher's Hill, and Cedar Creek, and was brevetted Major-General" for gallant and distinguished services during the campaigns of 1864, etc. In the course of his military career four horses were shot under him, and he had been wounded four times.

It was in 1864, while hard at work in the field, that he was nominated for Congress by the Republicans of the Second District of Ohio, and solicited to return home to engage in the canvass preceding the election. He replied by letter, thanking his friends for their favor, but emphatically refusing to leave the post of duty. Of this a writer says:

"Notwithstanding this refusal to leave the field to co-operate with his friends in securing his political preferment, he was handsomely elected, defeating Joseph C. Butler, the Democratic candidate, by a majority of 2,455. In 1868 he was re-elected, his competitor being Theodore Cook, and his majority over that gentleman was 2,556. In Congress his industry, sound judgment, and fidelity to the interests of his constituents were conspicuous, and gave him a position of great prominence and influence with his fellow-nem-

bers. Though not apparently ambitious of oratorical display, and seldom occupying the time of the House with even a short speech, his unobtrusive and thoroughly efficient discharge of duty won for him not only respect but reputation, and he was regarded both in Washington and in Ohio as one of the ablest and best members on the floor."

In June, 1867, he was selected as the Republican nominee for Governor of Ohio. Accepting this tribute of his party, he resigned his seat in Congress and "stumped" the State in his own behalf.

The Democrats nominated Hon. Allen G. Thurman as his competitor, and such men as Messrs. Pendleton, Vallandigham, Ranney, Morgan, S. S. Cox, Voorhees, Groesbeck, and others well known to be the ablest men of the party in Ohio, brought the full weight of their talents and influence to bear in behalf of their ticket. Added to the prejudice against the universal suffrage theory which Mr. Hayes favored, was the demoralizing effect of Mr. Pendleton's plausible currency theories, then new to the people, and peculiarly specious and captivating. The proposition to pay the bonded debt of the nation in greenbacks was brought out prominently in the canvass by the Democratic speakers, and advocated by them with great ingenuity and effect.

The struggle was one of the most exciting known in Ohio, resulting in the election of Mr. Hayes, and a Democratic triumph in the Legislature. Governor Hayes administered the affairs of the State with much success. While he can not be said to have played the part of a brilliant executive, he must be credited with honesty of motive and much industry in aiming to bring about a healthy public condition. At the close of his first gubernatorial term he was nominated and elected for a second. At the end of this it was his intention, and publicly announced, to return to the practice of the law, so long intermitted, but his political friends insisted upon putting him in nomination as a candidate for Congress, notwithstanding his repeated refusal to run. He was defeated.

The following year, 1873, President Grant nominated him for Assistant Treasurer of the United States at Cincinnati, but Mr. Hayes declined the office, and, withdrawing entirely to his old home in Fremont, he gave himself up to the pursuits of private life. But his old political friends were not inclined to permit him to enjoy the comforts of retirement long. In 1875 they nominated him a third time for the office of Governor, and most successfully elected him. And now ere his term has closed as chief magistrate of Ohio the Republican Party, represented by delegates from all parts of the Union, have formally selected him to be their candidate for the highest place in the gift of the American people. The circumstances of his nomination have been published far and wide through the press, and need no repetition here.

Personally, Mr. Hayes is said to be "a good-sized, well-formed man. * * * * His complexion is light, skin florid, temperament composed of the vital-motive and mental in nearly equal proportions. He is neither too fast nor too slow, excitable or sluggish, but is at once sufficiently energetic, original, comprehensive, dignified, and resolute. He is more profound than showy, and has more application than versatility. He will finish what he begins, and make thorough work. He has a hopeful, happy nature, is eminently social, fond of home and all that belongs thereto, and as hospitable as he is thoughtful and considerate."

Mr. Hayes is said to entertain positive views with regard to the prevailing religious and temperance questions, being favorable to legislation unbiased by sectarian partialities, and in the main an advocate of restrictive measures in regard to the liquor traffic.

Mr. William A. Wheeler, the Republican candidate for Vice President, is a native of New York, and a Representative in Congress from the Nineteenth District of that State. He is just fifty-seven years of age, and his antecedents are said to be of a high character for experience and ability as a business man and civil officer.

ON CONSCIENCE IN ANIMALS, ETC.

THE *Popular Science Monthly* for May, 1876, contains an article on the "Conscience of Animals," from the pen of G. J. Romanes, and it may not be uninteresting to the readers of this JOURNAL to review several of the conclusions arrived at by that writer, and to observe the nature of his speculations, although in so doing we inevitably expose ourselves to the implied charge of being "ignorant and prejudiced." For the author politely says—"At the present day, when the general theory of evolution is accepted by all save the ignorant or the prejudiced, the antecedent probability is overwhelming that our moral sense, like all our other psychological faculties, has been evolved."

This sweeping indictment of being ignorant or prejudiced, is, in our judgment, not sufficiently sustained to prevent us from doubting its validity, for the cumbrous theory of evolution, as it has been stated by its apostles, fails to enlighten the mind further than to point out certain modes of existence in the animal creation, and erroneously assumes that what we perceive in the progress and development of animals is nothing more than a process of blind selection, as though the world were not governed by any laws, and were not presided over by Infinite Intelligence.

If it be true, as asserted by the author of the paper alluded to, that conscience has been "evolved," and that dogs have a conscience, it would be satisfactory to know if they have not always possessed the same faculty in the same degree as now. Can he assert and prove that dogs in the most ancient times ever possessed fewer faculties than they do at the present time? Can he assert and prove that man ever possessed fewer faculties than he does now? If not, what does he mean by the phrase "the moral sense like all our psychological faculties has been evolved?" For the sake of argument, suppose he could prove that mankind, or that men in considerable numbers were endowed in time past with fewer faculties than they have now, the result would only be that such a supposed being

would be denominated by another name than man. The original word *man* signifies, and has so signified from the remotest time—at least from his advent—a being distinguished from all other beings in the universe, and as a being must necessarily have existed either actually or in possibility before his name. The being who applied the name did so because the word conveyed definite ideas of the object. The word *man* has been used from the earliest period to denote the being to which we now attach the name. If, therefore, any faculty has been added to his mind, that addition would necessitate a change in his name. At least it would seem so. And it can not be proved that any faculty has been added since his advent, nor that the name has been altered.

This argument applies also in the case of the dog. If you subtract or multiply its faculties either actually or in imagination, the animal becomes metamorphosed into some other creature. A dog with a conscience such as man exhibits would be a moral being, and would be unfitted for the sphere of activity of the canine creation. The author of the article on Conscience in Animals further informs us that "the writings of Mr. Darwin have exerted an influence upon human thought more profound than has been exerted by the writings of any other single man—not excepting Aristotle or Newton."

Without denying that the writings of Mr. Darwin have exerted a great influence on the thought of the present day, we respectfully submit that the real question for every honest mind is not as to the influence of those writings, but as to their value. The influence may be either good or bad, and the quality of the influence is quite as important, or more so, than the quantity. The influence of those writings, such as it is, may be questioned.

If some strange monster were to appear in the sky like a mountain, equipped with a huge tail, and ponderous limbs, and the head of a lion, uttering strange and fearful cries, such a leviathan would exert a very

great influence upon the minds of all who should see it, but what good result could follow from such an exhibition?

And so it may prove with the theory of evolution. What is the use of it, supposing it to be true? Does it offer a more rational or devout explanation of phenomena than the older one? Will it increase the wisdom and happiness of mankind, or not? Will it cure the small-pox? Will it find a shorter way between two points than by a straight line? or will it by natural selection, evolution, or any other expression implant a new faculty in the mind? If it can do none of those things, and many others not so difficult, what is the use of the theory?

Further, upon the question of the influence of Mr. Darwin's writings, his advocate in the paper before us perhaps forgot the influence of the writings of Shakspeare on human thought, also that of Moses, and the writers of the New Testament, besides many of the heathen authors and founders of religious and philosophical systems.

Mr. Huxley, speaking of Mr. Darwin's book, "The Origin of Species," says: "Notwithstanding the clearness of the style, those who attempt fairly to digest the book find much of it a sort of intellectual Pemmican—a map of facts crushed and pounded into shape rather than held together by the ordinary medium of an obvious, logical bond."

M. Flourens says, "Natural selection is only nature under another name * * * it is nature personified, that is, nature endowed with the attributes of God." And Mr. Huxley, in speaking of the theory of natural selection, says: "After much consideration, and with assuredly no bias against Mr. Darwin's views, it is our clear conviction that, as the evidence stands, it is not absolutely proven that a group of animals having all the characteristics exhibited by species in nature has ever been originated by selection, either artificial or natural." In view of such eminent and adverse opinions upon the writings and views of Mr. Darwin, it is becoming to speak of the influence of those writings with modesty.

The writer of the article referred to

speaks of the "general theory of evolution." This appears to be very indefinite language, and it is difficult to understand what is meant by "general theory," for the theory itself is something not proved, and seems to gain nothing by being termed a "general theory."

We are further told that John Stuart Mill proved analytically to the satisfaction of all competent and impartial thinkers, that the moral sense is rooted in the "greatest-amount-of-happiness principle" as its sustaining source, and that Mr. Mill followed in the track of Hume. In this sentence we have an additional disparagement in the shape of an intellectual toll bar. For if we differ from the writer's opinion he may say we are either incompetent or partial. We willingly incur the reproach, however, in the presence of such company as that of Dr. Thomas Brown, Hutcheson, Reid, Stuart, Rush, Spurzheim, and Combe, or else upon our own responsibility, for we do not believe that it can be satisfactorily demonstrated that the moral sense is rooted in any such principle as that of the greatest amount of happiness, except so far as this principle is a principle of right, rectitude, duty, and obligation to do the right because it is the right, independent of every other consideration. To base conscience upon any other principle than that of right reduces it to selfishness, no matter how subtle the argument.

The article under discussion speaks of the "physical causes whose operation has brought human conscience into being," and a few sentences lower it is said, "In most cases the moral sense has reference to the volitions of a Deity, and in others to the human race considered as a whole."

Contained within these two statements is a gross contradiction, and the stumbling block upon which the "general theory of evolution" falls to atoms. What ideas the writer on Conscience in Animals entertains of the Deity we don't know, but is it not passing strange how he can acknowledge the existence of a Deity, and at the same time argue about the "physical causes whose operation has brought human conscience into being. Might he not legiti-

mately, according to this statement and position, deny the existence of a Deity, or of such a Deity as superintends or has any but the most remote connection with this world? This is the position upon which Mr. Darwin and all the evolutionists appear to my mind to be inconsistent with themselves. Because in order to prove the theory of evolution or natural selection to be true, as they state and define it, they should first prove that there is no God, and never was; and, secondly, that if there were, there is not now; or if there be, that He does not govern the world. For if a Deity be admitted, how can it be shown that he does not interfere with what is called "natural selection, or the theory of evolution."

Let us suppose on grounds of "natural selection" that an oyster is a developed oyster, and has become an elephant according to the theory of evolution, extending over vast periods of time or eternity, if the evolutionist wishes. Now it seems contrary to reason how any one can admit and believe in an omnipotent Deity of exalted attributes, and still conclude that the process of development was not affected, caused, and conducted in accordance with prevision and design. It may appear ungenerous to say it, but the mind that can not perceive any discrepancy between the belief in a Deity such as I have indicated, and the theory of natural selection as advocated by the evolutionists, must be laboring under some obliquity of mental conception.

Pope expressed more truth than the evolutionists when he wrote,

"All are but parts of one stupendous whole,
Whose body nature is, and God the soul."

Professor Pritchard evidently perceived the truth when he said, "I know of no greater treat—I might even call it moral—than to take Mr. Darwin's most charming work on the fertilization of Orchids, and his equally charming and acute monograph on the Lythrums, and repeat, as I have repeated, many of the experiments and observations therein detailed. The effect on my mind was an irresistible impulse to uncover and bow my head as being in the too im-

mediate presence of the wonderful prescience and benevolent contrivance of the Universal Father. And I think such also would be the result on the convictions and emotions of the vast majority of average men." * * *

The author of the article on Conscience in Animals further says, "First then, what do we mean by conscience? We mean that faculty of our minds which renders possible remorse or satisfaction for past conduct, which has been respectively injurious or beneficial to others." This definition of conscience is exceedingly defective and incomplete; and the author subsequently attempts several times to amend it by qualification, but fails to convey a complete and intelligible idea of the fundamental faculty of Conscientiousness, which in another place he says is founded upon sympathy.

The above definition is erroneous because it refers only to one side of the subject it contemplates, namely, past conduct. The author omits to mention here that conscience has reference, not only to *past* conduct, but also, and with as much import, to present action and future conduct. Of what use would that faculty be which only rendered remorse or satisfaction possible for past conduct? It would be worse than useless, because it would torment its possessor with remorse, sorrow, and contrition, for no beneficial purpose. When the Creator endowed man with a faculty of Conscientiousness, He no doubt did so that man by means of conscience might pursue righteousness and avoid sin; and the remorse which he has beneficently attached to disobedience was mercifully designed to prompt us to follow justice, mercy, and truth, and to shun transgression, wickedness, and guilt. The command is, "Thou shalt not steal." But the definition of this writer tends to convert that language into, "Thou shouldst not have stolen;" and as he refers only to past conduct, his spurious ideas of conscience, if they could be realized, would consign the law of Moses to oblivion. Conscience, of course, has an intimate relation to past conduct, but it speaks like the voice of God in the soul; and before an

act is committed, or a course of conduct performed, it thunders its mandates in unmistakable tones of duty, incumbency, and obligation to do the right.

The readers of this JOURNAL who took the trouble to examine the paper on Darwinism in the number for November last, will now perceive that I have attempted a further explanation of a question there quoted from Mr. Darwin's work, in which he asks why it is that man feels he ought to regret past conduct—that is, feel remorse for sin. A direct answer to this query is probably impossible by the human mind, but indirectly, I think, the above remarks contain a partially direct reply, for remorse follows the delinquent, and conscience in addition suggests sometimes in persuasive tones, and at others in imperious accents, the solemn obligations which we ought to obey. Conscience thus becomes an invisible attendant, a moral school-master, and the very existence of such a faculty proclaims to our mind its Divine origin; and no doubt one purpose of such a sentiment is the assimilation of the human character to that of its author. As the writer's definition of conscience is full of blemish, of course the conclusions deduced from it must necessarily be defective likewise; for he has reasoned from a false basis. His moral measure of a yard is less than three feet, therefore all his other dimensions lack the requisite number of inches. The reader will discern this from the next citation where the author says, "Not only does the faculty as above defined require a good memory as a condition essential to its existence, but, what is of much greater importance, it also requires the power of reflecting upon past conduct." This conclusion, though in harmony with his false position, is in reality erroneous when contrasted with the more complete exposition of the moral sense, considered as an impulse to do right; because neither a good memory nor an acute power of reflection is essential in order to make us feel it to be our duty to obey the moral law "Thou shalt not steal," nor any one, or all of the Ten Commandments.

Moreover, it can be demonstrated from

history, biography, and personal observation that conscience does not depend upon the power of memory or reflection.

The character and conduct of Lord Bacon are well known. His powers of memory and reflection were vast and commanding, and in some respects, perhaps, have never been surpassed, yet "in the year 1621 a Parliamentary inquiry was instituted into his conduct as judge, which ended in his condemnation and disgrace for having received numerous presents or bribes from persons whose cases were brought before him for decision. He fully confessed to the twenty-three articles of fraud, deceit, malpractice and corruption which were laid to his charge. He was fined £40,000 and imprisoned in the Tower, but after a short confinement was released and pardoned." The legitimate application of this sad illustration of disloyalty to integrity and duty is, that the conscience of Lord Bacon was not in harmonious proportion to his brilliant powers of memory and reflection, as the writer on Conscience in Animals would from his false premises erroneously infer it should have been. Another potent example occurs to the mind, and it is that of Napoleon. "Madame de Stael narrates that he was never so completely at fault in his estimate of character as when he met with opposition from a person actuated by the pure principle of integrity alone." He did not comprehend the motives of such a man, and could not imagine how he might be managed.

The author on Conscience will hardly be bold enough to deny that Napoleon possessed more than an ordinary degree of both memory and reflection.

Many more similar instances might be related. But Mr. Romanes has fallen into another blunder by not specifying what kind of memory he means, for the student of human nature is aware of the fact that each intellectual power is endowed with its own peculiar memory. And he has further involved himself in another difficulty. For as Causality, the organ of reflection, is an intellectual power, the faculty possesses both memory and reflection. So that if the writer had expressed himself more lucidly,

we should perhaps have been able to demonstrate that memory and reflection he regards of so much importance are attributes of one faculty only, and not of two, as his language implies.

After several pages of discussion upon Mr. Darwin's theory of conscience, and the writer's ideas as to the truth of that theory, he ventures to give another definition of the moral sense, and says: "To us conscience means a massive consolidation of innumerable experiences, inherited and acquired, of remorse following one class of actions, and gratification their opposites; and this massive body of experience has reference to ideas of an abstraction so high as to extend far beyond the individual, or even the community, which our actions primarily affect. No wonder, therefore, that when any course of action is being contemplated, conscience asserts her voice within us as a voice of supreme authority, commanding us to look beyond all immediate issues, inclinations, and even sympathies, to those great principles of action which the united experience of mankind has proved to be the best for the individual to follow in all his attempts to promote the happiness, or to alleviate the misery, of his race. But with animals, of course, the case is different."

His quotation appears on page 85 of the magazine referred to, and succeeds all the other citations from the paper on Conscience. We make use of this passage here as being appropriately placed according to the author's reasonings and arrangement, because the first definition must have seemed incomplete. By adding this latter explanation of the author's, he will not be misrepresented; but we shall see that he comes no nearer a true idea of the moral sense than formerly, with the exception that he now affirms, and truly, that conscience commands us to look beyond all immediate issues. But this gratification amounts to nothing, for the writer confounds conscience with experience inherited and acquired, and then maintains that it is no wonder that when any course of action is contemplated this so-called conscience asserts her voice within as a voice of supreme authority.

This really implies that the experience

of past ages asserts its voice within us as a voice of authority. How vague and involved the statements of these two last quotations are!

The writer appears to have had an indefinite idea of the moral sense, and struggles to define it. If it were true, as is maintained, that conscience means a "massive consolidation of innumerable experiences," how does it happen, then, that those with the greatest amount of experience have not the keenest conscience? Was Lord Bacon deficient in experience, inherited and acquired? Was Napoleon the First deficient in experience? What does the author mean by inherited experience, unless the experience is considered as a favorable endowment of brain?

But the author says, again, "With animals the case is very different, they start with a very small allowance of hereditary experience in the respects we are considering." Why do animals start with a small allowance of experience in this respect, when it is conceded that animals preceded man in the scale of creation, and the writer has told us that physical causes brought conscience into existence? Obviously the physical causes must have operated in very different degrees in one direction than in another, when the animal is contrasted with man. Granting the author's premises, what a gigantic conscience a man ought to have in the nineteenth century compared with that possessed by our ancestors a thousand years ago, or in the time of the Apostles; and if the physical causes that brought conscience into existence have been vigilant all through the ages, why is it that some few individuals can be found at this day who infringe the Ten Commandments, and admit themselves to be doing wrong. Or will the writer affirm that the massive experience of mankind in the past has proved the laws of Moses not "to be the best for the individual to follow?" These are a few of the prominent difficulties that arise from Mr. Romanes' elaborate definition of the moral sense, which appear like mountains through the mists of obscure language. The whole of this writer's opinions on conscience are tainted with inconsisten-

cies, and his ideas are constantly in conflict with observation and experience. His reasoning from the false premises chosen is highly suggestive of an indisputable truth, namely, that the grand prerequisite of enlightened conceptions regarding the moral powers is the potent presence of these powers in the individual who attempts to elucidate their nature, "for it is necessary to feel correctly in order to reason correctly," and no amount of intellect can supply the absence of sentiments and propensities.

The above consideration indicates one of the wide and fertile fields of intellectual enjoyment which Phrenology opens up to the student of mind, and every true lover of the science finds himself furnished with the most extensive means of criticism. His first concern should be to discover his own balance of natural gifts, which Phrenology alone can reveal; possessing this valuable information, and a clear knowledge of the functions of the brain, the lover of literature may open any volume, and by a careful perusal he may arrive at generally correct conclusions relative to the mental forces of the author from which the book emanated—that is to say, he may predicate the phrenological characteristics of the composer of the work under his scrutiny, just as a chemist discovers by analysis the ingredients of a compound.

So far as the main position is concerned, as to conscience in dogs, the organ of the faculty seems to be left out of their brains. Mr. Combe says in his system, "The convolutions which form the organs of Veneration, Hope, and Conscientiousness in the human brain, run transversely, and in the brains of the lower animals, so far as I have observed, no corresponding convolutions appear." But even were it a fact that the organ and the faculty were both apparent in animals, the theory of the writer on Conscience as to what he calls the genesis of conscience would not be established, nor the doctrine of evolution proved.

Besides, we must distinguish between the knowledge of what is right and wrong, and the impulse to do right; also between the

impulse and the actual performance of certain acts which we denominate right and wrong. It would seem very difficult to attach an idea of guilt to a dog that steals, or rather which takes food not given to it. Conscience, according to our ideas of nature, if possessed by a dog, would impose qualifications entirely antagonistic with the history of the species, and unfit it for that sphere of activity which seems to afford the canine race ample enjoyment and employment. Conscience would add a deformity—a cripple.

However, it is a well ascertained fact that not only dogs, but many other animals, can be taught by various means to fulfill the wishes and desires of man, which desires communicated, would never have been thought of by those animals if they had not come in contact with man. If, however, those animals be allowed to follow their own natural inclinations, they eventually lapse into their original state and forget all their instructions; circus elephants cease to stand on their heads on a tub, canaries leave off playing the part of pack-horses, and dogs stop jumping through hoops.

THOMAS TURNER.

DO WHAT YOU CAN.

"THE woods would be very silent if no birds sang there but those that sang best."

I know not who said those beautiful words, but I may be safe to say it was no great man. Not what the world calls great, not learned, not rich, but whosoever placed them upon paper to be read by its struggling thousands, gave a sermon in the plainest, truest, yet grandest way it could be told.

I know how anxious every one feels to do his best—to be first. Well, you may do your best. But if your talent will not bring you a hundred fold, be content by its doubling. Rather be proud that you can look back and say, "that is as well again as I once did." If you are capable of no more, why bemoan your own fate because others have outstripped you? Do you gain by complaining, or by silence? Can you

lose by trying again? How many churches would be vacant if every preacher should say, "I will not preach unless I can have my church filled like Beecher or Spurgeon. If none went abroad but the Moodys and Sankeys, how many places would be unfruitful. Ah! the churches would be very silent if none preached but those who preached best! To be first or nothing is a poor saying by which to live. No one expects you to give your first speech like a Wilberforce. Everybody knows you have not the head of Daniel Webster—they only think it is very well for you, John Smith. It need not cool your ardor to be thus spoken of. It helps to make a comparison between the poorer and the better. Very rarely would the world look upon pictures or works of art, if none sat at the easel or held the chisel but the world's great masters. What would you be—what would the world be, if none struggled to be

heard? Because you can not pipe so long or so loud as a stronger or bolder brother, need you try on that instrument. You may make a clearer and a sweeter strain on some other one. The world does not measure all beauties or talents alike. If one thinks the whip-poor-will the best singer of the wood, would he care to have that bird under his window always? His neighbor might like the robin best, then who is to be the judge between the two. Should one bird stop singing because some other can be heard the farthest? No; use what talents you possess. See not smiles or frowns, hear not the jeers or envious remarks, heed not the prophetic sayings of your future, and never mind if you do not do as well as the best. Keep doing—sculpture or paint, study or play, sing, speak or write, and if you do not stand first, remember that the wood would be very silent if no birds sang there but those that sang best.

LITTLE HOME BODY.

OVERLAND INDIANS.*

TWO days beyond the Mississippi, on the far plains, our westward-bound train reached Grand Island Station, the country of the Pawnees. Here some pale faces pursue the vile policy of setting the Indians to beg of travelers and taking the lion's share of the profits. Some give from pity, which the appearance of the poor creatures is well calculated to excite; some for their own amusement; none of us suspected, until told by those familiar with the route, that these are mere employés of loafing whites. Grand Island being a refreshment station, a good opportunity is afforded for asking charity on the one part, and for gratifying curiosity on the other. As for me, the curious interest of childhood, youth, and womanhood seemed to have brought me to this hour of seeing almost the first red men on their own soil. Back at Silver Creek one came upon the platform of our car, dressed exclusively in red shirt and bow and arrow, and had exchanged a

passing stare with a group upright and silent as statues, in a freight car going east.

The train halted, and instantly along its length dark faces and hands were stretched beseechingly toward the windows. If food is thrown them—most through passengers have a well-supplied lunch-basket along—they scramble for it; they refuse nothing, but money is their object, and the more they get the more they want, like people generally who obtain it through other and better means. Unable to speak a civilized language, though their looks and grunts and gestures could never be misunderstood, this organized begging fraternity is furnished with written petitions similar to those which the same class in cities and villages often use in pursuing their calling from door to door.

A maiden of fifteen summers, so I fancied from the blanketed figure, thrust her certificate at a number of young gentlemen collected upon the platform of the car, who, like many others were, to the damage of the restaurant, improving the

* For four of the illustrations in this article, we are indebted to Mr. H. T. Williams, publisher of the "Pacific Tourist," etc.

"twenty minutes to supper" solely in seeing the unwonted sights. Her left hand clasped her green blanket at the bridge of her nose, just beneath the small eyes and cramped forehead crossed at all angles by hair stiff and black as underbrush after a fire has run in the woods. Seen from my window, the gliding shape resembled a painted churn on a pair of dirty cotton pantalettes, with feet only like Maud Muller's in being "bare and brown."

"Oh, for one good look at her!" I ejaculated, rushing to the door.



Fig. 1—PAWNEE CHIEF, IN MIXED COSTUME.

"He's not a she," returned a fellow-passenger to my amazement, "she's a he."

All those young gentlemen were laughing at me.

"Ah, yes, a blunder—even me! I confess it. Why, I was expecting some Hiawatha among you to lay a red deer at those feet in token of yearning to supply their owner's venison for all her future."

"A *dear* business that," one replied, passing to the next the little Indian's paper, dingy and rumped with much handling,

and which came to me in turn. The handwriting was small, like a woman's; minus all punctuation, it read:

"The bearer is a Pawnee Indian he is a good boy but very poor and wants you to give him five or ten cents or some old clothes and he will be much obliged to you his name is Jack."

I could not claim that he was really under obligations to us for his name of Jack or any other, but I wished to be under obligations to him for leave to transfer to my note-book the certificate whose masculine nouns and pronouns alone, as I believe, had made those wise young gentlemen wiser than I on the subject of gender.

"A namesake of Captain Jack," one suggested, then all fell to regretting that they had not aboard their mothers' garrets, with "coats and garments" hanging from the rafters, here being a splendid opening for securing the same permanently against moths, which commiseration, as Jack understood not a syllable, could not harm his feelings. Ere I finished copying the few lines, Jack's brown palm had gone the rounds as a contribution-box, and was presented to me with the exhortation through the service of his blanket—

"Hurry up, squaw!"

Indeed, I never heard a voice like that. It had a savor of ventriloquism in it; it might have come from a parrot or a rather successful talking-machine, and truly sounding as little human as either, only by degrees conveyed its import to me and others. I had time to anticipate the laughter which would follow my compliment before it burst in a wild torrent from half a dozen pairs of lips, while the boy's eyes, like a couple of black beads on the rim of that green blanket, continued to watch and wait in that complete unconsciousness of sentiment which show the immense social distance between the two races better than a whole essay could. That bit of slang English doubtless stood Jack in hand often, as it does youngsters "to the manner born;" and as to the title of squaw, he was as innocent of offense as you would be in applying to a French woman the term Mrs. or lady, instead of *Madame* or *femme*. The

incident which amused us so was a little later repeated from seat to seat and from car to car, and "Hurry up, squaw," served as a popular phrase all the rest of the way to San Francisco.

But those documents. We examined several, which read much the same in substance, that Lo, the poor Indian, is very low, very poor, even to needing "five or ten cents." Some were about the worst written possible, none more so than one of tenderest appeal from a mythical clergyman who, in a strong point of faith and liberality, signed himself, "*Your brother in Christ,*" to all saints and sinners overland, whether they will or no. On the platform of the station stood one who, according to his testimonial, "was of royal blood and a good hunter." I doubt it not. A more noble specimen of his race could hardly be found in nature or romance. He stood six feet in his beaded moccasins, with every muscle of his body and limbs perfectly developed; he had the pose of a stag and the eye of an eagle. One thing alone detracted seriously from his appearance as an ideal son of the forest; that was the fresh and fashionable cut of his hair. This grand young brave is likewise represented as "very poor, and his name is "John."

"What is your other name?" from an inquisitive traveler.

"John," responded the royal-blooded with sudden emphasis.

"What name besides have you?" from a chorus of voices—"John who?"

Imagine the "beloved disciple" driven to the wall in that manner. With a little stamp of the foot and a gesture of his whole body the princely hunter reiterated "*John,*" so making an end of it, except the merriment of the passengers, to which John showed supreme indifference, his keen gaze sweeping the distant hunting grounds, as it were, for bear and bison. No more did he appear conscious of the smart shower which had commenced to fall, while the sun shining brightly from below the western edge of the cloud lighted up the

streams that descended over his scarlet blanket and short tunic into a fringe of silver and gems.

We left him still standing on the Company's platform, to repeat his application at each coming of the train, until probably his pride will wear away, so that he will not scruple to beg after the abject fashion of his brothers and sisters. Others of the poor wretches followed up the train as long as possible, and our parting glimpse was of imploring hands holding out torn and soiled bits of paper in forlorn hope of obtaining something more. The costumes



Fig. 2.—UTE SQUAW AND PAPPBOSE.

are particularly nondescript, and these and the wearers generally as dirty as ever were seen. One squaw was attired in a calico skirt, which depended from the neck and reached to the shins. Another having scarcely a rag upon her person besides a heavy Government blanket, felt better dressed, perhaps, than if arrayed in a Paris suit without the drapery which an Indian regards with supremest favor.

Farther on, under the June sun, I saw a squaw blanketed in a couple breadths of old woolen carpet, with a great, flapping patch tapping at her heels. Besides a child just able to walk with the occasional help of her hand, she had an infant in a

kind of spectacle case made of deer skin, slung upon her back. This is the way their papposes are carried. If you have something to lavish on the indulgence, the mother will lift the flappet covering the face and exhibit for your eyes the little brown chrysalis. I hope the baby is comfortable, having been born to its narrow lot; but we shall agree that white babies with so little margin for their squirming

Diggers—some better, some worse than the beggarly Pawnees. Five or six years ago the small-pox ravaged the towns of the first-named. The savages have a horror of the disease. The wife of one of the company who rode with us a few hours between stations, gave me some facts concerning them. Their women make good servants, but they must go to their own homes to lodge, the Indians having a

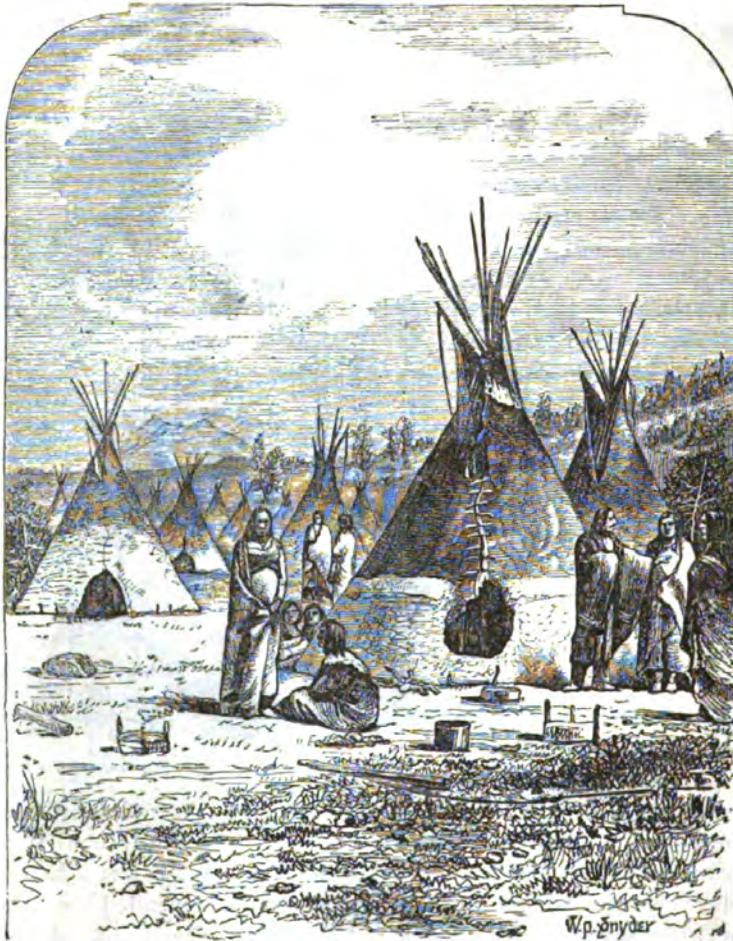


Fig. 3—INDIAN VILLAGE—SHOSHONES.

peculiarities, would display immoderate haste to hatch out. These children were clad as if for January; but in winter will be like y to go naked. Such is the improvidence and thriftlessness of these poor dregs of copper-colored humanity.

We shall see before the plains are crossed representatives of different tribes, or what once were tribes; as Shoshones, Piutes,

strong superstition against spending the night beneath a white man's roof. When one of their number dies they no sooner lay him to sleep with his fathers, than they pull up stakes and seek another home for themselves in order to escape from the angel of death.

"Here," said the lady, as the train slackened speed on approaching a station, "you

may see a great, great-grandmother, well known in all the region—a hundred and eighteen years old. You will not question



Fig. 4—SIOUX CHIEF.

the truth of the statement after seeing her. And there she is."

True enough, I could have believed that figure staffing heavily up to the train, of almost any remarkable age. She was a mere animated mummy, immense in rotundity, an old stump of a tree settled together with the telescoping of long years. Her garments looked as though they had come down through the ages on her person. From the car-steps I shook her petrified hand, in which civility she took as little interest as a pump handle, till it came to examining the nickels left in her palm. It seems that we had gotten beyond the limits of five-cent currency, and the mother of Shoshones knew not what to make of it. She turned them over doubtfully and cried out to me, "Give *two bits—two bits!*"—twenty-five cents.

The lady addressed her from the window familiarly: "Muck-a-muck?" (Something to eat?) "Muck-a-muck," came back in savage guttural. "Heap-a-hos-a-ti?" (Are you very hungry?) "Heap-a-hos-a-ti," returned the poor soul.

Bread and cake tossed out of the windows upon the ground find their way to mouths having as little objection to dirt eaten with the food as hungry dogs have. Those who are too lazy to beg, may be seen sitting on their haunches, the personification of indolence, taking no thought for to-morrow, or to-day.

At one place we saw a company of women and men card-playing in a hut, too deeply absorbed to give any notice to the event of a passing train. They are fearfully addicted to gambling. It is only one more of the vices of civilization for which all barbaric races have a natural affinity. At the squalid villages we see children foraging out of doors like pigs, while numbers of animals of a wild breed, and whose legs and snouts appear trying to out-lengthen each other, and black bristled as bears, are making free inside the habitations.

From time to time along the route a queer mosaic of nations presents itself. At Palisade I make this sketch. In the piazza of the hotel a clean little daughter in freshly-starched light dress and cape bonnet; on the railroad platform a squaw posed on her haunches, with pappoose wal-



Fig. 5—THE NAPOLEON OF THE PIUTES.

lowing over her red dress and clutching at hair like a horse's mane, with none of the Morgan crimp in it; in a doorway a

couple of urchins unmistakably Irish, and to end with a passing pig-tailed Chinaman.

The day before our arrival in San Francisco a thrilling rumor came through the train that Captain Jack was taken and on board. It was at the height of excitement caused by the Indian outbreak, just previous to the capture of the renowned warrior of the lava beds. The report was speedily contradicted. Our Digger fellow traveler bore the plain appellation of Tom; the crime for which he was under arrest was the murder of two of his own people. More than likely the white man's fire-water was at the bottom of it.

A party of us went forward to the second class car to view the prisoner, who was manacled and guarded by United States militia from Fort Hall. His face wore a most pathetic expression which I shall never forget. That conquered, oppressed look was too deeply stamped to have come of this final occasion, but appeared to have been transmitted through generations consciously victimized. Often afterward I observed the same expression, though less marked, in individuals of the tribe whom I met in California, so that I incline to regard it as a Digger type. Tom's face had nothing vicious or vindictive in it, but a melancholy as settled and unvarying as in a portrait. Whether his gaze met ours or turned toward the forest as it swept past—to him forever—his expression was the same. They said he had never been on a train before, and was afraid. The world had little more of sin or suffering for poor Tom. San Francisco papers the next Saturday evening recorded his end. While seated in the prison yard he threw a brick at one of the keepers who had passed by; the latter wheeled, revolver in hand, and shot him dead.

Just subsequently the Modoc chief and his few braves were taken alive, and after having "made the best fight that was ever made by any set of men," met their fate. Perhaps few would say they deserved a better fate, yet is there not something strikingly solemn in contemplating in the light of history these wrecks of powerful tribes, impoverished, demoralized, steadily fulfill-

ing through ever-open channels their manifest destiny of extinction? It is no palliation of shame or blame in their treatment by the whites that the North American Indians are inherently not an element of civilization. As rationally, by letting off the waters of the lily-bearing pond, might one expect the slender stems to shoot from the parched bed self-sustaining, and blossom golden-hearted and silver-petaled toward the skies, as dream of a salvation to the aborigines which shall proceed from the cutting away of forests whose leafy murmur was their breath, whose running brooks were their blood-coursing veins, whose bounding game their heart-beats.

LAVINIA STELLA GOODWIN.

AIR CASTLES.

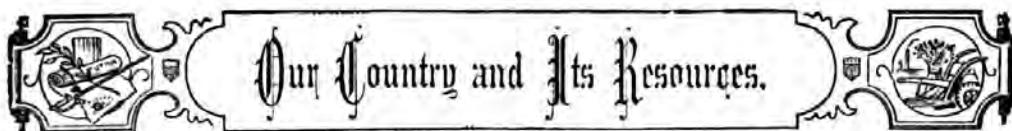
Castles in air,
Castles in Spain,
Dream-mansions fair,
Over again
Build we in youth
Only to see
Turret and wall
Crumble—Ah, me!

Dreams of the past
Too fair and bright,
Aye, sweet to last,
Haunt me to-night—
Pale ghosts of dreams
Cherished how long?
Till Youth's young May
Died like a song?

Four precious ships
Sent o'er life's main,
Love, Wealth and Fame,
Ne'er came again.
Only *one* ship
From that lone sea,
Freighted with Faith
Came home to me.

Moored in Hope's bay,
Anchors made fast,
On Christ, my stay,
Peace—rest, at last.
Argosies fair
Laden with gold,
Never can buy
Christ's love untold.

EMMA MAY BUCKINGHAM.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*

A VIEW OF PROTECTION.

THE term free-trade, since it suggests the idea of freedom, to which most persons are so devotedly attached, has a great tendency to cause the formation of a biased judgment. Since liberty, understood in a certain sense, is a most desirable state, men heartily draw the illogical inference that in trade freedom granted to the individual to use his faculties as he thinks best is preferable to any other condition consequent on the interference of government. A little reflection, however, will show that individual liberty is desirable only when it does not conflict with the liberty of all. No intelligent person can deny that laws to restrain individual action are absolutely necessary to the existence of society, and, hence, it may well be that in trade, as in other relations, by curtailing individual freedom we may obtain better results for the nation as a whole. As Montesquieu says, "Freedom of trade is not a power accorded to the individual to do as he wishes; that would rather be its servitude. That which restrains the individual is not for that reason destructive of trade." Yet it is common for some of the most distinguished political economists, especially of England, to advocate the doctrine expressed by the oft-quoted words of Gournay, "*Laissez faire et laissez pa ser*"—Let alone and let pass.

On this point the following remarks of J. E. Cairnes are very pertinent: "Nothing is easier than to show that people follow their own interest. But between this and fol-

lowing their interest in the sense in which it coincides with that of other people a chasm yawns. This chasm, in the argument of the *laissez faire* school, has not been bridged. The advocates of the doctrine shut their eyes and leap over it. In a word, the 'grand final result'—pronounced by Bastiat as the double good toward which *laissez faire* conducts mankind, 'the indefinite approximation of all classes toward a level which is always rising; the equalization of individuals in the common amelioration'—seems as yet, with all our freedom of trade, scarce perceptibly nearer, nay, one might be tempted to say, seems further off than ever." As a still more vivid picture of the facts as they exist in England to-day we will quote, without translation, the following passage from Emile de Larekye: "C'est précisément en Angleterre, ou toutes les entraves ont été abolies, et ou régné le plus complètement la liberté industrielle, que la lutte des classes, l'antagonisme des maîtres et des travailleurs, se présente de la façon la plus tranchée, et sous l'aspect le plus alarmant. C'est aussi dans ce pays par excellence du *laissez faire*, que, depuis quelque temps, on réclame le plus fréquemment l'intervention de l'état pour réprimer les abus des puissans, et pour protéger les faibles." (It is in England particularly where all the customs have been abolished, and where industrial liberty most completely rules, that strife of classes, and antagonism between masters and workmen.

show themselves in the most conspicuous manner, and under the most alarming conditions. It is also in that country which especially favors the policy of "let alone," that for some time the intervention of the government has been asked most frequently to stop the abuses wrought by the powerful, and to protect the weak.)

If, then, it is conceded that individual liberty is not always the most conducive to general welfare, the fact that free-trade grants this liberty is no argument in favor of free-trade.

We think no one will deny that the most perfect state of a nation can only be reached through a diversity of industry. Wealth consists in values; and in a country where there exists a diversified industry more values, and hence more wealth, will be produced than would otherwise be possible. On this point it is strange to see so clear a writer as J. B. Levy fall into the error of asserting that wealth exchanged abroad will stimulate home industry as much as that exchanged at home. Were this true, a nation could become just as wealthy whether it have a diversified industry or not. But a moment's reflection will convince any one that wealth exchanged at home is far more conducive to the growth of home industry than would otherwise be the case. In the first place, it stimulates those industries whose products we buy; and, secondly, it stimulates those whose products we sell. On the contrary, when exchanged abroad, wealth stimulates those industries alone whose products we sell, and in this way conduces less to the increase of national wealth. But a diversity of industry is accompanied by other advantages. Greater skill is required in production; for there are many whose tastes and abilities unfit them for one pursuit who may yet enter upon another with advantage, and only when they have a choice can they accomplish all for which their abilities fit them. Under this head may be included those who are physically unable to engage in heavy labor, as agriculture, though they may be well fitted to follow pursuits which require great skill and but little muscular strength. In this way families

are far more able to support themselves than would otherwise be possible, and wealth is to that extent more generally distributed among the laboring poor. Finally, under a diversity of industry we are to that extent independent of other nations. In peace or in war we can produce all we desire, and are not at the mercy of foreigners. To the highest and grandest welfare of a nation, as of individuals, independence is absolutely necessary. For such reasons we think that no nation can reach an ideally perfect state except through a diversified industry. And, if this is true, it is certainly worthy the noblest efforts of a patriotic people to avail themselves of this important element of national greatness.

Nor can it well be conceived how free-trade will produce a diversity of industry to any great extent. This has not yet occurred, nor do the advocates of the doctrine hold that such will be the result. In a nation without protection those industries alone will survive which from causes natural or otherwise have the advantage in the production of certain articles. Thus one nation may be forever dependent upon another, and only partly developed, because we allow rude nature to take her course. This is certainly a consoling doctrine for the patriotic founders of a new state. Had such a theory prevailed at the time of Washington, and Jefferson, and Jackson, with what a warm enthusiasm would those statesmen have looked forward to the time when the United States of America should furnish food to England at England's price!

On the other hand, it needs no argument to show that protection will give rise to a diversified industry. The very idea of the term implies that. There are several reasons why protection is necessary to insure the production of certain articles; such as the higher cost of capital, and of labor, in one country than in another. But these reasons may all be included under the highest cost of capital, or the greater amount of it required. It is a well-established law of political economy that capital tends to go where it can get the best return. If it requires more capital in one

country than another to produce certain articles, capital would not be invested in this production, since the ratio of profits would be less than if employed in other industries. But a protective tariff, by laying taxes on the foreign product sufficient to insure the average profits to capital invested at home, would open a new channel where the wealth of the capitalist would be employed. In this way a diversified industry may now be created. But it must not be supposed that all this advantage may accrue to a people without some expense. A man who wishes to engage in a lucrative business must first invest some capital in the necessary requirements, and, similarly, a nation, to enter upon a career of prosperity, must pay for the necessary conditions. Accordingly, the people pay the profits on the additional capital required to produce articles in our country above what is required in another. This is all the expense they undergo. If there were no other good results of protection this expense would be counterbalanced by the consequent elevation of the industrial classes. In a country like the United States, where men and women are regarded as human beings, and, though required to labor, as having capacities to develop, and as seeking the nobler enjoyments of life, it

is a shame and an outrage to treat them as machines. Those who work for the lowest wages, though, "like dumb, driven cattle," must, according to free-trade teachings, be the class to gain employment. Were such results to follow we might well, with Xenophon and Cicero, execrate the whole body of industries. It is stated somewhere in Brassey's "Work and Wages," that at Essen, on the Continent, 1,500 of the workmen live in a barrack, where they have an eating-room in common. Thus they procure food and lodging at ten pence a day each. In this way Germany is driving England, with her starved workmen, from the Continent. But protection will enable us to pay our workmen a wage that will suffice to support them in that condition of life which every true American thinks proper for an intelligent being.

In this way protection, instead of developing a nation in but one direction, as free-trade would do (if it would really develop it at all), develops it on all sides, thus forming a perfect state. And when, as partly appears to be the case with England to-day, capital has been accumulated and great skill acquired by intelligent workmen, then protection will gradually give way to free-trade, and the nation, having become strong at home, will go forth to conquer the world. W. G. MAXWELL.

THE CENTENNIAL HYMN.

[This hymn, composed by John Greenleaf Whittier, was sung to music composed by John K. Paine, of Massachusetts, at the opening exercises.]

OUR father's God! from out whose hand
The centuries fall like grains of sand,
We meet to-day, united, free,
And loyal to our land and Thee,
To thank Thee for the era done,
And trust Thee for the opening one.
Here where of old, by Thy design,
The fathers spake that word of Thine
Whose echo is the glad refrain
Of rending bolt and falling chain,
To grace our festal time from all
The zones of earth our guests we call.
Be with us while the New World greets
The Old World, thronging all its streets,
Unvailing all the triumphs won
By art or toil beneath the sun;
And unto common good ordain
This rivalry of hand and brain.

Thou who hast here in concord furled
The war flags of a gathered world,
Beneath our western sky fulfill
The Orient's mission of good will,
And, freighted with Love's golden fleece,
Send back the Argonauts of peace.
For art and labor met in truee,
For beauty made the bride of use,
We thank Thee, while withal we crave
The austere virtues strong to save,
The honor proof to place or gold,
The manhood never bought or sold!
Oh! make Thou us through centuries long,
In peace secure in justice strong!
Around our gift of freedom draw
The safeguards of Thy righteous law,
And cast in some diviner mold,
Let the new cycle shame the old!

CENTENNIAL MATTERS.

SOME OF THE MINOR BUILDINGS.

AMONG the objects of interest to a visitor at the Exposition, the buildings which many of the States of the Union and several foreign powers have erected there are prominent. The States have provided them as headquarters for their representatives in the Centennial Commission.

pointments almost lead him to forget that he is in the country of strangers. At this time we present engravings of a half-dozen or more of these buildings, and may follow them with a second installment.

The New York building is a large and attractive structure. Built in semi-Italian

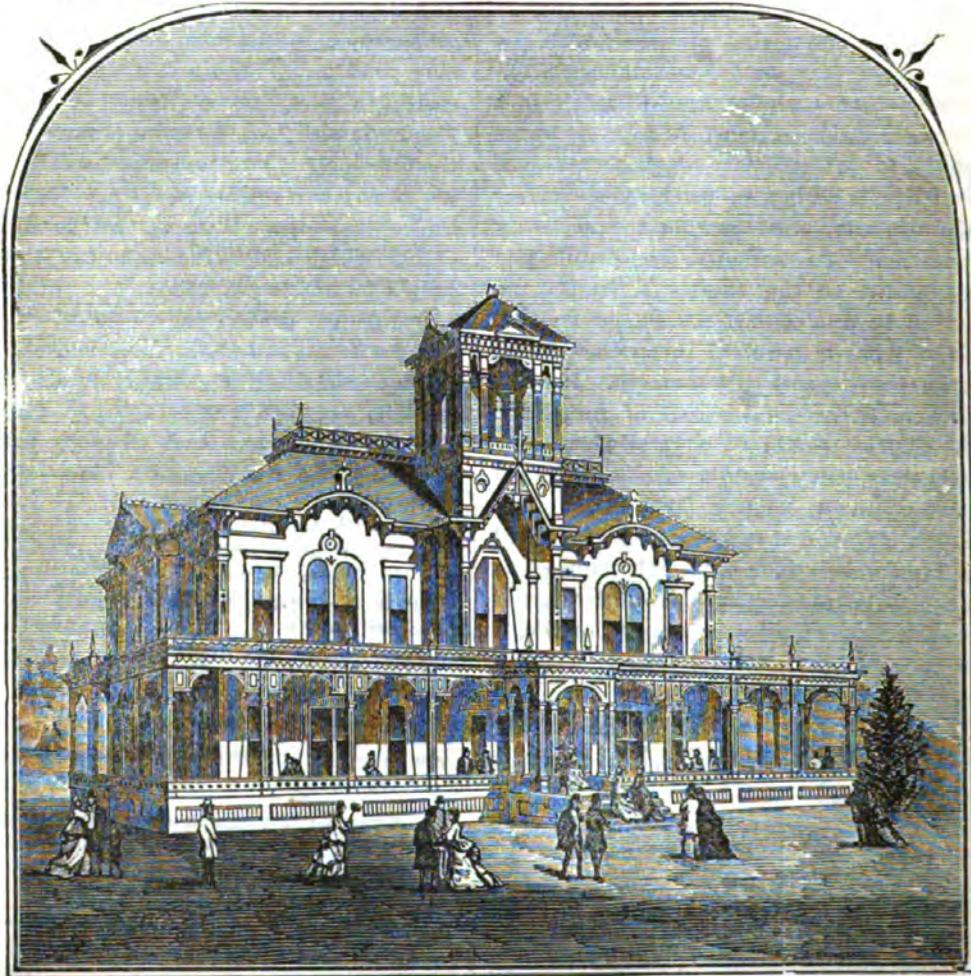


Fig. 1—NEW YORK STATE BUILDING, CENTENNIAL EXPOSITION.

and also as a sort of *point d'appui* for the American visitor, who experiences a feeling of satisfaction and comfort when he sees the State of his birth or adoption thus substantially represented. So the visitor who has crossed the wide ocean must find much comfort in discovering that his far away land has set up a place whose architecture is familiar to him, and whose interior ap-

style, with a fine piazza almost surrounding it, and enough of ornamentation to impart an air of grace to its regular proportions, it is creditable to the great State represented. Within its ample rooms and upon the broad verandah one can find an hour's respite from the fatigues of sight-seeing.

Connecticut has provided a building whose rustic character suggests the peace-

ful employments of the farmer of a hundred years ago. The well-known author Ike Marvel contributed the design. It is about forty feet square, constructed of timber, shingles, and plaster, the second story projecting four feet over the first story. A large and heavy porch extends in front of and over the old-fashioned hatch-door, and on it is painted the State coat of arms and

ed fireplace opposite the front door. The finish of the inside is designed to give the appearance of age.

This old New England mansion, with its quaint attachments, may be associated with the structure which shows to the dweller amid the refinements and comforts of a large city how rude was the beginning of that civilization he is wont to boast. The

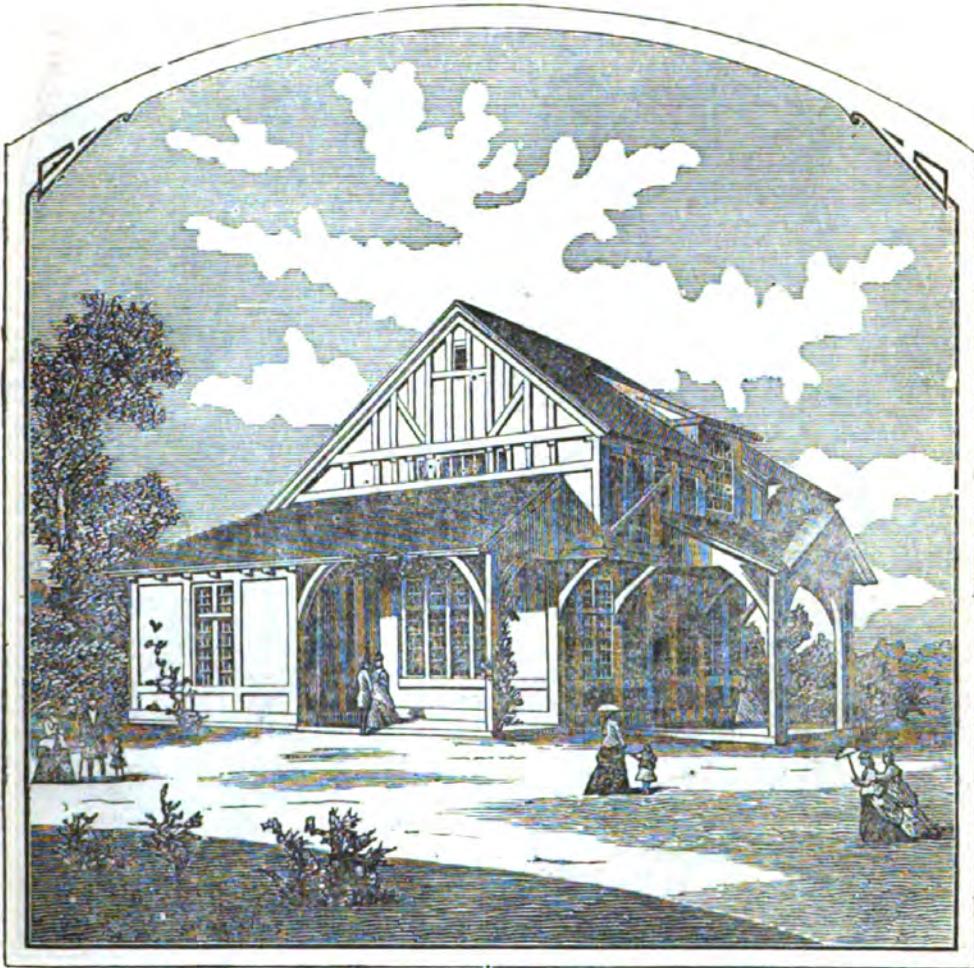


Fig. 2—CONNECTICUT STATE BUILDING.

the motto *Qui transtulit sustinet*. The back slope of the roof is extended so that the eaves at the rear are within ten feet of the ground. The reader who has lived in the rural districts of the Eastern States is familiar with the design. The windows are glazed with small lights six by eight inches, and in the center of the building is a wide stone-chimney, with its old fashion-

Hunter's Cabin in a picturesque ravine of the park is an exceedingly interesting feature of the Exposition. It is constructed of logs in the "salt-box" style, and is a *fac-simile* of the abode of the western hunter or trapper, but within and around it are all the paraphernalia that an enterprising pioneer would be likely to provide. Inside, standing against the walls, or hung on

pegs, are fishing-tackle, a panther's head, the horns of Rocky Mountain rams, hides of huge black bears, buckskin coats, leggings and moccasins captured from Indians, a snow-white hide of a polecat, stuffed prairie-chickens and ducks, and a score of other curious trophies. There are also several stalwart fellows—practical hunters—in the buckskin garb of their pro-

reach of snakes and vermin. Near by are some deer and a black bear, tethered to trees; and in the stream below a dam is constructed, upon the waters of which float several canoes. In these the men in buckskin practice rowing, and show how fish are gulled and the beaver caught.

Not far away from this in another charming nook is a specimen of the backwoods-



Fig. 3—NEW JERSEY STATE BUILDING.

fession. They lounge on the rough log couch, smoke, dress skins, cook and eat, thereby illustrating their manner of living in the West. Just outside the cabin is a camp-fire, kept constantly burning, a rough table, upon which the frugal repast is spread, and a cord hammock hung from two trees. Occasionally a hunter springs into this to show how he can sleep out of

man's log cabin in Vermont or New Hampshire a hundred years ago. There one will find a coterie of young New England ladies dressed in the costumes of our great-grandmothers, who are prepared to furnish a good old-fashioned meal for a moderate price. The New Jersey building is one of the most picturesque of the State erections, and draws many visitors besides those from

the "battle ground of the Revolution." The excellent illustration furnishes a better idea of the character of its architecture than a voluminous description would give. With its verandas, balconies, gables, and dormer windows, its square tower and red tiling, it is the best piece of harmonious coloring in the Centennial Grounds.

The far-away and scarcely more than opened State of Colorado, co-operates with its enterprising neighbor, Kansas, in a building which is not without interest.

to all travelers from Arkansas is a tasteful one, its ground-plan reminding us of the erections which sometimes grace industrial exhibitions in our larger cities. It is airy, well-lighted, as southern houses are, and its hexagon-domed roof gives it a peculiar distinction among the many handsome erections we meet with on the Exposition Grounds.

Among the buildings which we may not illustrate with the chisel of the engraver, and which are worth more than a

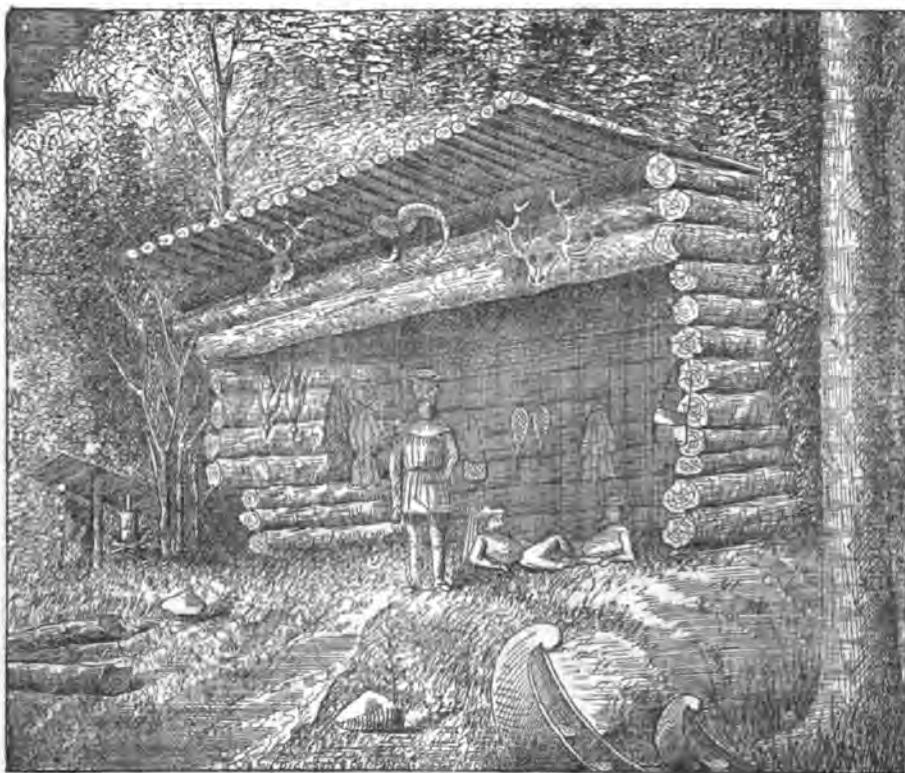


Fig. 4—HUNTER'S CAMP.

Those pioneer regions have done well in this exhibition of pluck and enterprise.

The Japanese cottage receives a good share of attention, bringing as it does from our antipodes a practical illustration of how these strange people live. The mechanical work of the building is wonderfully neat, light, and strong, and well repays the scrutiny which the skillful artisan of America or England is generally disposed to give it.

The building which extends a welcome

five line mention, is the Swedish school-house, which attracts the eye because of its symmetry of shape and decoration, and the substantial character of its materials and workmanship. Our architects may glean an item or two from that little structure, the Canadian pile of massive logs, timber, and plank; it is a "timber house," indeed, which impresses the spectator with a feeling of awe, suggesting the mightiness of those forests primeval in whose shadow our friends over the border live. Then

there are the two or three large English houses, reproductions in tangible substance of the rural mansions familiar enough to the general reader.

A NEW LIBERTY BELL.

A NEW bell was cast at the foundry of Messrs. Meneely & Kimberly, Troy, N. Y., in April last, to be suspended in the

His plan was to make the bell of 13,000 pounds weight, counting a thousand pounds for each of the old thirteen colonies. Then it was to represent in its composition the two great struggles of the nation, the war of the Revolution and the war of the Rebellion. When the plans were matured, Mr. Seybert entered into a contract with Messrs. Meneely & Kimberly to cast the bell and place it in the tower of Independence Hall.



Fig. 5—COLORADO AND KANSAS BUILDING.

tower of the old State House in Philadelphia, replacing the Independence bell which occupies an honored place among the relics of Independence Hall. A citizen of Philadelphia, Mr. Seybert, is the donor of the new bell. The idea which that gentleman entertained in this matter is eminently patriotic, and may be summarized thus :

The Government being apprised of the plans of Mr. Seybert, four bronze cannons were furnished to carry out his ideas. Two guns, one Union and the other Confederate, that had seen service at Gettysburg, were selected. The other guns were a British field-piece, captured at the capitulation of Burgoyne at Saratoga, October 13th, 1777,

and a piece used by the patriot army under Gates in the battle of Bemis Heights and the final struggle with the British army at Saratoga.

To carry the Centennial symbolism further, but one hundred pounds of each cannon was used, the remaining metal representing the mineral wealth and growing industries of the nation, the copper being

God in the highest, and on earth peace, good will toward men.' On the waist, one side is the following: 'Presented to the city of Philadelphia, July 4th, 1876, for the belfry of Independence Hall, by a citizen.' On the waist, opposite side, is '1876,' and beneath the coat of arms of the United States, an eagle with thirteen stars, the motto *E pluribus unum*. The coat of arms

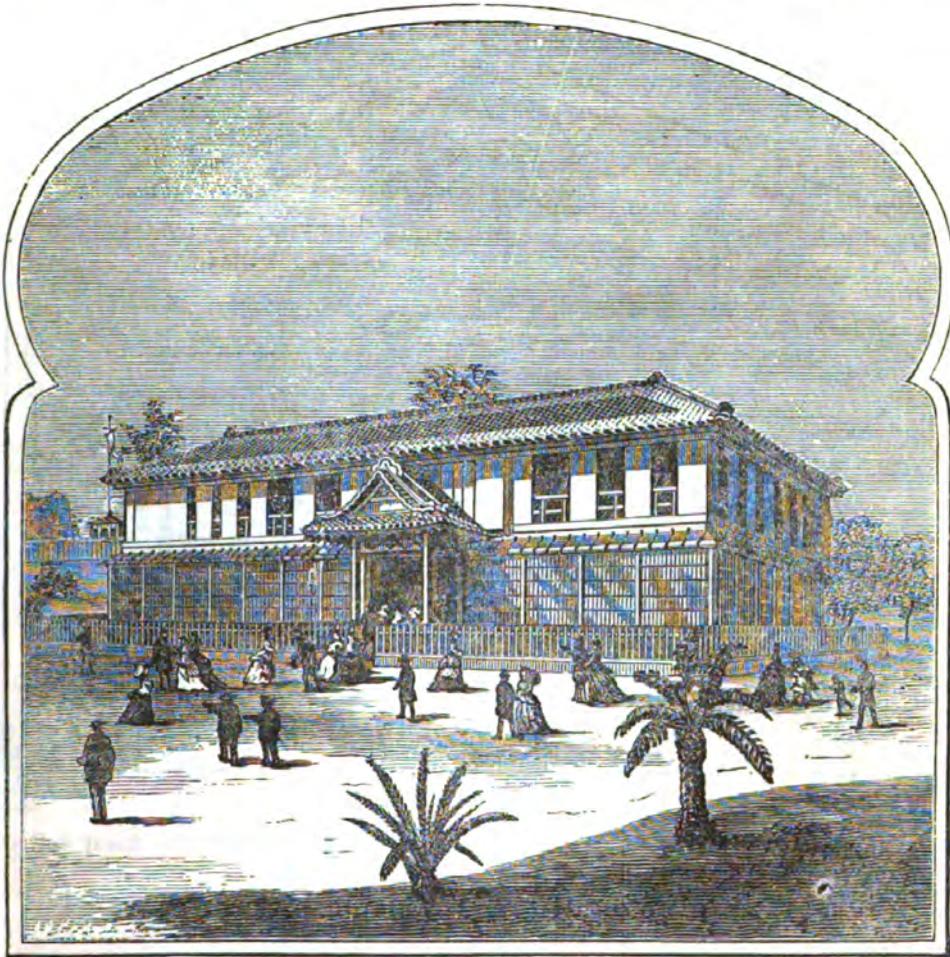


Fig. 6—JAPANESE BUILDING.

taken pure from the shores of Lake Superior, to be mingled with the best of tin, fresh from the mines.

The casting was attended with entire satisfaction, and in its rich completeness of polish and decoration it forms a very beautiful and appropriate gift. A Troy paper in describing it says, "Encircling the crown are the words of Holy Writ: 'Glory to

is set in a shield of chased work, and is a beautiful specimen of art. Encircling the mouth is the inscription from the old liberty bell, 'Proclaim liberty throughout all the land, unto all the inhabitants thereof,' (Leviticus, chapter xxv, verse 10.) Just above this inscription is a circle of thirty-eight stars, representing the States. The bell is seven feet in perpendicular height, seven

feet and a half in diameter at the mouth, and twenty-three and a half feet in circumference. At the sound bow the thickness

one of the most eminent examples of American skill and taste at Philadelphia. Larger bells have been made in the Old World,



Fig. 7—ARKANSAS STATE BUILDING.

is seven inches. Its proportions are strikingly beautiful. All in all, it is a great triumph of the founder's art, and will be

but this is undoubtedly the finest bell ever cast in America.

THE POET OF THE FUTURE.

WHEN men shall worship other gods
 Than that of sordid, groveling self,
 And rise to prouder, nobler heights,
 Above the shattered wrecks of self;
 When worth shall fill its honored place,
 And merit gain its just reward,
 'Tis then the earth shall bloom as fair
 As did the garden of the Lord.

Once more the footprints of the gods,
 So long effaced, shall reappear,

To be our guiding prophecies
 In language mute, though strong and clear.
 The golden prophecies of years,
 Like those foretold when Christ was born,
 For yet again that Star shall rise
 Above the bright millennial morn.

The poet of that blissful time
 Shall sing of other themes than ours,
 And only wreath within his rhyme
 The fragrance of his fairest flowers.

For if his hand but touch the harp,
 Lo! all confusion then shall cease,
 And every chord shall tremble forth
 The sweet, melodious song of peace;
 And in enchantment he shall dwell
 Within the bounds of Fancy's lands,
 And live as though he once had died,
 And live as touched by magic hands.
 His inspiration, large as life,
 Shall flow from sources deep within,
 Whose hidden springs of thought shall rise
 And purify the soul of sin.

For what avails this outward life,
 The glamor of the earth and sky,
 Which, like the opening flower of morn,
 Breathes out at eve its latest sigh?
 And who is he whose stream of life
 On surface currents must depend,
 Who walks the earth a mendicant,
 And borrows joys he can not lend?

'Tis he whose soul is quite content
 To be of those who groveling lie
 Beneath the table of the Lord,
 And eat the crumbs and starve and die.
 Not so the man whose fertile mind
 Is nourished by the hidden streams
 Which flow forever in his soul
 Around the castled land of dreams.

Oh! he is blest in high degree
 Who stands from cringing churls apart,

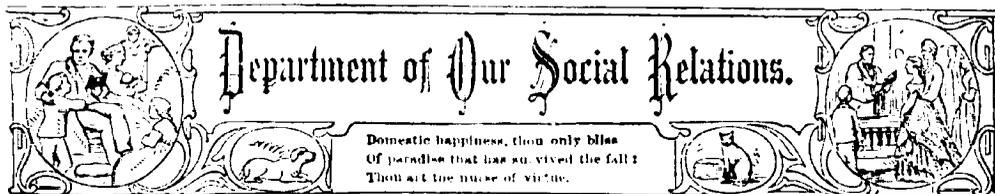
And finds his deepest source of joy
 Far down within his mighty heart.
 What need to him is there of friends
 Who bow and fawn and pass him by,
 Who come and go, and smile and frown,
 Like changing clouds across the sky?

'Tis such an one shall sing the songs
 Of that far-off and peaceful day,
 And in its glory he shall shine
 When other names shall fade away.
 This lofty mission shall be his—
 In every life some good to find,
 And weave within the human heart
 The common bond of common kind.

To analyze the modes of thought
 By which we reach a higher cause,
 To teach the human will to bow
 To God's eternal, sovereign laws.
 To sow the seeds of simpler modes
 Within the soil of human life,
 And pluck the rank and choking weeds
 Which cause confusion, care, and strife.

To lead the faltering steps of men
 From out the miry depths of crime,
 Till they, with hope and strength renewed,
 Shall struggle up to heights sublime.
 Oh! Poet of the future time,
 Let angels sing thy happy birth,
 Let human voices swell the song
 And fill with music all the earth.

H. S. L.



UNSELFISHNESS.

IT is difficult to find in these days of bustle, crowding, money-making, and money spending a thoroughly unselfish person, one who thinks more of his fellow-man than himself; who stands ever ready to assist the poor, raise the fallen, cheer the sick, and comfort the sorrowing, and yet, it seems to me that there can not be a more desirable disposition or more lovable character; this would be a very different world if the spirit of unselfishness were thoroughly and extensively cultivated. There would be more charity for the sinner, more prayers for the straying, more Christian love, more

filial devotion, more tender mothers, more home-loving husbands, less delight in scandal, more horror of guilt and pity for the tempted.

How the dark places of life would brighten, and paths never known to sunshine and virtue gleam with awakening radiance were the world to grow and blossom with the plant of unselfishness. True, it is here we see the fruit sometimes, and not always in the rich man's palace. There are plain, verdant Irish girls toiling in our kitchens who might well set before us examples of unselfish devotion. Have you ever noticed

how the hard-earned wages of some unlettered servant-girl just from Ireland are hoarded up to send to the absent parents in the "ould counthry?" how she will deny herself many a needful article in order to send the money to the loved ones?

Not he who gives the most to the Church, or subscribes loudly in causes of charity, whose name is praised for his benevolent gifts, not he always possesses in its serene purity that pearl of great price, unselfishness. See that lonely woman in yonder tenement house, watching over a sick neighbor in the silence of the night, when the world is asleep and unconscious of the waves of sorrow rolling over it—expecting no return, for her neighbor is as poor as herself. She will receive the reward at last, when perhaps, the giver of thousands will be classed among the selfish ones of earth. I suppose a mother's love for her babe approaches the nearest to our ideal of unselfish human affection. What sacrifice will she not make for her child, the little, helpless being that can give no return? When pain enwraps its little frame, how strong she is to carry the poor, suffering one, hushing in her never-wearying way the pitiful cry of distress; no thinking of self then; that thought comes when care and watching avail no more, and she sees her darling lying in its coffin, the baby soul gone home to God, to a deeper, sweeter love even than a mother's.

In traveling through Oriental lands one would readily suppose, after a brief sojourn in Egypt, that the natives were wholly and completely engrossed in self, for the incessant cry of the Arabs in the street is "Bak-

sheesh;" it meets the foreigner on his first arrival in the harbor of Alexandria, follows him to the thronged bazars and narrow streets, assails him on the banks of the Nile, rings after him on the steps of the Mosque and summit of the Pyramids, and mingles with his memories long after the Egyptian shores have faded in the past. But those who have had a longer and more personal acquaintance with the inhabitants of the land of the Pharaohs, know that they never let a fellow-being go hungry; they share their humble meals with those poorer than themselves, and if the parents of a child die, some woman, generally a childless one, comes forward and adopts the little one as her own. They have no need of orphan asylums on the banks of the Nile. While the people are thus unselfish with each other, they will call for a "present" the moment a foreigner shows his face or his purse.

Exalted above all other pictures of unselfishness to which the world can find no parallel, is that of Christ's life and death on this selfish earth, leaving us such an example of perfect unselfishness as no human power can surpass. With such an example before us, how can earth bring forth so many barren souls—murderers, drunkards, forgerers, misers, liars, scandal-lovers?

Would that we might take this divine pattern more into our hearts, and so shape and mold the restless course of our lives that they may grow more and more like the blessed original given us to imitate, even the Redeemer of the sons of men, our guide to a path of pure, cheerful Christian unselfishness. SARA KEABLES HUNT.

ENDED.

WHAT is ended? All my childish faith and trust
In seeming. The summer flowers were bright
And beautiful, now dead leaves sadly flutter
Down to earth, that erst in white and azure
All precious stones outvied, and would have
shamed

The stars, only that in sweet modesty
Their cups they closed and let Heaven's flowers
Bloom on unconscious of their rivalry.
No! I'll deck no more with flowers, but rubies
Red, and diamonds sparkling with the garnered

Light of earth's earliest summers henceforth
shall

Shine upon my throat and in the dark braids
Of my waving hair. Then no autumn chill
Or blast of biting winter e'er can change
The shining glories of my precious gems
To death's nothingness and the horror of decay.
Beside the breathing beauty of the rose
A gem is but a soulless stone. What, then,
If brilliant shines the stone, while the beauteous
Rose goes down to foulness? AMELIE V. PETTY.

WOMEN IN THE TEMPERANCE WORK.

ANNIE WITTENMEYER AND FRANCES E. WILLARD.

FROM time to time place is given in these columns to a notice of the men and women who are devoting much of their lives to the saving of society from the perils of the liquor traffic. This cause, like all others, has its representative leaders, and prominent among these stand the two women whose portraits are now given, Mrs. Wittenmeyer, of Philadelphia, President of the Women's National Temperance Union, and Miss Frances E. Willard, of Chicago, Cor. Secretary of the same. These names represent two widely separated sections of country, but happily in this work there are no sectional differences dividing into factions the grandest army of the Republic. Among either its leaders or its humbler workers there is no east no west, no north no south. In this respect they have the advantage over any national collection of men ever banded together for any purpose.

Mrs. Wittenmeyer's maiden name was Turner. She was born in Ohio, but her early home was Kentucky. Her grandfather was a graduate from Princeton College, and an officer in the war of 1812. Her father was a native of the State of Maryland, her mother of Kentucky, so that she inherits by birth the warm, fervid temperament of the South, united with the cool, calculating reason of the North. She attended for several years a seminary in Ohio, where her education was carried much further than was usual for young ladies at that time. She was married in her twenty-first year, and enjoyed nine years of happily married life. She was very prominent in the Church in consequence of her religious zeal and enthusiasm, also for her great activity in all charitable enterprises.

At the beginning of the war of the Rebellion, Mrs. Wittenmeyer was appointed Sanitary Agent for the State of Iowa by the Legislature. Secretary Stanton of the War Department gave passes for herself and supplies through the army lines, and a letter of instruction to army officers to coop-

erate in her enterprise for the relief of the soldiers. In this worthy endeavor she continued throughout the entire war, changing her relation to it, however, by resigning her position as Sanitary Agent for Iowa to enter the service of the Christian Commission. Here she had the oversight of two hundred ladies, and she developed in this work her plan of Special Diet Kitchen, to the great advantage of the health of our soldiers. The first kitchen was opened at Nashville, Tenn. In it was prepared food for eighteen hundred of the worst cases of sick and wounded soldiers. These kitchens were superintended by the ladies under her direction. In this work she had the assistance of the Surgeon-General, Assistant-Surgeon, and all the army officers, both military and medical. General Grant was a personal friend, and did all in his power to facilitate her efforts. By invitation of the Surgeon-General she met the Medical Commission appointed to review the special diet cooking of the army.

The work of this Commission led to a thorough change in the hospital cooking of the army, which was lifted to a grade of hygienic perfection far above anything before known in military affairs, and from which it is not likely to fall again to the old standard. It is simple justice to add what is a matter of history in the United States Christian Commission, that these improvements in the Diet Kitchens of the army were the means of saving thousands of valuable lives, and of restoring noble men to health and usefulness.

About the close of the war Mrs. Wittenmeyer set in motion the idea of a "Home" for soldiers' orphans, and became herself the founder of the institution bearing this name in Iowa. It is not generally known that this enterprise originated with the brave woman who had cared for the husbands and fathers through the perils of camp and hospital life. When the fact that such an institution was to be opened in Iowa became generally known, hundreds of soldiers' orphans became the wards of the

State. By request of the Board of Managers of the Iowa Home, she went to Washington City, and obtained from Mr. Stanton, other departments coöperating, the beautiful barracks at Davenport, which cost the Government forty-six thousand dollars, and hospital supplies amounting to five or six thousand more, subject to the approval of Congress, which was afterward obtained. That institution has accommodated over five hundred children at one

tering to the temporal and spiritual needs of the strangers and the poor. This organization was made a General Conference Society at the last session, and Mrs. Wittenmeyer was elected its Corresponding Secretary. During the last year over fifty thousand families have been visited under its auspices.

At the commencement of this new work Mrs. Wittenmeyer removed to Philadelphia and founded her paper known as the



PORTRAIT OF ANNIE WITTENMEYER.

time, and it still maintains a flourishing existence under the care of the State.

Mrs. Wittenmeyer's active mind next conceived the idea that the vast amount of talent and energy brought into activity by the philanthropies of the war should be maintained on a Christian basis in the Church. Bishop Simpson, always ready to aid in any movement promising greater usefulness for women, entered heartily into the plan, and the Methodist Church established a Home Missionary Society of women, organized for the express purpose of minis-

Christian Woman, an individual enterprise which has proved exceptionally successful. She has more recently established a juvenile paper called the *Christian Child*, which is rapidly winning its way to public favor. In addition to this large publishing work she has carried forward all the enterprises of the Society, traveling in its interest thousands of miles, and speaking in every State from Maine to California.

When as an outgrowth of the Crusaders the temperance women met in their first

National Convention, it was but natural that they should choose as a leader one whose name was already surrounded by the perfume of a life of heroism at home and on the field, and whose praises were spoken daily in thousands of homes. Her achievements in the past were a guaranty of strength for the future. The record of the temperance work during the past two years proves fully the wisdom of their choice. Twenty-two States have been or

FRANCES E. WILLARD.

Miss Willard was born at Rochester, New York. She was the daughter of the Hon. J. F. Willard, an early settler of Wisconsin. Her parents were New England people, but her life has been spent largely in the West. While quite young the family removed to Oberlin, O., where her childhood was passed, breathing the atmosphere of radicalism and reform. After a few years her father removed with his family to the prairies of Wis-



PORTRAIT OF FRANCES E. WILLARD.

ganized as auxiliary to the National Union. A paper called *The Woman's Temperance Union* has been founded, with Mrs. Wittenmeyer as publisher. She has also labored tirelessly in the lecture field, speaking sometimes six evenings in the week and traveling hundreds of miles. She has attended all the large Conventions, of which forty-six have been held in one year. At the meeting in Cincinnati, held November last, she presided with marked ability, and was re-elected President for the Centennial year by a unanimous vote.

consin, where, in the quiet walks of country life, his children should grow up free from all prejudice or hurtful bias in everything pertaining to the formation of character. Here Miss Willard grew to the age of sixteen without having ever entered a school-room as a pupil, and having never had any teachers except her parents and books and nature. But both her father and mother were very attentive to the home education of their children. While the practice of keeping children away from school until sixteen might be regarded as hazardous in

most cases—at least it would leave many women an exceedingly short time to spend in the school-room—Miss Willard's subsequent achievements have a tendency to throw something of a charm about it. It is by no means probable that had she spent the twelve years from six to eighteen in a close, dull school-room, conning dry, hard lessons, that the results would have been equally gratifying. At what was considered by their parents a suitable age, the children were all sent to school. The oldest, an only son, went to Beloit College, where he graduated. He chose journalism as a profession, and has been for several years editor of a Chicago evening paper.

The country home, which merits a chapter by itself, and which was at one time regarded as the finest place in the country, was sold, and the family removed to Evanston, a suburb of Chicago, where the two daughters were educated in what is now the Woman's Department of the Northwestern University. Here Miss Willard pursued the usual course of study, and graduated when little past twenty.

After this she taught one term in a district school, but after a few years of teaching in Illinois, Pennsylvania, and New York, rose from that humble station to a professorship in the University at Evanston. Meanwhile she contributed regularly to the current literature of the day, and wrote a book entitled "Nineteen Beautiful Years," published by Harper Brothers. This was a sketch of the life of her only sister, whose untimely death she regarded as no ordinary affliction. Her memory she not only embalmed in writing, but it is kept ever fresh in thought and feeling.

In May, 1868, Miss Willard, in company with Miss Kate A. Jackson, of Paterson, N. J., a very warm personal friend, sailed for Europe, where they spent two and a half years, visiting nearly every important city in Great Britain and on the continent. They traveled in Scandinavia, Russia, and Poland, also through France, Germany, and the Netherlands. During their Eastern trip they sailed up the Nile and camped out in Palestine, and returned through Greece, Turkey, and the Danube. They

did not content themselves with a mere superficial knowledge acquired by a rapid journey over an unknown country, but remained in the various leading cities that they visited long enough to acquaint themselves with their distinctive features, the style of architecture, the habits, manners, and social customs of the people. In Paris she studied the French language, and in Rome the Italian, and history of the fine arts.

They returned in 1871, and Miss Willard was soon after elected President of the Womans' College, at Evanston, Ill. In '73 she was made Professor of Esthetics in the University. In the spring of '74 she resigned both positions, and the October following became President of the Woman's Christian Temperance Union of Chicago, having been roused to enthusiasm on this subject by the work of the Crusade. In the same year she was chosen Corresponding Secretary of the Woman's National Temperance Society.

During the summer of 1875 she visited all the Eastern and Middle States, speaking in many of the largest cities, sometimes to audiences of five thousand persons. She is acknowledged one of the ablest speakers in the ranks, and among the most popular leaders of the reform movement.

She has recently been on a brief lecture tour in the East, speaking twice in Philadelphia, twice in New York, and in Brooklyn, also in Boston and several other large cities. But she was obliged to leave and return to her field in Chicago, than which no other place needs her labors more. She has during the past year written a small work, entitled, "Hints and Helps in the Temperance Work."

When eighteen years of age she took a prize medal offered by the Illinois Agricultural Society for the best essay on the "Embellishments of a Country Home." Though she has always done more or less with her pen, having contributed to some of the leading journals and magazines of the country, yet her strongest points are method in organizing and arranging for successful and aggressive work those who come within the sphere of her influence, her winning and persuasive eloquence, and personal magnetism.

THE WAY IT ENDED.

PART SECOND OF A "BAD BEGINNING."

CHAPTER II.

CONSULTATION.

I COULD wish to have reported a conversation representing more faithfully the stirrings, the failures, the successes of our young man in the eight years since we parted with him at the gallows, from which Jarl Darley passed into a clearer sphere of life; but, after all, nothing but his own daily record of events and their impressions could give any true idea of his successive growth in the principles and purposes under which he had sworn to guide himself, since it is the interior and not the outward progress which marks the character and worth of the man.

Something of the spiritual strength and grace developed by the trials, endeavors, disappointments and triumphs of his struggle with the peculiar obstacles that lay in the path of his choice might be discerned in his firm, gracious bearing, and clear, earnest, luminous face as he walked down the street on this afternoon succeeding the just recorded interview with his friend. That every hope, purpose, and power of his life was centered in love of his fellow-creatures was clearly apparent in each look, tone, gesture, as he moved among them with deep, penetrant, sympathetic glances, kindly interchange of words, and cordial, fraternal hand-touches. The man would have died of pure *ennui* and lack of soul nutriment in an isolated community where there was little exercise for the special faculties of a nature keenly alive to every emotion of the human heart, and the trials and vicissitudes of human existence. Only in a great city, where the strong, sweeping tides of life rushing through dark, underground passages of wrong and wretchedness, or over sublime lights of power and inspiration, called into play every activity of mind and body, could this warm lover of mankind have found wholly satisfying and congenial work. As it was, the clear, pure, penetrating, healthful sunshine of his presence simply passing through the streets was like a vivifying river to many a

parched and desert heart that thrilled afresh with the kindling glow of hope and purpose as his tender, searching, inspiring and prophetic eyes sank into their troubled depths. His name and place they might never know, but none the less was his silent mission to them beautiful with blessing.

In the leisurely walk of this cool summer evening he paused briefly with uplifted hat and low, reverent bow before the silver-haired, serene-browed woman coming from one of the city hospitals toward which he had been making his way.

"What command, gracious mother?" he asked, as she joined him, drawing her hand lovingly within his arm.

"Home and rest, Ariel," the lady answered, leaning a little heavily on his young unwearied strength.

"You are more tired than usual, dear?" he said, looking down with tender concern into the face fair with the bloom and hope of youth, though the silver of years rippled in soft, shining waves above it.

"A trifle, perhaps. You know how it wearies one to see so much suffering which it is impossible to alleviate wholly without the power of a God, and the sweep of a century in the removal of causes. One feels this more some days than others. And when the heart faints and sinks in momentary weakness, nerve and muscle fail more easily. I shall be stronger presently. My ebbing courage comes back with swift inflow when you bring yours to my support."

Ariel looked into the tender eyes upraised to his with inexpressible love and sympathy. Holding the hand upon his arm with closer pressure as they hastened toward the train which was to bear them out to the suburbs of the town where they had temporarily located the "home" that, like the camp of the Israelites on its passage to the Promised Land, simply prefigured in rudest outline the rest and peace, and blessing which they sought.

When, having quietly conducted her through the jostling crowd, and found a measurably restful place for her in the car, he said, sitting down beside her, and gently fanning her heated face, "You have found some new claimant of your care and sympathy to-day, I see, mother-heart, and you are a little perplexed as to what you shall do with it."

"Exactly, Ariel. You don't think the 'Lodge' will admit another member, comfortably, do you?" was the anxious inquiry, with a comic grimace at the absurdity of it.

"'Tis a thousand pities, dear, that the old rookery hasn't the lodging capacity of your heart, but there is an awful rigidity and fixedness about stone walls," Ariel responded, with a smile. "However, we will ask Nora about it. She has a wonderful gift of provision in the way of making room and filling mouths. I despair of nothing while Nora stands at the helm calling out like a gallant omnibus conductor, 'room for one more.'"

"God bless her! what should we do without the child?" said Madam Lacrosse, with fervor. "But this is a case which I feel may not enlist Nora's readiest sympathy. She would turn the highest prince and potentate on earth out of doors to give shelter to some poor, wretched castaway; but the subject that engrosses my thought to-day is eminently 'respectable,' moving, as I find many a miserable object of pity and Christian charity, in the 'best class of society,' and suffering what in pious cant is called 'the mysterious afflictions of an all-wise Providence.'"

"Really, how chanced you upon a subject so utterly commonplace?" the listener asked, with a dash of pleasant sarcasm.

"It happened in this wise. The lady—of course it is a lady—sent for me to visit her in my professional capacity, having suffered many things of many physicians; but still believing, as countless other victims of a like hallucination believe, that with some sorcerer or sorceress of the medical art—too often a black art—dwelt the great panacea or 'universal pill' which she had but to swallow to find herself whole. Is

there any one back of us overhearing this interesting private conference, Ariel?"

"Only a suburban youth absorbed in the delightful pastime of munching peanuts with his sweetheart, oblivious to all other interests in this life. Go on."

"Well, I found my patient a prey, as she imagined, to nearly every ill that flesh is heir to, the grave quacking of learned doctors having aided not a little in augmenting the difficulties of the case. There was that entire relaxation and prostration of nervous power which deranges and demoralizes the whole physical system, but which is itself the result of some mental shock or disquietude not always clearly apparent even to eyes trained to penetration into the deepest secrets and hidden sources of disease. The sufferer is one of those devout, religious souls who accept all pain as God-sent, yet with a naturalness quite inconsistent with their faith seek anxiously after relief, and I could not at the first break through the hedge of shams and conventionalities of which she was scarcely conscious, and yet it was the real woman's heart in her with which I knew I must make league, and bring into sympathetic action before I could hope for anything but the barest superficial improvement in her condition. So I studied my subject gravely in such light as I could get on it, troubled by the intrusion of an unwelcome and most unhappy suspicion which, however, symptoms did not confirm fully until to-day. Sitting beside the lady this morning, listening to the recital of ailments which I was mentally resolving back to primal causes, I felt the sudden start and nervous tremor of the cold, thin hand I was holding, as a step in the passage leading to her room announced the familiar approach of a master. Without the ceremony of rapping my lord threw open the door, and stepped airily in—a suave, smiling, gracious, and complaisant man, but with *hypocrite* written in every smirking line of his face and sinuous curve of his body. I sensed, through a kind of spiritual sympathy, the recoil of my patient, which, indeed, was quite visible in the averted yet fascinated eye, the shuddering nerves, the in-

drawn breath, the paling lips, as with the assurance of sole proprietorship the gentleman drew near, profuse in demonstrations of conjugal affection, which the poor wife strengthened herself to meet by an effort quite pitiful to see, the more so because it seemed the unconscious effort of a habit fixed by the rigid Conscientiousness which is a marked trait in her character. This trying ordeal of dutiful meeting and greeting being over, I was made acquainted with the husband of my charge, who, I understand, is a sort of religious teacher and missionary, just home from some convention or conference, or whatever the assembly might be in which his soul has been greatly refreshed and strengthened by spiritual communion and counsel with his brethren in the faith, and who, in consequence, was now for the first time present during my visits to his wife.

"Well, comprehending the deeply devotional nature of my patient, I could conceive with what hopes and dreams of sympathy and assistance in schemes of religious work and usefulness she had united herself to this pious sham, whose large but hollow pretensions she had no gift to discern, until, brought into the intimate associations of daily companionship, the thoroughly hypocritical character of the man slowly revealed itself to her heart, though her intellect would not take cognizance of a fact the confession of which would have involved a disloyalty to vows that she regarded as inviolable as the most sacred laws of God. But none the less, you perceive, though she has held herself scrupulously to the tortuous rack of duty, as she understands it, the inward revolt and protest of her nature has wrought out these physical ills from which it is as impossible to deliver her, without a change of mental conditions and influences, as to make an antelope thrive in the withering coils of an anaconda. In the light which to-day's revelations have cast on the perplexing puzzle, I read, too, as clearly as Daniel read the mysterious handwriting on the wall, the secret of a trouble that has added not a little to the complications and aggravations of madam's case, the partial idiocy of her only

child resulting from constantly recurring convulsions, which are but the outward manifestation of the repressed horror and shuddering of the mother's inner life.

"Now, you will bear me witness, Ariel, that I do not often speak so freely of my patients whose sorrows and secrets it is my business to guard sacredly from curious eyes and blabbing tongues, but this is a matter in which I can not act without your counsel and co-operation."

"I understand," Lacrosse responded, meeting his mother's inquiring eyes with a steady, thoughtful, absorbing gaze.

"It is useless, you know, to attempt the restoration of a subject like this without at least a partial removal of the cause of sufferings which I am called to alleviate," the lady went on, after the expressive pause. "Unless I can take the poor soul away from the vampire that is preying on her life, and hold her in a measure out of his baleful sphere until she is able to think and reason upon her condition, and act against the evil spell which has benumbed every faculty but that of a blind and misdirected conscience, I might as well leave her entirely to die in the snare into which she has fallen as a bird in the net of the fowler."

"But do you realize, mother mine, against what holy institution and law of the land you would militate by a movement of that nature?" Ariel questioned, with a smile.

"I realize only that a soul endowed with noble capabilities of good has become, by an association fatal to its best possibilities, a sick and wretched captive, groaning in chains which it hugs, with the ignorant zeal of the blind devotee suffering torment and death to the imagined glory of God. And I see in delivering such a soul from the hand of the destroyer, and restoring it to its primal powers of usefulness, simply obedience to the highest law of Heaven—the golden rule of love, which seeks only the good of the neighbor, whatever institution of man may fall thereby."

"But you know the good of the individual must not be secured at the expense of the community," the young man objected, as though for the sake of argument.

"That is hardly possible, I think, where it is the real, permanent, and not the fancied and ephemeral good of the individual that is sought," Dr. Lacrosse responded, thoughtfully. "We may seem sometimes to violate the established law and order of society when we aim to release ourselves or oppressed members from a thrall destructive of every power of use, beauty, harmony, and happiness, but ultimately it will be seen that such violation is but a separation of the false from the true—the evil from the good, which is an essential step in the formation of any pure and abiding worth of character either in the individual or in the nation. Reform must begin in particulars, in principles, working gradually, but surely, toward the purification and regeneration of the whole. It is vain to say, as some do, 'This evil should be corrected, but society is not yet prepared for such radical reform.' Society will never be prepared for any reform until individuals inaugurate it."

"Well, if this be heresy, I imbibe it from my mother," Ariel Lacrosse said, with his beaming, sympathetic smile. "I trust the wisdom of your heart in the case under discussion, and will stand by you in any action for the lady's relief to which you can gain her consent."

"Thanks; we shall see what may be done. I am more than usually interested in this patient. There is something strangely familiar about her, and I can not get rid of the impression that I have known her in some earlier and happier period of her life; but so many faces have crowded the walls of memory in these later years that I can not clearly distinguish them."

Young Lacrosse had leaned forward flushed and eager during this latter communication, his thought reverting curiously to one of whom he had long ago lost trace; but with a quick inward ejaculation of impatience at such folly, he shook his head muttering to himself, "It can not be."

And just then, with a shrill scream, the steam-steed brought them to their destination, and stepping from the train our friends walked slowly through the length-

ening shadows of the waning day to their "Lodge" of wayfarers, whither we will presently follow them.

CHAPTER III.

NORA'S SCHEMES OF BENEVOLENCE.

The low swinging sun shone over a picture not unfair to the eyes of our sojourners in the world's wilderness as they walked with quiet, slow enjoyment up the grassy slope whereon stood the rambling old country house which, with its adjacent grounds, had been leased with a view to the carrying out, in an humble, unobtrusive way, certain projects of usefulness that in time, it was hoped, might be put on a broader and more permanent basis of development.

A woman in simple robe came down the steps of the vine-wreathed veranda as they approached, her dark, Jewish eyes and sad, tender mouth eloquent with smiles of loving welcome.

"Our blessed home-keeper!" the returning ones said, taking her in their arms with motherly and brotherly greeting on lips and cheek. "We have to thank God every day for such a treasure, Nora darling," Madame Lacrosse added, with another close embrace.

"Nora is the strong cord that holds our plans together, giving them coherence and practical worth, I think," Ariel said, leading her to a rustic bench on which his mother had already seated herself to look at ease over the sunset picture.

Every available space in the grounds lying within their view had been devoted to flowers and swift-growing fruits, in the culture of which many a poor, wretched, and bewildered soul drawn from the snares of sin and depths of despair had found peace, comfort, strength, and healing.

In the three years since, under Nora Darley's supervision, this home had been founded and sustained for the rest, support, and encouragement of such weary, disheartened, and sin-tempted creatures as came in its way, there had been many who, with hope enkindled and ambition aroused in the inspiring atmosphere of love and

helpfulness, had gone forth into the world again, strong with the purpose and power of a new life. Yet always this infirmary of sick souls had been quickly filled with those in deeper and more bitter need. Barely self-supporting so far, the animating spirit of the place made its frugalities sweeter to share than the most expensive luxuries of homes unwarmed and unlighted by the heavenly fires of love and charity, and those who had once drunk of its inspiration held it always in grateful affection, returning again and again with the blessing and service of willing hearts and hands.

Madam had not sat many moments before her pleasure in the scene was marred by the sight of a worker in the strawberry beds, who seemed taxing herself beyond her strength, and rising with a hurried excuse to Ariel and Nora, she walked away in that direction, beckoning with a smile as she passed him at his play the dark-eyed, serious boy of the house who, from some inwrought doubt or diffidence of nature seldom obtruded himself upon the notice, even of those who loved him most tenderly.

Left to themselves for a time, young Lacrosse turned to his companion with quick appreciation of an opportunity not likely to occur again that evening.

"My mother has a new charge on her mind," he said, with a smiling glance at her through the shadowy fringes of his eyelids.

"Yes?" was the swift, animated, interested interrogatory.

"Perhaps it isn't one that will enlist your sympathies, Nora," he went on, still covertly watching her speaking face. "I wanted to exchange a word with you on the subject, though you know I don't often presume to interfere with your charities, which appear to prosper and return in tenfold blessing as much as if they were the outgrowth of clear, comprehensive, and coherent plans, instead of what they are, an inspiration from day to day."

"Oh, I know your man's intellect can not conceive how much good can result from such seemingly haphazard schemes as

ours, that have no basis but trust," Nora answered, with sweet serenity. "But tell me, I pray you, why you have fears that this new claimant of Madam's sympathy will not also appeal to mine?"

"What class of wretched humanity, my dear Nora, comes nearest to your heart, and claims your tenderest offices of love and mercy?"

"Why," she said, with a quick breath and a gnawing flush, "a class wronged, sinning, and cast-away—hapless creatures like myself, who have staked all upon a trust and lost, yet unlike myself have not found the stay and comfort of the truest, grandest souls that ever tendered friendship to one so unfortunate."

"Nora, do you realize how large this class may be?" Ariel asked, gravely. "How many it includes who are in no sense regarded as 'hapless' by the world, which views them from its superficial standpoint, and sees in their crown of wifehood a protection against all wrong, a surety of everlasting peace?"

Nora looked at him with doubt. "Such as these certainly do not come within the range of our charities, nor speak directly to our sympathies," she returned, a little coldly.

"Yet, dear, they have 'staked all upon a trust and lost' as much as any 'poor unfortunate' who may claim your care," Lacrosse said, with a suggestion of reproof.

"But they are not spurned and rejected, and outcast," Nora answered, promptly. "They hold an honored position in society, they are eminently respectable, commendably proper, and if, like Esau, they have sold their birthright for a mess of pottage, they do not have to contend against the cruel, cutting, pitiless scorn and injustice of the world, which battles their less lawfully-sinners down to the vilest depths of wrong, or to the darkness of the suicide's grave."

"None the less, I say to you, Nora Darley," Ariel Lacrosse solemnly affirmed, "there are women bearing the honorable name and sustaining the sacred relation of wife who are as deserving of your charity as the most sorrowful and penitent Magda-

len on earth. They have the show of honor, respectability, and peace, but it is purchased by silent endurance of chains that wear and eat into the very soul, and which are none the less galling because they must be kissed with pretense of joy in the wearing. If one rebelling against the unholy bond should be so desperately brave and madly bold as to break it, she would feel the goading spur and stinging lash of a contempt as merciless as that which drives her freer sister to more fatal choice of sin. Consider a moment, I entreat you, whether you do not too much restrict your sphere of loving helpfulness in excluding from your sympathy those whose social rank and distinction of wifely cover, perhaps, an emptiness, a wretchedness, a disappointment, desolation, and betrayal of the affections as sad and heart-breaking as any outside the pale and sanction of the law."

"You make out a touching case," Nora said, in a softened voice. "I would not be limited and partial in my sympathies, surely, yet it has seemed peculiarly my office to give aid, comfort, hope, and chances for redemption to such as are cast out and trodden under foot by a world that has not the grace to shrink before the penetrating and accusing spirit of the charge, 'Let him that is without sin among you cast the first stone.' Of this class which you commend to my consideration I confess I have not thought except with scorn of the cant and rant and moulting of ambiguous phrases concerning it that we hear among a certain style of reformers, who would substitute for one kind of slavery another more gross, detestable, and soul-killing."

"Unhappily, dear friend, you have too much occasion for this contempt of hypocritical whining about the tyranny of marriage bonds," Ariel said, regretfully. "In too many instances it is pure bombast, covering a devilishness of utter selfishness and sensualism more infernal than that which it assails. But you should not let your righteous scorn of the false cloud your perceptions, nor blunt your sense of justice in relation to the true."

"I know it, Ariel; yet I am so much inclined to put forth all my efforts at helpfulness in a simple direction that, if it were not for the constant harmonizing influence which you and Madam exert over my impulses, I should have but one thought, one purpose, one feeling, every power of my being centering on an object dearer than life—the salvation of the betrayed, outraged, outcast victims of a social injustice and prejudice that continually hounds them on to more desperate straits of sin. But tell me of this case in which Madam is interested. Nothing, surely, that concerns her can fail to be of vital moment to me."

"She herself will tell you all that is needful and important to know in the matter, probably," was the guarded reply. "I have broached the subject to you simply with the hope of enlisting your interest so far that you would not meet my mother's proposal with any show of indifference or opposition which would be likely to give her pain. For myself, I do not feel like offering any check either to her schemes of benevolence or to yours, but, so far as I can consistently with the intent of my own plans, lend a helping hand to both. We must try to work in harmony, though we differ in our choice of objects. It is the same end we are striving to attain after all."

"Yes; and as I said, Ariel, I need this attraction to other subjects to save me from utter absorption in the single desire and purpose of my heart," Nora returned, with a humble air. "Thanks for your thought to introduce this matter. I might have been too dull or indifferent to have given that ready acquiescence to Madam's suggestion which it is her right to expect, and my pleasure to accord. I can make room for the stranger, I am certain, yet, because she is not of those that hold the first place in my thought, I might have been more slow and hesitant in meeting her wishes than it is possible to be with the preparation you have given me. And now, as I have duties to which I must attend, you will excuse me for the present from further discussion of the case."

Ariel rose with a respectful bow as she

turned away, his eye following her with the glow of pure brotherly affection, yet with some inward shadow of doubt, bred of a false system of relations, and of social inequalities which are full of embarrassments to your man of quick, sensitive honor, who, accepting the position accorded him of taking the initiative in matters of the heart, vexes himself with fears lest the tenderer offices of friendship may have been mistaken for the manifestations of a sentiment more absorbing, and questions whether, if the case be so, he is not in duty bound to meet the hopes he may have unconsciously inspired. We may smile a little, certainly, over such pains and perplexities, yet if this fine, scrupulous sense of honor were trained to more delicate perceptions, it might lead to the emancipation of its generous possessor from an uneasy restraint by the advocacy and insistence of equal privileges, which should accord to neither party a supremacy in affairs of mutual interest, nor lay upon either a responsibility that must restrict the unselfish enjoyment of the graces and exalted pleasures of friendship. In a right condition of things we can conceive of no misapprehensions or misconstructions in matters of such nature, yet men of the clearest vision in other directions most frequently stumble and

make the gravest mistakes in the domain of the affections.

"It is a thousand pities the woman does not take the proposal as well as settlement of those affairs into her own hands, I am sure," Lacrosse was muttering to himself with some dissatisfaction, when he was unceremoniously summoned to the simple evening lunch of bread and strawberries served informally, but invitingly, on a rustic table under the trees, that threw their sheltering arms about the gray old house.

Perhaps, as was natural, there may have been a longing with the trio who formed the center of this home for the presence only of the hearts' own kin at such a repast, which should be one of spiritual no less than physical sustenance and refreshment, but if there were truant thoughts of this temper they were quickly suppressed as unworthy of place at an entertainment where love presided. For average human nature, after all, differs but slightly in its sympathies, hopes, aspirations, aims; and the heart which selfishly shuts out all but its elect few, conceives an unlovely contempt for its kind, and misses the culture and development of powers, the depth of insight, the breadth of comprehension which larger and more sympathetic association would bring.

[TO BE CONTINUED.]

A PROBLEM.

Whence did it come, from seed which in past time
Was sown by some forefather's sin and crime?

And is this thing accurat,

Only the natural fruit of violence
And wrong done to God's law, and hence
Of evil born and nurst?

If so, should he be outlawed, under ban
This weak, enslaved, and tortured man?

Is there no higher, holier plan
Which human heart can find?

To exorcise the evil, and set free
The soul so bound from its dread slavery,
No way which some far-reaching eye can see
To benefit and bless mankind?

MARY W. MCVICAR.

ZINC AND CLAY IN NEW JERSEY.—This enterprising little State now smelts from 700 to 1,000 tons of zinc yearly from her own ores, 850 tons from Pennsylvania, and more than 3,000 tons from Western ores. Another important branch of mining industry is 265,000 tons of fire clay, which sells

at \$3.50 per ton, and 20,000 tons of potter's clay, at \$4 a ton. This clay, according to the State geologist, is Cretaceous, forming the lowest member of the rocks of that group. The beds occupy a belt running from opposite Staten Island in the northeast part of the State to the Delaware Sound on its southwestern part.

THE RIME OF THE ANCIENT MARINER.

BY S. T. COLERIDGE.



SO passed a weary time; each throat
 Was parched, and glazed each eye,
 When, looking westward, I beheld
 A something in the sky.

At first it seemed a little speck,
 And then it seemed a mist;
 It moved and moved, and took at last,
 A certain shape I wist.

A speck, a mist, a shape, I wist!
 And still it neared and neared;
 And as if it dodged a water-sprite,
 It plunged, and tacked, and veered.
 With throat unslaked, with black lips
 baked,
 We could not laugh nor wail,
 Through utter drought all dumb we stood
 Till I bit my arm and sucked the blood,
 And cried, 'A sail! a sail!'
 With throat unslaked, with black lips
 baked,
 Agape they heard me call!

Gramercy! they for joy did grin,
 And all at once their breath drew in
 As they were drinking all.
 'See! see!' I cried, 'she tacks no more!
 Hither to work us weal;
 Without a breeze, without a tide,
 She steddie with upright keel!'
 The western wave was all a-flame.
 The day was well nigh done!
 Almost upon the western wave
 Rested the broad bright sun;
 When that strange shape drove suddenly
 Betwixt us and the sun.

And straight the sun was flecked with
bars
(Heaven's mother send us grace!)
As if through a dungeon grate he peered,
With broad and burning face.

The naked hulk alongside came,
And the twain were playing dice;
'The game is done! I've won, I've
won!'
Quoth she, and whistled thrice.



Alas! (thought I, and my heart beat
loud)

How fast she nears and nears!
Are those *her* sails that glance in the sun
Like restless gossamers?

Are those *her* ribs, through which the sun
Did peer, as through a grate?
And are those two all, all her crew,
That woman, and her mate?

His bones were black with many a crack;
All black and bare, I ween;
Jet-black and bare, save where with
rust
Of moldy damps and charnel crust
They were patched with purple and
green.

Her lips were red, *her* looks were free,
Her locks were yellow as gold;
Her skin was as white as leprosy,
And she was far liker Death than he;
Her flesh made the still air cold.

A gust of wind started up behind
And whistled through his bones;
Thro' the hole of his eyes and the hole of
Half-whistle and half-groans. [his mouth

With never a whisper in the sea
Off darts the specter-ship;
While clombe above the eastern bar
The horned moon, with one bright star
Almost between the tips.

One after one by the horned moon
(Listen, O stranger, to me)
Each turned his face with a ghastly pang
And cursed me with his ee.

Four times fifty living men,
With never a sigh or groan,
With heavy thump, a lifeless lump
They dropped down one by one.

Their souls did from their bodies fly,—
They fled to bliss or woe;
And every soul it passed me by,
Like the whiz of my cross-bow."





FEAR thee, Ancient Mariner!
 I fear thy skinny hand;
 And thou art long, and lank, and brown,
 As is the ribbed sea-sand.

I fear thee and thy glittering eye,
 And thy skinny hand so brown"—
 "Fear not, fear not, thou wedding-guest!
 This body dropt not down.

Alone, alone, all all alone,
 Alone on the wide, wide sea;
 And Christ would take no pity on
 My soul in agony.

The many men so beautiful,
 And they all dead did lie!
 And a million million slimy things
 Lived on—and so did I.

I looked upon the rotting sea,
 And drew my eyes away;
 I looked upon the ghastly deck,
 And there the dead men lay.

I looked to Heaven, and tried to pray;
 But or ever a prayer had gusht,
 A wicked whisper came and made
 My heart as dry as dust.

I closed my lids and kept them close,
 Till the balls like pulses beat;
 For the sky and the sea, and the sea and
 the sky
 Lay like a load on my weary eye,
 And the dead were at my feet.

The cold sweat melted from their limbs,
 Nor rot nor reek did they;
 The look with which they looked on
 me,
 Had never passed away.

An orphan's curse would drag to Hell
 A spirit from on high ;
 But Oh ! more horrible than that
 Is the curse in a dead man's eye !
 Seven days, seven nights, I saw that curse,
 And yet I could not die.

The moving moon went up the sky,
 And no where did abide ;
 Softly she was going up
 And a star or two beside—

Her beams bemoaned the sultry main
 Like April hoar-frost spread ,
 But where the ship's huge shadow lay,
 The charmed water burnt alway
 A still and awful red.

Beyond the shadow of the ship
 I watched the water-snakes :

They moved in tracks of shining white ;
 And when they reared, the elfish light
 Fell off in hoary flakes.

Within the shadow of the ship
 I watched their rich attire :
 Blue, glossy green, and velvet black,
 They coiled and swam ; and every track
 Was a flash of golden fire.

Oh happy living things ! no tongue
 Their beauty might declare ;
 A spring of love gush'd from my heart,
 And I blessed them unaware !
 Sure my kind saint took pity on me,
 And I blessed them unaware.

The self-same moment I could pray ;
 And from my neck so free
 The albatross fell off, and sank
 Like lead into the sea."





It is only by training all together—the physical, intellectual, and spiritual elements—that the complete man can be formed.

TEMPERANCE—SPECIAL AND GENERAL.

THAT kind of so-called temperance which is mostly abstinence from, and reprobation of, those indulgences and excesses that are uncongenial to our tastes or repugnant to our prejudices, is as plentiful as true philosophic moderation is rare.

You and I, dear reader, among many other things, often see such situations as the following: a hog-jawed, stiff-necked, simon-pure legalist, living with his third wife, a nauseous devotee of the very earthiest Venus, lecturing on the exceeding sinfulness of taking a glass of lager, or spending an evening at the theater; smokers inveighing against the filthiness of chewing; poor, weak women laying up rich treasures of neuralgia by strong tea and coffee three times a day, till they can't omit their favorite poison even one meal without that horrid headache—get them fired up with copious cups and a very little contradiction, and you will hear them declare that the man who sells liquor ought to be taken right out and executed; we hear chewers expatiate, and I think with reason, on the comparatively greater unhealthfulness of smoking; we see the young spendthrift wallowing in the grossness of every sty, look with pity on the industrious citizen who is killing himself with intemperately severe labor—in short, we are most of us great in some special branch of temperance; but temperance, the general principle, the moderate habit of mind and body, shining out through every deed, is another thing.

These are the pleasing vices which we pet, lick into their best shape, and defend; but on those for which we have no inclination or "gift," we lavish the full wealth of our virtuous indignation. Now,

I have ascertained that this partial temperance is little, if any, better than none. How I gained my knowledge, whether most by success or most by failure, do not ask me; this is a cheering inquiry to few; give my words their due impersonal weight—no more, no less. It is my heartfelt conviction that temperance is the best policy of every person at every moment of life. Well, then, what is temperance, and what is it not?

Temperance is a principle; not a schedule of items to be avoided, nor the voice of the majority, nor violent, legal interference with the tastes of others; it is not repression of any natural instinct, taste, or propensity—all this damming up in one direction only makes sure of unbalanced bursting forth in some other, or converts the fertilizing rill into the devastating torrent.

Temperance means simply to take true aim at the universal object of pursuit—happiness; it is the skillful steerage between some ever-present Scylla and Charybdis; to reconcile the rivalry of present and future—these two clamorous hungers between which our youthful shortsightedness imagines an enmity. Life is the vale down which we wander, cheered by its anesthetic friendliness or overburdened by its too lavish beauty; on one hand the icy peak where Reason dwells forever in winter-noon charity, on the other the high-uptifted cavern-sources whence life is fed and destroyed, the lurid volcanoes of passion, murky in oblivion, breathing vapor, red with the baleful light that casts a shadow like blood. On must we wander whether we will or no; to be

dazzled by the light or benighted in the smoke is fatal; it is for us to hold the habitable middle ground; one dare not lose the warmth of this diluted, infernal fire, nor the invigorating azure purity of the cold.

The conditions of life are all evil; we are chilled or roasted, starved or surfeited; but fortunately for us, all these pure evils are paired, and each and every one is corrected by its opposite. The conditions of life are all good, but each good uncorrected by its opposite is deadly. Good is not in the sweet and agreeable alone, good is not in any single quality of man or nature; it is the tasteful, well-balanced movement of all faculties and functions, the profitable yoking together of wills; it is to strike the average that nature can approve and crown with success. But I hear a call for practical inferences. Does all this mean merely a judicious mixing of water with our brandy; to take care our coffee is not too strong or too hot; to smoke no more cigars than the average of our peers? I should not so interpret it. Life is, and must ever be, mysterious; science does not penetrate its mysteries, but only discovers the fact of their existence. There is enough that is puzzling in the very simplest aspect of matters physiological. Indeed, the common habit of mankind in the conduct of life is to distrust science and theories, and rely mainly on their tastes and instincts. But the question arises: Does any natural taste demand anything beyond food? The child is satisfied with food, yet in every child are the possibilities of excess.

I prefer to class all stimulating or extralimentary substances as *agencies of immoderation*; and to say that strictly speaking there is no moderate use of them possible. Hardly any one whose opinion is of much value but will admit that it is safer to use too little than too much of them; well, carry the principle to its unavoidable conclusion, namely, that it is best not to use them at all. They are the external correspondences to the internal tendency to self-destruction, which has a place in every one's nature. It is a part of the perpetual discipline of life to have this ravenous hunger

for pleasure in some shape to combat. Why does it exist? It is not for us to inquire; it is not for us to find fault with the limitations of existence, but to take advantage of them. Perhaps without this leaven of original sin in every breast life would be too easy, stale, flat, and unprofitable. Our very obvious policy is to be educated by our errors instead of persevering in them, and trying to prove that they are not errors.

The aim in the use of all intoxicating or remedial agents is the same—namely, to get up a nervous excitement or pleasurable sensation greater than the organism naturally institutes of itself. It must obviously always be a destructive process. The aim in the use of all medicines, stimulants, and condiments, is to provoke the animal powers to greater reactive efforts than they can permanently maintain, or than they would undertake on their own conservative instincts. We desire more life; we find that there are various agents by the use of which we can stir up a temporary tumult of sensation. In the view of science or morality, which are the same at the base, it makes no difference what particular material is used—the point is in producing a certain effect. Habit, convenience, or personal taste may decide for each what poison or poisons he shall use; the principle is the same in the use of all, and every one does harm just in proportion as it seems to do good. A perennial delusion of a large part of the race is the faith in some drug that shall do good and no after harm. But it may as well be stated that this drug does not exist. How many new nervous excitants or anesthetics have been discovered within the last few years—hailed at first as the salvation of the suffering, but sooner or later found out for mere variations of the old, original Devilpact. What keeps up the delusion, I suppose, is that the seeming benefit of all modes of intemperance comes first, the evil later. It ought to be generally understood that all these means of procuring temporary advantage, anything above the normal unaccelerated rate of vitality, are equally and inevitably means of permanent disadvantage.

The direction of wisdom is upon that line on which science and morality converge—perception of the unvarying normality of nature; recognition of the truth that no abortion of the consequence is possible. With the fool everything is accidental or capricious; with the wise man everything is causal. The possession of any number of items of knowledge does not constitute wisdom without the animating soul of an ingrained belief in relativity. There is no isolated phenomenon; all events are alike well-grounded in cause; chance is only a name for our ignorance of cause. All actions are causes, and no prevention of their due consequences is possible—although by intervening causes the form of the effect may be modified. Everything must have its proper weight, no matter how much we squirm, and we can in no way escape the good and evil we have earned.

There is a wide-spread belief, or hope, that the consequences of our deeds may be dodged; that we may snatch the sweet and pass the bitter by; and by encouraging and pandering to this delusion, certain human institutions have their being—they are the natural penalty that superstition and ignorance pay for disbelief in law. There is not a township in this favored land, which, if it would withhold the tribute it pays to spiritual and medical quacks (counting money alone), would not find the money sufficient to support every one of its inhabitants in comfort.

What is the sub-conscious reasoning of the young man of average reflective powers, in his "fast days," when he is drinking rather more, as he sometimes suspects, than is good for him? It is much after this fashion: "A little wine is good, if it is of good quality, nearly all the doctors say, and they ought to know; many of them use it, and, in fact, so does nearly every one of any force. True, I sometimes drink rather too much; but I intend to stop that—certainly as soon as I see that it hurts me. As to the moral part of it, of course I intend to make the *amende honorable* to the Spiritual powers."

If there were no august body of learned and titled men claiming to wield the

perfected instrumentalities of science, and claiming the power to cure disease (rescue from the consequences of bad living), perhaps the young man would be a little more careful, and, feeling that his performances must rest on their own bottom, and could not be divorced from their consequences nor shouldered on any substitute, would be more concerned to inquire just what their consequences were likely to be.

What *are* the consequences of intemperance? Simply all the ills that flesh is heir to. This is no effete truism; yet intemperance maintains an enormous prestige (many a moderate liver is secretly ashamed of his unromantic deficiency in generous, dashing folly), and this costly vestige of devil-worship is bolstered up by numerous persistent hallucinations.

Another line of unreason by which we fool ourselves more or less is this: We observe many persons (always of extraordinary, original, physical solidity), survive many years of "fair to medium" intemperance with the possession of apparent average health, and straightway infer that the devil can not be as black as he is painted. The falsity of this conclusion is well hidden, yet may be dragged into the light. Man, in the matter of permanence of power to react against stimuli, is superior to all other animals. To kill a strong man by slow poison is a tedious process. But many a man is pretty thoroughly defunct in all the better part of his nature while yet legally and physiologically classed among the living. To the last man, those who have been successfully intemperate, are hardened, cynical, skeptical, devoid of poetry, enthusiasm, and affection. Their force has all gone in the self-preservative struggle against their favorite poisons. They are failure incarnate, the worst failures we can conceive of; mere larvæ of existence from which all but the coarsest animal power of feeling is burnt out forever.

If intemperance sinks the swinish brain still lower, its disorganizing effect on the fine-textured brain is still more pitiable. What seemed to touch Carlyle's mind in the most sensitive spot in his consideration of the French Revolution, was the thick atmos-

phere of suspicion which filled the whole land during one stage of the struggle. Is it quite far-fetched and irrational to imagine that he was sympathetically attracted to that aspect of the case by his own incipient disbelief in man and his works—suspicion which has since evidently ripened into certainty, sad as Solomon's, that the world has mostly gone wrong, and affords little at the present day worthy to excite any other feeling than contempt? Yet the world is the same exquisite *ensemble* of elysian lawn and frondage, embowered in rose-edged morning clouds, as once to his youthful vision—would he feel now so grievously disenchanting but for opium-eating and tobacco-smoking which lash on a powerful and too

active brain to the very dregs and sublimated sadness of thought? It is useless for the most fiery spirit to kick against the fact that mind is a product of bodily status.

We always commence our philosophizing at the wrong end of things; in the natural order moral teachings are second, not first; but impatient of the labor of physical observation, we jump prematurely to moral conclusions. How much eloquence on the beauties of tranquillity and serene good-nature would it take to help the dyspeptic wretch inflamed and maddened daily by half a dozen cigars, a drink or two of whisky, and three meals of fried meat? All moral questions have their physical being, and that is first to be studied. G. E. TURRA.

LAWS OF HEALTH APPLIED TO EDUCATION.

THE temperament or physical constitution having been duly considered, it may now be proper to remark that the teacher is not concerned merely in the imparting of knowledge to his pupils. A calm, healthy, well-balanced state of the body and of the mind of the pupils as well as of himself is of the first importance, and this can be attained only through the right use of the physical organization. Hence the teacher should aim to institute in the school-room every means within his reach to minister to the health of his pupils as well as his own; and if he will instruct them in regard to hygiene, especially as to personal cleanliness, pure air, right modes of living, the avoidance of bad habits, such as using tobacco, eating candy, cloves, cinnamon, and peanuts between meals, gum-chewing, etc., he can render them a service which may save them from becoming victims to depraved appetites, and thereby sow the seeds of reform and morals in many a future family. Some will never hear it anywhere else.

In the early training and management of children the parents should see to it that care, guided by knowledge, shall be devoted to the proper culture of the physical constitutions of their children, and the comforts and appliances by which a healthy condition of the body and brain may be secured and sustained. This work should not be left for the teacher; yet some parents will neglect it, and the teacher should supply the deficiency where it exists, and also aid parents who have wisely begun the work.

FOOD FOR CHILDREN.

A simple yet plain diet is indispensable. In England children are fed on plain food, and are not permitted to eat at the table with adults and to partake of the same articles of food. Milk, fruit, and wheat, ground without sifting, with oatmeal as a change, would probably be the best food for children before they are old enough to attend school. If they can be made to grow in harmony and health, and their temperaments be normally sustained, they will be ready for the teacher

when old enough to attend school, and will not come to him wearied, warped, and out of order, nervous, and fidgety, and fickle.

BAD AIR RUINOUS.

Perhaps teachers are not to blame that school-rooms are ill-ventilated, and hundreds of children are crowded into comparatively small apartments which are over-heated; and if they understood the subject, and would do their best to insure ventilation with the means at hand, and exert such influence on school commissioners as they could, the needed reform might soon be hoped for. As long as teachers seem satisfied, school boards, and the parents, their constituents, are not likely to take trouble and incur expense in the matter. A plenty of books and hard study are supposed to cover all the claims as to education, while the maxim "a sound mind in a sound body" is ignored. If by means of bad air a pupil breaks down, the result is charged to hard study and a noble ambition to rise in scholarship. We have lectured in many academic school-rooms which were filled with pupils during the day, and when adults came to be packed in as closely as they could be seated for the evening lecture the air was thoroughly stifling, and we have been obliged to employ carpenters to alter and adjust the windows so that they could be pulled down from the top, thus permitting the foul and over-heated air to escape; the only method of ventilation, previously, having been to raise the windows from the bottom, which would let in a rush of cold air directly upon the backs of the pupils, which of course could not be long endured, consequently they had no proper ventilation. In large towns, in these days, school-rooms are better ventilated, and at least windows

are generally arranged to pull down from the top. Pupils kept for hours in such apartments thus ill-ventilated soon begin to suffer. Their brains become overcharged with venous or un-oxygenized blood, their minds become stupid, their nervous systems suffer from irritation, and they can neither think to acquire lessons, remember them when acquired, nor comprehend their meaning. Parents know how difficult it is to keep children quiet at home or in church, and how natural it is for them to be active; yet they expect them to be kept still at school and behave themselves, as it is termed, when stillness, except they become stupified by the foul air, is next to impossible. An effort should be made, therefore, to provide children such school-rooms as will secure for them fresh air, which is about the cheapest thing in the world, and which more than half the people seem studious to avoid.

HOME-STUDY OFTEN PERILOUS.

Not only are children thus over-taxed with study under unfavorable conditions in school, but they are expected to take their books home, and many of them have to study till bedtime. When they return to school they are confined as before. This, added to the weariness of the previous home-study soon completes the work of deranging their health, both of mind and body. Then the noon-day lunch is frequently composed of cake or superfine bread and butter, or both, and pupils would perhaps scarcely fare better if they went home for their meal; and the result is they soon develop dyspeptical tendencies, irritability, nervous exhaustion, heat of brain, and confusion of mind. It is not to be wondered at that children crave holidays and a vacation. It is natural for

them to run, leap, struggle, and exercise in a thousand ways, in the open air, in the blessed sunshine. School-rooms should therefore be constructed in such a way as to be light, airy,



Fig. 11—PRECOCIOUS.

and roomy, with ventilation that shall change the air as often as need be, and sufficiently warmed for health and comfort in cold weather, in such a manner as not to burn out the vitality of the air, or over-heat the rooms.

SLAUGHTER OF THE INNOCENTS.

Pupils thus trained in school, surrounded by detrimental conditions and pushed in their lessons, especially if they be of the mental temperament, and therefore comparatively slender in constitution—and these are the ones that are most likely to be pushed, and to over-exert themselves—take a leading rank for a time in their studies, are very likely to go into a rapid decline of health and to early death. Teachers and parents have thus combined to drive the growing children to self-destruction through their over-mental exercises, and the usual lack of healthful, bodily action. The brilliant pupils cut down in the morning of life, with such eminent promise of future usefulness and distinction, of course are deeply mourned by all. The sorrowing friends are told at the funeral that “death loves a shining mark,” that “the Lord gave, and the Lord hath taken away.” True, “the Lord gave

and the Lord hath taken away” the brilliant loved one, the pet of the household, but, as a penalty for violated law. Of course it was a sin of



Fig. 12—MISCHIEF EMBODIED.

ignorance on the part of parents and teachers, and to this only is chargeable the early death of the precocious child. It has been “taken away” not vindictively, but as a natural penalty for the infraction of physiological law; a law as easily understood as a thousand other matters which teachers and parents learn and apply to the instruction and for the guidance of those under their charge. They are instructed in music, dancing, and drawing, in many games and accomplishments, and the same amount of study and effort would make them wise in the laws of health and life.

BOYHOOD AND MISCHIEF.

The burly, mischievous urchin who is too restless to study, and too full of fun and mischief to keep still, may retain his health passably well under the modes of management we complain of, for he can hardly be made to over-study, and though he is the mischief-breeder of the neighborhood, and a pest to everybody except to his forgiving mother, is not thus taken away by the Lord; and though he may violate all the canons of courtesy and good behavior in the neighborhood, he at least obeys one law, namely, that of exercise

and abundant breathing, and refrains from over-study; although he could be trained in such a way as to behave himself in the neighborhood, and to study in the school, and become an exemplary member of society, if he had a method of study and discipline in accordance with his constitution; but the precocious child with great brain and mental temperament, placed in the same school with this ruddy rogue, will study faithfully and break down, while the cheery, jolly boy will do as little as he can in school, and if he gets thrashed for his sportive recreations and deficient lessons, it is for him only another method of exercise; at all

events, he does not break down in health.

When precocious children under hot-house training are called to untimely graves, the old heathen proverb comes in, "Whom the gods love, die young." and that may be a consolation to the mourners; but they should learn that God's laws which relate to physical health are just as firmly established in the order of the universe as the moral laws, and while we obey the one, we ought not to leave the other unobeyed; therefore it is little less than blasphemy, to say that the Lord smites these little, slender children, whom we virtually destroy by our wrong treatment.

NELSON SIZER.

[TO BE CONTINUED.]

VEGETABLE DIET, VERSUS MIXED DIET.

THE majority of people in this country have adopted what is called a mixed diet; that is, a diet partly of vegetables and partly of flesh. It is generally believed by those who subsist upon animal food in part, that it is a more nourishing and more invigorating food than can be derived from the vegetable kingdom, and that without its use the body would not be properly nourished and sustained. "An entire abstinence from flesh," says Buffon, the naturalist, "can have no other effect but to enfeeble nature. If man were obliged to abstain totally from it, he would not, at least in our climate, either multiply or exist." This is, essentially, the sentiment of many flesh eaters. But is it founded upon facts, or is it merely the opinion of its advocates? This we propose to examine. Let us compare the real nutritive value of meats with that of grain, as has been determined by chemical investigation. Lean beef contains of muscle-making elements 15 parts in one hundred, 16 of heat-making, 5 of brain and bone-making material, and 62 parts of water. Wheat contains of muscle-making elements 15 parts, of heat-making 63 parts, of brain and bone making 1.6

parts, and only 14 parts of waste. Showing that a pound of wheat contains as much muscle making elements as a pound of beef, more than twice as much heat making, and less than a quarter as much waste or water. Not bad for wheat.

Let us compare oatmeal and mutton together. Mutton contains of flesh forming elements 12 parts, of heat forming 40 parts, of brain and bone making 3.5 parts, and 44 parts of waste or water. Oatmeal contains of flesh or muscle making 15 parts, of heat making 66 parts, of bone and brain making 3 parts, and only 13 parts of water. Showing that oatmeal contains as much muscle making elements as either mutton or beef, far more heat making elements, nearly as much bone and brain making elements, and less than a third as much waste as mutton, and only about a fifth as much waste as beef.

These facts clearly show that the vegetable diet is in nowise inferior in nutritive qualities to the flesh diet, but, on the contrary, is superior. But how are we to explain the almost universal testimony of mankind to the contrary; namely, that their sensations after eating of flesh cause them

to believe that it is more substantial and more nourishing? It is to be explained by the fact that a flesh diet is more stimulating than vegetable diet. It stimulates the stomach and the whole system, and under the effects of this stimulation the subject feels more strength than he in reality possesses. Just as the dram-drinker while under the influence of his potations feels a strength which, when the liquor is gone out of his system, he finds is not his own, but has departed. Thus it is with the flesh eater. While he is under the influence of meat diet he feels strong, but deprived of it or changing it for a vegetable diet, he misses the stimulation, and really believes himself so much the weaker for the change. A purely vegetable diet would not be objectionable from any want of nourishment, for it is clearly proved by chemical analysis that vegetable diet is all sufficient in nutriment to meet all the wants of the system.

A mixed diet is objectionable on account of being less adapted to the digestive organs. The digestive organs adapt themselves to the kind of food supplied. The gastric juice changes its character to conform to the kind of food eaten. The gastric juice of an animal which eats flesh only, is different from that of a vegetable eater, insomuch that if vegetables be given to such an animal it will be unable to digest them. But if the change be made gradually, the stomach will accommodate itself to the change in food, and a complete change be at last effected. Thus, a sheep may, by gradually changing its food, become habituated to flesh food, and its gastric juice become suited to its digestion, so that after a time it will be unable to digest vegetable food. Lions, and tigers, and other carnivorous animals may, in like manner, be changed from flesh eating to vegetable eating. Cats have been reared upon a vegetable diet, and found to refuse all kinds of animal food when offered to them.

Now, in case of a mixed diet where flesh and vegetables are eaten at one meal, and vegetables only at another, or otherwise, it is manifest that the gastric juice can not be

suited to the digestion of both kinds of food, since it is well known that the secretion which is the best adapted to the digestion of one kind, is least adapted to the other. Hence, if both kinds of food are used the stomach will have to adapt itself as best it may to the digestion of the many different kinds of food. What happens under these circumstances? What might naturally be expected, the stomach is enfeebled and digestion impaired. It is found that vegetables which are more difficult of digestion than flesh disagree with the stomach, and they have to be rejected one after another till only the most simple can be taken. This is usually the case where flesh predominates in the diet to such an extent as to adapt the gastric juices to its digestion. If vegetables have predominated, then it will be found that meat is more apt to disagree with the stomach. It seems to be a plain dictate of nature that either one or the other kind of diet should be chosen, not a mixed one.

The manifest tendency of the ages is toward a vegetable diet. In the early and barbarous age, where the population is scattered and wild animals abound, a flesh diet preponderates. Where civilization advances and the number of men increases, then recourse is had to cultivation of the soil, and vegetable productions form a large part of the food of man. To show the difference in the amount of land required for the sustenance of man upon flesh or vegetables, it has been estimated by some writers upon political economy, that the soil which is necessary to raise animals enough to support one man upon flesh wholly, would produce vegetable subsistence enough for *sixteen* men. Necessarily, then, in the future, when population becomes very dense, the "coming man" will undoubtedly be a vegetarian of the radical kind.

H. REYNOLDS, M.D.

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TOBACCO IN THE SICK ROOM.—We have heard of ladies becoming so much disgusted with the odors of tobacco about their physicians that they dismissed them and employed others who would be free from such

irritating accompaniments. And they did right. The smell of a man who is thoroughly saturated with tobacco is as hard for sensitive nerves to bear as many forms of acute disease. But here is a case more serious. A Christian lady lay on her deathbed. Her pastor visited her, and in order to be tender toward her in her weakness, leaned close to her ear when speaking of Jesus and the hopes of the Gospel. She

heard the words, but they failed to give consolation, for with every sentence there was a breath of tobacco which seemed to poison all his ministry. He retired, and ere he had time to come back she had passed away, not, however, without having first requested that her funeral services might be dispensed by a minister who would breathe no nicotine over her coffin.
—*United Presbyterian.*

COMMON SENSE.

A WISE man once said that "After a long life and great observation he had found that there was nothing so uncommon as common sense," and he was doubtless correct. Whether modern training and education push common sense off the track, or whether it is dying out, is hard to tell; but one thing is sure, the most learned people are usually the ones most lacking. For instance, there is no class of men who more frequently abuse themselves than the men who know all about themselves—the men who have made physiology and anatomy a study—viz: physicians and surgeons.

This seems to be true all the way along the line, and the men and women whom the world should look to for examples of health and practical common-sense are frequently nothing but stumbling-blocks. When we do chance to find one really in earnest, here we are in trouble again. What is good for him is good for everybody, and in attempting to guide our lives by his we find that we should be very soon relieved of all responsibility. With few exceptions, I have honestly found that the majority of those who take the wisest care of themselves are those who know little or nothing educationally of the human organism. In this, as in other things, familiarity seems to breed contempt. These people find out practically, not theoretically, what line of conduct is productive of the best results, what agrees and what disagrees, and then stick to it.

"Will you have coffee or tea?" inquires the country hostess at breakfast."

"Oh, coffee, please. I never am good for anything till I have my coffee."

She looks very pretty in her white figured wrapper; her waist is small, and there are darkish rings under her eyes, and she is always ailing; still a few weeks in the country will do wonders, although her nerves will never be strong. She is aware of this, and looks so resigned as she passes her cup to be refilled. The lady at the coffee-urn probably never read a hygienic work in her life, and she drinks neither coffee nor tea, but warm water, and milk and sugar.

Of course, "slops!" and not to be recommended to anybody, still the one who drinks the slops eats a hearty breakfast, and the one who drinks the coffee never does eat much breakfast; in short, coffee is all she can take. The hostess goes about her work and the guest reclines. She can't think what the matter is with her; she feels so faint, so utterly languid, "so," to use her own not very elegant phrase, "dug out." Is there any physician she can consult about this deathly faintness? It is singular, she always begins to feel better toward night.

"I used to feel just so when I drank coffee," says the slop-drinker, "and after awhile I thought I'd try going without it. I substituted chocolate, but that made me heavy and dyspeptic. I then tried milk. That wouldn't do; and finally I hit upon the warm water, milk and sugar. In two weeks' time I could eat an excellent breakfast, and now I would as soon think of drinking poison as coffee. You see I was nervous enough naturally."

That was it. Here was the key-note to the whole tune. The other woman was built on the same high-pressure principle, and effects were alike; but she who had read many of the hygienic treatises published preferred to pamper her appetite and suffer the consequences.

"One's meat and another's poison" was never better illustrated than in this matter of coffee-drinking. That coffee may be good for some, I believe; that it is rank poison to others, I know. If coffee satisfies the appetite, it is not good. If it produces that feeling of faintness, that gnawing at the stomach of which so many complain; if it is followed by nervous irritability, it is not good, and all the tonics in creation can never build up what coffee tears down. The woman who can not work until she has had her coffee, had better postpone her work until her nervous system can be toned down to its normal condition again.

Now, everybody, owing to abnormal gastric condition, can not eat oatmeal, though sometimes the very person whose stomach can not take care of it in the morning, can eat oatmeal gruel in the latter part of the day with relish and profit. With many everything depends upon beginning right in the morning. Men and women who use their brains considerably, and especially those who are not good sleepers, should be extremely cautious about the first meal. In certain cases of dyspepsia I have known boiled rice to work wonders. A well-known and justly-celebrated actress, Mrs. Farren, who has played so long in Brooklyn, and who keeps a motherly eye on the younger ones in the profession, once told a young gentleman in the same company that if he would eat boiled rice three times a day for three weeks, and nothing else, he would certainly recover from dyspepsia.

"I was so ill," he said, "that I was finally compelled to give up my engagement, having been sick a year, and so reduced in strength and flesh as to appear to my friends in the last stages of consumption. I ate the rice for the time stated, varying the trimmings from meal to meal—sometimes eating it with milk, then with a little

butter and sugar, and sometimes with butter alone. At the end of the first week I was so much improved as to think seriously of beefsteak, but my physician was inexorable, and I kept steadily on. At the expiration of three weeks I was very cautiously introduced to other articles of diet, and I have never had a moment's dyspepsia since."

He drank *very* weak tea. This, of course, might not do for every case, but since this at least half a dozen confirmed dyspeptics have had reason to be very grateful to Mrs. Farren through my recommending her cure. (The principle of the cure is the simplicity of the diet.—ED.)

No two organizations or temperaments are precisely alike, and every man's stomach must be a law unto himself, and there is no law against a man's poisoning himself if he is so disposed, though it is hard to sit by and watch the process. Hundreds of women who would faint away at the thought of getting drunk, daily intoxicate themselves with coffee and tea, an intoxication almost, if not quite, as wearing as that of alcohol. Why not study ourselves, to see what our nerves and stomachs can take care of, and then see to it that they are properly protected. ELEANOR KIRK.

COMPARATIVE EFFECTS OF ALCOHOL, MEAT, ETC., IN SUSTAINING FATIGUE.—Dr. E. A. Parks writes in the *London Practitioner*:

"The experience gained during the Ashantee campaign showed that total abstinence improved the health, and that alcohol, though apparently beneficial when given with food after the day's march was done, was injurious while on the march, the reviving effect passing off after, at the utmost, two and a half miles' march had been accomplished, and being succeeded by languor and exhaustion as great or greater than before. When again resorted to, its reviving power was less marked; and its narcotizing influence was often traceable in the dullness, unwillingness to march, and loss of cheerfulness of the men. Meat extract, on the contrary, in quantities of not

less than half an ounce at a time, was not only powerfully reviving, but sustaining, and so was coffee, though to a considerably less extent. This evidence in favor of meat extracts is of great value at the present time, when their power to act either as food or stimulants is so much disputed. The sustaining power of thin gruel, made from boiled oatmeal, during heavy work is well shown in one of the appendices. This agrees perfectly with the observation of

Alpine travelers, that small quantities of food at short intervals prevent exhaustion, and with our own experience that, although unaccustomed to exercise, we could carry a knapsack for thirty miles a day without fatigue by simply taking something to eat every two hours."

These views accord in the main as regards alcohol with Dr. Richardson in his Cantor Lectures, and add to the accumulating testimony against that poisonous agent.

THE BLACKBERRY: ITS HISTORY AND USES.

"Going a Blackberrying"—History—American Fruit—Varieties—Uses—Culture—Centennial Pic-Nic.

THE approach of the blackberry season suggests rare pleasures, mingled with such risks, pains, and penalties as season the pleasure with a rare relish. All this is wrapped up in the suggestion of going a blackberrying on the mountains. In many parts of this country that is an important part of the yearly programme in every farmer's family. The selection of a cool, pleasant day, when the horses can be spared, the adjusting of other business to suit, the early rising, the hurried breakfast, the packing of baskets and pails and lunches into the big wagon, the hunting up of old umbrellas, the donning of thick gloves, deep sun-bonnets, and picturesque dresses, not made of tartan exactly, but doomed to resemble it before the day is over; the calls at the neighbors, which make the load more romantic, and then the people, young and old, are fairly ready for a summer excursion that eclipses for pleasure and health and profit all the balls of the season. Of the fun and flirtation, of the lunch and the drink at the spring, each memory must tell for itself, and many a reader's memory must be busy now with the actual incidents of such trips.

HISTORY.

This fruit has had a bad name since time immemorial. "Brambles," to be sure, and "bramble berries." This is the common name in England now, where they grow in great abundance, but where no one cultivates them, unless they have recently introduced our cultivated sorts. Formerly they

were not even enumerated among fruits. An English writer says that they are very grateful for the slightest attention in the way of culture, but it is evident from the descriptions that they do not have our best wild varieties. They have delicate pink flowers and globular purplish-black berries, of a sweet, mawkish flavor, so unsuitable for cooking that London affirms that a single berry will spoil a pie. Another kind is described as much better, which seems to resemble our early morning vine blackberry.

Linnæus tells of the Arctic or dwarf crimson, which was often his sole refreshment when botanizing in the far north. He says, "I should be ungrateful toward this beneficent plant, which often, when I was almost prostrated with hunger and fatigue, restored me with the vinous nectar of its berries did I not bestow on it a full description." Another kind called the "cloud-berry" is described as yellow when ripe, and of very fine flavor, but still uncultivated. Among all these, though called by the same name, "Brambles," we do not recognize our favorite American fruit.

VARIETIES.

Our cultivated blackberries all originated in our native fruits, on which they are a great improvement, and this improvement is still in progress. The Lawton, grand and sour, so lately the furore of the nurseries and the admiration of the market, is already displaced in popular favor by the Kittatinny and the Early Wilson. The

Lawton is really a good berry if left on the vines until sweet and soft, which is not till some time after it turns black, but the canes are not hardy, and in the North they are often winter-killed. The same objection lies against both the other kinds, but the Early Wilson is so low and pliable that it can be laid down and protected without

It is said that the State of North Carolina alone shipped \$500,000 worth last year, and that there are in South-western Georgia thousands of acres which yield enormous quantities of blackberries. Of the wholesomeness of the blackberry we have rarely heard any question. Indeed, many old-fashioned people call it medicinal, and it



THE KITTATINNY BLACKBERRY.

much difficulty. The Dorchester is much more hardy, but not so productive. Here is room for experiment, the want being a good berry abundantly produced on canes that are hardy at the North.

It is not generally known that this fruit does well at the South, a large share of our dried berries coming from that quarter.

has long been the favorite remedy for dysentery, a decoction of the roots or of the young stems, as well as the fresh fruit, being taken for that complaint.

Of later years it has been discovered that the fruit is equally valuable for constipation, and it has had the rare reputation of being able to bring the system just right

from either inclination. To many drug-blind people this is a great mystery, a natural wonder, the idea probably never once crossing their minds that this was due simply to its being a perfectly wholesome food.

There are very few fruits which we can eat when fresh so continuously and with so much satisfaction as the blackberry. There is nothing in its season upon which one could live better if he were disposed to try an entirely fruit diet.

USES.

After all this I am sorry to say that it is a fruit which does not admit of much manipulation. Blackberries that are very good when fresh are of little or no account when simply stewed. Without sugar, and sometimes with it, they lack flavor. When canned there is, of course, a similar difficulty, though if canned without water, after the fashion recommended last month for raspberries, they will be much more palatable. They make good pies, ambrosia, and puddings, but their juice will not add much besides color to pudding-sauces. All these remarks should be somewhat modified to allow for the difference between the wild and the cultivated fruits, the latter, certainly, being the better, and yet hardly worth raising for either drying or canning in the presence of so many better fruits as we have. Still they are improving rapidly, and some of them are already worth devoting to such uses, so we will give some attention to the subject of

DRYING.

Care should be taken to secure those which are in the best condition; if unripe, they will be bitter; if too ripe, they will be seedy and tasteless. They should be dried in the sun, either with or without a sash over them, and since they are tolerably firm they may be spread on smooth, clean boards. If not thoroughly dried they will not keep well. For home use they should be packed in cans or jars; for the market in clean barrels, keeping each different quality by itself.

CULTURE.

What we mostly need for the blackberry is higher culture. It has been but a short time in the gardener's hands, and we have

reason to expect great improvement in it yet. Amateurs will find it an excellent subject for experiment, both as to productiveness and quality. It will not, however, bear the high fertilizing that may be bestowed upon some other fruits. The land should be neither very moist nor rich nor heavy. Light and even gravelly soil will do well if mulched to prevent drouth. Plow deep and plant in the fall. If the soil is really poor, use muck compost or any fertilizer not heating, placing it along the rows of plants, which should be set about three feet apart. They will soon spread and fill up the rows to about one foot apart, and this distance should be maintained, cutting out the surplus shoots when young with the hoe or knife. When those which are left for the succeeding year's fruit are about four feet high cut off the tops. The next spring shorten in the side-shoots one-half or two-thirds. If left to bear all the fruit that would set upon them at full size, the berries would not be so rich and juicy as when thus trimmed. In the fall or the spring the dead wood should be cut out, and the shoots of the previous year left for fruiting.

When kept low they are not so likely to winter-kill. The more slender kinds can be laid down and partially covered, and sometimes the more stocky kinds can be partially protected by covering them with branches of evergreens. In the State of Maine we have seen various kinds of shrubbery protected by placing on the sunny side evergreen branches or young trees, which answer the double purpose of protection from the sun and of detaining and heaping up the snow, which also protects the plants.

Of course, any extended amount of culture would require more information than we can give in our limited space. The most we can do is to call attention to the fact of the susceptibility of culture possessed by this American fruit, and hint at the advantages which we may hope to reap therefrom. It is not at all impossible that we may yet obtain from the blackberry a fruit nearly, if not quite, as good for canning and drying purposes as the strawberry or the raspberry.

CENTENNIAL PIC-NIC.

The difficulty of obtaining wholesome board away from home is frequently sufficient to prevent the consistent hygienist from undertaking many a trip which otherwise would have great attractions. Not a few have thus been detained from visiting the Centennial Exposition at Philadelphia, and not a few would yet go if they were certain of securing what is requisite to their health and comfort. There is a hygienic hotel near the grounds, as already announced in the advertising columns of the *Science of Health*. This serves wholesome food for those who have the money to spend, and it is not unreasonable in its rates. The way to this is open. Still there are many others who would attend if they could do so at a still lower rate of expense, and not sacrifice the diet which they find necessary.

A word on this point. Hygienists are often reproached with forming habits of diet which prevents their eating what is placed before them on all occasions wherever they may be. Very well; it is inconvenient, we admit that, but ought a person to eat wrong all the time in order to keep themselves in readiness to eat wrongly when they are visiting or traveling? Besides, very many of those who eat correctly owe to that their ability to eat at all in this world, and in such a case it is surely worth some sacrifice and trouble. Besides this, very often through the consistent right-eating of one individual many others may learn that which shall lead them more or less in the right way, and so the truth spreads and prevails.

Let us see what can be made available to hygienists of small means who wish to visit the Centennial Exposition at Philadelphia.

Suppose, first, that the visit is to be for one week only. In this case sufficient bread, crackers, etc., can be carried, while fresh fruit must, of course, be obtained from the market. First come Graham crackers and wafers for those who like them, being careful to put them in some tight enclosure like a tin-box, so that they may not be tainted by anything else. Next oatmeal crackers, made with or without

cocoanut, will be found very available. Schumaker's "A" oatmeal makes the best (wet up like the pie-crust recommended among our recipes). Those made in a plain manner are the most acceptable for a great length of time. These when dry should be firmly packed in fine or "A" oatmeal, also in tin, when they will keep sweet and good indefinitely. Finger-rolls of fine Graham flour may be made plain, with cocoanut or with grated green-corn. When quite cold pack them, also, in oatmeal in tin, and they will keep from seven to ten days, or even longer, though at the last they will be much improved if they can be dipped in water and freshened in a hot oven. Closely-covered tin-pails answer well for these packings, provided the covers are well secured, so that the baggage-smashers do not scatter the contents throughout your trunks. Dried sweet-corn which has been cooked before drying can be soaked out in cold water, and made an agreeable dish. The parched oatmeal and the wetted oatmeal will add variety, and all this, with an occasional dinner at a restaurant where the vegetables are not very highly seasoned, and where you can eat your own bread, will enable you to pass the week very comfortably.

A longer stay can be provided for by getting quarters where you may be allowed the privilege of cooking a dish of oatmeal on the stove for breakfast, and by adding to your stock of supplies some baker's Graham bread or some Boston brown bread. We must acknowledge, however, that we did not find Philadelphia a good place for obtaining such articles, and we concluded that the people were not well instructed on the subject of hygienic living.

Another method is to take a kerosene stove, which has been tried and the newness burned off at home, and then by taking a room in the uppermost story and stipulating for the privilege of using the stove and of cooking nothing greasy or with a disagreeable smell, you can do admirably for an indefinite length of time. We found people who diminished their boarding expenses to a dollar and a half per day for two, in some of these ways, thus securing health to themselves and a longer stay at the Exposition.

JULIA COLMAN.



Department of Literature, Science, Education.

True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

HOW TO TEACH;

OR,

PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY

INTELLECT, THREE-FOLD.

WE have explained under the head of "Temperament" the difference between one pupil and another, as to aptitude for study, exercise, physical exertion, and mental labor. We come now to say that there are, speaking generally, three kinds of intellectual tendency. These tendencies come under the head of Perception, Memory, and Reflection. Those who



Fig. 13—LARGE PERCEPTIVES.

are very full in the lower region of the forehead, whose heads are long from the opening of the ears forward to that region, the temperament being favorable, of course, will be quick to perceive things and their qualities. They will gather knowledge rapidly, will catch educational facts with an avidity illustrated by the manner of chickens

when corn is scattered among them. The chickens do not stop like a squirrel to nibble, nor like a rabbit to masticate, but they grab and swallow the grain. So pupils, the lower part of whose foreheads are very full and prominent, seize upon facts as soon as they are presented, and become instantly masters of them.

Speaking with a little more particularity, we may say that for every quality of matter there is in the mind a corresponding faculty.

PERCEPTIVE, OR OBSERVING FACULTIES.

Individuality takes cognizance of things as mere existences without reference to shape, bulk, density, color, number, order, time, or place. It appreciates the divisibility of matter. The part of speech in grammar called *noun* relates to this faculty and its work. There are other perceptive faculties which judge of other qualities of matter besides mere existence. These are *Form*, which judges of shape; *Size*, of extension, magnitude, or bulk; *Weight*, of density, or ponderability; *Color*, of hue; *Order*, of arrangement, or method; *Calculation*, of number; *Locality*, of direction or place; *Tune*, of sound, and *Time* of duration. As these relate to the qualities of things mainly, the term adjective is used in reference to their action.

HISTORICAL MEMORY.

Eventuality, located in the center of the forehead, relates to history, motion, facts, and transactions, and here comes in the verb. When we speak the word "horse," the faculty of Individuality instantly has before it the



Fig. 14—EVENTUALITY LARGE.

appearance of the animal in question; the horse, in the abstract, is there, and the grammarian recognizes it, or its name, as a noun. But when we say, "It is a large, handsome, dark-bay horse," the faculties of Form, Size, and Color recognize these qualities, and the grammatical term adjective expresses those qualities; and when the horse moves, it is an action, an event, recognized by *Eventuality*, and then that part of speech called verb is brought into service. The pupil to be a good grammarian needs, especially, all these faculties which relate to nouns, adjectives, and verbs.

It must be evident to the teacher, when he sees one child deficient in this region, and another which is eminently developed, that they can not properly be classed together, or taught alike. The one with a prominent brow will learn facts and things perhaps ten times faster than the other, and the question is whether the boy who is dull in respect to facts and things shall hinder twenty boys who may be as quick as a flash in reference to these matters.

But before we are through we will endeavor to bring to view some compensating thoughts in behalf of this dull boy.

REFLECTIVE, OR REASONING FACULTIES.

The *Reflective* or reasoning organs are located in the upper part of the forehead, and those in whom that part is large, or those in whom the head is long from the opening of the ear to the region of the forehead, will show a corresponding tendency to consider the abstract and philosophical side of subjects. If these persons are moderately developed in the lower part of the forehead, they will go from principles to facts. Comprehending principles first, they will appreciate the necessity for facts, and hunt for them. They are like the architect who builds the house first on paper and then goes out and looks for the material with which to erect it, while he who has a large lower forehead gathers facts rapidly,



Fig. 15—REASONING ORGANS LARGE.

and may desire to know their meaning and value. Such an one is like him who, in the progress of his business affairs, buys timber, lumber, bricks, and other material, and when he has accumulated all the parts or factors of a house, casts about to see what he shall do with them, and concludes on reflection to build a house. A person with a large

upper forehead inclines to thumb his book through, at least to read the chapter-heads, and see in some measure what he has to expect in reading the book. As a student he studies the rules of his text-book, and goes back from the rule to the practice, and thinks out every problem in arithmetic, in grammar, or mathematics. One in whom the perceptives are predominant and the reflectives are deficient, learns the forms of procedure quickly, will be very flippant in his studies if little thinking or reasoning be required, and may work out results, but will not be able to explain why he does this or that, or why the results should be as they are. It often happens, therefore, that those boys who are dull in regard to the preliminary studies, who are slow to gather facts, and whose memory is poor, will be regarded as dull and unpromising. They have to be "coached" by other pupils in arithmetic, and in the preliminary details of various subjects of study; but when they arrive at fifteen or eighteen years of age these square-headed boys who, like winter apples, are becoming ripened, are able to help those early smart ones, having the retreating forehead, in the higher branches of mathematics and philosophy.

If a boy have an equal and ample development of the lower part of the forehead, of the middle section, and of the upper; in other words, if he have a long and prominent development of the forehead, and one that is harmonious in form, with a favorable temperament, he will be equal to the best in perception, will gather a knowledge of facts and things quickly, will treasure up and remember what he has learned, and as he advances where more reasoning power is required he will be competent for that place. Such persons

will do very much toward educating themselves; they will require but little instruction; will make rapid progress, attaining steadfast footing at every



Fig. 16—BALANCE OF INTELLECT.

step; and these are they who become strong, sound, comprehensive, and powerful.

We suggest to teachers the propriety of classifying pupils in such a way that those with retreating foreheads and prominent brows shall be together; those who are full in the center of the forehead, who gather and retain facts and history shall be together; those with square, heavy foreheads at the top and deficient in the base shall be together; and those who have an equal and large development of all the parts or regions of the forehead shall be allowed to work together; and thus let each class make progress as fast as it may, while the teaching shall be so varied as to be adapted to each class according to the mental peculiarities of its members. In this way teaching would lose half its weariness, and pupils could be pushed forward with less drudgery to themselves, and would make, perhaps, twice as much progress as they now do. Putting pupils of all kinds of temperaments and developments of mind into one class, and trying to establish some general system of teaching that shall answer for all, is largely a waste of

time, patience, and strength on the part of the teacher, and none of the pupils in that way can be properly taught; but the teacher who will divide his pupils into such classes as can take a given line of explanation and instruction profitably, will find his work much easier than it is in the ordinary way, and will achieve a far better reward for his efforts. In one case his instructions will be full of facts, and in that manner he will invite the pupils up toward ideas. In another case he will get hold of the idea, the theme, or philosophy of the subject, which will awaken in the pupils an interest to follow the teacher toward the facts. In a case in which the three qualities of intellectual faculties, viz., *Perception*, *Memory*, and *Reflection*, are equally developed, the teaching may be done in three ways. The principle may be stated and the facts inferred; the history may be given and the principle inferred; or the particulars may be set forth, as in object-teaching, and the pupils will follow the teacher as fast as he can travel toward the conclusion. Thus, following a course adapted to the peculiar talents of different pupils, and classifying them accordingly, the results of instruction might be made much more equal than they generally are, and the pupils, when they finally left the school, would be much more nearly on a par with each other in regard to scholarship and preparation for life's duties. As it now is, some pupils are but superficially educated, and go into the world knowing but little which will qualify them for their duties. Another set of pupils become theorists, and, knowing but little of practical life, become philosophical and theoretical failures. Another set, the well-balanced and harmonious, in spite of the fact that half the labor of the

teacher in their behalf has been wasted or ill-adapted to their needs, nevertheless leave the school fairly furnished for the duties and labors of life, and are they who are most likely to take a useful place in the world and rise to distinction. Yet, if they could have had, during all their school days, a course of instruction adapted to their own development, and had not been obliged to wait idly for the dull and awkward, they might have had double the amount of culture, and been able to take a place at twenty-one which now they have to work ten long years to reach. Teaching, wisely predicated on temperament and mental organization, would double the amount of education attained during school-life, and promote the power and influence of graduates in an equal degree. As we firmly believe this to be true, we do not over-estimate the importance of our theme.

NELSON SIZER.

[TO BE CONTINUED.]

MY TREE.

RIGHT in front of my snug, little third-story nest a tree rears its head thirty or forty feet above *terra firma*. To me it is not so much a tree as a friend. When it was a little sapling, scarcely reaching the lower windows, I used to look down upon its topmost boughs; now the lower ones hide them from my view. My tree, equally with my human friends, has its own distinctive character. The bark is a pale green, stretched smooth and sleek over a regularly rounded trunk. The leaves hang on petioles so slender that the lightest wind-breath makes them flutter and tremble; and they whirl so wildly when there is a gale, that one wonders how they retain their hold on the parent tree. They sym-

bolize those mirroring souls dancing merrily, radiantly joyous, in the light of love, but in coldness or hatred, quivering wildly, madly, for a brief while, then still forever.

In the early spring my tree covers the ground with its catkins, and the children play with their velvety softness, and hail them as harbingers of approaching summer; while some older and wiser heads place their blossoms under a lens, and resolve the fair brown into flowers of gold and purple fit for the robe of a king.

When the catkins fall, the shadow of the white and green leaves makes the finest playground imaginable; and, oh, the tales a single summer's foliage could tell if voice were given to it! a whole world-history in miniature—animosity, love, revenge, generosity, deceit, truth—all the vices and virtues of humanity as shown by these embryo men and women.

My tree is no drone in this terrestrial hive, content to die and leave no trace; but its roots have sent up a grove of young trees, and soon, if unmolested, a shady park will some morning startle the early traveler, where he supposed only a vacant lot existed in the heart of the city.

In the autumn my tree dons its transition robes of bright gold, flecked with brown or delicate vermilion, the leaves flutter down to the ground, and little children and young maidens bind their tresses or garland the rooms with them, and again the mingled life-drama of tears and laughter is enacted under my window, as the little ones tumble amid the now dry and rustling leaves.

Now the harsh winds of November have swept over the land, the boughs are naked, and from my window I look down on the busy throng of the street. Would I change the varying beauty,

the sweet, silent lessons of Almighty goodness which my tree teaches for this view of *human* life? No; in that is rest and soothing; in this, work, turmoil, disappointment.

But look! the fallen leaves have left behind them a new lesson for the cold, dark, wintry days—a lesson of immortality.

Ere each slender petiole released its hold on the parent bough, it nursed a bud for the next summer's verdure. The snow may cover, and the ice encase it, as they do the silent mound in the cemetery, but the bud is set, and the promise is sure that the dead shall rise again.

Long may you flourish, my beautiful tree!
Noble and graceful and fair to see;
You can e'er tell what your life is to me,
Teaching alike in heat and cold,
Teaching a lesson that ne'er grows old,
Blessing the young and cheering the old.
Nearer to heaven each day you will grow,
Yet deeper and deeper your roots ever go,
Like the life of a saint, half above, half below.

LODOLA.

AN ANGLING FISH.

AS the different spheres of scientific investigation enlarge and reveal to us the wonderful things of nature, we find plant, insect, animal, possessing habits which in one way or another approximate or represent activities or functions which we were accustomed to regard as peculiarly human. Discoveries in the life of the bee, the spider, and of the ant, have startled us by their showings of intelligence in those little insects. As it is with living things on the land, so in a measure it is with the inhabitants of the water; fish show an adaptation of function and an instinctive realization of cause and consequence which are little short of startling to the observer. In our engraving is the representation of a member of the finny tribe which possesses a characteristic of singular interest. The ability to ply "ye gentle art" of the much



respected and venerable Walton is by no means a monopoly of man, but is found to be possessed by even a fish, and to be exercised by him for the gratification of his appetite.

According to the *Australian Sketcher* the chironectiform, the fish illustrated, is provided by nature with an apparatus for angling. This consists of a flattened, bony member, covered with granulated skin, and working on a universal joint, and having a thick muscular base. At the end of the bony shaft is a semi-spherical gland, resembling much in form the seed vessel of the gum tree (eucalyptus), covered in its front aspect with a brilliant nacreous integument, and having an aperture connected with its interior. From this gland rise several soft branches with white shining worm-like filaments at the tip of each. The chironectiform is found in the vicinity of New Zealand. A neighboring European

genus—the lophius or angler—which also has an attracting apparatus, but much less complicated, is stated to crouch close to the ground, and, by the action of its fins, to stir up the sand or mud. Hidden in the obscurity thus produced, it elevates its appendages, moving them in various directions by way of attraction or as a bait. The small fishes which may approach, either to examine or seize them, become the prey of the fish. We must grant that the habits of the present fish may be somewhat similar, but that superior attractive power is given it by having the nacreous lining to the gland at the base of the filaments, which shines under water like a mirror. The fish is represented in a dark nook at the bottom of the sea, awaiting the approach of a victim. The reader's attention will be drawn to the armature of spines on this specimen, which must prevent all but very hungry monsters dining off it in their turn.

PRIMARY DEVELOPMENT OF THE NERVOUS CENTERS IN VERTEBRATE ANIMALS.

IT is the object of this memoir to lay before the scientific public certain facts as to the development of the nervous system in vertebrate animals, and to point the bearing of such facts on the generally-accepted doctrines of psychology. Having established and cultivated a colony of mice in a closet connected with my apartments last winter, I managed to obtain specimens of all ages, from embryos *in utero* to fully developed animals, with a view to observe the development of the brain from the first appearance of the cerebral vesicles to its maturity. Over fifty dissections were performed in the course of the investigation, one of the objective points of which was to trace the successive development of the nervous centers, and to remove certain obscurities as to the relation of the cerebral cortex to the general ganglionic structure.

Prefacing the observations that will follow with the remark that I had long been convinced that too little attention had been given by embryologists to the circulating

system of the embryo, as determining the primary centers of the nervous system, I entrapped a living mother, and, having rendered her insensible with ether, attempted a determination of the primitive nutritive currents conveying the organizable plasma to the fetal head. The vesicles, as has been observed by Tiedemann, appears simultaneously with the appearance of the spinal canal; his view being that they represent the rudimentary medulla oblongata, and that the successive masses of the encephalon are developed from them. In one of my series of dissections I was successful in obtaining a full description of the earlier foetal circulation. The heart at this period consisted simply of two vesicles united by means of a canal. The aorta was already visible, and its upward ramifications were traceable. The internal carotid arteries which carry nutrient to the anterior portions of the cerebrum were readily identifiable as minute transparent canals communicating with the primitive minute

masses of the encephalon. The course of the vertebral arteries could not be followed so clearly; their walls were less developed, particularly as they verged toward the brain. At a moderate power, with the assistance of a strong light from the condensing lens, they could, however, be followed in sufficient detail to make out their arrangement, which was that of a junction before entering the cerebral vesicles, or rather just behind them at their lower margin. No ramifying offshoots were traceable above this point, although two minute elongated congeries of cells and forming vessels were visible just below it, in the position occupied by the medulla oblongata; that is to say, at the upper end of the spinal canal, causing a visible swelling in that body just previous to its junction with the cerebral vesicles. Inferior to this junction appeared two small lateral offshoots, and two interior ones which united immediately on their origin and penetrated downward along the spinal canal.

The results of the several dissections at this stage of development all concurred in establishing the fact that the anterior mass of the vertebrate brain is primitively formed by two currents of nutritive plasma, which afterward constitute the internal carotid arteries. The development of a third vesicle—the primitive basis of the cerebellum—posterior to the two cerebral vesicles, rapidly follows the development of the vertebral arteries, and first appears as a bud at their junction, but nearly simultaneous with the formation of the internal carotids, it is possible to trace faint ramifications of the descending aorta to the lower portion of the spinal canal. The distribution of the carotid currents is at this date very simple. As minute threads, certain currents, the larger of which is the ophthalmic, leave the main stream near its superior termination; then the middle cerebral artery, or rather its primitive trace, may be observed coursing outward on the under surface of each vesicle for a little distance and breaking into a spray of minute ramifications, scarcely larger than the vessels of a fly's brain. It is along the margins, and

particularly about the apparent terminations of these minute protoplasmic streams, that the organizing tendency first begins to manifest itself in the limpid fluid with which the vesicles are filled; the primary process consisting in a granulation of the fluid at such points. The facts enable me to speak positively as to two important points. First, that although in superficially observing the processes of embryology the cerebral vesicles and the spinal canal appear simultaneously, they are, nevertheless, very distinct structures as respects their nutrition, the former being simply two primitive vesicular buds at the extremities of the internal carotids, and the latter receiving its nutrition in the upper part from the vertebral trunks and in the lower from abdominal trunks of the descending aorta; secondly, that the nervous system originates from several primitive centers of nutrition, represented respectively by the terminations of the carotid, vertebral, and lumbar currents. These centers may be properly designated as the cerebral, vital, and abdominal centers of the nervous system. Tiedemann was certainly in error, valuable as his observations were, in the conclusion that the cerebrum is in any manner derivative from the medulla oblongata. It would be equally erroneous, however, to conclude that the medulla oblongata is derivative from the cerebral vesicles. Both, together with the lumbar enlargement of the cord, are primitive centers of development, depending upon nutritive currents altogether distinct from each other, and as independent of each other in foetal nutrition as they are afterward.

From their point of junction, as the development proceeds, the vertebral arteries gradually push forward as a single trunk, sending off small currents almost at right angles, which gradually evolve the pons Varolii, and finally dividing into two larger lateral trunks at the anterior extremity of the half-formed pons. Contemporary with the appearance of these trunks, or nearly so, the rudimentary traces of the posterior portions of the cerebrum, including the optic tubercles, are developed. With a preconceived idea that the anterior lobes

are derivative bodies, such as Tiedemann had, this phenomenon would be readily mistaken for a division of the cerebral vesicles such as Tiedemann describes; but in reality the anterior and posterior portions of the encephalon have their origin in separate nutritive centers, the cerebral vesicles first, the vesicle of the cerebellum and the primitive trace of the medulla oblongata next, the pons and posterior portions of the cerebrum following as the vertebral trunk pushes forward and divides; so that it may be stated with exactness that the vertebral arteries give origin to the medulla oblongata, the cerebellum, the pons, the optic tubercles, and the posterior portions of the cortex, while the carotids are instrumental in the development of the whole base of the cerebrum in front of the pons and of the anterior and middle portions of the cortex. The two communicating arteries, which spring from the upper termini of the carotid trunks and push backward along the base of the brain until they form an anastomosis with the divided vertebral trunk in front of the pons, proceed from the carotids, and the development of the cerebral peduncles (*crura cerebri*) is contemporary with them, the development proceeding from before backward, in place of from the medulla oblongata forward, as Tiedemann supposes. The development of the great central band is from before and beneath, upward and backward, the development of the pons being, on the other hand, from the medulla oblongata upward and forward.

At birth the brain of the rodent is still comparatively undeveloped; the cortex consisting of three thickened bands springing from the base of each hemisphere and rising with a backward inclination to meet each other at the top. The two anterior of these bands correspond with the *corpora striata* and the anterior portions of the optic thalami. The two middle bands come from the base of the brain directly beneath the optic thalami. The two posterior originate just in front of the pons, contiguous to two ganglia, which appear in the human brain as the *pedes hippocampi*, but are not identifiable as gangli-

onic bodies. The anterior commissure of the cerebrum unites these bodies, and the roots of the olfactory lobes are also connected with them. They are, judging from their connections, obviously ganglia of the nutritive senses, and to their relative development is due that breadth of brain in front of the ears that phrenologists associate with Alimentativeness. These cortical bands are considerably thickened in the middle and very thin at the margins, where they unite with each other. The anterior cerebral arteries supply the two anterior bands, and the middle cerebral arteries the two middle bands. The carotids are thus far concerned in the development of the cortex. The two final anterior trunks of the vertebral system of arteries, on the other hand, supply the posterior bands. It is the relatively feeble development of the middle bands, as compared with the human brain, that shortens the superior surface of the cerebrum of the rodent; or, rather, it is the relatively high development of the middle bands in the human brain that pushes the posterior bands so far backward that they completely cover the optic tubercles and the cerebellum. While they are clearly defined in the infancy of the rodent, dividing the cerebral hemispheres transversely into three well-marked grand divisions, as the animal grows older the bands gradually thicken at the edges, and the dividing furrows are thus obliterated, the mature rodent cortex presenting a very regular convex surface, with the slightest external trace of the primitive subdivision.

A single point should be noted here, as bearing upon the question whether the convolutions are distinct centers of activity. It is clearly demonstrable, in the first instance, that the cortex of the human brain is developed as respects each hemisphere from three very distinct centers of nutrition, corresponding respectively to the anterior, middle, and posterior cerebral arteries. It is thus divisible into three grand divisions, each having its own peculiar group of activities. If now, following out this law of the development of the nervous system from nutritive centers, the

reader will inject the arterial trunks of the human brain with a colored liquid, so as to be able to follow them distinctly, there is no difficulty in ascertaining whether the convolutions are subordinate centers of activity. From an injection of the arterial trunks of the brain of a mature cat, I am able to say that there is a general correspondence in this respect, and to state unreservedly that the convolutions have their probable origin as the exponents of subordinate centers of nutrition. At least, each forms of itself a special congeries of nutritive vessels, comparatively independent of its adjoining congeries, but referable with them to the general arterial trunk of the group. My own investigations have not taken a sufficient range, however, as respects this question, to enable me to lay before the reader a reliable map of the nutritive centers of the cortex. They establish the fact that that organ is divisible into such centers, but for limits and boundaries I am unable to say more than that the anterior portions of that part lying in

front of the Sylvian fissures present at least six groups of nutritive centers, all referable to the anterior cerebral trunks. Such of my readers as are accustomed to anatomical investigations will, no doubt, be able to construct completed plans of the cortical nutrition, and to compare them with the doctrines of Phrenology. What I specially wish to impress on the minds of scientific inquirers, is the fact that the anatomy of the arterial system in the vertebrate animals presents the only exact method of determining the limits and boundaries of nervous centers and groups of centers, and that, by attending minutely to this aspect of the question, the issues between Phrenology and some few physiologists out of the many may be settled beyond dispute. For my own part, I must frankly confess that my investigations have only served to confirm the leading doctrines of Gall and Spurzheim, save in the one aspect in which they appear to have followed Tiedemann, namely, as to the original centers of nervous development.

FRANCIS GERRY FAIRFIELD.

AGRICULTURAL HINTS.

[The mind is the man. Farming, in the highest sense, is not simply doing the hard work necessary. This can be done by muscle when directed by brains. The true farmer is he who can plan, direct, and control skillfully.]

Coal Ashes.—We have several times alluded to the value of the fine ashes of coal as a fertilizer. Bliss, the seedsman, recommends the use of coal ashes for potato patches, and says that persons who are in the habit of throwing ashes away as useless are making a great mistake. We know by experience that they are of great benefit in the culture of potatoes. Most city people throw the ashes of their fires away when they could be used to improve the soil of gardens. Save your ashes and use them for the purpose of manure. Wood ashes are counted among the first fertilizers, and they command a good price by those who know their value.

Asparagus.—A paper on asparagus culture, recently read before the New York Farmers' Club, says: "The roots should be put four inches deep and sixteen inches apart; the ground must be well manured

and forked over. Salt should be liberally used; a bushel and a peck might be put on a bed eighteen by thirty-six feet. In cutting, it is important not to go too deep. An asparagus bed would last an almost unlimited length of time if taken care of. Young asparagus beds should not be cut much for two or three years. A foot of horse manure should every season be put on the beds. Every farmer should have an asparagus bed. It is a most healthful food. The expense of planting a bed is very small. No spading and forking are necessary; nor is salt essential, though it is good."

Would you have Grapes.—"If grapevines," writes a successful fruit grower, "are pruned before cold weather is entirely passed, there will be little danger of bleeding. Summer pinching of the most vigorous shoots, as well as rubbing off the feeble ones

which always appear in greater or less numbers upon all cultivated vines, are very important operations. Annual pruning of grapevines is generally conceded to be necessary, but the equally essential manipulation in summer is far too frequently neglected; hence the numerous complaints of failure to obtain well-ripened fruit or vigorous canes for use the following season. A few canes, and those of vigorous, sturdy growth, are far preferable to a great number and all weak and slender. The former are seldom secured without attention in summer, no matter how carefully the annual pruning may have been performed."

Wounds in Trees.—The following is a method for healing up wounds caused by the splitting of fruit trees by frost or other means: Heat some grafting wax; dip a strip of muslin in it, and place it perpendicularly over the wound; then put three or more narrow bands around the tree. This is sufficient, and the healing process will go on rapidly.—*Rural World*.

Hired Men.—Get the best hands, and keep them. When a man has become used to his work and his employer, he is worth much more than a stranger. There is a way of making men interested in their work, of satisfying their self-respect, giving them credit for success, while holding them strictly responsible for failures, and above all by paying them promptly and liberally, that will make their work worth double what it would otherwise be.

How to keep Apples.—"At the last State Fair meeting in Utica," says the *Herald* of that city, "some russet apples grown a year before attracted attention. These apples were plump, fresh, and of good flavor; quite as good as the same kind of apples are ordinarily on the approach of spring. The apples had been put up in refuse boxes obtained at the groceries, and in the following manner: A layer of dry sawdust was sprinkled at the bottom of the box, and then a layer of apples placed in it so that they do not touch each other. Upon this was placed a layer of sawdust, and so on until the box was filled. The boxes after being packed in this way, were placed on the wall in the cellar, up from the ground, where they were kept perfectly, retaining their freshness and

flavor until brought out and exhibited at the fair."

In Texas there is a farm of 4,500 acres, which is enclosed by one fence and cultivated by thirty-two owners, every one of whom is unmarried. All their own fault!

A Cistern and how to Build it.—Mr. Zimmerman writes to the *Evening Post* on this always interesting subject.

"For the benefit of your farmer readers, I will tell my method of making a rain-water cistern: The ground was loose gravel; I had it dug oval in shape like a wash boiler, large enough to hold one hundred barrels. Then I bricked it up with common hard brick (arch brick will do), laid in water lime, with a cross-wall eight inches thick, also laid in water-lime. This cross-wall I left one-third the distance on one side of the wall, and two-thirds on the other. It was firmly connected to the outside walls at each end, so that no leak could occur there; otherwise, it was laid up as a mason would lay up the wall of a house. This was arched over, leaving a "man hole" on each side of the dividing wall. The water entered on the large side; the pump drew it from the smaller. Not a drop of water could get into the smaller sections except by filtering through the cross-wall. This cistern has been in use nearly two years, and is a perfect success. Of course a waste-pipe is needed to carry off surplus water during heavy rains. The water is sweet, clear, and good to drink.

Good Compost for Corn.—A very intelligent Maryland farmer reports the following combination of fertilizers as a valuable application to corn:

5 bushels hen dung.....	per acre
2 " fine bone dust.....	"
10 " dried peat.....	"
½ bushel common salt.....	"
1½ bushels land plaster.....	"
5 pails of chamber lye.....	"

The above is doubtless a good formula, but would be greatly improved by the addition of wood ashes, or, in the absence of these, muriate of potash; also by doubling the quality of each line and tripling the amount of peat. This manure, if the other conditions are right, ought to bring from 90 to 100 bushels of corn, and in some soils would do still better.



MRS. C. FOWLER WELLS, *Proprietor*.
H. S. DRAYTON, A.M., *Editor*.—N. SIZER, *Associate*.

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PHRENOLOGICAL VERSUS POPULAR
OPINION.

THE newspapers of late have published many readable items concerning some recent developments of crime affecting a young man by the name of Webber, a resident of Roseville, Pa. He was said to be the son of the wealthiest citizen of Roseville, has been discovered to be the leader in a series of bold outrages and robberies that have been committed in that neighborhood during the past year or so, besides living in relations of gross impropriety, and yet all this time conducting himself with so much apparent rectitude, being an assiduous member of the church, etc., as to be not only above suspicion, but looked upon by the community as a very model of young manhood.

We are far from claiming infallibility of judgment for phrenologists of sound culture and experience, but we feel sure that had young Webber been examined by a competent member of our profession, his vicious characteristics or tendencies would have been pointed out, for the organization inducing conduct so marked as his in criminality, can not but be conspicuous in its physical contour.

Many of the old readers of the PHRENOLOGICAL may remember the case of Rathbun, the once celebrated financier of Buffalo, who, in the summit of his popularity and seeming wealth, was declared by a phrenologist to be likely, in favoring circumstances, to commit the crime of forgery, and that on a large scale. The displeasure which this statement aroused compelled the phrenologist to leave the city in haste. Had he remained, it is probable that he would have sustained personal injury, for the Buffalonians deemed that a foul slander had been uttered in the name of science against the reputation of their favorite. Not long afterward it came out that at the very time when the examination was made, Rathbun had about \$200,000 in forged paper out, having negotiated it in the furtherance of the many schemes of building, banking, and merchandizing which his business genius had conceived and set in motion. A slip in the redemption of one of the forged notes revealed his illicit method of obtaining capital, and sent him to State Prison for ten years.

But Buffalo rendered satisfaction to the phrenologist whose skill and candor had brought him under condemnation through a mistaken public sentiment, for not long after the discovery of Rathbun's frauds he was invited to the city and requested to lecture on those grand scientific principles which gave him so clear an insight into human character.

Other instances almost, if not altogether, as striking as this occur to our recollection in which the vision of the phrenologist was shown to be clearer than that of men not expert in discerning the inner mental life and motive.

Sometimes a mistake is made by one professing ability as a character reader, and then no allowance is made for the exam-

iner or the science—no thought of the great difficulties which are occasionally met with in estimating the relative influence of organs. A chemist or geologist might commit an egregious blunder in his analysis of a composition or stratification, but no one would impugn his skill or the integrity of the science be represented. There are quacks in chemistry and geology, as there are quacks in Phrenology, and we simply ask the lay public to discriminate with reference to the latter as they do with reference to the former, and so give fair consideration to the men whose learning and experience may be made contributory to public and private good in ways unsurpassed by no practical system, except that of Christianity.

Not long since we received a letter from a gentleman of fine scholarship who is attending a special course of lectures at Harvard University; in this letter he wrote (the emphasis is his): "From a careful study of the old systems of mental philosophy as taught by the highest dignitaries at the great *Harvard*, I find the PHRENOLOGICAL *immeasurably superior* to them all." This is the verdict rendered by every student of the metaphysics of the schools who has made himself conversant with the metaphysics of Phrenology. And the reason for it is embodied in the thorough practicality of Phrenology, while the old systems are uncertain, vague, and speculative.

We ask only fair consideration. The principles of the science we represent have become incorporated in the every-day sentiment and life of people to an extent which few realize, and some of the happiest experiences of society flow from their matter-of-course application. Why not apply them to particular, conspicuous cases, as well as to the general. Why

should they be neglected where their resolving, illuminating potency is most needed? If not as a preventive of crime or social disaster—and that is their more important function—why not as a means of ascertaining the truth, as a diagnostic, or as a remedy?



A CHANGE OF TITLE.—The recent consolidation has found general favor. Some there are who think it in season to ask, why not change the name of the JOURNAL by substituting something else for the old designation "Phrenological?" and they reason in this way: "You would doubtless find a change of title to your advantage. You must appreciate the fact as much as any of your friends that a different term would give your publication a different and more acceptable character in the estimation of many people whose favor it is desirable to have."

It would be a very severe infliction to modify the title of a magazine which has passed through so many vicissitudes of literary fortune successfully as the PHRENOLOGICAL JOURNAL has during the thirty-five or more years of its existence. A learned friend says on this point, "I do not, *per se*, like your designation, PHRENOLOGICAL JOURNAL, but it has become your name to all the world, and it would be suicidal in a business point of view to change it."

There are other titles which would more comprehensively indicate the scope of the JOURNAL, but the adoption of one of them and the exclusion of the well-known shibboleth would be to ignore practically a most interesting and instructive history of struggle and triumph on the part of some of the noblest spirits that ever championed the cause of science.

THE GREAT SHOW.

WE have had a glimpse of the Centennial Exposition. It is a monster affair; almost too big. One who goes with the expectation of seeing the whole within the compass of a week—as much time as a busy mechanic or merchant can afford to take from his routine of home duty—will experience a feeling akin to discouragement after a day's observations. He finds the accumulation of interesting objects so extensive, each department of the hundreds inviting his close scrutiny, and promising at the outset a rich return of instruction and pleasure for the time he may give to it, that he is impressed with the necessity of choosing either to devote himself to a certain few departments and neglecting the others almost entirely, or to go over the array in a cursory manner, stopping here and there for a very brief inspection of what strikes the eye as peculiarly novel or attractive. Yet in a week's time a great deal can be seen and learned; and even half that time will serve the intelligent and careful observer to excellent purpose.

The older civilized countries have an array of contributions which illustrate in a powerful manner the wonderful resources of the human mind in mechanical invention and patient industry. The departments of Germany, Austria, France, Belgium, Sweden, England, Italy, Canada, and the United States suggest the wondering query, Is there *any* limit to the capability of man? While the products of many regions but recently brought under civilizing influences surprise us by the progress which they have already made in the arts of peaceful industry. Liberia, Orange Free State, Australia, especially claim the attention of those who are interested in the development and amelioration of barbaric countries.

Whatever may be the visitor's *penchant*,

he can have it gratified. The antiquary will find a feast served up in a most elaborate style in the departments of Egypt, China, Japan, the South American States, and elsewhere.

The lover of things odd and curious will feel drawn toward many different points at once. The student of art can revel and dream amid thousands of graceful forms in marble, bronze, plaster, oil, mezzotint, crayon, ink, leather, ivory, wood, etc.

The practical and utilitarian will be enchanted in spite of himself among the million devices for the saving of time and labor.

The educator can study the best methods and appliances in use in different countries for the training of the "young idea." The scientist, whatever his specialty, may find materials suggestive of new thoughts and investigations.

The mechanic can not but thrill with delight in contemplating the wonders of Machinery Hall. The farmer must gather many useful hints in Agricultural Hall, and from a brief scrutiny of the products of new Western States like Kansas and Colorado.

The surgeon may gloat over the splendid looking instruments and apparatus of his art which are spread out in such lavish profusion. The physician addicted to pills and potions may contemplate with pride the mounds and bottles of simples and mixtures which fill huge cases here and there. The divine will find the "blessed book" in the illuminated glory of ancient manuscript and block letter, and in modern types and binding. The author will find hints and ideas for a hundred volumes on every hand, and may select the style of manufacture of *his* future great work from a thousand elegant patterns in the Booksellers' section. Thus we might proceed with the enumera

tion of all the pursuits which are known to man and to woman. Each of them has its representative in the great bazar of all nations, and in a perfection which appeals to the taste and culture of the best minds.

Woman shows her capabilities as an artist and mechanic in a hundred different ways not long since deemed the exclusive province of sturdy manhood. We find the evidences of her skill in wood-working, carving, engraving, invention, as well as in weaving, embroidery, useful needlework, and the fine arts.

But notwithstanding the tremendous proportions of the exhibition, a single day spent therein can be made profitable, but it would be absurd enough for one to expect to see everything in that time, after the fashion of a visit to an ordinary country fair. We think that a person in good health could walk leisurely through the main or center aisle of the five chief buildings and their annexes, the Government Building, the Woman's Pavilion, taking a noontide rest and refreshment in one of the restaurants, and a mid-afternoon ride on the narrow gauge railway, which affords a general view of the Exposition grounds, and fill out the nine or ten hours the grounds are open. Good eyes and keen intelligence would be able to grasp a great amount of information in this way, but we will not say how much of fatigue would be experienced by six P.M.

Some one has calculated that the aisles and passages in the main buildings aggregate a length of seventy-two miles. If a visitor were to stop but a half minute for the examination of each interesting object as he passed through these aisles and passages, he would consume probably a month, at least, in the round. And then there are upward of two hundred minor buildings!

FARCICAL LEGISLATION.

A CERTAIN class of physicians in the "Golden" State has succeeded in obtaining the passage of a bill at the late session of the Legislature which accords special privileges, and requires that all who would practice the healing art in California must hold diplomas of that certain cast or school, or must undergo an examination before a board of inquisitors representing that particular school. It would appear by this piece of law-making that there is not much freedom of sentiment in California after all. To coerce a large community into receiving the attentions of one kind of doctors only is an outrageous bit of despotism. With the same show of justice the people of California could be prohibited from eating bread unless prepared according to a certain recipe, or from wearing garments not made of certain fabrics. This stroke of policy, according to the California *Agriculturist* is aimed mainly at the women who practice as physicians, to prevent them from attending to their own sex in times of need. That publication says, "These monopoly-diplomæd men-doctors must have all such delicate cases. There is profit and prestige in it that they can not afford to lose. It means that liberal ideas upon health subjects must be crushed out and made dishonorable. The medical priest-craft must be honored and patronized. It means that this same class of privileged dictators want a clear field, so that they can, with even greater impunity, destroy the sensitiveness and modesty of daughters, the purity of wives, and the honor of husbands and fathers."

It is not at all likely that such a law can be enforced. California has too many liberty-loving citizens to be saddled by a drug monopoly, and we are of opinion that

the "doctors" there who may be chuckling over their success at law-making, have but schemed for their defeat in the arena of patronage and public sentiment.

DEATH OF JOHN NEAL.

ON the 20th of June this well-known author died, after a long and exceedingly busy life. He was born in August, 1793, at Portland, Me. His parents were members of the Society of Friends; but at the age of twenty-five he received a formal dismissal, finding his tastes incompatible with a continued relation to that society. At an early age he engaged as a shop-boy, but ever energetic in self-instruction, we find him, at the age of twenty-one, teaching penmanship and drawing. Next he is interested in the dry-goods trade successively in Boston, New York, and Baltimore. In the latter place he formed a partnership with John Pierpont; but a very brief career, which terminated in the failure of this partnership enterprise, satisfied Neal of his unfitness for commercial life. He concluded to try the law. While reading the customary treatises, he also studied foreign languages, and contributed to periodical literature.

He was admitted to practice before the Maryland Bar in 1819. Literary avocations occupied a great part of his time, however, until a trip to England, in 1824, where he contributed articles to various periodicals, and became acquainted with the celebrated Jeremy Bentham, who invited him to take up his residence at his house.

In 1827 he returned to America and settled in Portland, where he employed himself in practicing the law, writing, and lecturing. He was also a very earnest advocate of physical exercises, and excelled as a gymnast and fencer.

Besides his numerous contributions to periodical literature, he is the author of several independent works, among which

are "Brother Jonathan," "Rachel Dye," "Bentham's Morals and Legislation," "True Womanhood," "Wandering Recollections of a Somewhat Busy Life," "Portland Illustrated."

Many of our readers will remember his sprightly sketches contributed from time to time to the PHRENOLOGICAL JOURNAL. He always entertained a warm regard for the JOURNAL, and was himself well versed in the doctrines of the science.

THE ADIN AFFAIR.—A correspondent, H. E. S., sends us a clipping from the Cleveland, O., *Leader*, which contains a brief account of William Adin, who was recently convicted and executed for the triple murder of his wife, step-daughter, and a lady, the last having given the wife and daughter shelter when they had been driven from Adin's house. The clipping contains, also, what is represented to be a phrenological description of Adin's, given by Mr. O. S. Fowler about a year and a half ago. A poorly painted or executed portrait accompanied the *Leader* article, and the writer alludes to the portrait as given to furnish "physiognomists" an opportunity to discuss the character of the murderer.

We are not familiar with the circumstances of the terrible affair—and would not care to offer an opinion concerning the man, and what others may have said of him on scientific grounds, unless the same opportunity of a personal examination had been ours, and had been utilized. The portrait, such as it is, gives us the impression of a stern, obstinate, high-tempered man, one who had several good faculties, which, however, were crude and uncultivated. The evidences of Firmness and Self-Esteem are very marked, while there appears to be just enough of Conscientiousness in an untutored condition to incline him to belief in the rectitude of his own opinions, and in the propriety of requiring others, particularly dependents, to respect them.

Mr. Fowler imputes to Adin a *terrible temper*. May it not have been in one of the paroxysms of that temper that he committed the deeds which sent him so speedily to the scaffold?

Our Mentorial Bureau.

[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we can not undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-offices should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

DEPILATORIES.—We regard all preparations having for their object the destruction of superfluous hair exceedingly injurious. They are strongly caustic of necessity, and what will burn the hair will burn the skin. If M. C. B. desires to get rid of any hair, the most effectual way is to pull it out with tweezers or tongues.

SCURVY TEETH.—The condition of your blood is evidently abnormal, otherwise you would not suffer from the deposit on the teeth. You should be more active physically; brush the teeth briskly with a good brush, and use water freely in the application of the brush. Do this two or three times a day, and you will doubtless find relief.

LUMBAGO.—This form of rheumatism is treated, like other forms, very successfully by water methods, proper care being had meantime to the dietetic habits, as the condition of the stomach bears an important relation to the nervous status. The treatment of the case must be adapted to the patient. Hot fomentations, followed by the cold compress applied to the parts affected with pain and stiffness, are usually beneficial.

BONE-GROWTH.—In early youth the bones are comparatively pliant and elastic, for the reason that they contain a large proportion of albuminous matter. In middle life the proportion of soft matter is much less, and decreases with advancing years. In old age the

bones may be said to be quite dry and calcareous, and are, therefore, more easily broken than in middle and early life. There may be actual growth until thirty-five or even forty years: few persons, however, acquire more height after twenty-two.

GRAYING HAIR.—J. M. P.—We would advise you to stop the use of borax in washing your hair. Borax possesses efficient cleansing properties, and may make too thorough an impression upon the scalp for the health of the hair-vessels. By using clean water and a good brush twice a day you should be able to keep your head clean enough. The early blanching of hair is in most cases an indication of a lack of vitality, or nervous exhaustion. Tone up the general constitution, if it be in any way enfeebled.

WESTERN PLAINS AND COMBATIVE-NESS.—We are not aware that the Western plains have such an influence as your question implies, to-wit: the provoking of a quarrelsome temper in those who are crossing them. Will some one inform us in regard to this? It is true enough that the elevated and bracing air of the Far West stimulates a flow of feeling, and prompts an exuberance of physical emotion, and it is not unlikely that people from the East who are large in Combativeness and Destructiveness, and moderate in controlling qualities, experience a more active sense of irritability.

A STRANGE RECOVERY.—A correspondent makes some inquiries with regard to the case of the Rev. G. W. Enders, who, it is said, having sustained a relapse while suffering from pneumonia, was taken to a hygienic institute, where he continued to decline in health, until his physicians deemed his case hopeless. So weak had he become that an application of electricity had no effect. The same physician, however, who applied the electricity, and pronounced him beyond its reach, afterward applied a form of what might be called metaphysical medication; in other words, he addressed himself to Mr. Ender's mind, magnetizing him, and performing some of the maneuvers of the mesmerist, and ordered him to "get up," when Mr. Enders immediately got up unaided and walked, and commenced to improve in health, and became, according to his own statement, "a new man."

We are of the opinion that this is a case of extreme mental depression, resulting from the attack of pneumonia, and that his mind having once been fairly aroused from its semi-comatose condition, and resumed its wonted functions, his whole nature took on a condition tending toward recovery and normality. It was, in fact, a phase of hypochondria.

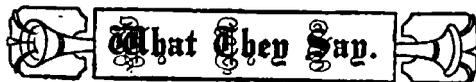
LECTURING.—C. A. M. C.—We think it would be well for you to prepare carefully a lecture which will embody the principles of the science. This you can commit to memory, if you will. At any rate, the leading points should be impressed upon the memory. If you feel very uncertain with regard to your success on the platform in an extemporaneous effort, it will be well for you to have the lecture in manuscript and in your mind when you appear before an audience. Then if you hesitate in the course of its delivery, you can refer at once to the manuscript. You will find, after a few trials, that a single lecture will be far from covering the ground of your subject. Every time you go over it new points and views will be suggested.

S. W. M.—We scarcely understand the nature of your question. It is too comprehensive for specific treatment.

ANIMAL SUICIDE.—“Is man the only animal that ever commits suicide? J. R.”

Ans. We meet with accounts now and then of animals which have apparently committed suicide. Dogs and horses have been known to precipitate themselves from high places, but whether the act of self-destruction was the result of deliberate resolving, or of delirium, or diseased condition, can not be known. Not long since we saw a newspaper statement of a rattlesnake striking itself, and dying shortly afterward of the self-inflicted poison. A dog has been known to die upon the grave of his master, refusing food, and literally starving to death.

“BRIC-A-BRAC”—“**BONANZA.**” — M. H. J.—The first of these terms is pronounced as if spelled b-r-l-c-k; a is given the open sound, as in the exclamation Ah! then, brack, and is derived from the French; it signifies a mixture, medley, odds and ends, all sorts, relics, oddities. With regard to the derivation of the term “Bonanza,” we are not well informed. Perhaps some reader can give us the clew. We think, however, that it came from California, like many other semi-slang words which have grown into popular favor. There is a mine called the Bonanza mine. Possibly it yielded splendidly in the outset, and the application of the term Bonanza took a flavor of the gigantic and the elephantine. We hear people talking about a “big Bonanza” affair.



SOME PHYSICAL HINDRANCES TO SPIRITUAL DEVELOPMENT.—“What good comes of it? Does it make you more amiable? Does it make you more kindly, forgiving, and generous with a spirit that wishes well to all mankind? Does it resign you to the inevitable? Is it a comfort in times of affliction? If you are a Christian you will ‘do as you would be done by,’ seek the good of others rather than personal gratification; will be just, hopeful, forgiving, cheerful, trusting, charitable.”—[Extract from an article in the PHRENOLOGICAL JOURNAL for January, 1876, entitled, “Your Religion.”]

Before considering, as I propose to do, some of the physical hindrances to the attainment of such a high state of spiritual exaltation, it will be well to take into consideration the fact that, except in rare cases, there is no such real experience of a high, emotional, tranquil, spiritual life as men have pictured in imagination for their ideals. There are now and then found persons who are harmonious and joy-producing by nature, and such a nature, augmented and elevated by Divine Grace, results in a character almost ideal. But, unfortunately, the great mass of men do not live habitually in such a manner as to be continually generating simple moral enjoyment, moral ideas, moral emotions, and moral ecstasy.

When we read in the lives of saints, and those persons who seem endowed with supernatural qualities, accounts of exaltations and apparently familiar communings with the Great Unseen, the impression produced is that these persons have all attained to this state, and remain in it as their normal one, and live from year to year with a daily average of these wonderful emotions and experiences.

As a general thing no mention is made of the days, weeks, and even years of darkness which intervene between their periods of exaltation. Biographers and historians record only the remarkable experiences, passing over in silence those of a commonplace order, and treating, also, the hours of doubt and weakness in the same convenient manner. Men do not habitually live in the upper air, enjoying its serene, calm delights, but the development of the Divine life among them must be along the line of their natural disposition and in the channel of their physical temperaments; consequently in connection with their daily occupations.

Now, as to these constitutional hindrances which belong entirely to our bodily condition. All diseases tend to obscure and weaken the mind. Even those which seem to render its

workings more clear and its perceptions more acute, only *seem* to do so, and that temporarily. The mind really loses in vigor in the same ratio with the body. No person can live in religious enjoyment any more than he can live in secular enjoyment who violates the laws of health. He who debases his body by intemperance and gluttony is, by the laws of Divine economy, obscuring his mind, blunting his finer perceptions, and thereby depriving himself of the benefits of a higher moral and spiritual life. When persons do not guide their appetites by reason, they violate the law of God as it is written in their stomachs or their nervous systems; and every time they eat and drink without this restraint, they eat and drink degradation. At such times they have doubts and fears, are "tempted of the devil;" their prayers seem to stop far short of the desired haven, for they are not answered, and the poor souls are unable to see clearly through the mysteries of Christian life, and fail to appreciate the beauties of holiness as entirely as they could wish. Strange!

A man's breakfast may have more to do with his Christian feeling and demeanor through a day than all the prayers of himself and all his friends combined. It is a physical impossibility for a man with a dyspeptic stomach to regard his fellows with all "charity, forgiveness, and kindness of feeling." His view of the world is through a veil of diseased blood and deranged nervous tissue; and men look as distorted and ill-shapen to him as they appear to me now when I look at them through this imperfect pane of glass in the window before me. The hideous blot which he sees on the character of his neighbor may be only the transmitted shadow of a bit of underdone potato, a crumb of rich cake, or a dish of muddy coffee. "A Christian will overcome his propensities." Well said, my good friend; and the first propensity to be overcome by the majority of Christians is the propensity to clog and derange the system with undue quantities and improper qualities of food, taken at eminently improper and undue seasons. The great mistake of many lies in the attempt to make clean the outside of the cup and platter, while within is literally full of dead things.

We should bear in mind that the soul at present dwells in a sort of prison-house, and the bodies of men may be represented by the different devices employed in constructing buildings. Some are made of glass roof, sides all transparent, letting in light all around. Some houses have many large windows. Some have no windows, but only a door, which must be opened to admit light. All will admit that one has greater capabilities of receiving light than the others can hope for, but the event in each case is the same, whether you, who live in the house made all transparent and flooded with Heaven's own light, smear your glittering squares of crystal

with mud, hang filthy rags over your beautiful pictures, and make your dwelling so desolate and dirty that naught but loathsome vermin care to visit it; or I, who inhabit the house with but the one door, obstinately keep that obstructed by piles of filthy and useless trash, thus shutting out all save sickly rays of the light, which but waits the opportunity to flood my poor abode with radiance. How often is the human system so deranged by excesses and unhygienic living that the soul is shut in from that light in which alone it thrives, while the animal part of the nature is pampered and encouraged to full expression. And in the lucid intervals which sometimes occur these persons wonder at their lack of advancement, and that spiritual exaltation which they see in others no more sincere in their good desires and intentions than themselves.

As every student of Physiology and Phrenology well knows, there is a vast difference in the faculties with which men are endowed, and vast differences in the physical organizations through which these faculties find expression, are developed, and receive impressions of the Divine life. We ought always to remember, even while most earnestly desiring the presence and influence of the Spirit of God, that the ministrations of the Spirit have respect to the constitutional organization and temperament of men, and to their education and surrounding circumstances, and the peculiar experiences to which they are subjected in their daily duties. That men's faculties may be trained and their propensities guided and directed, is a fact in which lies a world of significance, and opens an endless field of labor to all disposed to enter it. The longing after certain powers does not bring them. I have earnestly wished that I might thoroughly master and learn to love mathematics, but I am a wretched mathematician; and yet I suppose I am better versed in that particular branch than I should have been had I refused to devote any time to arithmetic or geometry. Nor have I any doubt that I might have done even better than I did, but at best I should never have torn any laurels from Sir Isaac Newton. A man can not often attain to the height of his desires in any direction, but he can make some advancement if he *will*. In the thorough understanding and application of this truth lies a great measure of the success in a life of Christian endeavor and enjoyment.

"God blesses men by making them work out their blessings," but why hinder the development of spiritual power by physical indulgences and follies? Only those bodies which are kept pure and in proper condition—so far as in them lies—can be fit temples for the indwelling of the holy spirit. If we attend to this simple law of God, and seek earnestly after the presence and favor of that spirit, we shall not be so

greatly lacking in "love, charity, and kindness of feeling" toward our fellows, nor in the multitudinous good works which betoken a heart and soul filled with the spirit of the Master. We are to take care of that which was intrusted to us, and the *first* gift to man is his body—the dwelling for his soul. We are to develop according to our ability the fruit of the Spirit, and by-and-by we shall see how each will have its place and help to make a perfect whole. "It doth not yet appear what we *shall* be."

F. H. HOVE.

THE INTERNATIONAL DATE LINE.—EDITOR PHRENOLOGICAL JOURNAL: In the April number of your JOURNAL is an article on the "International Date Line," taken from "Schedler's Manual for the Use of the Globes." The same article appeared in the January number of the *Wisconsin Journal of Education*. In the February number of that journal appeared the following, which I think as interesting, and perhaps more profitable, than the first one. I copy *verbatim*:

"THE INTERNATIONAL DATE LINE.—Under this head the January number of the *Journal* contains an article copied from 'Schedler's Manual for the Use of the Globes.' In illustration the accompanying map shows the location of this Date Line. But the article utterly fails to give any reason for the location as indicated on the map; and, to my mind, no amount of study of that or any other map will show the wisdom of such location. The author of that article himself, after stating that 'the navigators of European nations * * * have determined that *there* this Date Line should run,' tells us that, although the correction of time 'should of right be done on passing the Date Line, it is usual among navigators to make this rectification on crossing the 180th meridian from Greenwich.'"

In other words, navigators have agreed to locate the Date Line where the map shows it to be, and then those same navigators pay no attention to it, but change their time at an entirely different place!

Again, in the same article, the following paragraph occurs:

"Finally, it may be remarked that, as our Date Line is identical with no one meridian, there must be a point at its extreme eastern projection which first receives the sun's rays, and where, consequently, the new year begins. This point might be called the New Year's Point. The place which corresponds to this point is Chatham Island, east of New Zealand." If the new year begins at Chatham Island every day begins there, and it certainly does not look reasonable that the line marking this beginning of day, instead of following the meridian of Chatham Island, should pursue the crooked path of Schedler's map.

Does Schedler make these statements by authority? If so, authorities differ, as we shall see. In W. H. Seward's "Travels Around the World," p. 34, in an entry made September 16th, I find the following:

"Our last date is the 14th. This note is written on the 16th. The former entry was cer-

tainly made yesterday. The chronometer marked eight o'clock at night at Greenwich at the very hour when our clock, which keeps the running time, marked eight o'clock in the morning. We are half way around the world from Greenwich, and have lost just half a day. It is quite clear that, if we should continue onward, making the same discrepancy of time, we should have lost a whole day on arriving at Greenwich. We might postpone the readjustment of our ship's time until we reached Greenwich, but the scientific world has wisely decided that this readjustment shall be made in every case by compromise on the 180th meridian, and, therefore, instead of striking out a half day here, we strike out a whole one."

Upon whose authority did Mr. Seward make this statement? Perhaps upon his own, but is it not more than likely that he consulted the captain and other officers of the steamer upon the subject? In Jackson's "Manual of Direction for the Use of the Stellar Tellurian," on p. 28, illustration 60 is as follows:

"Let us bring New York to the noon-point. Suppose this to be the noon of to-day. Then we find it, at the same instant, six o'clock this evening in Southern Italy, and twelve o'clock to-night at Birmah. East of Birmah we find it after midnight, and, therefore, to-morrow. Proceeding eastward from Birmah to Alaska, we find it six o'clock to-morrow morning. Still further east, according to the general law, it is still later, and on arriving at New York we find it to-morrow noon. It can not, however, be both to-day and to-morrow at once in the same place. Somewhere in our imaginary journey we must have returned from to-morrow to to-day; that is, we must have crossed a certain line dividing to-morrow from to-day. That line is a meridian passing through Alaska. Navigators, however, change the date at 180 degrees from Greenwich."

The above is more fully illustrated in Jackson's "Mathematical Geography," on pp. 88 and 89. That portion of the illustration bearing upon the new year's point is herewith given:

"Although we know not over which meridian the sun actually started in the first place, we know where he was *at the moment when our reckoning of time begins*, viz.: the midnight preceding the Saviour's birth. As we reckon from the *time* of this great event, it is eminently proper that we should also reckon from its *place*, in Western Asia. Hence, at the moment when *the first day began* the sun must have been over the opposite meridian, one passing through Alaska. His starting point, according to our reckoning, must have been on this line. Here his first daily circuit began, and here his circuit begins to-day. This line divides one day from another *for the whole world together*, just as the midnight meridian divides one day from another *for any one place*."

Upon one point these authorities agree—navigators change their time at the 180th meridian, whether the Date Line coincides with that meridian or not. As to the other point—the beginning of day—Jackson's reasons in favor of the

meridian opposite Bethlehem; Schedler, without reason—at least no reason appears—runs a crooked line through the Pacific, to which he himself admits navigators pay no attention.

Which is correct?

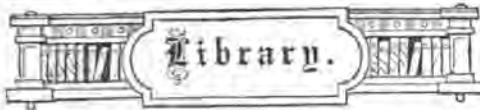
W. I.

MISS E. C., AND WHAT SHE INHERITED.—Very soon after making my residence in the City of New York I took a class of ten misses in the Sabbath-school of the C— Street C. Church. Among them was a Miss E. C., a very intelligent and finely cultured girl of about sixteen. It is my habit to make the subject of temperance and the danger of drink prominent in my Sunday-school teaching. So few meet the question at all, that it seems to me quite in place to use the very first opportunity to declare my views. There had been a pleasant revival in this church during the winter previous, and many young people had united with the church only the Sabbath before my coming. E. C. was one of the converts. On this, my first Sabbath with the class, the lesson admitted a full expression as to the evils of drink, and I pressed the matter of entire abstinence as the only safe ground. I referred to cases and recited known facts when a single glass or indulgence had proved disastrous, and barely hinted at "inherited tendencies." Miss E. C. was greatly agitated, perhaps offended, while I was presenting these thoughts, though I think she said nothing. But the same week she came to my house and said "Mr. S., I would like to talk with you about myself." "Very well, Miss E., I shall be happy to hear you, and to serve you if in my power." "My mind has been greatly disturbed with doubts and fears ever since communion day, when I joined the church." "Why, my dear girl, what could have caused such feelings? Do you mean that your distress was caused by something that occurred on so sacred and blessed an occasion?" "Yes sir, and what you said in class last Sunday about intoxicating liquors and the danger to some of even tasting, brought to mind my strange feelings when I tasted the wine at communion." "Can it be possible that in partaking of the symbols of our Christ's dying love you were tempted?" "Oh, yes sir, and that is what distresses me so. I will tell you all about it. When I took the bread it was very sweet to "discern the Lord's body," and by faith to feed my soul on my Saviour's love. But just as soon as I touched the wine to my lips, I wanted to drink—oh, so much! I felt that I must drink all there was in the cup, and should if I dared. But oh, how bad I felt, it took my thoughts from the love of the Saviour. I was sure I had grieved and dishonored Him. My heart sank clear down and made me so miserable. Yes sir, it took away all my hope, and, teacher, I fear that I am not a Christian at all. Oh, what shall I do?"

Here the poor girl broke quite down. As soon as she could command her feelings, I said: "My dear E., do you want to turn back from serving God, and trying to live a Christian life?" "Oh, no sir, no sir! that would be dreadful. I want to be a real earnest, true disciple of Christ, and be prepared to meet my sainted mother in heaven. Do please tell me what made me feel so, and was it a very great sin?" "One thing I can tell you, it was the temptation of the devil. That is certain. The Lord gave you grace to resist in some measure, and He will help you to overcome. But let me ask you, do you drink wine or other intoxicating drinks at other times?" "No sir, never. I never tasted of wine or any kind of liquor till that time, and have been taught not to use any thing that has alcohol in it."

I then gave her such instructions as she seemed to need, and she left encouraged to go on in her Christian course. But I learned during our interview that her father, before his conversion, had been a moderate drinker, and that her grandfather had kept a hotel and at times drank badly. These facts unlocked the whole secret. I did not tell her that secret, but enjoined her to pass the "cup" always, if it contained alcoholic liquor. To her, and all such at least, the alcoholic cup, wherever found, must be the "cup of devils." This dear girl, like multitudes of others, inherited the terrible "dipsomaniac" appetite. Just when she ought to have been safest, Satan was entrenched and set to buffet and worry her soul and quench her hope—so easily and so certainly is this latent demon aroused. Not only the reformed drunkard who has sought refuge in Christ and his offspring are imperilled, but the children of habitual moderate drinkers are as certainly affected by transmitted "vitiated vitality," and as often become drunkards through this fatal inheritance. Incredible as this may seem, so testify the best physiologists who have most thoroughly examined this subject. The Second Commandment teaches the same thing as a warning. Ought not the Christian Church to make it impossible for the weakest to be "betrayed by a kiss" of the serpent alcohol at her sacred feast? Is there necessity or excuse for alcoholic wine at the communion? Would not unfermented "fruit of the vine" meet the case, and can this be had reliably?

[From what we have learned of the preparation called "Fruit of the Vine" we infer that it is adapted to the communion use. Our neighbor, Mr. G. E. Sickel, of the National Temperance Society, No. 58 Reade Street, this city, will be glad, doubtless, to furnish the information desired. It is stated that upward of 1,000 churches in England, and 1,500 in this country have rejected fermented liquor for communion uses.—Ed. P. J.]



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

THE VOICES. ("The Voice of Nature," "The Voice of a Pebble," "The Voice of Superstition," and "The Voice of Prayer.") By Warren Sumner Barlow. Sixth Edition. 8vo; fancy cloth. Price, \$1.50. Boston: Colby & Rich.

According to the author his view of The Voice of Nature, is founded on the idea of
One God with one revokeless plan,
Embracing every world and man;
That man should learn to comprehend,
That all to good results doth tend."

The Voice of a Pebble "aims to teach the individuality of matter and mind, fraternal charity and love."

The Voice of Superstition, "presents the conflict that many suppose exists between their Maker and an imaginary evil being."

The Voice of Prayer "aims to inculcate the idea that,

No law is suspended should earth everywhere,
Unite in one chorus to swell the same prayer."

That the prayers heard by the Lord are those which blend with deeds, regardless of color, class, or station.

The author adopts for the discussion of these profound themes the meter and manner of Pope, chiefly, and many of the passages remind us of the reasoning of the "Essay on Man." For instance, this:

"That God ordained the whole is understood,
To ultimate in universal good;
Yet hath no less decreed that man shall be,
Within a *given sphere* an agent free;
As fishes well secured in globes of glass
Are free within, though none without can pass;
While they like us look outward all around,
May often wish a larger range was found.
But highest wisdom hath ordained this plan,
To focalize the feeble powers of man;
Where each may freely choose a field of thought,
May grope in darkness, or be wisely taught;
Where all will learn as laws are understood,
To harmonize with universal good."

We think that the "Voice of Superstition" has the smallest claim of the "Voices" to rank as poetry, but we can understand the author's

difficulty in treating the subjects embraced within it, and make full allowance for any halting in the progression of his verse. The burden of this diversion of the volume seems to be the inconsistencies of Bible narrative, in reciting the dealings of God with man, particularly referring to passages in the Book of Numbers. Where he stands in opinion may be gathered from—

"But never can I entertain the thought,
A 'God of Love' these horrid scenes hath brought."

And we are thus led to the inference that to believe all there is in the Bible savors of superstition.

DRESS AND HEALTH; OR, How to be Strong. A Book for Ladies. Pp. 187; cloth; Price, 30 cents. Montreal, Canada: John Dougal & Son.

A plain, practical discussion of the relation of dress to the health of our girls and women. Written, or rather compiled, in a pleasant style, drawing from many of the best authorities foreign and American, for facts and suggestions, it is the sort of book to help one in the conflict with illness and disease-producing fashion. It is a startling exponent of the sins and follies of people who in matters not associated specially with dress, may evince a good degree of intelligence and wisdom. And it does not leave the convicted of error comfortless, but presents methods and patterns for the making of neat, tasteful, and elegant garments, which will permit the blood to circulate, the lungs to expand, the stomach to digest, and the other bodily organs to perform their proper functions.

SKETCH OF THE LIFE AND WORK OF LINDA GILBERT. With Statistical Reports and Engraving of herself.

Miss Gilbert is well known for her earnest and persistent efforts to improve the condition of prison life, especially to provide the means for the mental instruction of the unfortunates of society who spend much of their time in forced confinement. She has accomplished a vast amount of good in her self-elected sphere, and is not yet weary in well doing. The book is readable and suggestive, and should have a wide circulation. Price, in cloth, \$1.25.

THE PACIFIC TOURIST. William's Illustrated Guide to the Pacific Railroad, California, and Pleasure Resorts across the Continent. Full cloth, price \$2; flexible covers, \$1.50. New York: Henry D. Williams.

Whether one contemplates a trip across the continent or not, he will find this publication deeply interesting. The regions west of the Mississippi furnish the material which the artist and the writer have wrought into its beautiful and instructive pages. The details of sights and incidents which are met by the traveler on

the way to San Francisco are comprehensive, while hundreds of superb engravings furnish the eye realistic impressions of the grandeur of Rocky mountain scenery, and of the varied life, human and brute, which the vast prairie and hill regions of the Far West sustain. Mr. Williams has combined many features of value to the general reader in his new guide. Possessing a practical knowledge of the country from frequent visits, his suggestions and counsel with regard to business facilities and opportunities here and there, and the economic management of a trip have a special significance. Many historical sketches relating to interesting localities, and many portraits of men and women prominent for their connection with the development of certain towns, or cities, or districts, are distributed through the text. The mining and agricultural wealth of the great Rocky Mountain States is treated with an appreciative hand, and, in fact, everywhere wide information and cultured taste are conspicuous qualities in the make-up of the book. We are told that it represents \$20,000 worth of literary and artistic labor. Whatever it cost, the price is exceedingly low as compared with the intrinsic qualities of the book.

THE CENTENNIAL SCHOOL SINGER;
Containing Songs of Patriotism and Peace for the Children of the American Union. By Geo. Henry Curtis and Wm. Oland Bourne. Oblong. Price, 40 cents. New York: Bigelow & Main, 1876.

The title of this work and the names of its compilers are a sufficient suggestion of its merit. It is just the thing for the time, and the selections are made with taste and with generous breadth of patriotic feeling. The children from Maine to Texas may gladly and fitly unite in rendering these soul-stirring "songs of patriotism and peace." The work opens like a rocket with "The Boston Tea Party, 1773," and in its progress gives us Lexington, Bunker Hill, Saratoga, Yorktown, the Star Spangled Banner, The Marsellaise, etc.

The work is fragrant with the songs of the fathers of the Revolution, with many gems of later time, making it the book for the million, and before this Centennial year closes, we doubt not the schools and families of our broad land will be full of these rich melodies. In some cases they will remind us of old wine in new bottles; but it will be pleasant to know that in all cases the grapes were gathered from the same old vines of Patriotism, Union, and Liberty.

MAGAZINES AND PERIODICALS RECEIVED.

NO. 15, VOL. 4, OF HARKNESS' MAGAZINE overflows with Centennial enthusiasm. It contains much matter of historic interest to Americans, beside a good variety of general reading which

is not marred so far as we have seen by a single indecorous thought.

IN THE WEATHER REVIEW for May, the Signal Officer informs us that the *Review* is made up from the reports of observations taken at "eighty-eight Signal Service, U. S. Army stations, and fourteen Canadian stations, at 7:35 A. M., 4:35 P. M., and 11 P. M., daily, and telegraphed to this office immediately afterward; monthly meteorological records of observations, taken at four hundred and sixty-five stations, including those from the volunteer observers, U. S. Naval Hospitals, U. S. Army Post Hospitals, Canadian stations and Signal Service stations; reliable newspaper extracts; special reports from various sections of the country, and Marine Records.

The most noticeable features were the barometric pressure averages higher than usual in the sections east of the Rocky Mountains; the frequent occurrence of tornadoes, especially those of the 6th in Kansas, Illinois, and Indiana; the temperature averages nearly 4° below the normal in the St. Lawrence Valley, and 2°-5' above in the Lower Lake region; late frosts in Mississippi and Tennessee; large excess of rainfall in the Western Gulf States, Tennessee, and Upper Mississippi Valley; severe snow-storms along Lake Superior, on Pike's Peak, and in Utah, Montana, and Wyoming Territories; very few reports of droughts; the destructive thunder and hail-storms; ice-fields in Lake Superior, Straits of Mackinaw, Gulf of St. Lawrence, and near St. Johns, Newfoundland; grasshoppers in Minnesota, Dakota, Wyoming and Montana; an aurora on the 25th.

THE DELINEATOR FOR JULY. This popular periodical occupies a position of its own in an approximation to a common-sense treatment of fashion matters. Besides giving fully and clearly the newest general information as to the various departments of the mode, it handles the practical details so that everybody can understand them. Yearly subscription, \$1. New York: Messrs. E. Buttrick & Co.

THE FOREST AND STREAM HAND-BOOK FOR RIFLEMEN. Giving forms for organization of Rifle Associations, By-Laws, Rules for Practice and Competition; Practical Hints concerning Ranges, Targets, Scoring, Rifles, Shooting, etc., and a list of Rifle Associations in America. Illustrated with maps, diagrams, etc. By Major G. C. Starr, Secretary American Rifle Association. Contains many practical suggestions for shootlists. New York: J. B. Ford & Company. Price, cloth, 50 cents.

THE ANGLO-AMERICAN PHONETIC ALPHABET. By Eliza B. Burns. Approved and recommended by the Alphabet Committee of the American Philological Society. New York: Burns & Co. Price, 10 cents.

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SAMUEL J. TILDEN,

CANDIDATE OF THE DEMOCRATIC PARTY FOR PRESIDENT.

ON the 27th day of June last the great party "of the people," as the designation Democratic implies, met in convention at St. Louis, Mo., and on the 28th nominated at the second balloting Mr. Samuel J. Tilden, at the time Governor of New

York, as its candidate for the Presidency of the United States, thus bringing into opposition the Governors of two powerful States ; Mr. R. B. Hayes, the representative of the Republican interest, being Governor of Ohio.

In the May number of the PHRENOLOGICAL for 1875, a portrait and sketch of Mr. Tilden were published. Our portrait at this time, however, is a more faithful representation of the gentleman.

Phrenologically considered, he has an organization which is fine-grained and very sensitive to external and internal influences. He feels deeply, strongly, yet is able to keep a placid exterior, and hold the mind, or the manifestations of it, under good control. He would rarely appear to be taken at fault or by surprise, being generally self-possessed, and on the alert.

His high, full forehead shows much more than average ability to appreciate facts promptly at the first glance; and he is more inclined to grasp their significance by a direct, instinctive action of the mind, than to go through a plodding course of analysis. He forms his judgment first, and verifies it by the details afterward.

He is therefore an excellent reader of character, able to judge of strangers at a glance. If he were in a commercial line of business, he would give credit, or withhold it, according to his impression of a stranger, after a three minutes' interview, and ninety-nine times in a hundred he would be correct.

He has much method and regularity in his mental composition; everything which he plans to do is planned like machinery—consecutively, systematically. He has an excellent memory of historic events, and with his large Comparison and Order, can bring all the facts and circumstances connected with a given matter into such consecutive relation that they seem natural and har-

monious; thus, as a writer or speaker, his statements would have the appearance of plausibility and truth. Some men can not recite the plainest truths without seeming to be inharmonious and contradictory.

He has strong sympathy; is as tender and gentle in sentiment as most women. Children like him, and pets of the household believe in him, and come for protection to him; and though he is firm, prudent, and plucky, he carries his affairs in such a way as to produce on the minds of children and animals the idea that he is gentle, forgiving, and patient. Men who are strong and wicked will awaken more of his bravery, force, and angularity; but weakness always finds in him obtuse angles, smoothness, and consideration.

In disposition and tone of mind he resembles more his mother, or the feminine side, than his father. He may have the middle face of the father, and the middle or executive department of his brain may also be of the father's stamp; but he has in general three maternal elements of mind and character to one paternal.

He should be known for thoroughness and precision of thought and action, and for a certain sort of niceness or esthetic accuracy in his expression of thought and feeling. He should be distinguished for ease and urbanity of manner, and for a delicacy of accommodation which wins acquaintances and friends. We do not deem him to be wanting in courage to meet and master difficulties; but he is watchful with respect to his words and conduct; especially prudent in his decisions and actions, and more guarded about danger and difficulty than is always profitable.

Samuel J. Tilden is a native of New Lebanon, Columbia County, N. Y., where he was born in 1814, and is descended from Puritan stock. Nathaniel Tilden, his an-

cestor, was a brother of one of the consignors of the *Mayflower*, and three years after the landing at Plymouth Rock, came to America, with nine other gentlemen, from Kent, England, in the ship *Ann*, and founded the town of Scituate, Mass. His father, a farmer and merchant in New Lebanon, was noted for his sound practical sense and sagacity, and when Samuel was prepared to enter Yale College, at the age of eighteen, was a prominent man in the county, the intimate friend of Silas Wright, Martin Van Buren, Michael Hoffman, the Livingstons, William L. Marcy, and other political leaders and statesmen, all of whom were frequent visitors at his home. Thus, in his early youth, Mr. Tilden was stimulated to become a student of great questions in government and political affairs, by association with eminent statesmen.

He was but eighteen years of age when he felt stimulated to write a pamphlet on some of the political issues of that time.

In the contests which resulted in the second election of General Jackson as President, Mr. Van Buren, Vice-President, and Mr. Marcy as Governor, young Tilden took an active and influential part. The success of the Democratic party at that time depended upon the breaking up of a coalition between the National Republicans and the Anti-Masons. Young Tilden wrote a powerful analysis of the political situation, which was published in the Albany *Argus*, and was so well written that its authorship was at first attributed to Mr. Van Buren by some newspapers. It brought him into fellowship with his father's distinguished friends, who composed the famous Albany Regency, and gave him rank among the leaders of the party. Mr. Tilden entered Yale College in 1832, and was a member of the same class with William M. Evarts, Chief-Justice Waite, Edwards Pierrepont, and Profs. Lyman and Silliman. He prosecuted his studies with such application that his health failed, and he was taken home without a hope of ever returning. But in 1834 he was sufficiently re-established in health to return to his studies, and then he entered the University of New York, and there completed his academical training. After leaving col-

lege he entered the law school of the late Benjamin F. Butler, and the law office of the late John W. Edmonds.

Upon entering the study of the law, Mr. Tilden's father took occasion to impress upon the mind of his son the importance of looking carefully and critically into the reason of every principle, and to go always to the bottom of a subject. It is from this habit in the study of his profession that he has blended with his practice the study of metaphysics, political economy, and other cognate branches. It has often been said of Daniel Webster that his simple, but masterly, arrangement of the facts of a case in the exact order of their legal value was in itself an irresistible argument. Governor Tilden possesses this analytical and systematic habit of thought and work in a high degree. He, however, gave more attention to politics than to the practice of the law in the early part of his career as a lawyer.

When the financial convulsion which followed the accession of Mr. Van Buren to the Presidency in 1837 occurred, we find young Tilden taking an active part on the side of the President and the financial policy he had recommended. He wrote a series of articles under the *nom de plume* of "Crino," in defense of this policy and in opposition to the Whigs, and in October, 1840, delivered at New-Lebanon an elaborate speech to the same effect. He also wrote a review of the United States Bank project, attacking all the arguments which had been urged in favor of that institution.

In 1844, Mr. Tilden, in conjunction with another, founded the *New York Daily News*, a newspaper intended to further the election of Polk to the Presidency and Silas Wright to the Governorship of New York. In 1845 he was elected to the Assembly of that State, and while serving as a member, was elected to the Constitutional Convention which prepared the present State Constitution. He served also in the Constitutional Convention of 1867. The defeat of Mr. Wright in the following year, and other unfavorable political occurrences, caused Mr. Tilden to withdraw from the political field and devote himself exclusively to the duties of his profession.

The case which brought him into prominence as an advocate at the bar, grew out of a City election, the results of which, as affecting the candidates for City Comptroller, were disputed. Mr. Tilden appeared for the defense, and conducted it in such a masterly way, winning victory where defeat from the array of evidence against him seemed almost certain, that his reputation was at once assured.

A few years later he appeared as counsel for the heirs of Dr. Burdell against Mrs. Cunningham, in the celebrated case of her application for letters of administration and a widow's third, on the ground of a private marriage with Burdell. A large number of witnesses were produced who gave evidence in favor of the alleged marriage. Mr. Tilden broke down the case for the alleged widow by skillful and laborious cross-examination, which developed a series of facts and circumstances utterly inconsistent with the theory that this presumed marriage had taken place. The application for letters of administration was refused.

Mr. Tilden's professional services were chiefly given to railroad corporations, and in the course of time his income in the relations of counsel, trustee, director, etc., to different railways was so large that he accumulated a princely fortune. In 1872 he withdrew in great part from such connections, and gave himself to political interests.

The late war found in Mr. Tilden no earnest supporter; he counselled compromise rather than conflict, and with his usual discernment predicted that the latter would cost the nation a tremendous expenditure of blood and money. He advised that in the start the President should call not for seventy-five thousand troops, but for fifty thousand; half for immediate service, and half to be put into camps of instruction.

During the struggle of the friends of law and order against the domination of the Tweed faction, Mr. Tilden is said to have contributed valuable information and advice to the Committee of Seventy, so famous for its bold and persistent attack upon the

audacious and powerful officials whose corrupt measures and unscrupulous greed had involved New York in such deep financial and commercial embarrassment. Having been previously connected with the Tammany Society, which ruled the Democratic interests of New York, he was able to show himself an able coadjutor in the struggle for reform.

In 1874, as the Democratic candidate for Governor of New York, Mr. Tilden carried the State by a very large majority, and soon after his assumption of the duties of office he announced the policy of Canal investigation which brought to light the existence of frauds and peculations on a large scale among those officially related to the administration of canal affairs. It is claimed that by his vigorous persistence in this investigation, much has been done toward relieving the State government of useless or of worse than useless officials, and that a healthier political condition reigns in Albany now than had been known for years previously.

Governor Tilden is a man of cultivated literary and artistic tastes, and numbers among his friends many literary men. His law library is one of the largest and rarest in the country, and is supplemented by a large and exceedingly fine collection of works on finance, political economy, and general literature.

Thomas A. Hendricks, the candidate for Vice-President in association with Gov. Tilden, is also a State's chief executive, being the Governor of Indiana. He was born in Muskingum county, Ohio, September 7th, 1819; received a liberal education, studied law and was admitted to the bar of Pennsylvania in 1843. He commenced practice in Indiana, and gained a good reputation as an argumentative pleader. He was elected to the State Legislature in 1848, and served in other official capacities subsequently. Notably he was the representative of a secession legislature in the United States Senate, in the war, and acted with great, if not always with commendable, firmness in representing his constituency in the discussion of measures having relation to the war.

MENTAL HEREDITY AND THE INFLUENCE OF CULTURE.

With our sciences and our Cyclopedias we are apt to forget the *divineness* in those laboratories of ours.—*Carlyle*.

IN every large community there are men and women living, it may be, in obscure neighborhoods, whose knowledge of the undercurrents of human life entitles them to profound respect. One of these is my friend Avery Justun, at least in my opinion. Since the beginning of our acquaintance I have found it pleasant and profitable in many ways to visit him in his humble abode as often as leisure and propriety admit. He is a carpet-weaver, and although over sixty years of age, plies the shuttle with much vigor, and so obtains easily the means which a frugal life requires for his own maintenance and the comforts of an invalid sister.

Entering his house one evening, I remarked that the children who were playing near his door were unfortunate in being born amid associations of want and privation.

He replied: "I do not deprecate so much the fact of their being born amid low and depraved associations as I do the fact that most of them are born of ignorant and besotted parentage. People of good organization and fair culture may through reverses be compelled to live in the by-ways, where intemperance, vice, and extreme want are huddled; yet their children will generally prove superior to their surroundings, and in the majority of instances emerge from the condition of their childhood early in life, and take a place more in accordance with their mental inheritance. Stock, or pedigree, so deeply impresses organization that it gives tendency and color to pursuit, and moral conduct despite social influences of a most antagonistic kind. Such men as Kant, Ascham, Robert Owen, were born in very humble surroundings, amid even more ignorance and squalor than you may find in this neighborhood. Their parents, or the father or the mother, gave them the organic strength which prompted their effort to rise above the physical relations of their boyhood and to win a noble rank among the gifted and the great."

But, said I, is there not something of the fateful and the arbitrary in such a philosophy as that which your reasoning formulates? Grant it, and individual responsibility no longer obtains in the economy of human life.

"It must be admitted," replied he, "that there seems to be an element of the pre-established in this matter, but is it not reasonable? And being reasonable, is it not just? Furthermore, is not this very persistency of qualities productive of benefits through its prevention of social decadence and its tendency, on one side, at least, to raise the standard of intellectual capability and of moral sentiment. In other but related aspects we perceive the healthful operation of this law of persistency. Based upon it are the distinctions subsisting between individuals which give character to societies, communities, peoples. Men and women, of the same or nearly similar mental grade, when aggregated in families or societies, are found to possess the characteristics of harmony and of mental helpful sympathy, and their tendency is to improve in moral and intellectual tone. The influences which disturb the peace of such communities are usually of external origin. If you will glance over the early colonial history of our country, or of Canada, you will find that the settlements planted by English or French co-operative energy, which were broken up, got along harmoniously enough until designing men, who had no part in the formation of the colonies, or enemies, aimed to destroy or to control them.

"A diversity of elements, talents, gifts, energies, in a community, is essential to its growth, development, and true prosperity. So in the human organization a diversity of organic development is not necessarily unfortunate, but under certain conditions may be made conducive to individual growth in the graces and utilities of character."

How do you mean, said I, that diversity may contribute to the bettering of oneself?

Here is a young man with a strong development of the element of Combativeness, which colors his language and conduct in so marked a degree that it is very frequently offensive to his friends and acquaintances, and gives the possessor much pain and mortification. How can such a turbulent element be reduced or made subservient to reason and propriety?

"Your question, as I take it," replied he, "is intended to illustrate any quality of human character in predominant activity at a stage of life when men are thought to become judges of their personal disposition. My answer to it is, that every person who has the capacity to appreciate his lack of balance or harmony, in any particular, has also the capability to modify the expression of his character in any given direction. He whose Combativeness is so strong that it gives a flavor of contention and insolence to his voice and language, can discipline himself into a manner savoring more of gentleness. The more pronounced the disposition, the more of time and patient effort will be required to accomplish the desired end, I grant you; but earnestness and high resolve will materially change, if not entirely conquer, the most stubborn of habits, whether inherited or acquired. You remember the case of Demosthenes—how persistence and practice overcame a natural defect of speech, and made him, who at one time was the subject of ridicule on account of his stammering tongue, the most graceful and persuasive of orators? I have no doubt that Demosthenes possessed mental infirmities as discouraging to most men as his physical one would be, and that his retirement to the solitude of the seashore was for their cure as much as for the correction of his fault of speech. Socrates, the greatest sage of the Greeks, is said to have confessed that his natural disposition leaned to vice and profanity, but that his integrity of life was due to constant watchfulness and self-repression.

"But, you may say, that these were men of extraordinary endowments, and it were better to cite instances of men of ordinary capacity, so that the world at large may derive encouragement from their triumphs

over weakness of mind and body. In answer to this supposed intimation, let me say, that many, if not nearly all of those whose names are enrolled upon the historic record as benefactors of their kind, won their eminence not by reason of any special endowment of genius, so called, but by reason of earnestness, industry, perseverance, in some one direction. Difficulties suggested new devices; opposition stimulated fresh zeal. The chief elements which we find conspicuously presented in the character of such men as Aristotle, Kepler, Galileo, Guttenberg, Harvey, Newton, Palissey, Stephenson, Buffon, Bowditch, Humboldt, Franklin, and such women as Elizabeth Carter and Caroline Herschell, are industry and earnestness."

This, my good sir, I interposed, is excellent reasoning, but it seems to me that a man must possess a good head at the start; must have those faculties which inspire decision, earnestness, industry by natural endowment, otherwise his career will not be distinguished by their activity. You know that George Combe said that a large brain is indispensable to be a Bonaparte, a Luther, a Demosthenes, a Cromwell, and so on, implying, doubtless, that the large brain possesses greater powers and higher capabilities than the small. Now, as we inherit our brain, its natural endowments are stamped upon it, and if they be small and weak, can one hope to cut much of a figure in life?

"A while since," replied he, "you questioned the validity of a statement of mine on account of its apparent materialistic philosophy, and now you go even further than I have by the direct assertion of inherent qualities belonging to men severally. But in this you do not differ from other intelligent members of society in the Church, or out of it, since the fact of special and differential organization or endowment by nature is too manifest, in our every-day life, not to be accepted as a thing of course. Your last inquiry, however, is quite explicitly answered, I think, by Mr. Combe himself, in the same connection in which you will find the statement which you have substantially quoted. He says (permit me to read from the volume for the sake of accu-

racy): 'To display skill, enterprise, and fidelity in the various professions of civil life, to cultivate with success the less arduous branches of philosophy, to excel in acuteness, taste and felicity of expression—to acquire extensive erudition and fine manners—a brain of a moderate size is, perhaps, more suitable than one that is very large; for wherever the energy is intense, it is rare that delicacy, refinement, and taste are present in an equal degree. Individuals possessing moderate-sized brains easily find their proper sphere and enjoy in it scope for all their energy. In ordinary circumstances they distinguish themselves, but they sink when difficulties accumulate around them. Persons with large brains, on the other hand, do not readily attain their appropriate place; common occurrences do not arouse or call them forth, and, while unknown, they are not trusted with great undertakings. Often, therefore, such men pine and die in obscurity.*

"Thus it is that most of the men and women who command respect in local communities are not marked for great predominance of brain, but rather for having accomplished respectable results in a plodding way; while the geniuses lie in the out-of-the-way places, being shunned by, or shunning, the body of society. The highly endowed man is fitted for some special work rather than for average, every-day utilities; hence it is difficult for him to find his proper place in the ordinary current of affairs. He is easily made dissatisfied and unhappy, and often becomes moody and despondent by reason of his failings to find his normal belongings. Misanthropy is very prevalent among big-headed men, far more so than among men of moderate cerebral development. Small-headed men often triumph over difficulties simply because they have not the requisite breadth of judgment to discern their real nature, and so blunder successfully through them. Large-brained men may discover new principles, invent new methods of action, unfold what had been mysterious; but the small-brained, constituting the mass of the steady practi-

cal workers in the world's sphere of industry, utilize those principles and adapt those methods. The trite axiom of the poet—

'Honor and shame from no condition rise,

Act well your part, there all the honor lies,'

must ever have a place in sound reasoning upon individual and social responsibility. The common law, born of the combined experience and wisdom of many generations of civilized men, and borrowing not a little from the customs of people deemed barbarous, holds every one of mature years, not insane or imbecile, responsible for his acts. It does not matter where you have been born, whether in a mansion of brown-stone or marble, surrounded by the appurtenances of wealth and refinement, or in the cellar of a tenement amid the accumulated filth and reckless profanity of ignorance and vice, your subservience to its requirements is fixed at the same standard. You are endowed with the will to obey or to disobey its statutes; you are a free agent; claim the recognition of the community as such, and the community accords you that character only on condition of your amenability to the obligations imposed by the law and custom. So far as the mere incident of birth is concerned, it would seem that greatness of mind and character is more likely to be co-ordinated with an humble origin than with a noble birth, if the record of the world's worthies is to be accepted. Is it not so?"

Yes, I replied, so far as my reading of illustrious biography has gone. I must admit that most of the men, and women, too, whose powers of mind and excellence of virtue command the admiration of all, were born in obscurity. I am reminded by your suggestion of Socrates, of Luther, of Columbus, Kant, Kepler, Vincent de Paul, John Howard, John Todd, Adam Clarke, Livingstone. But notwithstanding all this, with the daily statistics of crime in view, I can not help thinking that for many who are born into the world there is little in store besides a "heritage of woe."

"Looking squarely at the situation," said he, "and considering society as we find it, there are some who are born under such an unhappy combination of circumstances that

* "System of Phrenology."

they are constitutionally prone to the indulgence of low passions and appetites, and, if their surroundings from childhood to advanced youth are mainly of a depraving sort, they sin, naturally, as it were, against the precepts of law and moral propriety. Such persons are few, however, in number, and it is a department of benevolence, or of material interest not yet generally appreciated which should provide for their care and instruction. In many of those crime-stained unfortunates, who spend most of their lives in prison-cells, there is material, which, had it been called out by judicious training in their early life, would have made them useful members of society, instead of abhorred pests. Every man and woman has something of the angelic, something which conduces to upward development, and if opportunity, culture, *grace* be accorded, it is prompted to active manifestation.

"How some incident of a simple nature may bring to light, as if by an electric shock, the nobility lying beneath the garb of illiteracy and coarseness, is well illustrated by the English story: One evening a young woman, while turning the corner of a street in Sheffield, unexpectedly jostled a small boy, ragged and shoeless. Stopping as soon as she could, she turned to him and said, 'I beg your pardon; indeed, I am very sorry.' The small, ragged boy looked up in blank amazement for an instant; then, taking off about three-fourths of a cap, he bowed very low, smiled until his face became lost in the smile, and answered, 'Yer can hev my parding, an' welcome, miss; an' yer may run agin me and knock me clean down, an' I won't say a word.' Her courtesy awakened the "angel" in him.

"A late writer perceiving this truth says: 'It should never be forgotten that the first impulse to any improvement of a man's outward condition must come from the quickening of some inner inspiration.* And he makes no difference in its application to the state of civilized or of barbarous man. Were the facts otherwise, the masses of the people would not be distin-

guished as they are for a good degree of sober, conservative intelligence and stanch morality. All around us are young men, middle-aged and old men, occupying places of usefulness and trust, and if we were to trace these men individually to their derivation, we should find that full one half of them were born in humble life, and a large proportion of that half amid scenes of destitution and vice. It is not so very rarely that the spirit in this human nature of ours exhibits itself in leading a youth from the slums of his childhood to one of the highest seats of integrity and honor. Just as physical disease or weakness may be cured, or relieved in great part, by careful treatment, so vicious or criminal impressions grafted upon the child-cion yield to nurture and training, and become modified for the better. The old stock can not be altogether educated out, but it may serve as a backing for culture, giving the man a robust manifestation of character which enables him to cut his way in life, and bear up against opposition, reproach, and misfortune. Such a character was that of Luther, and such, I take it, is that of the great ship-builder, John Roach. The hard elements in this latter's organization, under the toning processes of our modern culture, have become the warp and backing in his fabric of character, giving him that wonderful pluck, positiveness, earnestness, and perseverance, which no misfortune—and he has experienced reverses which would have crushed most men of gentler birth and higher intellectual endowment—could subdue. If the principles of popular education advocated by men like Joseph Lancaster of England, and Horace Mann of Massachusetts, were generally applied in the liberal systems that are becoming the glory of modern civilization, we should soon witness a marked mental improvement throughout the people. The intellectual, moral, social, æsthetic, and physical qualities, which constitute man the highest created being, would assume a higher grade of development, or, by reason of their harmonious culture, would render his thought-life and physical conduct reciprocal in action, and always strong and effective in result."

* "Christian Missions." By Julius H. Seelye.

SOME ANCIENT BUSTS.

IN the Metropolitan Museum, on Fourteenth Street, between Sixth and Seventh avenues, in New York City, is a collection of ancient busts which the curious student of human heads and faces can but find of great interest. For 1,400 years many of them had lain under the waters of the yellow Tiber, thrown there by ruthless Vandals during those terrible fourteen days of pillage, when exquisite bronzes were melted down, glorious works of sculpture and architecture wantonly dashed to pieces, and all the treasures of art gathered for centuries in the mighty Mother of Empires were scattered by the destroyer as dust before the whirlwind. During the long night of the Dark Ages, while armies of crusaders passed above them, silent amid the "drums and tramlings" of centuries, lapped by the yellow waves of that ancient river, they slept peacefully and came back again to the light of the nineteenth century, some of them bearing slight trace of their long entombment, to please and instruct the descendants of those who wrought such destruction.

The first face that impresses the beholder as looking like our modern faces is that of Seneca. From his eyes upward the contour of the head very much resembles that of Daniel Webster, and the expression of the face is not unlike that of the great statesman. The intellectual faculties largely predominate in the head of this bust of Seneca, showing him to have been by nature a philosopher. Large as is the frontal portion of the head, it is highest at the point where phrenologists locate the organ of Firmness, and this remark applies to all these busts except those of Brutus and Cornelia. That this quality was marked in Seneca is evidenced, also, by the firmly-set mouth and the full chin.

Like Cicero and Webster, Seneca could see and approve the better way, though he did not always walk in it. Like the greatest philosopher of modern times, Lord Verulam, avarice was with him a besetting sin, and he was accused of courting the affections of the people, and by the grand-

eur of his villas and the beauty of his gardens hoping to vie with imperial splendor. Ideality, Sublimity, Acquisitiveness, are all large in his head, and though he was the principal ornament of Stoicism in his day, and a valuable instructor of mankind, his teachings were purer than his life, and he tampered in conduct with the virtue which he rigidly taught.

Next to Seneca stands the bust of Cato, the Censor. The shape of the head is in marked contrast with that of Seneca. Cato was not a philosopher, but a man of intense purpose, and by nature fond, not only of letters and of art, but of warfare, political and military. He had within himself a standard of conduct which he delighted to make all others obey; and, notwithstanding the powerful opposition of a large part of the nobility, he obtained the office of censor, and with inflexible rigor endeavored to keep up the true spirit of earlier days. The brain in this bust is compact, comparatively small, but driven by powerful forces, as is seen in the full back-head, the large and prominent nose, the strong neck, the full chin, and the way in which the head is set upon the neck and the neck into the shoulders.

In his private relations as husband and father Cato was eminently exemplary. Not for itself did he love luxury or wealth, but he prized them as means of obtaining the exercise of power, which he did heartily love, and profit and gain appeared to him to be important objects in life. Cato was an orator, but his oratory was distinguished by asperity, harshness, and inelegance, though in vigor and pertinacity he was unsurpassed.

Near Cato stands a bust that has no name affixed to it; but who does not recognize in the gay, heartless, unprincipled character looking forth from the marble the daughter of Herodias, who danced before Herod, and, as a reward for her skill and grace, received the "head of John Baptist in a charger?" Some people are born without any moral sense, just as some are born blind, and deaf, and idiotic. At first glance this

girl looks pretty, but as little by little the soul comes out of those features they grow repulsive.

Next her is Cleopatra, the voluptuous, refined, subtle, graceful, accomplished queen of Egypt. All these qualities show themselves in the contour of the head, and its pose, in the full forehead, the sensuous mouth and chin, and in the voluptuous folds of the neck.

Just on the shelf below, calm and impassive, stands Fulvia, whom Antony forsook for Cleopatra. But not calm and impassive was she in life. Her head is strongly developed in the frontal and coronal regions, and she was endowed with a large womanhood, which, in connection with her bold and ambitious nature, caused her to fill a large space in the history of those times. Outraged and maddened by Antony's desertion, she tried to induce her brother to fight against her husband, and failing in this she raised an army to fight against her brother, but was compelled to surrender. When the head of Cicero was brought to Antony, she took it on her knees, broke into violent denunciations of the great orator, and pierced his tongue with her golden bodkin. Doubtless those two wrinkles in her brow were deeper than they are even in the bust. She died at last of chagrin and wounded pride.

Beside her is Cornelia, mother of the Gracchi. Her face is plain, and no marks of beauty are about it anywhere, but it is altogether noble, self-contained, modest, womanly. Her head is a model of fine character. There is one full curve from the nose to the back of the neck; the intellectual, moral, and social faculties are all equally full, and there is an admirable poise in the head. Her hair is parted in the middle, combed back above the ears, and disposed in one braid, which encircles the back of the head. Some women are born without a love of jewels or fine dress. One glance at Cornelia's face shows that she was incapable of loving jewelry or gewgaws. As the mother of the Gracchi, when they were in power doubtless she wore gems and robes of state, but not because she loved them. They were to her merely

the insignia of rank and station. If her name were not affixed to the bust it might well be taken for a Virginian or New England matron of the olden time, for all the virtues that make home the center of human affection are indicated by the outlines of her head and face. There lingers a sad expression upon the features, and one can but wish that Cornelia had possessed the consolations of the Christian religion. They would have irradiated her countenance with the light of heavenly hope.

On the death of her husband Cornelia was left with a family of twelve children, the care of which devolved entirely on her. Ptolemy, King of Egypt, sought her hand in marriage, but she declined the honor. All her children but three, two sons and a daughter, died. To these she devoted all her time and care, and though they were of illustrious lineage, they were said to owe more to the education received from their mother than to nature or fortune. Their untimely death she bore with great fortitude, but her grief doubtless left deep traces upon her face, and probably the bust here spoken of was modeled after their death. A statue was erected to her by the Roman people bearing for an inscription, "Cornelia, mother of the Gracchi."

Not far from the bust of Cornelia stands that of Agrippina, sister of Caligula and mother of Nero. Treachery, ambition, lust, revenge, mar features that nature made beautiful. She is largely endowed, but only for evil. All her thought and ambition centered in self. Her brow is ample, but bears no mark of high moral purpose or noble intellectual achievement. She was wily, unscrupulous, incapable of feeling or of inspiring confidence. Caligula banished her from Rome, though not because he loved virtue, and when he was cut off she was recalled. She was not without literary ambition and industry, for Tacitus in his Annals made use of memoirs of her times written by Agrippina. By the orders of her son, Nero, she was assassinated in bed A. D. 3-9.

Caligula may be seen in this collection in *alto-relievo*. His intellectual developments are small, his forehead is low and

flat, but the lower side-head is full and prominent. His chin is bold, and, with his nose, projects far beyond the line of his forehead. His entire physiognomy shows the preponderance of animal propensity untempered by morality, unbridled by any social or intellectual restraint.

The two busts of Hadrian, one in the collection of busts, the other on a pedestal on the opposite side of the hall, afford a curious study of the emperor at different periods of his life. The bust in the collection was evidently taken in the early part of the emperor's career, while the other shows how he looked after wearing for years the imperial purple. This last bust bears marks of genius in the sculptor. The marble seems instinct with life. In the first bust we see the man affable, popular, able, luxurious; in the second is manifested the statesman, the orator, the man of wide and liberal culture. Hadrian's father was first cousin to Trajan, and at his death, when he (Hadrian) was but ten years old, the latter was left to the guardianship of Trajan. He early served in the army, and was the companion of Trajan in most of his expeditions, and on the death of that emperor was invested with the purple, and proved his fitness for the position by visiting every province in the empire, repressing abuses, erecting and repairing public edifices, inspecting and personally supervising the administration of the government. When in Rome he cultivated all kinds of literature and courted the society of the learned, entering the lists against poets, orators, and philosophers of the day. He composed a history of his own times under the name of his freedman, Phlegon.

The bust of Vespasian shows a character of great power. The intellectual faculties are full, the nose and chin prominent, and the head is a type of the noblest Roman physiognomy. Vespasian was of obscure family, and owed his elevation solely to his talents and fine character. He was a man of rare and excellent virtues, thoroughly matured by a life spent in the exercise of public duties, and with no object superior to those of promoting the public welfare. He was fifty-nine when made emperor.

The bust of Antinōus is of a Bithynian youth, who was so great a favorite with the Emperor Hadrian that at his death temples were erected to his memory, a priesthood established to officiate in them, a city built in his honor, and a constellation called by his name. Upon hearing that an oracle at Besa, which Hadrian consulted, had declared that great danger threatening him could only be averted by the immolation of some person dear to him, Antinōus threw himself from a rock into the Nile and perished. Painters and statuaries vied with each other in producing portraits and busts of him, that they might immortalize the grief of the monarch and the memory of his favorite. The face and head of this bust are pure Greek, and perfect repose bathes the classic features.

The bust of Brutus invites the most careful, loving, patient study. That it is a portrait is verified by the perfect embodiment it is of the character of Brutus as portrayed by Shakespeare. All the intellectual and semi-intellectual faculties are grandly developed. Veneration is the highest point on the head. The features are beautifully chiseled, and reveal a soul intent on discovering the right and resolute to pursue it. One can but feel while looking at this bust that when such a man should turn against him there would be no longer any room for hope, and understand the despair which disarmed further resistance in the "foremost man of all the world" when Brutus turned against him. To win the love of such a man and his utter confidence his wife might well bear a "voluntary wound" in silence patiently. That she succeeded may make her sisters in this day congratulate themselves.

Brutus was descended from the ancient family of that name, and on his mother's side was of the family of Cato, the Censor. In his early military career Brutus was guilty of extortion, but later was characterized by great integrity and humanity. He had fine literary tastes, and lived on intimate terms with Cicero. It was his habit to rise long before day, that he might devote himself to the study of literature, and it is said that one evening before a bat-

tle, when his army was in a state of anxious suspense and alarm, he calmly occupied himself in his tent with making an abridgement of the history of Polybius. He was slow to enter the conspiracy against Cæsar.

There was in him something of that which kept Hamlet from boldly assassinating the usurper of the Danish throne. He could reason better than he could act, though he did act at the last. L. E. LYMAN.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritances, must be carefully propagated by a virtuous education of youth.—William Penn.

1776.

From the northland to the southland,
From the eastward to the west,
Stretched the forests chained by mountains,
And the gleams of silver pressed
Through the rocky, moss-clad gorges,
Finding in the lowlands rest.

Fringed with grasses, ocean bordered,
Lay a strip of eastern shore;
Sprinkled o'er with humble cabins,
Human bird's nests, nothing more.
Nature held her wilds all silent;
Freedom tapped without the door.

Backward fell the stalwart Indian
With a slow, reluctant tread,
And the land grew broad and golden,
As the forest shadows fled;
Then it blushed from gold to scarlet,
While its heroes' blood was shed.

There were battles, tears, and trials,
E'er the victory was won.
There were storms and self-denials
E're the fullest blaze of sun;
But our ancestors were patriots,
And their work was nobly done.

1876.

From the northland to the southland,
From the eastward to the west
Ring the voices, echoing music,
"Rock the century to rest.
Tenderly in regal glory
Clasp it to the nation's breast."

Gone are the primeval forests,
The rude cabin's closer shore
Long since blossomed into castles
Quite unlike the buds of yore.
Cities stretch along the rivers
Where the Indian stood before.
Through the tall indigenous grasses
Man has trailed an iron thread;
Bound the continent together,
And it wakes beneath his tread;
Yields its fullest life and treasure,
Yields him gold, and peace, and bread.

From the northward from the southward,
From the rise to set of sun,
Through the millions, brave, exultant,
While their proud hearts beat as one
The great nation rocks and blesses;
Hush! the century's course is run.

S. L. OBERHOLTZER.

ALFONSO TAFT.

ATTORNEY-GENERAL OF THE UNITED STATES.

THIS is a very strong face and head. Those broad cheek-bones indicate good vitality; that massive nose evinces courage, fortitude, endurance, and love of command. That forehead shows

practical talent; more power to gather knowledge and make it available, more criticism and appreciation of defects and excellencies, and more power to read and understand character, than

fondness for philosophy, speculative theories, or imagination.

He is straightforward in thought and action, and has more generosity than pliability, more sympathy and liberality than blarney. He talks directly to the mark, says what he has to say, and closes the subject.

it stand out plainly and squarely. He has an aversion to everything that is involved and secreted, hidden, or indirect.

He has a good degree of pride, ambition, and determination, and perseverance, which amount almost to obstinacy. He is liberal, however, and



PORTRAIT OF ALFONSO TAFT.

He has a serious, substantial character, is earnest and sincere, has not an intellect adapted to subterfuge, or crooked methods of dealing. He is apparently open-hearted, frank, truthful—that is to say, he is willing that the truth should be known, and will make

respectful, but somewhat wanting in suavity and imitation, or the tendency to blend with others, unless he can do it without the sacrifice of principle.

We should expect that in any public station, he would be kind, polite, considerate of other people's rights and in-

terests, but would otherwise be as clean-cut, positive, and absolute in the conduct of his duties as a man can well be.

Alfonso Taft was born on the 5th of November, 1810, in Thompson, Vermont. Thompson is a pleasant little village on the eastern slope of the Green Mountains. He grew up without receiving the advantages of much school-training, but obtained what information he could pick up in his association with others, and in occasional reading.

His father was a man of considerable mental caliber, although uneducated, and Alfonso doubtless inherited his zest for learning from him. At the age of sixteen he taught a district-school in the season when he could be spared from the duties of the farm, and the money which he there earned he saved with the view to obtain a collegiate education. He was successful in this, for at nineteen he entered Yale College, and passed through the full course of four years, graduating with honor.

After leaving college he accepted the position of teacher in the high school of Ellington, Conn., and there he remained two years; then he returned to his *alma mater*, to take a tutorship, whose duties he performed for two years. Meantime, he studied law, and attended the lectures of the Yale law school. At twenty-eight years of age he applied to the bar for admission to practice, and received the usual license.

A year later, influenced by that leaning which has given the West so many New England youth, and with them the enterprise and thrift so conducive to the development of its mighty resources, Mr. Taft went to Cincinnati, where he made his permanent residence.

Throwing himself with a hearty energy into the practice of the law, he made no little progress in the esteem of the community. His record is that of a careful, steady-going, diligent lawyer, and he has been interested in some of the most important issues which have been brought to the notice of the courts of Ohio. He practiced also in the United States Supreme Courts with equal credit.

Mr. Taft has been twice elected to positions upon the bench. His appointment to the portfolio of war, although unexpected to those familiar with political affairs at Washington, appeared to give much satisfaction. But he had scarcely entered upon its duties, when he was nominated Attorney-General in place of Mr. Pierrepont, who had been appointed Minister to England as successor to Gen. Schenck. We think that Mr. Taft is better suited to the juridical position. His antecedents are materially different from those of Mr. Belknap's, whose early career was of a brilliant character, but he nevertheless possesses that plain, substantial good sense which inclines us to expect that the administration of the duties of his office shall be distinguished at least for a regard to dignity, assiduity and integrity.



THE COLOSSAL "LIBERTY."—Probably many of our readers are aware that an immense statue is being constructed in France as a Centennial offering to America, and which is to be placed on Bedloe's Island, in the harbor of New York, where it will serve as a lighthouse and a *souvenir* of the esteem of the French people. The statue will be over two hundred feet, and constructed of copper.

HOW TO CONSIDER THE MONEY QUESTION.

[A movement is on foot in the city of New York having for its object the full and free discussion of the important topic of the day, Our Currency. Among those interested are several gentlemen of prominence in commercial or professional or political life. Of course, they are hopeful of cutting the Gordian knot which baffles our Washington statesmen, and in various ways distresses the whole country. We hope that their efforts may be productive of good results. The spirit of this new movement may be gathered from the following, which is a kind of prospectus, setting forth the method its promoters aim to follow in their consideration of the many complex questions involved.—Ed. A. P. J.]

“IN view of the present unsettled condition of the currency question, and in view, also, of its present great importance and prominence, we, the undersigned, regard it to be, at once the right, the interest, and the duty of all good citizens to band together—first, to seek the best available information upon, and, if possible, to find the true scientific solution of, said question; and, second, to disseminate such information, when found, among the people. In mere words and on paper our theory is abstract; we would make the matter concrete by joining our actions to our words, by uniting the actual with the ideal. The more perfectly and readily to affect this blending of theory and practice, and the more certainly to affect the final objects of the association, it has been a studied and constant effort to secure as members of the association both practical and theoretical, business and scientific men. In this way it is believed that we shall secure the greatest amount of both facts and principles, the fullest and best use of both observation and logic. The manufacturers, merchants, bankers, and other business men, bringing with them the facts experienced and observed in their daily pursuits, and the scientific and literary men their habits of reflection and powers of reasoning and generalization, together with their facility of statement and skill of exposition, furnish the things out of which science is constructed and by which truth is made plain and disseminated; the ingredients out of which the solid rock of science is created; the materials from which the grand web of science is woven, and the silver

bricks, and golden bars, and diamond settings, with which the fair temple of truth is reared and set upon a hill as a light and a guide to all who love her and are willing to worship at her shrine. Not that science or truth is a respecter of persons, for, like the sun, it shines for all, but not *in* all, only in those who open their eyes and their hearts to its rays. Only through love of it can we receive it. Only through cultivation, and by constantly wooing it, can it remain with us.

But to this love must be added understanding, and science is a method as well as a thing accomplished. The Greeks—who perhaps reached the highest point in mental acquisition in ancient civilization—though earnestly in search of truth, had, about the time of Socrates, despaired of its acquisition. They had failed to arrive at that degree of exactness and certainty which they desired. Their field of investigation was mainly in the physical realm of nature, as it doubtless was bound to be. Their failure, therefore, was in the discovery and establishment of the physical sciences. And the reason of their failure was that they had not fallen into or adopted the right method. They had not yet discovered the scientific method. And not using the methods of science as a means, they failed in securing the substance of science as an end. But the love of truth yet remaining strong within them, they were impelled by it to action, through the person of Socrates, into a new field. They had failed as to the world outside of themselves, the physical world, the world of the senses—that is, in cosmology—but that was not sufficient reason, upon reflection, to them that they might not succeed with the world within themselves, the moral or mental world, the world of thought, of ideas—that is, in psychology.

And so into this new field, and to a degree with a new method, that grand old spirit of the ages, Socrates, embarked with the faith and placidity of one who really believed that higher, though invisible, powers were in alliance with him; that the

gods were actually in alliance in working with and through him.

But, alas! the world again came to despair, and in the last days of modern metaphysics we had arrived at confusion worse confounded. Neither upon this ocean of mind had we found an ark of safety from doubt and conjecture, nor a Mount Ararat upon which we might rest safe from the buffeting waves of uncertainty. The subject of mind was found to be even more complex and intricate than was the subject of matter, and its laws more difficult to be discovered. But though buried beneath the *débris* of the wreck of the old, and obscured by the ashes of blighted hopes, still the living fire of faith and hope was burning upon the altar of love of truth and the new generation tried yet again; and, oh, joy to the world! this time succeeded. The new effort was in the old field—the field of physical phenomena. Its epoch was but a few hundred years ago. The success came through the new method—the observational or inductive method, or the Baconian—for this they had found to be the key to the mystery of law. Having thus secured at last exact, definite, coherent knowledge, that is, real science, positive truth in this domain of nature, we were encouraged to try again for it in the moral, mental, or psychological domain: and again was our faith, and devotion, and judgment, and effort crowned with a glorious success; for here, too, we have been enabled to add knowledge to belief, science to empiricism, truth to fancy. Faith in the right, and devotion to truth for the truth's sake, as well as for the benefits we may expect collectively or personally to derive from its application, is in a special manner required of us in connection with the consideration of this subject, because it is a subject which, in a high degree, is calculated to excite and arouse the prejudices, passions and selfishness of men; and this because, among other things, while so very few know but little about it, so very many think they know all about it.

But to change from this to a somewhat different aspect of the subject, and one which goes more directly to show the need, etc., of the effort we are to make, we quote

from Bonamy Price. To be brief, we take somewhat detached sentences. "The very sound," he says, "of the word currency, makes every man turn his back and shut his eyes; his immediate instinct is to fly from a subject with which he associates every kind of jargon, etc. * * * What was there in sovereigns and bank-notes so inscrutable as to baffle the sharpest intellects, and to be incapable of clear and simple exposition?"

* * * The philosophical spirit has been absent; the right method of investigation, I will not say neglected, but absolutely despised. The method of Bacon, to which modern science owes its strength, patient and accurate analysis, has been scorned. Currency has become a jumble, authority contradicts authority, no first principles are recognized, etc. * * * The main cause of confusion which besets currency is the fatal ease with which a few apparently obvious, but hasty and incoherent, conclusions take possession of the understanding, and indispose it to all patient and accurate investigation. True science alone is clear and consistent, and there is only one road to true science, a thorough analysis of the facts and a firm determination to accept what they teach and nothing else. * * * Bring your logic to bear unflinchingly, especially be not afraid of it. It is no true science if it can not bear the application of logic in drawing inferences."

The great number and variety of facts are a source of difficulty. It requires a rare mind to penetrate the disguise of variety and seize the common element of sameness. Plato said, "If a man could detect *the one in the many* he would follow him as a god." The object of all science is the separation of what is common and general from what is accidental and different. In the eye of science the individual withers, and the world is more and more. And yet from the great to the small, from the evident to the obscure, is the natural and actual order of discovery. Impressionability and love of certainty help to make one a scientist. Search for truth requires as its conditions the absence of strife, detachment from interests, above all mental freedom. It is the character of the undeveloped and untrained

mind, as it is of the primitive race and the child, to deal in special facts and personal interests, and to act from impulse and by reflex action, and to be unplastic and unchangable by individual experience; to be fixed in custom and given to imitation. Such a mind does not reflect, it can not generalize, or fix attention, or combine the action of faculties; it is without rational curiosity, has no notions of class, abstraction, cause, uniformity, law, truth; and no proper sense of justice of sentiment of altruism. It is not impressionable, or expansive, or progressive.

But the more developed, trained, and cultured mind acts in a freer, calmer, more reflective and deliberate, more systematic and rational way. It sees with a finer eye, it understands with a broader grasp. It is not only sensitive to facts, but penetrates to their subtle relations and inner meaning, and seizes hold of the law thereof—sees the immutability of law, the reign of law. It is as grand and broad in synthesis as it is fine and penetrating in analysis. It arranges, it groups, it weighs, reflects, reasons, generalizes. It sees the one in the many and the many in the one. It has ideas of and understands the significance of class, abstraction, cause, uniformity, law, truth—and reconciles progress with order in utilizing the historical method and in seeing what comes of it in the theory of evolution. Such minds have, too, a keen sense of justice of right and duty, and of devotion; a love for the true, the beautiful, and the good, a sympathy for others, and an appreciation of the true spirit of altruism. And in keeping with this class of mind are the new ideas of evolution and a perpetual—in the main—progress of life, superseding the old idea of a fixed type; especially is this true of politics and jurisprudence, and it is now being extended to questions of conduct or ethics.

It is time there should be a diversion of energy from political intrigue and manoeuver to scientific investigation and earnest and honest discussion—time that the scientist should displace and supersede the wire-pullers of an election or a ring caucus. It is proper to discuss; to discuss any question until it be settled and agreed up-

on as settled. Discussion is water from the well of mind. Discussion breaks up the stagnation of fixed opinions.

To many—from the absence of doubt or owing to a dormant intellect—it does not occur why or what they believe. And it may be said of most of us that we believe sometimes first and then inquire why we believe.

Through ignorance and isolation we fail. Through knowledge and unity we succeed. Divergence, of individuals or classes, leads finally to antagonism, collision, and mutual spoliation and destruction. Convergence leads to good will, harmony, and mutual help and salvation.

“They who gather wealth to give to the poor,
Their memory shall be fragrant as roses;
But they who work with their fellows so that
there be no poor,
All the perfumes of the garden can not measure
their sweetness.”

—◆◆◆—

Don't Buy It.—An exchange facetiously shows up an article which is hawked about by irresponsible peddlers, who represent its virtues as a renewer of worn plated-ware in their customary extravagant terms. This stuff is only a salt of mercury which, when rubbed upon worn plate, imparts to it a brief argent gloss, but it comes off in the soup or the pudding, and salivates the family. The peddler should be kicked, and his powder thrown after him into the street. Only the most robustious housewife being equal to this sort of work, it might not be amiss when the peddler makes his appearance to unchain the family bull-dog and spring a watchman's rattle. The subtraction of a liberal chunk of his system by the animal aforesaid, the confusion consequent on the noise of the instrument, the sight of scores of alarmed watchmen rushing around distant corners and making for him with horizontal coat-tails, would very likely cause him to go out of the business, whereafter the patrons of thinly-plated ware might scoop in their sustenance without apprehension of subsequent symptoms resembling those set up in the system by a blue pill.

GEN. GEORGE A. CUSTER.

THE death of General Custer and of his command in an ill-starred campaign against the Sioux in the fastnesses of Montana, has produced a deep impression throughout the country. Winning public attention in the early part of our late war, his dashing, chivalric character kept the admiration of all who esteem high courage and soldierly prowess, and now his violent taking off in the full strength of young manhood appears in the light of a national loss. He was not unknown to us personally, but the circumstances of a visit of his at our cabinet, of comparatively recent date, are specially interesting, as he then obtained a written description of character without previously announcing his name, and the examiner had not the slightest inkling of the name and rank of his subject until after he had closed his dictation.

The following is the description as given, abbreviated only with respect to certain passages of personal advice of a physiological and dietetic nature. The reader will appreciate the allusions to his energy, excitability, and dash, since the lamented soldier's career has well illustrated their significance :

PHRENOLOGICAL CHARACTER.

Your head, measuring twenty-three inches, is large, and as we estimate body and brain, a man with a twenty-three-inch head ought to be well proportioned and weigh 175 pounds. You need ten or fifteen pounds more of good flesh, and you have frame enough to take it on. If you can contrive to sleep an hour or two more every night for the next six months, it will make some difference, for sleep is the only thing that rests the brain, and it was ordained for that purpose.

In the second place, let us advise you to avoid everything exciting in the way of lux-

ury, condiment, food, or drink. Some people can eat and drink, almost as they please, apparently ; they can digest almost anything that man can eat. You are organized differently. Though you may be powerful for a given effort, you are not tough to endure abuses. Anything that you eat and drink that is calculated to heat and inflame the system sets your nerves on fire worse than it does those of most men. A blue eye and blonde complexion, fine hair, thin skin, and susceptibility marked on every fibre and feature, proclaim that you at least ought to live temperately, and by that we do not mean the avoidance of whiskey simply—we mean that you should eat the right kinds of food at proper times and in proper quantity.

You should always avoid overdoing. It is as natural for you to overdo as it is for birds to spread their wings when they feel in a hurry, and it makes little difference what your business is, you would contrive somehow to overdo at it. You make work of pleasure. If you were an overworked citizen, and went to the country to rusticate for a month in the summer, you would get up all sorts of enterprises, and excursions to mountain-tops, romantic ravines, fishing grounds, and what-not ; and you would blister your hands with rowing, and your feet with tramping, and your face with unaccustomed exposure to sunshine, and you would be a sort of captain-general of all such doings. If you were an army officer and in active service, you would get as much work out of a horse as General Custer or Phil. Sheridan would, that is to say, as much as the horse could render. If you were running a machine, that machine would have to go a few turns faster to the minute than machines of that sort are generally run.

If you had the superintendence of a

hundred workmen you would manage to weed out the slow ones and replace them with clear-headed, rapid, and skillful hands, until you had a hundred workmen that would do the work of one hundred and twenty-five as men average. Slowness, laziness, disorder, untidiness, are to you almost mortal sins, and you cannot endure them. Peo-

You inherit more from your mother than from your father. We think you got her enthusiasm, her excitability, her power to see and understand quickly, and you have your father's staunchness and unrelenting steadfastness. If he were a high-headed Scotchman, it would probably be a fair inheritance; but you have your mother's poetry, her de-



ple must toe the mark; be instant, active, and accurate. You would make a good teacher, if your pupils could be selected for you, but they would want two pairs of wings. They would need to be quick to understand facts as well as be quick to recognize them. Yours is a sharp mind, and you ought to work with keen, clear-headed people.

votion, her sympathy, her power to read character at a glance, her appreciation of wit, and her quick and intuitive perception of practical truth. Few persons grasp the facts or comprehend the principles as quickly as you do. There are those who grasp facts, but they have to store them, as we do hay to be used next winter. But you in-

stantly, as it were, put your facts into a press, as grapes are, and reduce them to first principles, as fast as possible. You see what facts are good for, what can be made of them, how they can be used. You would be an inventor, if you were trained to engineering, architecture, or machinery. If you had learned a trade you would be making improvements all the time. If you had been educated in mathematics or chemistry, you would have taken a good rank as a projector of new and useful enterprises.

You would make a good speaker, and though your language would seem to be free and perhaps often copious, you would all the time feel that your thoughts were better and clearer than you could express them. You would have more credit with others for speaking well than you would give yourself for that ability. Your desire for gain is not a strong trait; if you had a plenty of money, or if money came to you easily, it would be more difficult for you to hold on to it than it would for most men. You have power to earn money, but not so much to hold it. You may have uses for money that may make you think you must earn, and save, but if you had enough money invested to give you a good support for life, you would be very indifferent as to compensation for your time. If you were to be employed by corporations or the public, you might feel that whatever was due for your services was to be paid as much as if you had to live on it; but if you owned ground, and had income enough not to feel anxious about making any more, you would spend time and money and not look for return, as a man does who puts twenty acres under the plow and looks for a marketable return for it. You would make fish-ponds, and plant trees, and try experiments, and do a hundred things that economical people would think were foolish. The word miser you do

not understand, except you see some specimen of it in the neighborhood, or look for it in the dictionary.

Your Combativeness and Destructiveness being large, will give you severity when provoked, and power to fight the battle of life earnestly. You put as much powder in the gun when you use it, as is necessary. You use as much steam, when you make progress, as can be well utilized. People who see you coming feel that they must clear the track, and give you the rights which belong to you. Among men, you are like an express train among other trains: you go faster, and you want the track kept clear.

Socially, you are warm-hearted, especially toward woman. If you were a single man, and were to ask us what sort of a woman you should select for a wife, we would say a brunette, one of the wiry, solid, stocky, and enduring natures, whose constitutional qualities, combined with yours, would in your children cause an improvement on both. You could furnish the excitability and talent; she should furnish the endurance, hardihood, and power. As a single man, you would not be what is called a "society man," for you would have books and implements, and would be devoting yourself to something, and perhaps once in a fortnight you would spend an evening with a friend, or go to some entertainment. If you were a married man, and were mated as you ought to be, you would spend your time mostly at home with your wife and your books, and would be likely to take her with you when you went out, so that your experience abroad might be a source of conversation at home. But to be the servant of gossiping callers and have your time and associations with your wife and family frittered away, would be to you a source of inconvenience and unhappiness.

In regard to love for animals, you would

feel proud to have your cattle run after you when you went through the field, as much as to say: "Here is our friend; we know him." You are not inclined to pet little animals. The horse, the dog, the ox, you would pet in a sort of large way. Little children would not be petted by you. You would talk to them as if they were older. Your daughters you would pet in a certain way. You would make yourself companionable with them, and they would sit on your lap and comb your hair till they were twenty years old. Your daughters would believe in you, whatever your sons might think about you.

You are more proud than vain, whatever the world may think of it. You have a sense of your own worth, and are not easily laughed out of anything or headed off the track, or made to feel chagrined by opposition. The more opposition you have, the better you like it, if you can win victory. You have a great deal of Continuity. It is unusual in a man of your temperament. You are as persistent as a corkscrew, though you may not always be willing to labor long at one thing, or one place; but when you start, you are very apt to tree the game.

You are very radical, very enthusiastic, very hearty and zealous. You have wonderful dislikes and very strong likings, and you are apt to go the whole length in the support of that which you approve, and put your whole strength against that which you disapprove. Men like to get you on their side in politics, where you would spend money and make speeches, and push the interest you supported till the election was over; and you would be very likely to retire from the field and decline all offers of public employment. We should hardly suppose that you would be a political parasite. If you were a lawyer, you would not take any subordinate position, but would wait till they would

send you to the State Senate. You do not flow in the channel of others.

Your life is not like a canal, with locks to rise or fall, but more like the St. Lawrence River. You would like a Niagara in your channel, if you could get it, at least the "Thousand Islands" and their rapids.

George A. Custer was born in Ohio, about the year 1839. At the age of sixteen he received a nomination to West Point, through the influence of Mr. John A. Bingham. His career there was not marked for proficiency in scholarship, although he excelled in engineering, tactics, and in sports of physical strength and activity. At his graduation he received a commission as second lieutenant in the Second Cavalry Corps. An odd incident seems to have brought him into prominence just at the time of his leaving West Point.

A few days before the graduating exercises of his class were to take place, Custer was thrown into the guard-house by order of the commandant, for having allowed a fisticuff encounter between two under-classmen while he was officer of the day. He was not permitted to take part in the ceremonies of graduation, and when his class left the military academy for the regiments to which they were assigned, he lay in disgrace awaiting a court-martial. This was in June, 1861. The war had just begun, and the armies were organizing. There was a great want of competent drillmasters, and some one suggested to General Scott that there was a superior drillmaster in the guard-house at West Point. So young Custer was sent for, and placed at one of the barracks near Washington to instruct the green volunteers in the manual of arms. Just before the battle of Bull Run, McDowell, who was in command of the Army of the Potomac, asked for an engineer. Custer was detailed to act temporarily in such a capacity on McDowell's staff, and took an active part in that battle, distinguishing himself for coolness, bravery, and efficiency, and aiding materially in the reorganization of the army afterward. His service was so important that the order for

his court-martial was revoked, and he was sent into active service with the Fifth Regular Cavalry as a first lieutenant, under McClellan. During the Maryland campaign, he served as aide-de-camp to General McClellan, and took part in all the great battles of that campaign, including South Mountain and Antietam. In the summer of 1863, he was made a brigadier-general of volunteers, and he did good work in the battle of Gettysburg, and in the various skirmishes in the pursuit of the enemy to Warrenton, Va. He was brevetted a major in the regular army on the day of the conflict at Gettysburg.

In the campaign of 1863 he was constantly on duty, except for a week or so when he was ill; and in 1864 he obtained a promotion in the regular army, receiving his commission as captain on the 8th of May; and on the 11th, after the battle of Yellow Tavern, being brevetted lieutenant-colonel. For gallant service at the battle of Winchester, on the 19th of September, 1864, he was brevetted colonel, and a month afterward he was brevetted major-general of volunteers, then being but about twenty-four years of age. On the 13th of March, 1865, he was brevetted major-general in the regular army, and during the succeeding month he was made a full major-general of volunteers. Since the war General Custer has served as chief of cavalry in the department of Texas, and as commander on the western frontier. Thus he was brought into contact with the aborigines in their own fastnesses.

A writer in the *Inter-Ocean* says: "Custer knew the characteristics of the Indians as well as any soldier in the army. He knew their customs and habits in war, as well as he knew the tactics of the white man. Long association with them, aided by quick perceptions, and a mind that digested ideas perfectly and rapidly, had so familiarized him with their peculiarities, that he could fight them with their own stratagems, and use against them their own peculiar deceptions and decoys. He knew an Indian 'sign' as well as the wisest warrior that ever wore a breech-clout. I have heard him discuss

with his Indian guides the meaning of 'signs' that appeared from time to time during expeditions I have accompanied. I have heard him dispute their explanations, and I never knew him to be wrong. The Indians have as perfect a system of signals as ever were introduced into civilized warfare. They can telegraph accurately with fires and columns of smoke; they can count an army within a score of its number by the depth that a trail is worn; they can give you within a dozen the number of horses in a column by the amount of turf nibbled at the last feeding place. They can tell the speed, the direction, and the strength of an army as far as the dust that rises from its feet is perceptible. Custer knew all these signs as accurately as they; he possessed the military instincts and knowledge of the savage, with the information gained by a life-long study of the art of civilized war."

The conflict which so unexpectedly terminated his life, and that of his two brothers, nephew, and brother-in-law, and destroyed the whole of his separate command of upward of 300 mounted officers and men, occurred on the 25th of June, near the Little Horn river, Montana Territory. Gen. Custer, while following up an Indian trail, confident, it is supposed, that his trained soldiers were equal to any probable contingency, came upon a Sioux camp of extraordinary size, and being in a narrow valley or ravine, was at once surrounded by the ferocious Indians, and compelled to fight till the last soldier fell. Custer's knowledge of Indian methods, and his well-known history in frontier operations—although characterized by great zeal and daring, to say nothing of his affection for his wife, who usually accompanied him in his campaigns, and who was at the military headquarters at the time of his death, warrant no conjecture of foolhardiness as the probable reason of the terrible disaster. As a New York writer has said: "He was not in the habit of blundering; his skill as an Indian fighter was recognized as very great; and until positive evidence shall be adduced to show that his act was a blundering one, it is unfair to a gallant man, dead, to assume that it was so."

A movement is on foot for the erection of a monument in his memory by public contributions, the fund already exceeding \$4,000.



Physiognomy, or Signs of Character.



Of the soul the body form doth take,
For soul is form, and doth the body make.—Spenser.

THE CHIN, AND WHAT IT SIGNIFIES.

PART I.

THE human face divine may properly be said to begin at the forehead; and as everything which has a beginning must also have an ending, so in this case, after the development of the other features, the whole is gathered together, summed up and finished off in the chin, which is the lowest point or promontory of the face—the Cape Farewell, so to speak, of the countenance. Serving as a basis or foundation for all the other features as viewed in front, and forming a very fitting termination to the facial line that is afforded by the profile view, the chin, as will be seen, plays a by no means unimportant part in the general physiognomical economy of that crowning work of nature, the human countenance.

Though not always quite so plain, perhaps, as the nose on your face, the chin is, nevertheless, a clearly distinguishable and unmistakable feature. Properly speaking, it is the anterior part or projection of the lower jaw—the junction, so to speak, of the two sides of the face at its lower extremity—and its domain proper extends back, or from side to side, but a little way beyond the outer corners of the mouth; but it is so intimately connected with the rest of the jaw-bone clear back to the ears, and with the lower portion of the cheeks, as to be sometimes almost indistinguishably blended with them. A little careful observation will enable us,

however, in all such cases to define the limits of this feature with sufficient distinctness; and we purpose in these pages to consider the chin in its individuality, and independent of surrounding features.

THE CHIN IN ANIMALS.

This is a feature in which man appears to enjoy a monopoly, animals having no chin, properly speaking. Not even the ape, which so closely resembles man in many respects

as to form quite a respectable caricature of him, possesses nothing adequate to represent this feature as it exists in man. What we call the *chin* in animals, is merely the termination of the lower jaw—is indistinguishable from the mouth when the latter is open, and is usually confounded with the lower lip, when it is closed. And when, as in the case of the horse and kindred animals, a prominence is seen that is clearly marked and distinguishable from the lower lip, it will be found to



FIG. 1.—MADAME DE STAËL.

be merely a fleshy or cartilaginous lump upon the under part of the lower jaw.

There is in every countenance, however irregular, a certain harmonious balance or arrangement of parts, whereby one feature answers to another, and each represents or typifies the whole. A broad, square, angular face, for instance, will be reproduced in a broad, square, angular chin; a round, fat face will repose upon a round, fat chin;

or a narrow, pointed face will end in a narrow, pointed chin; a long face will run down into a long chin; while a short face will quickly terminate in a short chin; so that through this general law of the correspondence of part to part, if the chin



FIG. 2.—CHILD.

only were visible, we might form a pretty correct idea of the general character of the whole face by what we saw of this one feature alone. And the same is true, in a greater or less degree, of the ear, the nose, and indeed of almost any other feature.

But while the chin in its general contour answers thus to the more marked characteristics of the face, and serves to indicate them with sufficient clearness and faithfulness, it is far from being a mere repetition, or copy, in its mouldings of any or all the other features; but possesses an identity, a character, and a meaning of its own quite separate from, and independent of, the other features, with some of which it does not hesitate to disagree, and even, as we shall see in many cases, flatly contradicts them.

Chins differ as greatly as any other feature, no two persons, perhaps, having them exactly alike. And not only does this feature differ in different individuals, but it differs in the same individual at different periods in life. Which leads us briefly to consider the

GROWTH OF THE CHIN.

In infancy there is only a little rosy button, in the place where the chin is to be some day, which serves no purpose that we know of, except to hold the fat little cheeks in place, and keep the way clear to the mouth. In the profile of a healthy baby, the chin is scarcely, if at all, perceptible. The chin and the nose seem to start about even at this period; each is a little round button—and nothing more. But the latter is one of the first features to take on form and consistency, and to assert its individuality. It takes precedence of the nose in this respect, and soon outstrips it in the race; for while that is still a formless lump of putty, with the vexed question which direction it shall take yet undecided, the chin already shows plainly what it is going to be, and gives a fair insight into much of the present and future character of its possessor. Look at any group of children and see if this be not so. Observe how much more characteristic are nearly all the chins than more than half the noses which you meet with among these youngsters. The chin comes early to maturity as regards its form, gradually increasing in size with the rest of the face, and changes after this, if at all, very slightly and very slowly;



FIG. 3.—WEAK.

seeming to have come to a conclusion early in life as to what it will be, and to stick to that conclusion ever after.

There is an anatomical reason for this in the fact that more of bone and less of cartilage enter into the structure of the chin than of the nose; moreover, the chin being part of the jaw, and the jaw soon growing

firm and solid in order to sustain the teeth and make the process of proper mastication a possibility, the chin partakes of its characteristics and grows solid with it. Another reason is, that the chin, unlike the nose, not being situated in the region of immediate

rival, the nose. An extravagantly-developed chin is usually considered one of the indispensable features of the typical witch or old hag ; and is sometimes to be met among the gypsies and other professional tramps and reported soothsayers.



FIG. 4.—ALL CHIN.

intellectual culture, grows from within, in obedience to inherent tendencies, rather than by the modifying and moulding effects of educational influences from without. For these and other reasons which will appear further on, we are inclined to think that the chin, of all the features, is the one for which its possessor is least responsible, in the making of which he has the least to do, and for which, as regards its shape and tendencies, he is most dependent upon his ancestors. To a certain extent, doubtless, the chin is within his power to modify, and to that extent, of course, he is responsible for its contour.

In old age, the chin, be there never so little of it, usually plays an important part in the facial make-up. One of the reasons for this is, that through the loss of the teeth and the shrinking of the lips, the mouth retires more into the background, leaving the field to the chin, which is thus brought more prominently into notice, and it and the nose generally sustain the principal characters in the family group of the features henceforth. When it is naturally a prominent feature it loses nothing at this stage of its existence, but quickly rises to the first position of importance, eclipsing even its old friend and

CHIN OR NO CHIN.

Although in almost all persons the chin is such an insignificant feature in infancy, and such an important one in old age, throughout middle life there is a very great difference in the amount of chin with which different individuals are favored. Some people scarcely seem to have any chin at all ; while others have enough of this important feature to supply several individuals of moderate requirements, and still have some left to spare. But as a scarcity of any good article is always more undesirable than even a superabundance—some folks claiming, indeed, that we cannot have *too much* of a good thing—one who is deficient in this particular is more to be commiserated than he who is provided with more than he knows very well what to do with, since in the long run it is pretty sure to come into play somewhere or somehow. And, in truth, many an otherwise noble countenance is spoiled for want of a sufficiency of chin—not cheek, reader, though one *is* sometimes mistaken for the



FIG. 5.—EMPEROR PAUL.

other. A big chin is like a big nose, an object of sensitiveness to its owner, sometimes, but a good thing to possess, and always better more than less—too much than too little—in this age of the world.

So when we see a fine head and face ; a

broad, high forehead ; a large, bright eye ; a finely-shaped, even, strongly-marked nose ; and a well-formed, expressive mouth—when we see all this fine superstructure come to an untimely end with little or no chin to balance and sustain it, we feel as if we were looking at a splendid building whose foundation had been carried away—we wonder how it is held together and kept in position, and we tremble for its safety (fig. 3). Here we have an instance in which the chin fails to agree with the other features ; its tale of weakness contradicts the strength implied by all the rest. Of what achievements might not the owner of such a countenance as this, for example, be capable, if his chin were but equal to the rest of his features in its development ? The trouble with this face is that it has ended too soon. We have seen such countenances, reader, and so doubtless have you.

On the other hand, we come across an individual now and then, who looks as if he had been subjected to a process something like that of those convex glasses which have the property of immensely widening or elongating, to all appearance, the lower part of the face of whoever looks into them. Such an individual looks as if he had taken a peep into some such wonder-working glass



FIG. 6.—DESPOTIC.

as these, and his features had actually assumed the proportions therein attributed to them. Such people, at least, are not stinted as to quantity, whatever may be the quality of their leading feature. There is an abundant foundation here to build upon ; and if

the right kind of superstructure is reared upon it, we may look for great things (fig. 4).

Either of these two types is, of course, a departure from the perfect standard which lies midway between them. The perfect chin should be too fully developed for the



FIG. 7.—AUTHORITY.

slightest shade of weakness, and too finely chiseled and properly subordinated to the rest of the countenance for the least grossness ; it should be strongly marked and prominent, without being obtrusive. A noble specimen of the perfect or classical chin is that of the Apollo Belvidere. What force, and yet what delicacy of outline ! Mark the bold and elegant curve forward and upward of the jaws, culminating at the apex of the chin. It is the chin of a god ! Would that in its manly strength and refined purity it were also the chin of every man !

Leaving the subject of the chin as it *ought* to be, let us now consider the chin as it *is*. We are at once struck with the variety of forms which it assumes. Square chins and round chins, hard and soft chins, smooth and rough, fat and lean, single and double, regular and irregular, handsome and ugly, humpy chins that look like a little of everything, or as if several chins had been carelessly thrown together to make them, and buncy chins that look like nothing at all—take your choice, reader, you can hardly fail to be suited amid such an assortment, in which may be found something to gratify any and every taste, however erratic or exacting.

Let us first view our subject in front. Observed from this standpoint, chins are at once seen to be divisible into two general classes,

BROAD AND NARROW,

each of which has, of course, numberless modifications. Now there are two ways of making this and similar classifications, and it may be desirable to make a distinction between them. The first way is to consider the chin in respect to the proportion which it bears to the other features of the face. Classified in this way, one man might be said to have a broad chin, because it is relatively broad when compared with the rest of his countenance; while another would be said to have a narrow chin for the same reason; though he has, perhaps, really as much, if not more, chin than the other. The second way is to compare one chin with another, which is the course usually taken in judging of this and other features, though both ways are useful in enabling us to analyze and determine individual characteristics.

THE BROAD CHIN,

by which we mean, in the present instance, one that is broad in comparison with other chins, the broad chin *per se*, which accompanies large, strong jaws, and a full development of the base of the brain, seems to denote solidity and force of character in the executive department, together with the slowness and deliberateness of action that is the usual concomitant of all large and ponderous bodies, whatever they may be. And here it may be well to define distinctly, that by a broad chin we are far from meaning simply breadth of the lower part of the face, which may be, and often is, occasioned simply by rolls of fat deposited around the jaws, covering and concealing, as is almost certain to be the case in the lymphatic temperament, in which this development finds its fullest exemplification, a small, weak, and inefficient bony structure, so that when we get down to "hard pan," so to speak, there is little or nothing there (fig. 5). By the chin, we mean, in all cases, the solid anterior projection of the jaw-bone itself, whether clothed with fat or destitute of such covering; consequently, when we speak of a

broad or narrow chin, we mean breadth or narrowness of this solid and enduring portion of the countenance.

There is usually a settled firmness about the man with a big chin—something of that air which is best illustrated by the saying, "Every tub must stand on its own bottom," which he carries out fully (fig. 6). And, indeed, whatever of judgment or sagacity there is in the top story of that man's head, it has a good foundation to rest upon, and is not likely to be upset or thrown off the track by outside influences. His passions do not move so quickly as those of other men, but are deeper, stronger, and more lasting. Whatever he loves, he loves with a will, and to some purpose—good or bad; ditto whatever he hates. If he swears, he will not probably swear so often as some other men; but when he once gets fairly warmed up and at work, he will use bigger oaths, and keep it up longer than most men of his size. Whatever he undertakes he ought to succeed in; if he does not, it is certainly not the fault of his chin. The trouble, whatever it is, lies higher up.

This type, unfortunately, however, has its fullest exemplification in the ruffian (fig. 4), whose thick, square jaws, and enormously broad, hard chin, surmounted by a wide slit of a mouth, small pug-nose, pig eyes, and low, narrow forehead, are indicative only of fierce animal passions and brute force, uncontrolled by intelligence and the moral faculties. Left to himself, or freed from external restraint, he is but a wild beast, a social fiend, a domestic brute, his love and hate alike being fierce, unreasonable, and terrible; his tastes and appetites as gross as they are voracious. Under proper guidance he may be capable of performing such services as are inseparably connected with the imperfect state of society which can call such a creature into existence, which require only brute force, and for which he is, perhaps, by reason of his very coarseness, better adapted than one of finer organization; and perhaps his best use in his present low condition is to be food for powder, when it is necessary for the preservation of higher interests that this terrible adjunct of modern civilization should be

fed. Unrestrained, with his incessant brawling, guzzling, and loafing, he is an intolerable nuisance, and a constant source of great danger.

Take this same development of jaw and chin, and place above it a brow, a nose, and



FIG. 8.—RACHEL.

a mouth equally developed, on the same plan, so that the tremendous driving power below shall have an equal power above to direct it, and we shall have a conqueror, probably a tyrant and a despot, with an intellect equal to the attainment of the means to gratify every demand of his exorbitant appetites and sensual desires—a devouring monster, a wasting and consuming scourge, such as have from time to time afflicted and oppressed humanity, but of whom we have happily had in later times but few types (see fig. 6). Stern, implacable, marching to the attainment of their purposes through carnage and destruction, in which they delight, never relinquishing their hold on a prey whom they had once seized, they serve the same purpose as earthquakes and tempests—by their stormy passage to clear the moral atmosphere of miasms more deadly than they, and by their wholesale destruction of old and worn-out forms, to prepare the way for the erection of newer and better structures in their places.

Let us now enlarge and beautify the nose, give a grander opening to the eyes, and exalt the forehead into the region of veneration and benevolence, and we have a balance in favor of the upper part of the

face, which has now become superior, instead of only equal to the lower; and as such a chin as we have indicated above would be powerfully coercive with so much brain to back it, it seems as if Providence had provided for the softening and rounding of the outlines of the jaw in such cases, in order that the one-man power might be held in abeyance (fig. 7); and it seems to be a general rule that the higher the development of the mental and spiritual powers, the more are these merely basilar forces modified to prevent this coercive use of them, and to substitute the persuasive in its stead.

THE NARROW CHIN

gives us, in most respects, the very reverse of these characteristics. Instead of force, we have delicacy; instead of the unyielding solidity of a body that rests squarely and firmly upon a broad base, we have the sensitiveness to outward shocks and disturbances of bodies delicately poised upon a narrow point, difficult to adjust and easily thrown off their balance. Persons with narrow chins are more or less vacillating and undecided in their way of doing things; their energies must all be concentrated upon one end or object in order to achieve any degree of success, being usually only applicable to certain specified objects at that



FIG. 9.—JAMES C. NEAL.

(fig. 8). Unlike the possessor of the broad chin, they do not and cannot succeed in whatever they undertake through the mere force of the driving and compelling power that is in them, and which they bring to bear upon everything; these can only suc-

ceed in what they love—in those things in which their whole soul is bound up—and not always even in these, as the world counts success; but put them to anything else and they will be miserable failures. The broad chin, indicating and accompanying a full or large development of the basilar region of the brain, is, therefore, indicative of strong, rugged vitality, force and energy; so the narrow chin accompanying an organization the very reverse of this, is an appropriate indication of feeble or low vitality, weakness, and want of active force and persistent energy.

The excessively broad chin, as we have seen, is seldom met with, except in connection with a low mental organization, which, however active or aggressive from its brute force, is yet coarse and repellant; so the extremely narrow chin—especially the *long*, narrow chin—is usually found connected with feeble or low mentality; active it may be, but with the activity of the mouse or the weasel, limited in its scope and applicability. The one is hard, blunt, obtuse, like a battering-ram—the other sharp, keen, fine-pointed like an arrow or gimlet; but both are the agents of small minds. The one, awkward, coarse, abundant, relies upon the mighty swing of its tremendous enginery to drive it to its unselected prey; the other, shrewd, cunning, alert, uses its little sharp implement to penetrate or undermine the obstacles to its desires, which are specific and choice. While one cares not what he hits, but deals his blows indiscriminately, and, like Paddy at Donnybrook Fair, hits a head wherever he sees it; the other predetermines with great care its object, and worms its way toward it with patient, untiring effort. Your “regular old screw” has almost always a long, narrow, pointed chin.

As appetite is predicated of, and indicated by, the chin, so also may be the *quality* of appetite or taste. The broad chin, then, is apt to be omnivorous and voracious, while the narrow chin is dainty and choice, both as regards quantity and quality. Undue fastidiousness may usually be predicated of the very narrow chin. It shows itself in the “*nolle me tangere*” of

the prude, or the highly-sensitive exquisite; and with the commanding brow and nose, the haughty “stand afar off” of the monarch or noble, or other self-dignified individual, and is the cause of exclusiveness in the selection of associates or friends. It is proud, and carefully guards itself from the vulgar scrutiny of the common herd, with which it disdains to mingle ever so distantly, having a wholesome horror, not only of the great unwashed, but also of the unperfumed and unselect. While the broad chin character lavishes or invites caresses without stint, and sometimes without much choice either of circumstances or object, the narrow is not only select in its object, but sparing of such demonstration, even to painful restriction, being a great stickler for propriety. The one gives the broad, open hand, or comprehensive hug of affectionate welcome or companionship; the other extends the tips of the fingers, perhaps but one; as for the embrace, it is so chary that a feather would not be disturbed by its pressure. This, of course, is only in extreme cases. In a cultured form, one is more comprehensive and hearty, the other more sensitive and precise. This is, in brief, the chin of refinement and susceptibility; without the broad stamina of the former, it is yet more active in resource, quicker of apprehension, and more perfect in detail and finish. One is accompanied with more ideality; the other, perhaps, with more imagination.

We usually look for perfection about midway between two extremes. So in the present case, a chin that would combine the characteristics of the broad and the narrow, would be preferable to either. That reasonably broad and not unreasonably narrow conformation, which we would call symmetrical, though not strongly indicating salient qualities of physical or mental organization, is yet the type of well-balanced and more evenly-directed and effective characteristics. Such a chin seems to have been that of Shakspeare—comprehensive, without extravagance, and particular without what might be called finical refinement, or that fastidious painstaking which ends in the emasculation of all that

is genuine or solid in the subject. This harmonious balance is likely to be found where the chin is broad in itself, or in comparison with other chins, but is relatively narrow when compared with the countenance as a whole. The excessively narrow chin, whose characteristics we have just been considering, is not only really narrow itself, and relatively so to the other features, but it accompanies a narrow countenance, often including a narrow forehead.

Neither of these two conformations can be modified, except as it approaches more or less its opposite type—as a narrow chin cannot cease to be narrow except as it begins to grow broad, and vice versa ; so by knowing the characteristics peculiar to both, we shall be at no loss to understand their numberless modifications, produced, as they are, by the greater or less blending of the original characteristics of each.

ALTON CHESWICKE.

(To be continued.)

PATRICK HENRY.

THE patriotic heart at this time warms with fervor and reverence in considering the struggles of the noble men who so boldly resisted oppression and won for themselves and their posterity victory and independence, a hundred years ago. Among names which have a prominent place in our recollection, and a high claim to our grateful consideration, is that of Patrick Henry. This noble Virginian was one of the foremost to denounce the tyranny of Britain and to urge the establishment of an independent government here. His impassioned eloquence in the Virginia House of Burgesses, in the Colonial Congress at Philadelphia, and in the Richmond Convention of March, 1775, had a most powerful influence upon all who heard him speak.

Of his life it is scarcely more than necessary to give a mere outline.

He was born at Studley, Hanover county, Va., May 29th, 1736. His school education was rudimentary, but under his father, John Henry, who was a native of Aberdeen, Scotland, he acquired a fair English education and some acquaintance with Latin and mathematics. He was of an indolent, wandering disposition ; would leave his books at any moment to traverse the woods with his gun or to sweep the streams of the neighborhood with his fishing-rod. At sixteen he was placed in a country store, but he exhibited no aptness for trade. At about twenty years of age he married the daughter of a farmer and began farming on a small scale, but two years' experience led him to aban-

don it in despair of any success in that line, and again try to keep a store. Here, however, music, reading, story-telling, hunting chiefly occupied his time until he found himself a bankrupt ; then he began to study law, and after a mere show of preparation, offered himself as an attorney, but no clients engaged his services, and he continued to live very much as before. His opportunity came when he was about twenty-seven years old, in the celebrated "parsons' cause" when he was invited to assist in the defence, for the want of better counsel. The unexpected figure he made in the assertion of popular right, and the decision which he wrested from a jury deemed previously to be committed to the side of the "parsons," placed him in the first rank of Virginia orators, and changed the order of his life. Three years later he was elected to the House of Burgesses, and at the time when British oppression had reached its climax in the Stamp act. The times were of the sort to arouse all the fire of his nature, and when the British act came up for discussion, he opposed it with so much vehemence and eloquence that it was declared by formal vote to be unconstitutional and void as affecting the rights of the American Colonies. It was at Richmond when the second Colonial Convention met, that Henry pronounced the celebrated speech in which he exclaimed, "Our chains are forged. Their clanking may be heard upon the plains of Boston. . . . The next gale that sweeps from the North may bring to our ears the clash of resounding

arms. . . . I know not what course others may take ; but as for me, give me liberty, or give me death."

In 1776 he was elected Governor of Virginia, and continued in office until 1779, giving eminent services to his State in that most trying period. He was a member of the Legislature throughout the remainder of the revolutionary war, and at its close was again elected Governor. In 1786 he resigned. In 1794 he retired from public life to his estate of Red Hill in Charlotte. Washington offered him the appointment

of Secretary of State in 1795, but Henry declined it. He died in 1799, shortly after having been elected to the State Senate.

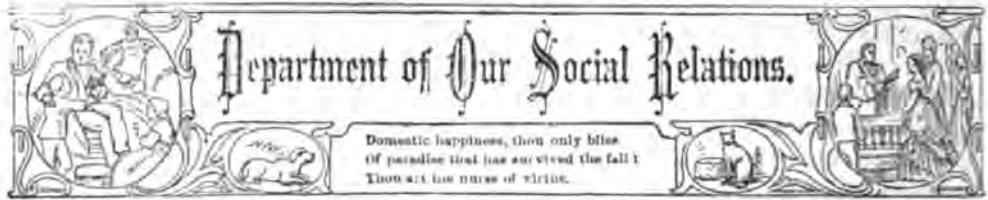
Of Patrick Henry's extraordinary eloquence there can be no doubt ; it was acknowledged by all the eminent men of the North, and of the South, who participated in the Colonial Councils which led to the revolution and the formation of the Union. He was not a good logician, or eminent as a " case " lawyer because of his defective reading of law. He was a man of the rev-



PATRICK HENRY'S HOME AT RED HILL.

olution, the mouth-piece of popular sentiment and right, and was possessed of peculiar temperamental powers, as well as an extraordinary intellectual endowment, which enabled him to understand men and move them at his will. Jefferson said that he seemed to speak as Homer, the great poet of Greece, wrote. In person he was striking, although not prepossessing, nearly six feet in height, spare and angular and somewhat stoop-shouldered ; with a sallow complexion, a grave and even stern expression in repose, he gave little indication to the observer of the

power which was held in reserve by his massive brain. His features were almost habitually contracted, but when he spoke, a change came over him, his body became erect, and he seemed to tower above those around him. The stern face would relax with softness and gentleness, or corrugate with indignation and wrath. The power he possessed of expressing feeling by simple movements of features was astonishing. In private life he was kind, hospitable, and agreeable ; he indulged in none of the fashionable vices, but lived temperately and frugally.



SCOTTISH POETRY.

[The social affections of the Scottish people are very strong, and when these are expressed in the broad dialect in which the genius of Burns delighted to disport itself, there seems to be an added tenderness and pathos to the utterances of the heart. The following lines by Aleck Anderson will be understood by every mother.]

CUDDLE DOON.

“The bairnies cuddle doon at nicht,
 Wi’ muckle faucht an’ din;
 ‘O try and sleep, ye waukrife rogues,
 Your father’s comin’ in.’
 They never heed a word I speak;
 I try to gie a froom,
 But aye I hap them up, an’ cry
 ‘Oh, bairnies, cuddle doon.’

“Wee Jamie wi’ the curly heid—
 He aye sleeps next the wa’,
 Bangs up an’ cries ‘I want a piece’—
 The rascal starts them a’.
 I rin an’ fetch them pieces, drinks,
 They stop awec the soun’,
 Then draw the blankets up an’ cry
 ‘Noo, weanies, cuddle doon.’

“But ere five minutes gang, wee Rab
 Cries oot, frae ‘neath the claes,
 ‘Mither, mak’ Tam gie ower at once,
 He’s kittlin’ wi’ his taes.’
 The mischief’s in that Tam for tricks,
 He’d bother half the toon;
 But aye I hap them up, an’ cry
 ‘Oh, bairnies, cuddle doon.’

“At length they hear their faither’s fit,
 An’, as he steeks the door,
 They turn their faces to the wa’,
 While Tam pretends to snore.
 ‘Hae a’ the weens been gude?’ he asks,
 As he pits aff his shoon.
 ‘The bairnies, John, are in their beds,
 An’ lang since cuddled doon.’

“An’ just afore the bed oorsels,
 We look at oor wee lambs:
 Tom has his airm roun’ wee Rab’s neck,
 An’ Rab his airm roun’ Tam’s.
 I lift wee Jamie up the bed,
 An’ as I straik each croon,
 I whisper, till my heart fills up,
 ‘Oh, bairnies, cuddle doon.’

“The bairnies cuddle doon at nicht
 Wi’ mirth that’s dear ta me;
 But sune the big warl’s cark an’ care
 Will quaten doon their glee.
 Yet, come what will to ilka ane,
 May He who sits aboon
 Aye whisper, though their pows be bauld,
 ‘Oh, bairnies, cuddle doon.’”

PEACE-MAKER GRANGE;

OR, CO-OPERATIVE LIVING AND WORKING.

CHAPTER XI.—A MARRIAGE.

TWO days after the progress through the mills, the promised marriage occurred. Early that morning there was a conversation upon the subject between the Judge and Edgar Anthony, as they sat in the observatory over the central tower, surrounded by the fine telescopes and other appurtenances requisite for examining the heavenly bod-

ies. This was by far the highest standpoint in all that region, and the view from the window drew exclamations of delight from the visitor.

“We are to have a remarkable marriage in the chapel this afternoon,” said the Judge, “the persons being a young ex-Shaker and a girl who four years ago left the Oneida community.”

"That would be indeed interesting," said Edgar. "How did those refugees drift hither?"

"It is natural enough that young Shakers should come to us. You know, of course, that a majority of the children they raise leave that austere life. The Shakers labor under the disadvantage of not being able to transmit their traits and a cumulative force of example to their descendants."

"I have heard," said Edgar, "that they are having trouble with their young folks about marriage."

"Yes, their shrewdness, frugality, and industry have brought, as an inevitable result, wealth, and some of its amenities. The young people, getting a taste of refined luxury, and knowing of the possessions of the society, long for more of the usual rewards of human virtue—especially a happy conjugality."

"But the young girl from Oneida—that is a rarer case," said Edgar.

"Yes indeed; and she is a rare gem. It is seldom that a young girl can persuade herself that it is her duty to break away from those who have been the guides and instructors of her childhood."

"I have heard that Oneida women rarely leave that community."

"You can see good reason for that," said the Judge, "apart from any question of the attractiveness of the life there for women."

"How did to-day's bride persuade herself that her duty was elsewhere?"

"She is a remarkable girl, beautiful, talented, but peculiarly feminine in her intense sense of chastity, and of the propriety of union for life. Quite mature in body, as well as in mind, and having been fully instructed in the esoteric anthropology of the society, she made up her mind, when it began to be intimated that it would soon be the cor-

rect thing for her to marry the brethren of the commune after their peculiar fashion, that she would do no such thing. As when Artemus Ward was invited to marry the Mormon boarding-school, there seemed to be a "muchness" about it. Hearing of us, she expressed a desire to come here. Of course there was strenuous effort to detain her. But that society uses no violence in such cases, and she was soon among us, as blithe as a bird, and one of the foremost in every good word and work. And now she is to be united to her 'own and only one,' the noble young Shaker."

"But," said Edgar, "do you consider that the efforts of Mr. Noyes at solving the marriage problem have been all thrown away?"

"By no means; they will be of vast use. Hahnemann thought that there was no value in any medical system but homœopathy; Preissnitz none save in water-cure; Graham none but in diet. These and a hundred other specialists have been disappointed in the magnitude of the results of their labors, but all have made fine contributions to human knowledge."

"Well, how can the 'male continence' of Noyes be of any use unless his programme is carried out?"

"In this way. While I expect to see the more conscientious portion of his followers abandon most of the methods as to sexual association established by him, I also expect to see many of the wisest married couples of Christendom adopt them in a measure; and that they will materially aid in preserving the health of future generations, and preventing undue increase of population." The Judge here went into particulars, the rehearsal of which is not necessary.

It was evident early that afternoon

that an uncommon event was in progress. As marriages are not infrequent events in well regulated settlements of three thousand people, it was not considered desirable that the whole population should grace this occasion. But the circumstances were so singular, and the persons so interesting, that an unusual concourse gathered, not only from East and West Haven, but also from without the bounds.

The day was one of the last and most exquisite of the Indian summer, balmy but breezy. Alice and Edith, very tastily attired, were of course attended by their faithful admirers from the North, to whom, as their guests, they were bound to pay every attention.

Some of the jealous local youth remarked that they thought "there was such a thing as being too hospitable." Full, however, as the Grange was of noble young men, none of them had happened as yet to strike the special fancy of these two girls; so they could not be charged with coquetry when they showed pleasure in the society of the strangers who had come so far to visit them.

The girls were full of a proud consciousness of the importance of the occasion—of what they considered the supereminent dealings of their society in such matters, and, in general, of the importance of their sex.

"Where is the marriage service to be held?" said Reynolds to Alice, as he beheld the people arriving in buggies and carriages from a distance.

"Why, in the chapel, of course;" said she, adding, archly, "you know that with us marriage is still one of the sacraments."

"Have the affianced any relatives here?"

"None; they are members of fami-

lies to which they were attached by congeniality."

"Will they go on a bridal tour, in civilized fashion?"

"No," said Alice, gravely; "we do not select the honeymoon for traveling. Considering that in a true mating this period is true to its name, our wise ones deem that it shows selfishness in the newly-married to hide their great happiness from their other dear friends, by wandering off among strangers."

"Where will they live?"

"A suite of rooms has been pleasantly furnished by them. They are industrious and talented, and are making money. They are also very popular, and receive many gifts from wealthy friends."

And now Edgar Anthony was the questioner, and Edith answered him—having naturally got in the way of taking it for granted that even questions addressed by him in a general way, in mixed company, were intended for her.

"What are the peculiarities of the ceremony?"

"Our people," replied Edith, "aim to make it not peculiar, but wholly natural, and not tiresome to any one."

"Then I shall be disappointed; for Miss Alice here told me that it would be grander than any Brown of Grace Church ever got up."

"Any marriage at all here would seem grander to me than one of Brown's," said Alice.

"Why?"

"The grandest thing here is that all is genuine," said Edith. "The people who marry in Grace Church are those usually who happen to be the top bubbles upon the foam of New York success. They are up to-day, down tomorrow. In the church they are surrounded by many jealous, envious,

critical, mock friends. The enjoyments of life are here so evenly distributed that there is very little jealousy."

"I have thought," said Edgar, "that a marriage in such an institution would be terribly tiresome. A great muster of series and groups; speeches by head of each group to unfortunate victims; votive offerings of useless utensils by well-meaning, misguided members, reminding one of a mixture of minister's surprise party, and wooden, pewter, copper, and china weddings; a speech in the chapel from each elder, and a general laying on of hands, until the blushing bride would at last utter most heartily her 'until death do us divide,' so great would be her horror of a repetition of the ceremony."

"An alarming picture, truly," said Edith, showing more than usual of her pearly teeth, as she looked laughingly at him. "But see, the people are gathering. Here is no ceremony; no 'dear little orphans platooning in nankeen pantalettes,' and, so far as I see, very few Smiths even! To be sure, there are many girls in white, with flowers in their hair. Do you object to that?"

"Oh, no—

Girls in white
Are my delight."

[He noticed afterward that she was oftener in white than she had been.]

"And see," said Edith, "here are no stupid ceremonies, speeches from heads of groups, or 'friendship's offerings.' The latter can be seen by any who wish in the sitting-room of the affianced."

As they entered the chapel Edgar said to Edith: "You certainly are peculiar in the great number of white-robed girls gathered around the bride."

"Yes," replied Edith, with a becoming hesitancy in her speech, "these are

the 'virgins, her companions' in work and education. There is no limit to the number of bridesmaids here."

As they passed up a side aisle Edgar noticed among the elderly people, sitting in an obscure corner, two handsome girls in somber raiment and with sad countenances. He was about to ask his fair companions about these exceptional damsels, when Reynolds touched his elbow and drew him back a little. Their lady companions understood the nature of the explanation about to be made, and, glancing compassionately at the somber girls, passed a little forward.

"I know about those girls," whispered Herman to Edgar. "The Judge told me. They went astray lately, and one of the punishments here for sexual error is deprivation of white garments and exclusion from bridal festivities for a time. The society does not drive such culprits to destruction by expelling them; but if they receive meekly the loving chastisement thus employed, they are soon restored to fellowship. The male companions in error in this case are under a similar cloud; one of them, being of a rebellious disposition, feels his punishment so severely that he has, temporarily at least, left the association. The other proposes marriage."

The New Yorkers now rejoined their lady friends—admiring them more than ever as they saw them casting off their light cloaks and preparing, in "their virginal white vestments," to join the score of bridesmaids already assembled.

"What Alice especially referred to," said Edith, before leaving her guests, "as constituting the grandeur of our ceremony was, the heartiness of sympathy shown by all present. We are in a true sense one great family, united by infinitely intertwining bonds, and such occasions serve exquisitely to illustrate this fact." SAMUEL LEAVETT.

[TO BE CONTINUED.]

THE WAY IT ENDED.

CHAPTER IV.

HUSBAND AND WIFE.

CALVIN CAMPILLO—I think he wrote the namewith a “Rev.,” which, perhaps, gave it less the sound of Cobra de Capello—had, with some hesitation, acceded to the proposition to remove his wife from her third-rate boarding-house to the quiet country quarters of Dr. Lacrosse, where, as it was urged, there might be more certain chances of her recovery.

“You understand,” he said, with his smirking smile, and soft, insinuating, serpentine grace, “you understand, madam, that I do not think Mrs. Campillo in any immediate danger, or,”—with a smile yet more bland and winning—“I don’t know that I should be willing to put her out of my sight and care, but as I am going away on a blessed mission, which will probably detain me some months, I believe I shall feel more at ease in leaving my wife in your charge, woman as you are, than in the hands of even a more competent and skillful physician of my own sex, who might take advantage of a situation so full of temptations.”

“Indeed; you seem to have a lamentable lack of faith in both men and women,” Dr. Lacrosse remarked, with a quiet lifting of her eyebrows.

“Justly, madam, justly,” the worthy gentleman responded, with a hypocritical whine. “The heart of man, you know, is desperately wicked, full of guile and iniquity; and woman—well, it must be confessed that woman is a weak, credulous creature, the more innocent the more credulous, and therefore needing close guardianship.”

“You surprise me. Would you then set the wolf to guard the lamb?” queried madam with simplicity.

“Only in wedlock,” returned Rev. Campillo, with a solemn shake of the head. “It is for this reason that I put my wife in your care during my absence, believing I can so trust her, though I thereby express my faith in your superiority as a woman rather than a physician.”

“Yes?” said madam, quizzically. “For in the degree that you possess those qualities which we admire and demand in the former, you must lack the attributes essential to the character of the latter,” continued the Cobra, laying a hand seductively on the lady’s arm. “A woman loses the exquisite charm of her sex in proportion as she assumes or attempts to assume the duties and relations of the other. Therefore you will understand that to the extent I depreciate you in your profession I confess to your attractiveness in your own natural and proper sphere. We could not regard any woman with that tender admiration which, in her true, God-ordained condition she exacts of us, if she possessed the stern, inflexible, discriminating powers of mind necessary to the success of masculine callings; and thus you see, my dear madam, in questioning your ability in your assumed vocation, I simply do honor to your character as a woman of whom we expect and require a sweetness, gentleness, reverence, modesty, and submission purely feminine.”

“Yes?” said madam again, with that curious upward inflection of the voice, so puzzling to her listener, yet bowing as gravely as though she had not received the same lesson in womanly virtues more times than she could number.

Rev. Calvin would even have preferred an opposing argument. He looked at her in some doubt, not clear whether she were profoundly impressed by his speech, or whether she was quietly quizzing him, and in slight embarrassment walked over to his wife, who, wrapped for her journey with madam, reclined, in waiting for the carriage which was to convey her to the station.

“Well, Mrs. Campillo,” he said, touching her with an air of absolute ownership, whereat every atom of her sensitive being rose with instinctive resistance and repulsion, but, schooled to the habit of obedien-

ence, settling abjectly back again into the passivity of dumb resignation. "Well, I hope you will make this change a benefit, as it is intended, and when I come home, be able to receive me as becomes a true wife, who has the comfort and happiness of a loyal husband in her keeping."

"I hope so," responded the invalid, faintly, with a sickly attempt at a smile more pitiful than tears.

With a natural reverence for an institution which she esteemed as holy and sacred as her religion, this strange, unaccountable shrinking and sickening under its laws seemed to her a terrible sin, against which she had struggled until, with powers of mind and body utterly prostrate, she could only protest in the feebleness of despair. Yet, the mute spirit of submission, the instant consideration of her husband's pleasure, which, in his wily, insidious way, he had always exacted of her, did not for a moment fail, and she trembled visibly between her dread of offending him and the conflicting desire that prompted the question, faintly put:

"You think—you are quite sure, Calvin, that the child is in careful hands?"

"Quite sure—quite sure," he returned, with a gathering frown, which, remembering madam's presence, he quickly transmuted into a bland, indulgent smile.

The fact was, the "child" had been a source of great irritation to him always—a kind of indignity heaped upon him by a weak, unworthy wife. He regarded the poor little imbecile as proof of a man's folly in committing his hope of offspring to a woman utterly undeserving such trust and honor, and in maintaining his relations with her he felt that he was making a sacrifice to religious law and order, in which he had not the remotest perception that she also shared. On the contrary, he believed she had cause for profound gratitude and rejoicing in that he bore with her weakness, and submitted, with what grace was possible under such humiliating circumstances, to the disappointment of his natural expectations, and in this belief she dutifully endeavored to concur.

"My dear, you ought not to trouble

yourself about matters of which I have the control," the forbearing spouse continued, in consideration of her timid inquiry. "Did you ever know me to fail in any duty belonging to, or selfishly thrust upon me? You should have learned to trust everything to my care and discretion before this, I am sure."

"Madam," he went on, addressing himself to the seriously-observant physician, who was coming to very clear and definite conclusions in the case, "I want you to keep it constantly impressed upon the mind of your patient that she has the most positive and satisfactory reasons for confiding in my judgment, and committing all matters of family concern to my management, without any nervous worriments respecting them."

"Certainly, a state of mind so conducive to the restoration of health, is not to be neglected if, by any means, it may be secured," replied madam, with very emphatic meaning.

"And I think you will find, as I tell you, that there is nothing complicated or alarming in the case of my wife," pursued the not-too-painfully modest Campillo, who, by virtue of his manhood, believed himself the more astute and skilled practitioner of the two.

"What she needs is the compulsion to effort from which she shrinks, weakly indulging herself in a languor and melancholy enervating to, and gradually destructive of, the forces of life. You want to be cautious about encouraging this state, and direct all your endeavors to the point of rousing her from her apathy to a sense of her duties and obligations, in which she has grown lamentably lax. I think you understand, madam?"

Madam bowed to this low aside, supposed to be inaudible to the invalid. "You do me honor to repose such unusual confidence in my docile spirit of obedience," she said, smiling; "for, as I have observed, you do not seem to possess an abounding faith in the grace of human nature."

"No, I assure you, I have had too bitter experience in my life-time to put trust in anything so utterly false, deceitful, and de-

praved as human nature," Rev. Campillo responded in a sepulchral voice. "And have we not indeed the word of the Prophet, that 'the heart is deceitful above all things, and desperately wicked?'"

"Aye, but holding yourself in that altitude of skepticism, regarding the goodness of your fellows—taking it for granted that they are base, vile, untrustworthy, ready to seize every opportunity for defrauding and injuring you, do you not see that you develop and call into activity the very qualities which you execrate?" was the pointed inquiry.

But the gentleman had not time to deliver the refutatory argument which he held in reserve for the annihilation of such objectors. The carriage was at the door, and, taking his wife's light weight not too tenderly in his arms, he marched solemnly down to the street and deposited his burden in the care of Madam Lacrosse, who had preceded him, and with calm, quieting presence, waited to receive her charge.

"I have an engagement which makes it exceedingly inconvenient for me to attend you to the station," said the hero of this domestic chapter, with characteristic habit of showing his little civilities up as deeds of sacrifice, oppressive in their weight of condescension.

"Don't put yourself out of the way, Mr. Campillo," madam hastened to say; "I have a friend probably awaiting me on the train who will assist in the care of my patient if necessary."

The answer decided our dignified husband in the maintenance of his marital responsibilities, and he sprang into the carriage with some murmured reflections on his habitual faithfulness in the discharge of duties.

Who and what manner of man this "friend" might be who was proposed to assist in the charge of his wife—his wife, whose honor and good name he was bound to guard and defend—he had a swift, burning, jealous anxiety to discover, since men were so basely false and designing that it was needful to be wary and watchful of all in whom he put an apparent trust. The few moments of transit were occupied with

added injunctions of safety to his wife, and medical counsel to madam; but as he stepped upon the platform his senses were all on the alert for a glimpse of the "friend" who was expected to be in attendance.

No one answering to his conception of that suspicious personage appearing in view, however, he had the privilege and happiness of helping Mrs. Campillo into the car without call to administer any rebuff to officious trespassers on his rights of property, only observing, with a glance of indifference, the quiet gentleman in a brown straw hat, with a roll of manuscript under his arm, who, out of native politeness of heart, kindly adjusted a seat for the invalid lady and her attendant, while he unobtrusively appropriated one in the rear, and with an air of pre-occupation, began to jot down notes.

There was no time for further survey or inquiry, for the train was already on the move; and with a last charge to his wife to make the most of her opportunity, the Rev. Campillo pushed his way out of the crowded passage and disappeared through the door.

A shout, an outcry of alarm, a hurried backing up of the train, and then the belated express sped forward in its lightning course, as though it had left no ruin in its way.

Madame Lacrosse removed the hat and veil which had hidden the face of her patient, and laid the drooping, weary head softly against her own shoulder.

"Are you comfortable, dear?" she questioned, tenderly.

"Quite. But, oh! how strange it seems to see all these people hurrying, with strong, masterful purpose, toward some end," murmured the weak one, with languid interest. "I feel like drift-wood tossing on the waves. Can it be that I ever had an aim like these?"

"Aye, and shall have again," answered madam, with cheery hopefulness, noticing this rallying of the forces of thought with keen pleasure. "You are yet in the morning of life, my child."

"Ah, but a sad, cloudy morning. Would it were night," was the sighing response.

The gentleman seated behind the two held his pencil idly suspended over the page of rapid jottings, his heart strangely thrilled by a note in the plaintive voice that seemed like an echo from the beautiful shore of his youth. The face of the speaker, except the outline of one white, thin cheek, was concealed from his view, but the shimmering spirals escaping from the golden wealth of hair, massed in a loose, easy coil at the back of the head, brought clearly before his vision a picture which he had kept for years in the most secret and sacred niche of memory.

It was, of course, only a haunting likeness, yet he could not choose but listen, when, after the soft, tenderly-rebuking "Hush!" of madam, the mournful plaint of the heart-touching voice went on:

"I know it is weak—wrong—to murmur such a wish—a wish that I were dead and done with this weary, weary world forever; but I feel such an oppression on every power of my being, and it is easier to sink than to struggle. I don't know how it is. I had great aims—lofty ambitions once; I dreamed of being the humble instrument of infinite good in the world, but I have some way missed my mark. And saddest of all, I have no heart to care. I have just feeling enough to feel how wickedly indifferent I am to all the sin and suffering which once I had such strong, passionate desire and hope to remove."

"It shall not be long, my dear friend, ere you will be again alive with the strength and purpose you only seem to have lost," Dr. Lacrosse said inspiringly.

"Ah, do you think so?"

The languid head of gold was lifted with a flash of interest that proved the springs of hope not so inactive as the listless invalid had felt.

The movement brought the face that had been half hidden on madam's shoulder into clear profile before the eyes of our gentleman of the quill, who had forgotten his occupation in the throng of startled memories and excited fears, and was leaning forward with a breathless intentness and absorption that rendered him oblivious to everything but the vision suddenly risen on his sight.

With a sense of the fixed, intense gaze that penetrated to the very soul, Mrs. Campillo turned her head and met the eyes that never wavered, but held hers with a still, fascinated look melting slowly into one of certain, glad recognition.

"Grace Staunton!" breathed the man in a low, heart-shaken voice, putting out a hand, into which that of the pallid lady dropped like a tremulous leaf falling to its rest.

"Ariel?" she said with lips as white as the kerchief at her throat, her violet eyes wide with a half-joyful, half-painful surprise.

"Strange I had not divined this," Madam Lacrosse murmured, in her turn amazed. "But your face, though having some haunting familiarity, I could not clearly recollect, and your maiden name I had not chanced to hear."

Grace could not find strength to say that she remembered Madam Lacrosse well, but had shrank, with a morbid sense of the utter wreck and failure of her life, from any reference to persons and events by which she might be recognized.

"Oakland," announced the conductor at the door.

And in the haste of removal the overflow of the full tides of feeling was checked, though as Lacrosse lifted his friend of the old Woodburne days, his thought went back with lightning swiftness to that culminating moment in the Jarl Darley tragedy, when with heart-rending cry, as she read the story in his face, she had fallen fainting in his arms.

Stepping back in the station for some forgotten article, after he had placed doctor and patient in the conveyance ordered to take them to their destination, there was thrust hurriedly in his hand an open message for Mrs. Campillo.

With a swift, startled glance at it, Ariel crushed the paper into his pocket and returned the answer. "The lady is in no condition to receive the intelligence."

(To be continued.)

STEALING EXTRAORDINARY.—One of the strangest stories that ever beguiled a winter's night was that of the disappear-

ance of a stone house in London, while its owners were journeying in the Holy Land. Neighbors who saw the great gate taken away, the furniture removed, and every brick and stone carried off in broad daylight, never imagined the workmen were robbers, and so did not interfere. But, that strange things happen in New York as well as in London, was demonstrated beyond a doubt last spring. Up in Fifth avenue, opposite the Central Park, an expensive brown-stone front house was rented by a man calling himself Captain —. It was furnished elegantly by some down-town upholsterers, and great hampers of provisions were brought in, butcher, baker, grocer, etc., were engaged, and

the whole establishment made ready for its occupants. An old gentleman, with nothing else to do, amused himself by looking at the contents of the house, and one day penetrated to the kitchen, where he found plumbers taking out the range, who said, "The captain didn't like it, and had ordered a different patent." The family failed to come for a fortnight, and the butcher, baker, and grocer came for orders, but found no customers. Finally the neighborly old gentleman told a policeman he thought there was something wrong about that house, and so there was — for on opening it, it was found entirely empty. Not only the furniture was gone, but the mantels, grates, range, furnace, everything portable, was missing.

MR. RUSKIN ON DRESS.

THIS eminent art critic thus advises his young lady friends on the subject of dress. We will not say, for it is unnecessary, that the great author gives excellent counsel:

"Dress as plainly as your parents will allow you, but in bright colors (if they become you) and in the best materials—that is to say, in those which wear longest. When you are really in want of a new dress, buy it (or make it) in the fashion; but never quit an old one merely because it has become unfashionable. And if the fashion be costly, you must not follow it. You may wear broad stripes of narrow, bright colors or dark, short petticoats or long (in moderation), as the public wish you; but you must not buy yards of useless stuff to make a knot or a flounce of, nor drag them behind you over the ground. And your walking dress must never touch the ground at all. I have lost much of the faith I once had in the common sense and even in the personal delicacy of the present race of average English women, by seeing how they will allow their dresses to sweep the streets, as it is the fashion to be scavengers. If you can afford it, get your dresses made by a good dressmaker, with the most attainable precision and perfection; but let this good dressmaker be a poor person living in the

country, not a rich person living in a large house in London. Learn dressmaking yourself, with pains and time, and use a part of every day in needle-work, making as pretty dresses as you can for poor people who have not time nor taste to make them nicely for themselves. You are to show them in your own wearing what is most right and graceful, and to help them to choose what will be prettiest and most becoming in their own station. If they see you never try to dress above yours, they will not try to dress above theirs."

Apropos to the above, the Baroness Burdett-Coutts has organized a movement among English women, the object of which is to discountenance, and, as far as possible, to render odious the use of bird-feather ornaments. So expensive has this traffic become, that at a single sale in London in the month of February, upward of 15,574 humming-birds were disposed of, while of parrots there were sold about 25,000, and of kingfishers, 17,000, together with 10,000 aigrettes made of the feathers of a variety of other birds. As this was but one day's sale, the wholesale destruction of these beautiful creatures that is constantly going on to supply the demands of fashion in Europe and America, may be imagined.

THE RIME OF THE ANCIENT MARINER.

BY S. T. COLERIDGE.



“ O H, sleep, it is a gentle thing
 Beloved from pole to pole!
 To Mary-queen the praise be given,
 She sent the gentle sleep from Heaven
 That slid into my soul.

The silly buckets on the deck
 That had so long remained,
 I dreamt that they were filled with dew,
 And when I awoke it rained.

My lips were wet, my throat was cold,
 My garments all were dank;
 Sure I had drunken in my dreams,
 And still my body drank.

I moved and could not feel my limbs,
 I was so light, almost
 I thought that I had died in sleep,
 And was a blessed ghost.

And soon I heard a roaring wind,
 It did not come anear;
 But with its sound it shook the sails
 That were so thin and sere.

The upper air burst into life,
 And a hundred fire-flags sheen,
 To and fro they were hurried about;
 And to and fro, and in and out,
 The wan stars danced between.

And the coming wind did roar more loud ;
 And the sails did sigh like sedge :
 And the rain poured down from one black
 cloud,
 The moon was at its edge.

The thick black cloud was cleft, and still
 The moon was at its side ;
 Like waters shot from some high crag,
 The lightning fell with never a jag
 A river steep and wide.

The loud wind never reached the ship,
 Yet now the ship moved on !
 Beneath the lightning and the moon
 The dead men gave a groan.

They groaned, they stirred, they all uprose,
 Nor spake, nor moved their eyes :
 It had been strange, e'en in a dream
 To have seen those dead men rise.

The helmsman steered, the ship moved on ;
 Yet never a breeze up blew ;
 The mariners all 'gan work the ropes,
 Where they were wont to do :
 They raised their limbs like lifeless tools—
 We were a ghastly crew.

"I fear thee, Ancient Mariner!"
 "Be calm, thou wedding-guest!
 'Twas not those souls, that fled in pain,
 Which to their corpses came again,
 But a troop of spirits blest ;

For when it dawned—they dropped their
 arms,
 And clustered round the mast ;
 Sweet sounds rose slowly through their
 mouths
 And from their bodies passed.

Around, around, flew each sweet sound,
 Then darted to the sun ;
 Slowly the sounds came back again
 Now mixed, now one by one.

Sometimes a-dropping from the sky
 I heard the sky-lark sing ;
 Sometimes all little birds that are,
 How they seemed to fill the air
 With their sweet jargoning.

And now 'twas like all instruments,
 Now like a lonely flute ;
 And now it is an angel's song
 That makes the heavens be mute.



The body of my brother's son
 Stood by me knee to knee :
 The body and I pulled at one rope,
 But he said nought to me."

It ceased ; yet still the sails made on
 A pleasant noise till noon,
 A noise like of a hidden brook
 In the leafy month of June,

That to the sleeping woods all night
Singeth a quiet tune.

Till noon we silently sailed on,
Yet never a breeze did breathe:
Slowly and smoothly went the ship,
Moved onward from beneath.



Under the keel nine fathom deep
From the land of mist and snow
The spirit slid, and it was he
That made the ship to go.
The sails at noon left off their tune,
And the ship stood still also.

The sun right up above the mast
Had fixed her to the ocean:
But in a minute she 'gan stir
With a short uneasy motion—
Backwards and forwards half her length,
With a short uneasy motion.

Then, like a pawing horse let go,
She made a sudden bound;
It flung the blood into my head,
And I fell into a swoond.

How long in that same fit I lay,
I have not to declare;
But here my living life returned,
I heard and in my soul discerned
Two voices in the air.

'Is it he?' quoth one, 'Is this the man?
By him who died on cross,
With his cruel bow he laid full low
The harmless albatross.

The spirit who bideth by himself
In the land of mist and snow,
He loved the bird that loved the man
Who shot him with his bow.'

The other was a softer voice,
As soft as honey dew:
Quoth he, 'The man hath penance done,
And penance more will do.'"

UTILIZING WASTE PRODUCTS.—The new fabrication of paper utensils, barrels, pails, etc., is developing a use for waste matter hitherto unknown. In the old way of making pails, for instance, the separate parts or staves are cut, one at a time, from a log of wood, and in making them, all the chips and smaller pieces are wasted, so far as the real object of manufacture is concerned. In making a paper pail, however, the fibrous material is wholly utilized, and if the original stock is wood, as in part it may be, then that which would be wasted in chips and in ends is entirely saved. In another line the results of adopting waste to useful purposes is strikingly shown. In Europe paper has been applied to the manufacture of railroad car wheels with excellent results; and arrangements are being made for the production of a fabric which will

fill the places of leather and wood for purposes of common necessity. It is stated, in *Les Mondes*, that one of the wealthiest of English velvet manufacturers, Mr. Listar, worked his way to success by years of patient labor in search of a way to utilize silk rags. He began by buying up all such waste at less than a cent a pound, and up to the year 1864 he had expended the immense sum of over \$1,300,000 in fruitless efforts to find a process. Nothing daunted, however, he continued his experiments, and within the past ten years has discovered a method of converting such refuse into velvet of the finest quality. He carries on this industry in England, employing some 4,000 workmen, and hundreds of travelers are also employed whose sole business is to buy up silk waste in all parts of the globe. The factory is said to have cost nearly three millions of dollars.



It is only by training all together—the physical, intellectual, and spiritual elements—that the complete man can be formed.

LAWS OF HEALTH APPLIED TO HOME AND SCHOOL CULTURE.

CLOTHING OF CHILDREN.

IN connection with bad air, little exercise, or that which is irregular and sometimes excessive, and the hot-bed method of mental training and excitement by books and society, children are generally very imperfectly clothed. The fashion of dressing boys with short pants, stopping above the knee, with stockings often thin and tight-fitting, with tightly-laced boots, which constrict the ankle and impede the free circulation of the blood to the extremities; and also the dressing of little girls with skirts hardly reaching to the knee, with thin drawers and stockings as the only means of protecting their limbs, is to be sincerely regretted and severely condemned. The fashionable boy will of course have a thick overcoat, muffler, perhaps a fur cap with ear-pieces; and the girl will have a massive cloak, though short, a fur-tippet and muff, but the poor limbs are not a fifth part warmly enough clad.

A man, the robust father of children thus dressed, will have thick, knit drawers; stout cloth trousers; thick, warm stockings; and boot-legs to cover the limb nearly to the knee, where the overcoat meets them; and even then he feels cold, and desires Arctic overshoes, and a lap-robe in cold weather to wrap around his feet and legs. Men know what they want, and if able, they will have it; but the poor children with large and over-

heated brains are so very wrongly clad, that the blood refuses to visit the feet and lower extremities, and, of course, it rushes to the brain, lungs, and liver, and produces unhealthy congestions, tending to croup, diphtheria, pneumonia, brain fever, and consequently untimely death.

WHERE FASHIONS COME FROM.

Inventors of fashions and venders of patterns live in Paris where grass remains green all winter, and though their styles of children's clothing would not be desirable even there, they are simply absurd and murderous in New York, and in all the regions North, where snow often falls to the depth of from two to four feet, and the thermometer sometimes ranges from zero to twenty degrees below. Occasionally we see a matron who dresses her children as properly as the short-dress method will allow. Her children are supplied with warm drawers to the ankle, thick woolen stockings, stout shoes which do not pinch the feet, and heavy-leggings when they go out; and the fresh, healthy complexion, plump faces and hands, and their ample growth and good proportions are eloquent in praise of that mother's wisdom. Her children come to noble maturity, and "rise up and call her blessed," at least by their looks, strength, vigor, happiness, and long life.

In regard to tight-lacing, people know

enough, and some will insist on ruining their health and constitution by practicing it; and most people will wear shoes quite too small, and thereby ruin their feet, and make their life miserable from bunions and corns, and no matter how truthfully and earnestly we may inveigh against these habits, not a few will apply the title of fanatic, if nothing worse, and not thank us for our effort to save them. Old men and women, with sad experience, will know we are in the right, and will wonder why we do not "cry aloud and spare not." The young probably will think as their parents used to, that their clothes are "not tight at all," and their shoes are "quite large enough." Time and pressure, however, will make limping and short-breathing invalids mourn over their folly after the evil has been done beyond recall.

SUNLIGHT THE LIFE OF THE WORLD.

In some families there seems to be an utter dread of light, a kind of photophobia; as, in some others, there seems to be hydrophobia, or a dread of water. There are some excellent people who aim to do their duty to themselves and their children; cleanliness is practiced; proper regard for clothing and pure air is perhaps observed, yet there is a continual effort to keep the house dark, to surround it with shade trees, and on going out, to use parasols and veils, and walk on the shady side; or stay in till the sun is far in the West; and some, indeed, have such a mania for a delicate complexion, that they almost wholly deny themselves of the health-giving influence of sunshine, or even of its reflected light. They live in the shade and become faded, fair, and tender. It may be asserted confidently that for lack of the vivifying influence of light, many thousands of children die yearly, and other thousands drag out a

weary and weak existence to a premature death.

NATURE GIVES US ARGUMENTS.

Let us take lessons of Nature in this respect. Even forest-trees that grow in the open air, if they are permitted to stand in thickets, creating their own shade, and a shade for each other, become thin, lank, tall, and weak, and the timber is very coarse and loose, as compared with that which grows in the open field, where the sun can bathe every side of it during the long summer days. The white oak that grows in the open pasture, is tough and gnarled, and has twice the strength of the same kind of timber that grows in the thicket; and this open-land timber is the kind which is chosen for important parts of ships—constructed to struggle with the storms of the ocean. Of course, the tree that grows in the open field is exercised, and thus strengthened by the winds, and thereby benefited more than is one in the denser forests or groves. Grass that tries to grow in the shadow of houses or trees—how sickly, and limp, and colorless it is! Sometimes, in warm, dark cellars potatoes make an effort to grow, and the thin, white, tender vine will creep for yards towards a little chink in the wall where the light comes in. Lifting itself, it puts its head out through the crevice, and the instant it gets into the open light the stalk becomes green, six times thicker than it was on the inside, and tough, woody, and healthy. Everybody knows that celery is white, tender, and delicious, and many people know that it is planted in the bottom of a deep trench, dug in the garden for that purpose; and as fast as the plant lifts itself above ground, the earth is banked up around it, and it is thus literally compelled to grow under ground, all except the top leaves. If the plant could grow as potato vines

and other things do, in the blessed sunlight, it would be tough and strong, and of course, unfit to be used as a tender, succulent vegetable.

DIRTY CHILDREN—WHY HEALTHY.

We sometimes hear people speak sadly of their tender children who are pale and sickly, as having been unfortunately kept in the shade; and in a fit of reform they say the children must go out and play in the dirt, as if dirt were wholesome; and we have known families to have a pile of loam brought and deposited under the thick shade of trees, where their delicate children could go out and play in it.

The children that run wild on the streets and fields, and dig in the dirt, get their health from the active exercise, from the sunshine and out-door life, not from the smut of their faces, the soil they may wallow in, or the dirt of their clothing. Such children are more robust and healthy than those of the rich who are screened from the roughness and rudeness of their mode of living, and if they carry health and power into future success in life, often far surpassing those more carefully reared, it is the sunshine and the open air, and the free exercise, not the filth, nor the earth, nor the dirt, that does the work.

We would recommend to all people, and especially to those whose children are sensitive and delicate, that they occupy the sunny side of the house, and live in those apartments where the sun comes in all winter and all summer. Of course, in the hottest weather, it is not appropriate to sit in the glare of a noon-day sun, but every child should be raised where there is light enough to make a rose-bush or a geranium plant flourish, and the curtains and blinds that are employed to keep the carpets

from fading, should be thrown open sufficiently to keep the mother and the children in a healthy condition.

Academies, colleges, and school-rooms should be adjusted on the plan of admitting an abundance of light. They need it as much as a printing office or factory needs light. The abundance of light in many of the manufacturing establishments is of great assistance in the maintenance of the health of the operatives, who are so much confined within doors. Sunlight and air are cheap and abundant. It is an excellent plan to dress children in white garments in summer, because the light will then go through them, and tan and toughen the body, and thereby impart to the wearer a degree of health and vigor which is impossible to those wearing black or dark garments that prevent the light from reaching the person.

RUDE, BUT SENSIBLE.

We heard an eccentric old gentleman say, many years ago, that when he built his large mansion, his wife and children said they must have windows here and there, all over the house, several in one room, but as soon as he had planned and put in all the windows, then they must have blinds put on to shut out the light. He good-naturedly put the blinds on, and when they moved into the house, they thought they must have curtains to keep out the rest of the light; and he said that the making of the windows was one expense, the blinds just as great an expense, and the curtains another expense; "And now," he said, "my house is so dark that I grope to find my way." And added, that if he were to build another house, he would have only just so many windows as he needed for the light he was expecting to use.

We believe it better that carpets and furniture should be faded, than that

women and children should be made tender and delicate from a lack of air and light.

COLLEGE TEMPTATIONS.

Those children who are able to endure the prevalent course of treatment and training, having constitution enough to resist these impediments to health, may, perchance, enter upon a collegiate course, and here they find a new series of difficulties and temptations. They soon form new acquaintances; they are thrown into the society of spirited, ambitious, and perhaps reckless young men, and being anxious to stand equal with their associates, and unwilling to be outdone by them, they seek to enter upon whatever usages are common among their college mates. Those who have not learned to smoke and drink, meet an early invitation in that direction. If they have not before acquired the habit, their nervous systems revolt at the first compliance with such abuse, and disliking to be called effeminate, weak, and unmanly, they strive to overcome their natural repugnance to tobacco, and in a few months are able to smoke with the bravest Freshman. Among college students to-day, we believe that two-thirds of them smoke, and many of them drink, and not a few of them go home from college, perhaps before graduation, broken down from what is kindly called "hard study;" but in point of fact, from dissipation in many forms, and not from overstudy. We believe tobacco is one of the greatest impediments to education; yet unhealthful methods of living, in connection with college and academic study, present another difficulty. If the Professors in our colleges, and the Principals in our academies, would study enough of physiology to understand what kinds of food are best adapted to their students, and see to it

that they have the opportunity to obtain such food; and also deliver lectures, so that students, and those who keep boarders as well, might learn what kinds of food are the best calculated to maintain health, students could thus become imbued with the idea that it is their duty to themselves, and to their future happiness and success, to eat and drink rightly, as well as to avoid alcoholic stimulants and tobacco, and thus the standard of education might be elevated fifty per cent.

We claim that no student can sustain his constitution in the best of health, and make progress in learning and graduate from college with a sound constitution by following the habits, gustatory and social, that pertain to college life generally.

WHAT AND HOW STUDENTS EAT.

Many students at colleges and academies eat for their breakfast, toast made of superfine flour bread, or griddle-cakes made of the same material, with syrup and butter, drinking coffee made very sweet to be tolerated while eating the sweetened cakes. At noon there is, perhaps, a dinner of fat meat, or roast beef and rich gravy, with superfine bread and butter; at night warm biscuit and butter, and perhaps syrup with it; besides, candies are consumed by students at a fearful rate, and some of these are doubtless drugged, in such a way as to excite a yearning desire in the nervous system to continue eating them. Now, this great amount of superfine flour, butter, sugar, syrup, and the like, produces heat and excitement in the system, but does not feed the brain or strengthen the muscular system; but covers the face with pimples in those of a light complexion, and gives a brown, bilious, yellow look to those of a dark complexion. Such a mode of living tends to produce bilious complaints,

dyspepsia, and kidney difficulty, and injures the strength of mind, clearness of thought, integrity of memory, and vigor of body. But if children at home are fed in this manner, they get their appetite fixed in that direction, and clamor for it at school; and students are generally supposed to be rather difficult to please as boarders; and sometimes starveling academies and colleges, that need every possible dollar of tuition-money to keep going, will seek to secure such board for students as they wish to have, whether it be of the right kind or not. Three-quarters of the teachers know much more about grammar, arithmetic, rhetoric, and logic, than they do about physiology, and very many of them have dyspepsia from living on such food as we condemn for students. We have known Presidents and Professors of colleges, while sitting under our professional hands, open their eyes with astonishment when we told them that wheat ground without sifting is complete food, and ought to be the bread-stuff of workers and thinkers; that they should in the main avoid the fatty part of meat, and eat less butter by nine-tenths, and less sugar by nineteen-twentieths than they have been accustomed to; and that they should avoid spices, because they are irritating to the nervous system, and destructive of health; and, on the contrary, use fruit abundantly, and avoid any other kind of acid, since fruit acid in its natural state is organic, while vinegar is the product of decay and poisonous in some degree.

If they do not understand these laws, how shall they be expected to practice them, or to communicate a knowledge of them to their students?

BROKEN DOWN STUDENTS SAVED.

We have had under our hands many a student, broken down from overstudy

and wrong eating, having been absent from college a year or two, who has been advised by us how to get out of the trouble, and in four months has been recuperated, with ten pounds additional weight, going back to college rejuvenated, to continue his course of study.

We would therefore urge upon teachers, parents, and pupils, a temperate and judicious form of eating. It is not so strange that students overstudy in college, or reach results equivalent to it, especially when their habits of diet, to say nothing of stimulants and tobacco, are considered.

POVERTY OFTEN A BLESSING.

Poverty is not a convenience, but it is often a great blessing to students in colleges. Those who have plenty of money, and can luxuriate, as unrestrained youths are sometimes inclined to, fail to become scholars, and generally leave college with ruined constitutions; and it is to the poor that the world is mainly indebted for distinguished statesmen, able clergymen, successful teachers, physicians, engineers, inventors, soldiers, or business men; and in this country, it is not uncommon, when the biography of eminent men is being prepared, for the fact to be recounted with praise and pride, that the subject was obliged to teach school during vacations, and perhaps during the sessions to black the boots of his fellow-students, or saw wood for them to pay his college expenses. Of course, poverty prevents such persons from losing time and money in license and licentiousness in various forms. They work, take ample exercise, and are tired enough at night to sleep abundantly, which properly rests and recuperates the nervous system; and they are ready for study or work the next day. It is not their poverty that qualifies them to become

more successful than other students, but it is their poverty which forbids dissipation, keeps them confined to their duties, and leads them to that labor which keeps the system invigorated, the digestion good, the circulation complete, and the brain, as a consequence, clear and strong.

Of course, parents feel anxious about their precious child, their hope and pride; they have tried to set a good example at home; smoking, drinking, and other modes of vice have been sedulously avoided; yet, while they have kept the outward morals of themselves and their child uncontaminated, they induced in him a feverish state of the brain and nervous system in the common school and preparatory course, and by a diet and regimen not favorable to the best of health; so that he is open to temptation on every hand, the moment he is removed from parental restraint, and he sweeps out into the current of that life which dazzles, captivates, and leads astray.

BUSINESS MEN DO BRAIN-WORK.

Men in business are required to think as much as students do in college, and they maintain their health year after year, if they live temperately and properly. If we had a dozen boys to train, and there were no college at hand, we would, if possible, move the family within hearing of the college-bell, and our boys should eat every meal under the parental roof, and be in bed every night at the proper time. We commend the wisdom of those men who move to the vicinity of the college or academy where they wish to educate their children. Young, aspiring, restless, excitable persons, unfitted by age, experience, or culture, are ill-adapted to carry themselves wisely, if they are set free from parental guidance and restraint. Those so set free will blame

their parents for their laxity when they become old and wise enough to view the matter correctly. If they are kept straight, and are compelled to carry themselves properly, they will ultimately praise their parents for their fidelity, and imitate their good example.

CONDITIONS OF SCHOLARLY SUCCESS.

Correct habits of living, ventilation, abundance of exercise, and from seven to ten hours of sleep would carry nine-tenths of intelligent children into, and through, college with excellent health and unimpaired constitution. The world is coming to know, not fully, perhaps, in this generation, that students can be thoroughly educated, much better, indeed, than now, and graduated with glowing health and vigorous constitutions.

Thus physiology teaches those who would study it, how to take care of the health, how to maintain the brain in vigor, so that study shall be a pleasure and not a snare. But we would emphasize the fact, that if children in the primary departments could be trained in calisthenics and receive object lessons, and have recitations in concert, and look at lessons put up by means of great placards, so that the whole school could see and read them, and not have a book in hand for the first two years, it would make study to them a pleasure and not a burden. The little ones are anxious for motion; watch them as they sport on the green; they are not still at all; and in school, for a year or two, their time should be devoted to systematic, calisthenic exercises, marchings, singings, reciting in concert, and looking at objects and listening to explanations. There are schools of this sort, and an improved public sentiment in reference to physiological training, will bring the Kindergarten, the calisthenic school, object-teaching and dia-

gram-instruction into more general use, and obviate many of the evils of early training and education now prevalent. Children sometimes get broken down before they are twelve years old. How many little, blue-eyed, stoop-shouldered, narrow-chested, thin-faced girls pore over their books and stand at the head of their class, and then in Sunday-school do the same thing! Is it a wonder that we have so few healthy women, when the best of them are thus pushed in their studies, and encouraged to dress wrongly, to eat wrongly, to study wrongly, and thus violate every physiological law? We would have teachers and parents understand these points, and they all should be trained and enlightened together; otherwise the parent will undermine the work of the teacher, or the teacher will fail to carry out the purposes of the best instructed parents.

The late Horace Mann gave a wonderful impetus to education, and if he could have been listened to thoroughly, the educational systems would have been carried to a very much higher point, and been far more in harmony with physiological law than at present. He induced the construction of the best school rooms the country had seen, and Massachusetts and the country owe to him more to-day, than perhaps to any other man, living or dead; for his work touched the springs of life, and health, and culture. It sought to lay sound and deep foundations for the health of the body and the culture of the mind. But his views were never thoroughly appreciated, nor fully carried out, and he wore himself out in the great work of education.

NELSON SIZER.

THE OLDEST MEDICAL BOOK KNOWN.

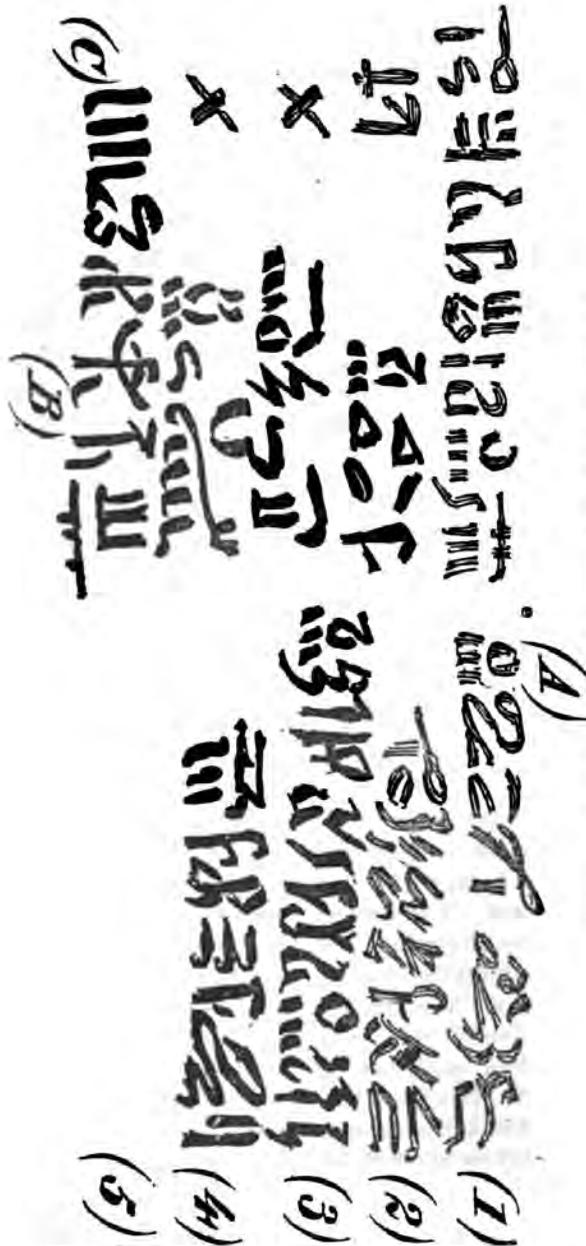
FROM the beginning man suffered the penalties of broken physiological law—had his sicknesses and maladies—and resultant there arose a class of persons who gave their attention wholly or in great part to finding or inventing methods for the relief or cure of the sick. Away back in the ages there were physicians. The ancient Chinese, Hindus, Persians, Egyptians, had their wise men who prescribed for the sick, but of their methods very little of authority has been discovered until recently. The *Scientific American* publishes an account of an ancient medical treatise which has recently been found in a mummy-case at Thebes, the revelations of which are exceedingly interesting, as they show the condition of the healing art in the days of Egyptian glory.

Fifteen hundred years before the birth of Christ, at a period when the Israelites were still in bondage in Egypt, Hermes, a king of that country, and surnamed "Trismegis-

tus," or thrice great, translated, from engraved tables of stone long before buried in the earth, certain sacred characters said to have been written thereon by the first Hermes, the Egyptian god Thoth or Thuti. The books thus produced were deposited in the temples; and the reputation of the king as a restorer of learning lived in history up to the time of the alchemists of the middle ages, who looked upon him as the "father of chemistry;" while his name still exists in our word "hermetical," commonly applied to a seal through which nothing, however subtle, can pass. Hermes' writings, according to Clemens Alexandrinus, who described them in chronicles written 200 years after Christ, consisted of forty-two books, all of which were held by the Egyptians in the highest veneration. They treated of rules by which the king was to govern, of astronomy, cosmogony, and geography, of religion and of priesthood, and of medicine. On the last-men-

tioned subject, six books are known to have existed. Though many scrolls have been found treating on all of the above topics, the Hermetic writings have remained undiscovered; and hence their very existence has

German archæologist, while residing in the vicinity of Thebes, learned from an Arab of the existence of a papyrus scroll, found between the bones of a mummy, some fourteen years previously, by a person since



FACSIMILE OF A PART OF HERMES TRISMEGISTUS' BOOK ON MEDICINE.

repeatedly been denied, and the tradition considered as one of the many curious myths which overhang the ancient history of mysterious Egypt.

During the winter of 1872-3, Ebers, the

dead. By dint of a large offer, Ebers obtained the scroll from the Arab. It consisted of a single sheet of yellow brown papyrus, of the finest quality, over sixty feet in length and about eleven inches broad.

The writing was clearly executed in red and black inks; the paper was in perfect condition; and the entire work was in a state of remarkable preservation. Hurrying to Leipsic, Ebers at once began the deciphering of his treasure; and the results of his studies are now given to the world, with the announcement that the work is, beyond question, one of the long-lost six Hermetic books of medicine.

The age of the manuscript was determined by the study of the forms of the characters, by a calendar which is found in the book, and by the occurrence of the names of kings, all of which show the period of writing to be the year 1552 B.C., at which time, it is interesting to note, Moses was just 21 years old. A translation of the script also confirms the origin of the work, since (as was the custom of the Egyptians, in order to give greater authority to their writings) it is ascribed to the god Thoth or Thuti, who, as we have already mentioned, was the first Hermes.

By the aid of chromo-lithography, a fac-simile of the papyrus has been prepared; and it is now published, together with notes, by Ebers, and a translation of some portions. A copy of this rare and important work has lately been received at the Astor Library, in this city; and from one of its pages we have obtained the drawing from which the annexed engraving is made. The characters are fac-similes except in point of color, those which are lightly shaded being written in red, and therefore, of course, impossible for us to reproduce. The script is of the hieratic form, which was one of the four distinct graphic systems used by the Egyptians. It was devised as a shorter method of inscribing the hieroglyphics, and bore about the same relation to those symbols as our written letters do to printed characters. In this form the great body of Egyptian literature has reached us; and in order to translate it, it is first necessary to resolve the hieratic contractions into their corresponding hieroglyphics. This is done in the second engraving; and the reader will find it interesting to compare the lines of the hieratic writing with the hieroglyphics, and note the similarity. The

hieratic reads from right to left, the hieroglyphic from left to right; so that the lines end at the point A. Notice the similarity of form between the characters at B, also the ideographic nature of the hieroglyphic, the words "to pour out" being symbolized by a man in the act of throwing objects from one hand into another. Notice also the symbols at C, indicating four days. A portion of the character is similar to that used to mean the sun or god Ra, and the four down strokes indicate the number of suns or days. Another ideographic symbol is the bee, to indicate honey. The mode of writing the weights is also curious. The tenat or unit of volume was about six-tenths of a quart, and the drachme is probably the same as the Arabic dirhem, and is equivalent to 48 English grains. The first page of the scroll opens thus: "The book begins with the preparation of the medicines for all portions of the body of a patient. I came from Heliopolis, with the Great Ones from *Hel-aal*, the Lords of Protection, the Masters of Eternity and Salvation."

The preface continues somewhat in the same strain through the page. On the second leaf is found the extract given above, introduced by a kind of charm, which the physician is to bear in mind while administering the doses. The following translation is literal:

"Chapter treating of the taking of medicine. The medicines approach. The expulsion of everything is accomplished from my heart, from my limbs. Powerful are the charms. On the medicines. Beginning: I think of the time when Horus and Set were conducted to the great Hall of Heliopolis, so that counsel might be taken on the Hodes of Set and Horus. * * Words which are spoken on the taking of medicines in their regular order, and frequently." Then follow the extracts above, and some more recipes of which the following are specimens: "Caraway seed, 1-64 drachme; goose fat, $\frac{1}{8}$ drachme; milk, 1 tenat. For sick bowels, the same; Pomegranate seed, $\frac{1}{8}$ drachme; sycamore fruit, $\frac{1}{8}$ drachme; beer, 1 tenat."

Ebers translates but two pages literally,

and gives a synopsis of the balance of the book. The chapter headings are peculiar. The initial chapter consists mainly of recipes and the preparation of medicine ; then follow chapters on salves for removing

HIEROGLYPHIC TRANSLATION.

(1)	(2)	(3)	(4)	(5)
Medicine	bowels	sickness	rubbed up	patient
Beginning of the Book of the	To cure the sickness of the	(seeds of the) The-lui plant	To be drunk by the	
the bowels	to liver	4 straining	4 straining	4 straining
opening	Pulverized	pour out	pour out	pour out
Medicine for	Honey	Cool	Cool	Cool
Milk	Pulverized	pour out	pour out	pour out
Honey	Cool	Cool	Cool	Cool
Cool	Cool	Cool	Cool	Cool
Cool	Cool	Cool	Cool	Cool
Cool	Cool	Cool	Cool	Cool
Cool	Cool	Cool	Cool	Cool

the *uhan* ; catalogue of the various uses of the *tequem* tree ; medicines for alleviating the accumulation of urine and diseases of the abdomen ; " the book of the eyes ; " medicaments for preventing the hair turn-

ing gray, and for the treatment of the hair ; on forcing the growth of the hair ; salves for strengthening the nerves, and medicines for healing the nerves ; medicine for curing diseases of the tongue ; medicines for the removal of lice and fleas ; medicines for ears hard of hearing ; " the secret book of the physician ; " " the science of the beating of the heart ; " and " the knowledge of the heart, as taught by the priestly physician Nebseht."

The difficulties in the path of the translator in the shape of technicalities are, of course, very great ; and probably for this reason he reserves the complete translation of the book for future publication, when it will be issued, with notes, etc., obtained by further study. One extract is given, however, to show the general style of directions to the physician. It reads as follows :

" Rules for the *re-het*, that is, suffering in the pit of the stomach. (Pylorus or cardia.) When thou findest anybody with a hardening of his *re-het*, and when eating he feels a pressure in his bowels (*chet*), his stomach (*het*) is swollen, and he feels ill while walking, like one who is suffering with heat in the back, *tau nu peht*, then look at him when he is lying outstretched, and if thou findest his bowels hot and a hardening in his *re-het*, then say to thyself : This is a liver complaint, *sepu pu n merest*. Then make thyself a remedy according to the secrets in botanical knowledge from the plant *pa cheslet* and from scraps of dates. Mix it and put it in water. The patient may drink it on four mornings to purge his body. If after that thou findest both sides of his bowels (*chet*), namely, the right one hot and the left one cool, then say of it : That is bile. Look at him again, and if you find his bowels entirely cold, then say to thyself : His liver (?) *merest* is cleansed and purified ; he has taken the medicine *sepu nef sep*, the medicine has taken effect."

In view of the direction to look at the patient "when lying outstretched," it is curious to note that (according to Dunglison) the priestly physicians of Egypt are said by Diodorus to have formed their diagnosis principally on the position which the patient assumed in bed.

The book is one of the most valuable contributions to our knowledge of the arts of the ancient Egyptians that has ever been discovered ; and the clear manner in which

it is written, and its freedom from the nonsense or gibberish usually accompanying so-called charms, serve still further to enhance its archæological importance.

A CITY SLUM.

EACH house is many stories high,
Each room a family contains ;
And there they breed, and breathe foul air,
Like rats inhabiting the drains.

Though, when one comes to think of it,
The rats are far more clean and sweet ;
These people neither comb nor wash,
Rats trim their fur and keep it neat.

Oh dear ! oh dear ! the sights one sees !
In a close court, the other day,

I saw some lean, large-stomached babes,
All busy at their childish play.

They dabbled in the thick, black slime,
Stuck fish-heads in and drew them out,
Made pies of stuff much worse than mud,
While fat blue-bottles buzzed about.

Poor innocents ! for those who die
In early years, what bliss untold
To pass from filth and haddock-heads
To seas of glass and streets of gold !

IMAGINARY INVALIDS.

THE following from the *London Liberal Review* contains many excellent points, as the reader will perceive, in relation to that much too large class of pseudo-sick people by whom society is vexed.

It is doubtful whether the majority of individuals recognize what are really their weak points. On the contrary, in a general way they seem to imagine that they are strong where they are most vulnerable, and feeble where they are most powerful. Thus it is not surprising that they are led to imagine themselves the victims of complaints which, so far as they are concerned, have no existence except in their distorted imaginations, and that they are induced to tenderly cuddle themselves upon the score of these fancied affections.

This sort of thing is often carried to such an extent that human beings are found declaring themselves downright invalids when they have no right to be so considered. That they derive considerable gratification from pursuing this course there can be little doubt, an invalid upon a small scale being rather a favored individual. Provided that he is admitted to be a suffering and tender mortal, he receives an amount of respectful consideration which would not else be extended to him. He is allowed to shirk duties which if he were reputed to be in ro-

bust health he would scarcely be permitted to ignore, and he is permitted to resign himself to self-indulgence upon very slight provocation without incurring condemnation. If he feels inclined to take a holiday he cannot only do so with an easy conscience, but with the full approbation of his friends ; if he desires to take a pleasant jaunt into the country or a trip to some delightful sea-side resort, all obstacles to prevent him from doing so are easily removed from his path. Then, if he has a taste for expensive dainties or certain kinds of alcoholic liquor, he may gratify the same, even though a somewhat formidable expenditure is involved thereby, for it is generally conceded and instinctively imagined by him that pounds, shillings, and pence ought not to be considered when a man's health is at stake.

Doctors, it is well known, are wonderfully complaisant to invalids who have well-lined pockets, so complaisant, indeed, that it is the invalids' own faults if they are not ordered to act almost entirely in harmony with their predilections. Possibly, medical men do not desire to encourage the self-deception which many of their clients practice upon themselves, but it is certain that in many instances they do so. Certainly, they prescribe in a very different fashion for patients of various grades. It is not frequently that

a hod-bearer is, upon peril of his life almost, commanded to abstain from all labor, to treat himself to delicate viands and rich wines, and to hurry away to some charming popular resort, when he happens to be suffering not from any definite complaint, but from that singular combination of trifles which is best described as "out of sorts." On the other hand, no sooner does a prosperous big-wig fly to his pct Æsculapius than he is commanded to take a complete rest, to pay the most profound respect to the claims of his stomach, and to wing away to some charming spot where he will have his fancy tickled and his eye delighted. Perhaps, however, after all, the hod-bearer is none the worse because he is not treated as is his more lucky neighbor, and, it may be, the latter has not his life lengthened by the congenial way in which he is ministered to.

Undoubtedly, there is nothing to show that the man who is continually paying a marked attention to his little aches and pains, and who is everlastingly throwing up his work and nursing himself upon trivial provocation, lives any longer, in most instances, than does he who takes no account of his little disorders and sticks to the mill through thick and thin. Indeed, it seems to be the truth that the person who easily persuades himself that he is ill readily falls ill, and that he who declines habitually to admit that there is anything the matter with him does not soon become seriously afflicted. This, if apparently singular, is explainable by the fact that many maladies have formidable allies in the nervous fears of minds which are tortured by a dread of what may happen.

Now, of the mass of people who are persuaded that they are invalids, and demand to be treated as such, it is not too much to say that they would be all the better if they received a thorough shaking-up occasionally. That they should be so treated is not only desirable in their own interest, but in that of other people. It must be remembered that the mock invalid is invariably not only a torment to himself, but a constant source of aggravation and annoyance to others. Though he sees a dreadful significance in his own peculiar ailments, he seems utterly

unable to imagine that any one else can be so unhappily situated as he is. When he is assured that exposure to certain influences would undoubtedly bring about his death, and that hard work would utterly prostrate him, he seems to labor under the pleasing impression that his neighbors can stand anything, and that the more they knock about the better it is for them.

Thus, he will not hesitate to impose heavy burdens upon people who are really weaker than he is, and justify his conduct by the pleasing reflection that they whom he thus treats are practically made of cast-iron or something of the sort. This, unfortunately, is not all. He is prone to display unreasonable irritation if those who are around him fail to show that they are deeply touched by the contemplation of the infirmities with which he has been pleased to credit himself, but which they fail to see in the strong light that he does. Enter a room in which he is sitting and omit to close the door; talk above a whisper when he happens to have the headache; innocently mention that he has left something undone, the performance of which would not have involved much hard labor, and you will soon find this out. That you will be delighted at the discovery is not likely, but at the same time you are sure to feel that you would be considered a brute if you returned his unreasonable display of irritation in kind, and so restrain your feelings.

Perhaps, indeed, after due reflection, you bestow additional sympathy on him on account of his ill-humor, which you lay to the score of the maladies that afflict him rather than to that innate perversity of nature which he has done his best to cherish. Thus, he is not encouraged to cease wrapping himself up in himself. On the contrary, he is induced to continue in the belief that he is a poor, suffering martyr, who should be the recipient of sympathy at all hands, albeit that he selfishly has no tender thought for mortals who are much more afflicted than himself. Let him, then, be taught that he does not stand alone; that he would be all the better if he were coddled a little less; and that because a man fancies that he is a tender flower he has no right to con-

stitute himself an affliction upon society and a burden to his friends. Treated thus, he might in nine cases out of ten discover that, after all, he enjoyed fair health. We

are encouraged to believe this, because many habitual mock invalids, notwithstanding their sufferings, contrive to live to a "good old age."

THE PEACH.

BY JULIA COLMAN.

Our National Fruits—Origin—Early History in America—Culture—Wholesomeness—Uses—Canning—Drying—A Poison.

RECIPIES.—Peach Pie, Custard Peach Pie, Peach and Tomato Sauce; Peeling Peaches; Canning; Paper Napkins; Peach Stains.

ALMOST every country has its characteristic fruit. Here in the United States we have so many, and our range of latitude is so great, and therefore takes in so many fruits, that I doubt not we ourselves would have some difficulty in naming our characteristic fruit. There are other people, however, who have little difficulty in doing it for us, and as it is worth the while sometimes "to see oursel's as ithers see us," we can not well resist the temptation to quote what an English writer says on the subject—a little saucily, perhaps, but rather wittily for all that.

"Italy rejoices in its vine, Greece in its fig-tree, England glories in its 'home-made' gooseberry, and, indeed, almost every country of Europe has some fruit, either native or accepted, for which it is specially famous; while on other continents Arabia blesses Allah for the date-palm, as a more than sufficient compensation for every other deficiency; and South America claims the supreme honor of having supplied the world with pineapples. But what, then, is left for the other and 'better half' of the New World to wreath around the staff of its star-spangled banner? and wherewith shall the country that 'flogs creation' scourge us into a sense of her superiority in fruit notions as well as in all else beneath the sun? An answer is not lacking, for Pomona has vindicated her impartiality in bestowing upon the 'States' one of her choicest gifts, and though not a native to their soil, it has proved so good a foster-mother to the fruit, that the peach is now in America what the orange has be-

come in Spain or the Azores, at once the commonest and the best of its fruits."

Probably we should not all agree with the writer in the last sentiment, even if we do like peaches. Apples are commoner than peaches, and there be many of us that would prefer them, all in all, to the peaches, the English taste to the contrary notwithstanding.

We can, however, well appreciate their earnestness. They have tried so long and with so little success on their bit of an island (none of which comes so far south, we believe, as our northern peach line) to raise the luscious fruit, that they deserve credit at least, if they cannot overcome the climate sufficiently to make the fruit common. They do succeed in raising a very fair article as wall-fruit, but the conditions are so seldom perfect that it is but a rare luxury which costs high, of which few taste and fewer still eat to their satisfaction.

ORIGIN.

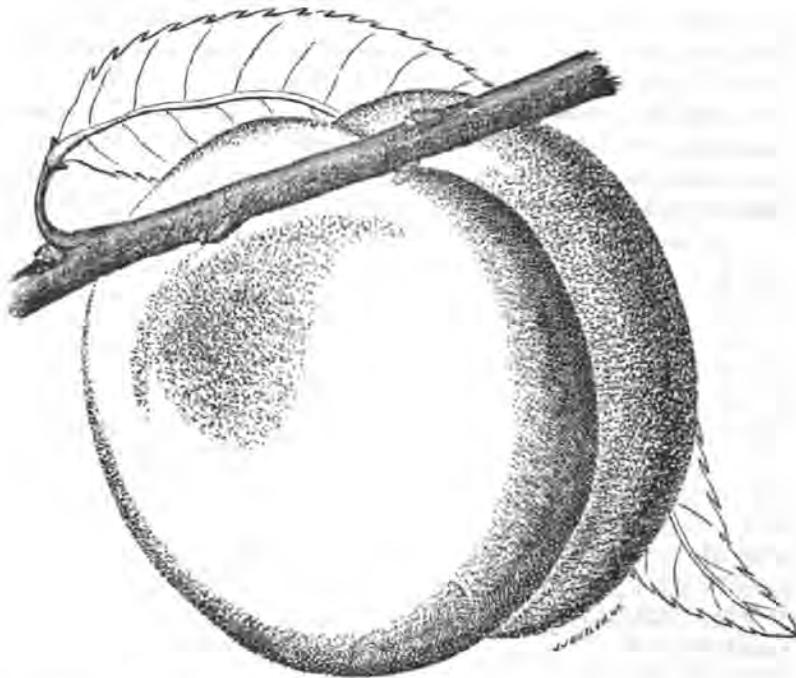
The peach is undoubtedly a native of Persia, but its origin is involved in mystery. There are many who say that it is just the almond with the pulpy "shuck" developed into a fruit. The story goes that even after this development, it was poisonous, as the almond husk is now, and of course not eatable until the naughty Persians, with felonious intent, sent it as a present to the Egyptians, hoping to poison them with it, when, lo! on their more favorable soil, it developed into a delicious and wholesome fruit. This was long before the time of Alexander, and we have seen enough of the inaccuracy of botanical and pomological observations in those days not to lay too much stress on this story. The number of Egyptians who could be poisoned in this way, before finding out the true character

of the fruit, would be too small to make any such enterprise at all worthy of notice.

As to the development of the peach from the almond, if it were done once, it could be done again; but we hear of no such developments now, notwithstanding almonds have been long under culture. It is said that the peach and the almond are sufficiently alike to hybridize and produce fruit "with the flesh of the former and the kernel of the latter," but that is no proof that they were ever the same; and we do not hear that these hybrids prove fertile, though certainly it would be very desirable

do not say but that the almond *may* have developed its pulp and transferred its poison to the kernel by culture, but we do not consider the case proven by any means.

During the reign of the Emperor Claudius it was brought to Rome, stopping at the Island of Rhodes by the way, where it proved utterly barren. It did not seem to be very productive at Rome, for the fruit sometimes sold as high as 30 sesterces (five shillings sterling) apiece. Soyer tells about their costing nearly \$5.00 each, and I have heard of their costing that in the Dublin market, in our day, but I would



to have such a fruit with such a kernel. It would reduce the price of almonds in this country quite materially.

We prefer to believe, with the proof we have thus far, that the peach may have been developed from some inferior, and, perhaps, poisonous fruit, as the apple has been developed from the crab, and the plum from the sloe. And it is very possible that the greater part of the transformation was wrought by a transfer to the fertile soil of the valley of the Nile. We know of poison eradicated by culture in the case of the parsnip and of some other things, and we

not vouch for the truth of the story. It was highly prized by the gourmands of the empire, and occupied a prominent place at dessert.

It is believed to have been introduced into England from Italy, by Wolf, the gardener of Henry VIII., in 1524. It grows more abundantly in France, though even there it is cultivated largely as a wall-fruit, and the firm-fleshed kinds rarely ripen perfectly. It is found well adapted to the climate and soil of many parts of Africa, where it has been introduced by benevolent travelers; while in Australia it grows in

great abundance and perfection. In many places it affords a fine illustration of what can be done in the way of taking pains to introduce vegetable products into new climes, where they often repay the trouble by becoming more abundant and profitable than any of the native products.

In China it has been known, according to their own accounts, since time immemorial. Traditions are said to be preserved in early Chinese books of a Peach-tree of Life, the fruit of which, when eaten, conferred immortality, but, unfortunately, it bore fruit only once in a thousand years. We admit that this smacks strongly of Chinese chronology, and shows very well what dependence we can place upon their pretended dates. Still, it is true enough that it is very abundant there now, and grows in open orchards. It is said to arrive at greater perfection there than in any other country of the Eastern world. It is

IN AMERICA,

however, that it has attained its greatest renown, and if there has ever been any danger of rivalry from China, the superb magnificence of its fruitage in California destroys the last vestige of doubt in that direction.

One of the most difficult things to believe, with regard to these fruits of enormous size, was that they could equal in quality the smaller sizes, or those which we have been in the habit of considering "normal." After much inquiry and investigation, however, we have come to the conclusion that the difference in that respect is not material. Many of their fruits are certainly of very fine flavor, even after transportation to the East, and candid people who have feasted on the fruits in the Golden State itself, do not admit their inferiority. The California dried and canned peaches, which we have used quite freely for some years past, do not admit the suggestion of any inferior quality.

Fresh peaches are of too perishable a nature to admit of so long a journey, and we must even be content with such as grow nearer home. Doubtless our English neighbors would think we might well be content since we can get them by rail in

almost all parts of the country; but when we learn that, through a large section of the Northern States they were once cultivated successfully, where they are now seldom seen, we are disposed to inquire how much pains is taken to secure the growth of a fruit so desirable. Our inquiries are rewarded usually by finding that A planted a young orchard on his farm five years ago, which proved a failure, on account of the "yellows"; and B let a tree grow in his garden, which winter killed; and C had another, which the grubs killed; and D had two or three, which died "from some cause or other," and so on to the end of the chapter. Scarcely anywhere do we hear of any attempts at wall-training, or of winter protection, such as we give to other tender exotics; nor of any careful selection of varieties; nor of any such high culture as our English neighbors bestow on excellent fruit which they wish to make their own. We can raise Hamburgh grapes, and now we are undertaking the culture of bananas and pineapples, which we know can never be made to thrive in the open air in this latitude.

True, it is easier, and probably it is cheaper, to get our peaches at the railroad station, or at the grocer's, and we may add, it is lazier, too. We certainly do not get them so fresh, and nice, and wholesome, and it certainly is not so æsthetic as to step into your own conservatory or garden and pluck them when wanted. There are a great many things that people buy that would not give them half the satisfaction of this. But more than all the rest, in thus generally giving up the culture of the peach, we lose just so many opportunities of finding out what is the true difficulty, and thus restoring it to general culture. The peach has been raised on this soil and in this climate, and the probabilities are that it can be again.

CULTURE.

Theories and speculations as to the primal cause of the failure, are abundant, but it is easy enough to see from the slovenly manner in which we usually cultivate the peach, that we know very little of its nature or its needs. We take very little

pains in the selection of varieties ; our apples themselves would be of small value if we cultivated them as carelessly. We keep it in bearing but for four or five years, while in Europe it bears good crops at from forty to sixty years of age, and the fruit is of finer flavor than that of the younger trees.

Compare our pell-mell method of gathering and planting peach-stones with the method of an English horticulturist, who, after judicious impregnation, permits only three peaches to ripen on each tree for seed. Our neglected and rudely-grown trees live, at best, only twenty or thirty years, while those grown in France, annually pruned and cared for, are still in full health and vigor at sixty. That most obscure and yet most fatal disease, the yellows, "is mostly considered to have its origin in general bad management—neglected culture, exhaustion, overbearing, etc."

This, it must be acknowledged, is a state of things which should be most repulsive to true hygiene. It certainly is placing the noble peach in most unhygienic conditions, and with most unhygienic results, and it would be greatly to the glory and the advantage of true hygienists to rescue it from the low estate into which it has fallen in many and extensive localities. We regret that we have not space here to do anything like justice to the subject of its culture.

WHOLESOMENESS.

The peach even in the old Roman days was considered "good for invalids," and we believe its good reputation is still untarnished. We are very certain that it is good for well people, and that is a still more important fact. The Chinese consider it so nutritious and so wholesome that *Tao Yuen*, their word for a "peach tree and a spring," is their cant term for philosophic retirement, one of their wise men having once lived in such retirement, with no other nourishment than that afforded by peaches and spring-water. Whether the tree ripened fruit continually, or he lived on dried peaches a portion of the year, we are not informed.

The superior nutrition of the fruit is largely due to the sugar it contains, while

its acids are sufficient and harmonious. This sugar makes it specially adapted to hygienic use, and it may well be considered a specimen of the better type of fruits, which we hope to see prevail generally—fruits which are sufficiently sweet for most

USES,

without added sugar. Peaches, if well selected and well ripened, make admirable pies, ambrosia, etc., with no foreign seasoning. But here again comes in the difficulty of having other people pick them for you—of having them frequently brought half ripened, so that they are not sweet. Many times, under these circumstances, they prove indigestible and unwholesome, and would be much better cooked and sweetened. For this purpose the skins should be removed. Indeed, we believe it best not to eat the skins in any case ; or, if eaten, the down should be thoroughly rubbed off. If they are not fully ripe, and especially if they are a little withered, the skins can be very readily removed by scalding. (See recipe.)

So great an inconvenience are these imperfect peaches that we often prefer the canned and the dried articles. These can be put up fresh and perfectly ripened, and frequently they are so, when they are very nice indeed. We think the packers take more pains than formerly, and on the whole, supply the market with a better article. The "pie-peaches," which come at a much less price, are usually unpeeled, and are put up with syrups, two objectionable items for general use, though in pies the peeling is rarely discernible.

It may be worth the while to note here, as in the case of strawberries and some other fresh fruits, that if they are eaten from the hand, it is much easier to eat them without sugar than if cut up and eaten with a spoon. It is also more showy, more tasteful, and much less work in preparation, but the great practical difficulty is the mischief it plays with the napkins. Even that difficulty can be met, however, and we still think this the preferable mode of eating good peaches.

Peaches are very available in many fancy

dishes with tomatoes and stewed Concord grapes; they make a delicious pudding with grated green-corn, and we recommend them for experiment generally. For

CANNING,

they should be taken while yet firm, because the necessary cooking will break them down to some extent, but they should not be so hard that they will not soften sufficiently in that process. If wanted nice and bright-looking, care should be taken not to expose them to the air after they are pared or skinned. If the peaches are what they should be, no sugar will be needed in canning. It is a mistaken notion that canned fruit of any kind will keep better with a little sugar in it. Sugar is a preservative only when there is a sufficiency to prevent fermentation, as in the case of "preserves," usually requiring from eight to sixteen ounces of sugar to a pound of fruit. A smaller proportion, or the ordinary quantity required by the taste for stewed fruit, only makes it ferment more readily, as can easily be ascertained by experiment, letting two dishes of stewed fruit stand side by side, just alike in all respects, save that one is sweetened and the other is not. For

DRYING,

the fruit should be even a little more firm, for it must bear the ripening process in the drying as well as in the subsequent cooking. Very dark, dried peaches are usually those which were too ripe before drying—often so ripe as to be partly decayed before the process of drying was complete. Quick drying is especially desirable for peaches as well as for all other perishable fruit. The Alden process has of late become noted as producing a very superior article, which retails readily at forty cents per pound in all our Eastern markets, and is scarce at that, while other good, dried peaches are selling at twenty-five or thirty cents. The machinery in that process is very expensive, and the superiority is said to consist in condensing all the valuable properties of the fruit within itself, while yet making it very dry. Those are excellent qualities, but, doubtless, they can and soon will be attained by a less expensive method.

A POISON.

We do not feel that we have done justice to this most excellent fruit, but we cannot leave the subject without a word of warning, for this is a case in which the tree is not altogether known by its fruit. The young shoots and the leaves of the peach tree contain a large proportion of prussic acid, and while harmless to handle, they are not so to eat. This is rarely suspected by those who use peach leaves to season fancy dishes, much less is it suspected that the poison forms the essence of a common condiment—the bitter-almond flavor. This is always a poison, and should never be used, although it is a favorite condiment. It owes its peculiar taste to the prussic acid it contains. The bay-leaf is also objectionable for the same reason, no matter if the French cooks do use it. The French cooks are not always hygienic cooks, by any means, and this is not the only poison which they are in the habit of putting into their dishes.

RECIPES.

PEACH PIE.—Pare and slice firm, rich, sweet peaches, one pint for each pie. Oil the pie-dish, and sprinkle over it "A" oatmeal to the depth of one-twelfth of an inch. Spread the peaches carefully over this, and pour over it, evenly, sufficient water to wet the oatmeal—nearly as much as there was of the oatmeal. Then grate an ear of rich, green corn, add an equal measure of water, strain through a colander, and stir in fine Graham flour enough to make a batter, a little thinner than for gems. Smooth down the peaches, and spread this batter thinly upon the surface, letting it run down and meet the oatmeal at the edge. Bake in a moderate oven until the peaches are tender and the crust slightly browned. Serve cold.

PEACH CUSTARD-PIE.—Make a crust by wetting fine Canada oatmeal (or, preferably, Schumacher's "A,") with one part cold water to three oatmeal. Roll out the required thickness, and spread it upon the oiled pie-dish. Then grate and scrape down three ears of rich, well-matured sweet corn (very young corn will not work in satisfactorily), add an equal quantity of water, and strain through a colander. Mix with this an equal measure of rich, tender, sweet peaches, mashed, or very finely sliced. Fill the crust with this, and decorate with red-checked bits of peach, if at hand. Bake 20 minutes in a good oven, not quite hot enough to scorch the crust. Serve cold.

The same mixture makes a delicious pudding, but for some tastes both the pie and the pudding will require additional sugar.

PEACH AND TOMATO SAUCE.—Peel and slice one part rich, sweet peaches, and two parts sweet and well-ripened tomatoes. Mix them thoroughly, and let them stand where it is cool, for an hour before serving. Very sweet, rich muskmelons may also be cut and mixed with tomatoes in the same way.

PEELING PEACHES.—Peaches are rarely so ripe that they can be peeled with a knife. They usually require paring, which is a tedious job. If, however, the fruit has been gathered before quite ripe, and especially is slightly withered, which is the case with many brought to market, they may be placed in a colander and dipped into scalding water, letting them stand perhaps five minutes. As soon as the skins can be slipped off with the hand, take them out, pour cold water on them, and skin at once, with the hand, placing them immediately in a jar, sprinkling in a little sugar, if required, and covering with water. Press a plate over them just below the surface of the water, and let them stand two or three hours, when they can be served on the table, where they are usually a favorite. If for canning, cook at once, and can in the usual manner.

CANNING PEACHES.—In whatever manner the skins are removed from peaches, if the fruit is expected afterward to keep its clear, bright color, it must not be exposed to the air. It should be put at once under water, either in the cans or in the porcelain preserving kettles. When the fruit is required very nice, it should be pared and halved, or cut from the stones, and packed closely in the cans under water (with or without sugar), and then the cans set in cool water, heated and boiled twenty minutes. Take them out, fill with boiling water, and screw on the lids at once. Some prefer to let the steam bubbles escape, but if this is done the hot water must be put in promptly, and they should be covered inside of two minutes. In this way, unless the peaches are overripe, the juice will be clear and the fruit unbroken.

But for large quantities for family use, this is too much trouble. The fruit may be cooked in a kettle, dipped into hot cans and sealed at once. Fifteen or twenty minutes is a sufficient time to cook them. They may be canned with or without stoning and peeling. The peeling can usually be separated in eating. Though this should not be the rule in canning peaches, yet when the hurry comes (as it surely will if peaches are plenty), and the question lies between unpeeled peaches and none at all, let us have the unpeeled in quantities.

PAPER NAPKINS.—For home use a newspaper

may be spread on the lap in eating peaches, and napkins may be made of fine white printing paper or tissue paper. The latter is now not unfrequently used at public tables, in imitation of the Japanese.

PEACH STAINS.—After peaches have been served at table, let a little care be taken not to wet the table-cloth or napkins until they are to be washed. Then place them in a tub or other vessel, by themselves, and pour direct upon the stains *boiling* water, and plenty of it. When quite covered with the water, let them stand until cold, when they may be washed in the usual manner. This is a valuable recipe for all fruit stains, especially on colored goods, which will not bear the application of the alkalis. A little experience will aid the treatment materially. If the stains accumulate on white goods, treat them with javelle water, which can be obtained of the druggist or made with washing soda and chloride of lime, two lbs. each, treated with eight quarts of boiling water (in wood or stone), covered a day, stirring occasionally, and then straining through ticking or other thick goods. Great care should be taken in making and in using it, as it will eat both hands and clothing.

Food Items.

A WILMINGTON paper states that no less than 4,710,000 quarts of strawberries have been sent out of the State of Delaware this season. Of this amount 552 car-loads went to Jersey City, 35 to Boston, and 198 to Philadelphia. Seven cents per quart is the estimated price realized, of which three cents is supposed to be clear gain. Exclusive of the cost of cultivation and marketing, this is considered a paying rate.

THE Bermuda farmers having gone into more vegetables than usual this spring for our benefit, are somewhat disappointed in the results, the market here not paying so well as last year, owing to our own more favorable season.

STONE FRUIT.—It is suggested that the use of liquid manure at the time the stones are forming in young fruit, would greatly assist in the productiveness of such fruit trees.

IN May, the first number of a new German monthly appeared under the name of *The Vegetarian Journal for Maternal Regimen*. It is issued simultaneously at St. Gallen and Berlin.



True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

THE ORIGIN OF MAN.

GLEANINGS FROM THE WORKS OF DISTINGUISHED SCIENTISTS.

THE question of the existence of prehistoric human remains in the different strata of the earth has long been a subject of controversy among geologists, many of whom formerly insisted, with pertinacity, on the recent origin of such skeletons as were found in the cavern of Durfort, and those fossiliferous forms embedded in the solid rock of Guadalupe. Late discoveries, however, have settled the matter, and indubitably proved that human remains and human works exist in formations which, however geologically recent, are historically exceedingly remote; the most advanced scientists insisting on a date at least fifty thousand years back. These fossil remains of human beings are accompanied by rude instruments, which serve as a grade of the periods of man's history by their indications of distant chronological order. Thus they are found with implements of chipped flint, polished stone, bone and bronze. These indicate that man in his origin was rude, living on fruits, then roots, then shell-fish, spending his days in hunting and fishing. These low and rude grades of the human family can be traced back to the "Tertiary" times. They are supposed to be contemporary with the southern elephant, the rhinoceros, leptorhinus and the hippopotamus; perhaps he lived even in the "Miocene" age with the mastodon. In "peat beds" under the remains of certain trees, which in those localities have long been extinct, these relics are found, as well as in shell-mounds of vast extent in the vicinage of the sea, yet in certain instances fifty miles away; formations of a date anterior to the bronze age, but posterior to that of the great extinct mammals, and not less, it is declared by geologists, than one hun-

dred thousand years old. In the Pleistocene age there existed a race of hunters and fishers in Central Europe, closely allied in size and habits with the modern Esquimaux. In the old glacial drift of Scotland the relics of men are discovered with those of the fossil elephant. They are supposed to antedate the period when Europe was flooded by a cataclysm of ice and snow, which descended in the manner of glaciers from the polar regions to southerly latitudes, altering the temperature from a torrid to a glacial condition, and destroying countless species of animals, but from which man escaped. Even in that primitive condition human relics indicate the possession of that germ of civilization, the knowledge of the production of artificial heat, by making a fire. The caves that have been examined in France and other countries furnish for the stone age such implements as axes, knives, lance and arrow points, scrapers, and hammers. The change from what may be termed the "chipped" to the "polished" stone period is very gradual. It coincides with the domestication of the dog, an epoch in hunting life. "It embraces thousands of centuries." The appearance of arrow-heads betokens the invention of the bow, and the rise of man from a defensive to an offensive mode of life. The introduction of barbed arrows shows how inventive talent was displaying itself. Then bone and horn tips proclaim the pursuit of smaller game, perhaps birds, in the chase; there are also bone whistles, which testify to man's companionship with his dog or other hunters. The scraping-knives of flint point to a period when skins began to be used for clothing, and the rude bodkins and needles beside

them were evidently employed in the manufacture of garments. Necklaces and bracelets of perforated shells make their appearance in proof of the early buddings of personal vanity; as do the instruments used in the preparation of pigments for painting and others for tattooing the body. Batons of rank bear witness to the institution of social organizations. The germs of art among these primeval races are left in pieces of ivory and flakes of bone. They represent the animals contemporaneous with them—mammoth, reindeer. One of these prehistoric delineations is “a man harpooning a fish; another a hunting scene of nude men armed with the dart.” Man is the only animal possessing the power to picture external forms and make a fire. Evidences of the latter are found in the earliest formations where his relics occur. In the bronze age appear indications of an agricultural mode of life, succeeding mere hunting and fishing. Let it not be supposed that the periods into which geologists have found it convenient to divide the progress of man in civilization are abrupt epochs, which hold good for the whole race. On the contrary, we find some of these “ages” or periods represented by living nations, as for instance the Indians of America, who are only just now emerging from the stone age! They are still to be seen using arrows tipped with flakes of flint. These investigations, it should also be re-

membered, have only within the last decade resulted in these discoveries, and the countries supposed to be the first home of man have not yet been subjected to the investigations of geologists. It is difficult to assign (asserts a distinguished Professor of the science) a shorter date for the last glaciation of Europe than a quarter million years, yet human existence antedates that! But not only are we confronted by these grand facts as to the antiquity of our history; we have others which appear to indicate a gradual development of our special powers. Science has recognized the maxim, “Parts never spring from nothing, but are evolved or developed from those already in existence,” and as if to establish this doctrine, each individual man accomplishes in himself successive modifications of existence. “For nine months his type of life is aquatic, then it becomes aerial, then his mode of nutrition is changed. In due time organs adapted to a difference in food, the teeth, appear. Then the stages of childhood and youth develop further his bodily form and intellectual faculties. With manhood new ideas, new passions influence him. And when many years have matured all his faculties, there ensues a decline. Hence behold an analogy to the universal law that has governed the countless myriads who have peopled the earth.”

VIRGINIA DURANT COVINGTON.

SPELLING REFORM.

AMERICAN philologists appear to be in earnest about introducing a method of spelling which shall have some claim to regularity and reason. At the last meeting of the American Philological Association, in New York, Professor Whitney, of Cambridge, presented a report which embodies the convictions of a committee appointed to consider the question of a reformed orthography. The report contains the following recommendations:

“1. The true and the sole office of alphabetical writing is faithfully and intelligibly to represent spoken speech, so-called ‘historical’ orthography being only a concession to the weakness of prejudice.

“2. The ideal of an alphabet is that every sound should have its own unvarying sign, and every sign its own unvarying sound.

“3. An alphabet intended for use by a vast community need not attempt an exhaustive analysis of the elements of utterance or a representation of the nicest varieties of articulation, though it may well leave room for the unavoidable play of individual and local pronunciation.

“4. An ideal alphabet would seek to adopt for its characters forms which should suggest the sounds signified, and of which the resemblances should, in some measure, represent the similarities of the sounds.

But for general practical use there is no advantage in a system which aims to depict in detail the physical processes of utterance.

"5. No language has ever had, or is likely to have, a perfect alphabet; and in changing and amending the mode of writing of a language already long written, regard must necessarily be paid to what is practically possible, quite as much as to what is inherently desirable.

"6. To prepare the way for such a change the first step is to break down, by the combined influence of enlightened scholars and of practical educators, the immense and stubborn prejudice which regards the established modes of spelling almost as constituting the language, and as having a sacred character in themselves preferable to others. All cogitation and all definite proposals of reform are to be welcomed, as far as they work in this direction.

"7. An altered orthography will be unavoidably offensive to those who are first called upon to use it, but any sensible and consistent new system will rapidly win the hearty preference of the mass of writers.

"8. The Roman alphabet is so widely and firmly established in use among the leading civilized nations that it cannot be displaced in adapting it to improved use for English. The efforts of scholars should therefore be directed towards its use with uniformity, and in conformity with other nations."

Words should be spelled as they are pronounced, and *vice versa*. Every one familiar with phonography entertains a dislike not unmixed with contempt for the labored, incongruous, and absurd collocations of letters and sounds which a vast number of words in common use with English-speaking people present. Hence it is that phonographic writers have been foremost to advocate a change in the methods of spelling which would simplify the education of children and reduce the labor of those whose pursuits require a good deal of writing. We are of opinion that it would not be difficult to introduce a practicable system, based upon the Roman form of letters. The experiments of Messrs. Burns & Co., in indicating vowel sounds by the ordinary letters, show that it can be done.

HOW TO TEACH;

OR,

PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.

PERCEPTION—THE WINDOW OF THE MIND.

WE have called attention, in general terms, to the training of the intellect, to the different departments of intellectual development, or the different ranges of faculties through which knowledge is brought to the understanding. It will make the subject explicit, if we analyze the intellectual faculties more in detail, and we invite the reader to the consideration of the first intellectual faculty, which acts as a door or window to the mind.

INDIVIDUALITY.

Individuality is the first faculty called into action in intellectual effort. It recognizes the existence of things, the

divisibility of matter; it is the faculty which separates one thing from another. A person with but an indifferent development or activity of it may look at a brick wall, within fifty yards of his point of observation, and to him it is one great mass; it is a wall, and that is all that it amounts to. Another, who has Individuality large and active, will see the tiers of bricks, and looking still closer, he will see that these tiers are made up of separate blocks of matter, and after a while, he sees that the wall is made up of fifty thousand individual bricks, laid in tiers in such a manner as to break joints, and thereby

give strength to the structure. To him, therefore, the wall is more than a great single mass of matter ; it is made up of individual masses, and he recognizes these individual components of the wall.

This faculty should be cultivated by those in whom it is not naturally strong, in order to make it more active and influential. The young should have their attention directed to things as separate from everything else. Things should be individualized, specialized, regarded in severalty.

NATURAL LANGUAGE OF INDIVIDUALITY.

The natural language of this faculty is, "Let me see!" and those in whom it is well developed, put their heads forward when they look at objects that are miles away, as if they would push the faculty towards the object which interested it. Publishers of illustrated history appeal to this faculty by their pictures and illustrations ; hence the pictorial papers are popular, excite interest, and impress the facts and details of a subject most vividly upon the mind of the reader and observer. Though we may hear or read the statement that the cars ran over an embankment thirty feet high, and were piled up in an indiscriminate heap, broken and shattered, we look for the illustrated weeklies for a picture of the scene ; and it is sometimes a feast for Mirthfulness and Comparison to observe the difference between the pictures of two of the leading illustrated papers which profess to present the same scene. So thoroughly has the mind of the public been trained to look for a picture of whatever disaster occurs, that the picture of a burning ship at sea, with the passengers leaping overboard and struggling in the waves, or an illustration of an explosion, which, like the burning ship, was not seen at all by the

artist, the picture of which he makes up solely from imagination, or from some rough sketch or description, are eagerly expected ; and the observing faculties, Individuality as the leader, must see the picture in order to get a vivid sense of the scene.

It is well known that if we see an avalanche, a ship launched, or wrecked on the rocks, a great conflagration, or a railroad catastrophe, it will make an impression upon the mind that will haunt us for weeks. We never can forget its horrors, though we might be glad to do so. Illustrations of travel, mountains, rivers, towns, and all sorts of scenery, make the book which contains them sought for, and when faithfully done, a man seems to have traveled among all nations, witnessed every scene, and would instantly know the places depicted if he could be, while asleep, set down in them.

ILLUSTRATED LITERATURE AND SCIENCE.

The map, in the study of geography, illustrates another use of Individuality, together with several of the other perceptive faculties. Since geographical atlases have become universal, we have to appeal to persons nearly three-quarters of a century old, to recall the delight which was occasioned by the first school atlases. The committing to memory of descriptions of countries, rivers, towns, lakes, etc., in the olden time, though true in fact, brought little knowledge to the mind, and no training of the mind in fact, but that of verbal memory and imagination. Not only do children's picture books and primers demand illustration in these days, but cyclopedias and quarto-dictionaries must be full of illustrations to be saleable. Fifteen years ago the American Cyclopedias was considered a treasure in literature and science, but there was not an illustration in its sixteen volumes. During this

Centennial year the same work is undergoing revision, and to make it comport with the spirit of the times, it is full of beautiful illustrations. Twenty years ago it would answer to describe, in appropriate language, any object of interest. Now the rattlesnake, for instance, must not only be depicted as a whole, but the poisonous fangs must be exhibited in the dissected head, and the rattle also must be shown, and its structure defined as well as explained. So of birds, fishes, animals, insects, and mechanical structures, and these illustrations may be called painting speech, and speaking to the eyes.

INSTRUCTION THROUGH THE EYE.

This faculty is one of the group which is addressed by object-teaching, and we hardly need say that those who have the whole range of organs across the brows poorly developed (see fig. 15), should be trained with more assiduity and continued effort than those who have the faculties strongly marked; for training improves the faculties, by strengthening and developing the organs through which they are manifested.

Those who have them large will grasp the truth as fast as it can be depicted; nevertheless, our proposed classification in respect to pupils who have these organs large and small, is to be insisted on. Because those in whom Individuality is large, with the concurrent faculties, will travel over five times as much ground, in a given course of instruction, or in a given time, as those can in whom they are moderately developed. They would accomplish, then, as much in one session as the others would in five, and it is only fair that those who are rapid in the acquisition of that knowledge which comes by observation, should not be hindered by those in whom these faculties are weak; besides, the studies which depend upon reflection and meditation, may come to those reasoners with five times more ease and success than they will to these practical minds, and they may really get through the course in the same time; but both, if not properly classed, would be twice as long as necessary in getting through. NELSON SIZER.

(To be continued.)

PATENT MEDICINES.

THE editor of the *Manufacturer and Builder* has something to say in answer to a lady correspondent with regard to the use of patent medicines, which is in agreement in the main with our own views. The patent medicine trade has increased vastly within a few years, to the prejudice and damage of the "regular" prescription business of the pharmacutists, and of course to the damage of the doctors who give prescriptions. Such people at large are anxious to economize in the medicine line, and finding many of their symptoms, real and imaginary, glibly spun off in the advertisements of quacks, who commend "wonderful discoveries" as competent to meet the exigencies of any malady, they

send the required dollar and receive a large bottle of stuff which will last a month more or less. How much is saved? A doctor's visit would cost at least that, and then his prescription, which might be all taken in a day, might cost another dollar; and how many more visits and prescriptions might be inflicted—who could tell? But let us read the experience of the *M. and B.*, and see if it be safe always to trust to advertised "remedies":

"Our respect for truth is greater than our gallantry, and if we believed in the use of patent medicine, we would say so, even at the risk of disappointing a lady; but fortunately, in this case, we can be gallant and truthful at the same time, and please

the lady by telling the truth. Our fair correspondent is perfectly right in objecting to have patent medicine administered to her, even by a loving husband, who no doubt means well, but is at fault. The use of patent medicine is very dangerous, because one does not know what he is taking, and by continued use the constitution may be permanently ruined, as is so often the case with ladies who use certain cosmetics year after year, and thereby slowly introduce a poison into the system. As a useful example we will give the reason why we banished all patent medicine from the house forever. Having a severe cough, we had prepared a little draught of liquorice, sanguinaria, marubia, and nitrate of soda, and had this beside the bed to take during the night when the cough became troublesome, while our better-half had procured a patent liniment for application to a bruise. The bottles happened to be nearly alike, and

during the night we mistook one bottle for the other, and swallowed a good dose of the liniment. We experienced an interior fiery sensation which we should not wish to have ever repeated. Take an antidote, was the advice given at once; but what is the antidote to be taken when you do not know what the poison is? So we confined ourselves to milk, sugar, raw eggs, and such remedies as could not possibly do any harm, and after some temporary alarm, but more suffering, we were soon all right again, but made a vow against all medicines the nature of which is not known to us."

A sensible resolution, which might be extended to the exclusion of all drug preparations—for to *know* the nature of any one of them, and its positive effect in a given case, are points involved in so much doubt, that we wonder how sensible men can prescribe, and wise men swallow any composition of the apothecary.

AGRICULTURAL HINTS.

[The mind is the man. Farming, in the highest sense, is not simply doing the hard work necessary. This can be done by muscle when directed by brains. The true farmer is he who can plan, direct, and control skillfully.]

Shrinkage of Dried Fruit.—It may be a matter of interest to those who contemplate drying fruit, and who have never noted the amount of shrinkage the various kinds make in the process of drying, to know exactly what that waste is. For the benefit of readers, the *Inter-Ocean* has compiled the following table, showing the loss by evaporation by the Alden process, of 100 pounds of the kinds of fruit named, and the number of pounds of dried fruit that will remain at the close of the process. Drying in the open air the loss will be a little more, but the difference is so little that it may be reckoned the same in business calculation:

Fruit.	Pounds green fruit.	Per cent. of waste.	Pounds dried fruit
Apples.....	100	88	12
Peaches.....	100	88	12
Apricots.....	100	86	14
Pears.....	100	88	12
Plums.....	100	86	14
Grapes.....	100	80	20
Blackberries..	100	84	16
Pitted cherries.	100	84	16
Gooseberries..	100	80	20

Transplanting Trees in Fall or Spring.—Mr. W. H. Ragan, Secretary of the Indiana Horticultural Society, gives

his views on the above subject thus, in the *Indiana Farmer*: The principle through which successful propagation of plants, by artificial means, is insured, is a temperature of the soil in which the cutting is inserted and a lower degree surrounding the top. Such conditions stimulate the root and retard leaf growth. A cutting inserted in soil heated from below will strike root and retard leaf growth. A cutting inserted in soil heated from below will strike root, as the gardeners term it, long before any apparent growth manifests itself above ground. This tendency is in accord with a natural law that demands, first, the permanency of the plant resources before a supply can be demanded therefrom. When these conditions are reversed, we see leaf growth developed, with flattering prospects of success, when a few days of dry weather intervening causes the plant to wither and die. On examination we find no root growth to supply the heavy drain by the developed foliage upon the plant, rendering death only a question of time.

Now, a tree transplanted early in the fall has the advantage of having its roots in warm soil, while its top is in the cool atmosphere, conditions almost analogous to the artificial means adopted by the

propagation. A transplanted tree, with a large portion of its roots lost in digging, becomes very much like a rootless cutting, requiring similar treatment to insure its growth. A tree transplanted early in the fall, while the ground is yet warm, will form numerous fibrous roots before cold weather, which, if protected by the mounding process referred to in a previous article, will be ready in the spring to contribute to the wants of the tree when drawn on by the developing foliage. Thus the propriety of covering the roots warm and securely for the winter will become apparent to the planter, as this tender growth will be easily damaged by the heavings of the frosts and winds of winter, when your tree becomes even worse off than if removed in the spring. This mound of earth should be removed when spring opens.

Trees transplanted in the spring have the reverse conditions of the fall planting to contend with, viz., a high atmospheric temperature, tending to develop foliage, and a low temperature of the soil, retarding root growth, often resulting fatally, as in the case of the cutting referred to, when overtaken by a period of drought. The results of fall and spring planting, in favor of the former, are more apparent in case of trees of large growth, being due to the greater proportional mutilation of the root, and the larger expanse of evaporating surface in the foliage. Such being the case, the reader will readily perceive the importance of transplanting large deciduous trees early in the fall.

To Preserve Eggs.—A lady advises: "Put them in a colander, fill it up to the top, and then pour boiling water over them. This will keep them from spoiling. Then put the small ends downwards in oats or bran—oats being the best—and pack them away till ready for use. Eggs done in this way will keep many months, and will be found when used to be as fresh as if just laid."

She does not suggest the quantity of boiling water to a given number of the hen product—would it not be well?

Tillage by Steam.—Farmers are invited to purchase a wagon-mounted portable engine on exhibition at the Exposition, and to run their threshers with it. With its aid five hundred bushels of wheat and four hundred bushels of oats are said to have been threshed by an Ohio farmer in ten hours. A water space entirely surrounds the fire-box; no ash-pan is used; and in order still further to prevent all danger of fire, an improved spark arrester is attached to the machine. Wood, coal,

or any kind of fuel can be burned without running the risk of burning the barn likewise.

A New Barometer.—The *St. Louis Times* gives the following description of a meteorological instrument now in use near that city; perhaps some of our country friends would like to experiment in a similar manner:

"Out at the Lafayette Park police station they have a weather prophet which eclipses Tice and all the barometers in the neighborhood. It is a frog of the genius *Hyla*, more familiar to the general reader as the tree-toad. Hunt, the superintendent of the park, was mildly abusing his barometer one day for misleading him, when the officer on the beat, an old frontiersman, said he would show him a trick. He took a glass jar and put into it some stones and a couple of inches of water. Then he whittled out a little wooden ladder and put it in the jar. After some lively scrambling, a tree-toad was caught, chucked in, and a tin top screwed on. The weather indicator was complete. When it is going to be fair weather that toad roosts on the top round of the ladder, solemnly blinking the hours away. From twelve to fifteen hours before a change to bad weather, the 'general,' as they call him, begins to climb down, and hours before a storm sets in he squats himself on a stone, and with his head just above the surface of the water, peers aloft at the coming storm. Let the weather be changeable and 'shifting,' as 'Old Prob' says, and the toad goes up and down that ladder like a scared middy. When it is fair and the toad roosts aloft, his skin is of light grayish green. When the change comes, the skin turns black as the toad goes down the ladder, becoming a jet, shining black by the time he reaches the bottom. The fame of the toad has spread through the Lafayette Park neighborhood."

A country gentleman some time since drained an unprofitable wet field, and was one day watching the result, when a farmer came up to him and said: "Sir, you have a beautiful crop." "Yes, I have," was the rejoinder. "How did you get it?" was asked. "Brains," was the reply. "What, manure the field with brains?" was further inquired. "Oh, yes." The farmer opened his eyes, and said, "Why, sir, where did ye get 'em?"

This Year's Crops.—The wheat crop of the United States for 1876 is estimated to average from 12 to 15 bushels per acre, while the possible yield has been shown by reports to be over 70 bushels.

Corn.—In the case of Indian corn, the great staple of the country, the average product is not more than 35 bushels per acre, though crops of 150 bushels and over have been well attested, and one crop of 200 bushels has been reported and authenticated by Dr. Parker, of South Carolina.

Hay.—The yield of hay for the whole country is not much over one ton per acre, on a general average, against a *possible*

yield of 5 tons and over, as shown by various successful farmers.

Potatoes.—The average product of potatoes is not far from 75 bushels per acre, with occasional yields that prove a *possibility* of eight or nine hundred bushels.

Roots.—There are some root crops that produce on an average less than 200 bushels per acre, which, according to authentic records, have occasionally yielded over sixteen hundred bushels.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
SEPTEMBER, 1876.

THE "REACTION" IN PHRENOLOGY.

AT the "University Convocation," which was held recently in Albany, N. Y., Dr. O'Leary, of Manhattan College, read a paper on Aphasia, in which allusion was made to the views of certain anatomists with regard to the location of a nervous centre for the faculty of language. In the course of the discussion which followed the presentation of this paper, a Dr. Wilson, of Cornell University, is reported to have ventured some remarks with the view "to warn students against accepting too hastily the doctrine of the localization of specific classes of mental phenomena with special parts of the brain. He thought there had been too much tendency in that direction, though he believed a reaction had begun." Two or three years ago the brisk hostility of Professor Wilder to Phrenology

brought out two or three replies from this journal, in which the Professor's objections were discussed and refuted in a purely scientific manner. The discussion resulted in some advantage in the way of convincing several students of Cornell, of the soundness of phrenological principles. To this incident Dr. Wilson may allude in the quotation.

As for the "reaction," it may be true of Cornell students where so much professorial opposition has been brought to bear, but it is not true of other scholastic centres. Indeed, the interest shown in Phrenology by teachers, is sufficient to bring several to New York from the east, west, and south, for the special purpose of attending the sessions of the Phrenological Institute; and these teachers are by no means below the average of their class in culture and capability. One of the graduates of the Institute has been appointed instructor in mental science to a western Normal College, which is the largest institution of the kind in the country, numbering upward of fourteen hundred students. This looks like "reaction!"

Another of the graduates of the Institute of Phrenology, a teacher of unusual ability, has been lecturing in a region of Georgia, as leisure from school duties permitted, and with results which have surprised him, the people being, as a class, intelligent, educated, and prejudiced against the science, for the reason that they had been visited hereto-

fore mainly by charlatans and harpies, who professed to "know all about" Phrenology, but who, in fact, only knew enough to impose upon the ignorant and confiding, and to excite the disgust of the intelligent and acute. We have received a testimonial which so abundantly shows the success of this zealous and self-sacrificing graduate in presenting the truths of science, that it deserves a place here. It is a series of resolutions, couched as follows:

PALMETTO, Ga., July 7, 1876.

WHEREAS, We, the citizens of Palmetto and surrounding community, have attended the interesting and profitable course of lectures, given by Howell B. Parker, with pleasure and not without improvement; therefore, be it

Resolved, That we do hereby recommend him to any town or community as a man who understands his science, and as being fully competent to convey its true principles to all who may hear him, and not only its true principles, but also the process of its application to the training of the mind, as well in the nursery as in the school-room;

Resolved further, That his advice as to diet, exercise, and the law of balancing the temperaments, was simple and very useful, being of great importance to all;

And be it further resolved, That we recognize his platform of reform, to wit, "Phrenological Societies," as based upon the true principles of nature. That we look forward with anxiety to the time when such societies will be organized all over the whole country; for then the people will be informed of, and conformed to, the motto, "Know thyself;"

Resolved further, That we tender Mr. Parker our thanks for his gentlemanly courtesy and warm kindness during his stay with us, and we hope, ere long, to have him revisit us;

And be it also resolved, That if the American Phrenological Institute in New York send out men as honorable, refined, and gentlemanly as Howell B. Parker, we

hope it will send many where now there are few.

Adopted and signed by

Harry M. Reid, J. F. Ellington, W. E. Cole, H. B. Holeman, Arthur Hutchinson, G. C. Loony, W. L. Zellers, J. T. Beckman, Dr. O. R. Longim, Dr. H. L. Johnston, Dr. J. H. Watkins, Miss Lucy Rodgers, Mrs. J. T. Beckman, Mrs. Jack Johnson, Mrs. John R. Smith, Mrs. E. H. Looney, Mrs. C. D. Crawley, Mrs. N. J. Zellers, Mrs. Mattie Condor, Miss E. A. Holeman, and about twenty others.

Among these are several physicians and teachers, a lawyer or two, a minister and several merchants, all, however, representing the best class of Palmetto society. This certainly looks like "reaction!"

Another student and graduate of the Institute, whose labors as a teacher of mental science according to Phrenology, have their locus in New England, writes of the lively interest which has been shown by the citizens of the towns where he has lectured—an interest which is substantially represented by his net receipts of one hundred dollars and upward per week. Still another sign of "reaction!"

VERY MUCH TO THE POINT, EH?

A RECENT number of the *Wine Dealers' Gazette* contains an article entitled "Empiricism in Morals," in which the writer has run together a series of statements bearing upon the use of alcoholic beverages, but by no means presenting a synthetic argument in their behalf. It is an attempt—one by no means discreet, considering the subject involved—to turn the weapons of two or three eminent thinkers, and to show that they are off their right track when they denounce dram-drinking with sharp and positive logic, and array against it the facts of analytic science.

First, the writer quotes Plutarch thus:

"The wise man is not continent, but temperate or moderate; the fool only is continent, and he only runs to excess." An extraordinary quotation of itself, especially when the apparent contradiction is considered of *continence* leading to excess. But as if the saying were not fallacious enough in itself, a parenthesis is introduced into the quotation, by which it is made to appear that the term "continent" as used by the eminent Greek biographer, signifies "a total abstainer" in the modern sense. We will accord to the readers of the *W. D. Gazette* sufficient discernment to doubt the propriety of such a definition. The context will not sustain it.

But the above is a minor topic for criticism. A little lower in the article we are greeted with a quotation from Dr. B. W. Richardson, the London physician, whose recent publications, embodying the experience and observations of a long and extensive practice, have been welcomed by the whole medico-scientific world. The quotation is this: "To escape the evils arising from the use of alcohol there is only one perfect course, namely, to abstain from alcohol altogether. A man or woman who abstains is healthy and safe. A man or woman who indulges at all is unsafe." The inquisitive reader will find it in "Diseases of Modern Life," and he will find many more of similar import, and numerous illustrations in confirmation, in that work, and others in the Cantor Lectures "On Alcohol," by the same author.

Now, how does our neighbor of the *W. D. Gazette* meet this sweeping averment? By clear, solid reasoning, and with an array of facts whose oppugnant testimony bears as sharply upon the point as the facts marshalled by Dr. Richardson in his books? Let us quote:

"As we have already intimated, this is a

very popular fallacy with a large class of modern reformers, and it is to be regretted that men should be found in the medical and clerical professions, of high standing and attainments, to give it the sanction of their approval. It would seem that a moment's dispassionate consideration would convince any one that the proposed remedy is utterly impractical and highly delusive. Let us see if it is not so. It says: 'Gluttony comes from feasting. Avoid all feasting—eat only coarse and plain food, and in barely sufficient quantities to maintain life and health, and you will never be a glutton. Eschew all elegance and ornament in dress; make no beginning in that line, and you will surely escape the evils of foppishness and ruinous extravagance. Never play any game of chance, and you will never become a gambler. Let wine and all alcoholic beverages severely alone, and you cannot become a drunkard.'"

Again: "It is an old and approved commercial maxim, 'Nothing risked, nothing gained.' The same rule holds good in morals. It is not by being far removed from temptation to excess and intemperance that man finds his highest development, but in being firm and strong in the midst of temptation. The rule proposed, if fully and faithfully carried out, would give to the great enterprises of the day their death-blow—stagnation and paralysis would ensue, in social as well as business life, and earth be but the bleak hiding-place of a herd of pusillanimous wretches, instead of the civilized home of fair women and brave men."

Thus, under an appearance of wit and non-sequitur moralizing, the advocate of cocktails and cobblers, seeks to avoid the force of a statement which proceeds from the highest of medical authority, and terms it "empirical," when it is founded upon irrefutable facts, very many of which must be well known to him, if he be as familiar with the toxicological compounds represented by the *W. D. Gazette*, as his relation to that organ implies. He made a serious mistake in taking up Dr. Richardson, and treating

him as an "empiric." Had he asked the opinion of any well-informed American physician, with regard to that member of the Royal Society, he would doubtless have been counseled not to aim his pop-gun in that direction.

ARE WE A LYING PEOPLE?

A WEEKLY religious paper not long since commented sharply upon the morality of the times, and drew the unpleasant inference that the American people are pretty generally liars. We regret that a Christian man, and one who is set as a conservator of public morality, should feel forced to the expression of so severe a judgment. At the same time our experience in the world of secular affairs has been exasperating enough to incline us to echo his conclusion. Even now, when society is complaining of the hardness of the times, when business of nearly every sort is depressed, it seems difficult to find the individual who will meet promptly the terms of an engagement and fully earn the price of a service. Your shoemaker or tailor will assure you in emphatic terms that your shoes or coat will be ready on a given day. That day comes, and you call at the shop of one or the other, and instead of finding the dressing for the feet or the body neatly wrapped in paper awaiting your demand, you are met with bland excuses to the effect that the workman to whom your job was assigned had so much to do or was so sick that it was impossible to be ready for you. Or you are coolly told that it was supposed that you were not in so much of a hurry as a Mr. Snifkens, who is going away and *must* have his wardrobe completed, and therefore your convenience was subordinated. Your laundress or laundryman promises solemnly to have your linen ready for you at a certain hour of a given day. You endeavor

to impress her or him with the importance of your receiving the freshened articles at that time, as you are to leave town an hour or two afterward. "Yes, yes, you shall certainly have them," is the stock reply. The time of their delivery arrives, passes, and they do not appear, and you are compelled to go without an extra change of interior garments, or defer your departure.

Steamboats and railway trains advertised to leave at certain hours are found to linger in dock or depot long after the time, and passengers chafe and fret under the delay to which they are thus subjected. But for the loss of time, engagements, convenience, however important to individuals, there is apparently no redress. Corporations may conspire thus against the peace and wealth of communities as much as they please, and with impunity.

In business affairs men holding "respectable" positions fail to meet positive engagements and occasion loss in time and money to others, and then treat such matters with indifference that is amazing to one of sensitive conscientiousness.

Perhaps the trouble lies in the "times." Yes, it is doubtless so. And the people make the "times." Were it not for our faith in the interior moral strength of the masses of the population, and our belief that the inconsistencies and falsities so much complained of are products of the friction and exacerbations of an outer and more or less artificial life which is not a true expression of the interior and real, we would despair of the public integrity.

A WORD TO VOTERS.

WE are now in the midst of our quadrennial contest in politics, which will be decided by the November election, and a new President made for the glory or shame of the nation. At this time, when

the minds of citizens everywhere are overflowing with patriotic fervor, and their sentiments of gratitude to the noble men who founded the Republic are supposed to be earnest and true, and to inspire resolutions of fidelity and zealous action in the cause of liberty and progress for the future, it is fair to expect that they will choose such men only for leadership who are distinguished for high integrity and eminent capability. The two great civil parties—the Republican and the Democratic—have met in convention and selected the men whom they respectively would have in the Executive Chair at Washington. It remains for the people at large to decide at the ballot-box which shall be vested with the responsibilities and privileges of the Presidential office. We trust that very few of our readers are so party-bound as to think that because an organized body of Republicans or Democrats has set before them certain men, that those men must be supported and voted for, irrespective of any private convictions or of any information which would admonish a different course. It is the “follow-my-leader” policy, so thoroughly diffused in American life, that tends to serious evil in politics and society.

It is certainly becoming to each man who vaunts his American citizenship to examine into the character and history of the persons who are set before the community as candidates for office; and it is his duty to prefer him or them who take the highest place in his esteem after such examination. The State always needs the best talent and the best character in her places of trust and honor.

THE INSTITUTE LECTURE COURSE.

OUR Summer Class was a success. Its members were intelligent, faithful, and persistent. Every word was garnered, every fact made available. With an earnest

purpose to become proficient, every one's attention was eagerly applied to the work in hand. It was really a pleasure to teach such students. Their acuteness and zeal will tell on their success. On the 10th of November next the regular Annual Session will be opened, and we expect the largest class that has ever convened at the “American Institute of Phrenology.” People are now coming to understand that they can make the science of Human Nature useful to them in every field of effort. Not they only who wish to make phrenology and physiology a life profession derive profit from the course of instruction, but every professional man and every person in business who needs to know the character of men, finds the science a source of pleasure, power, and of profit.

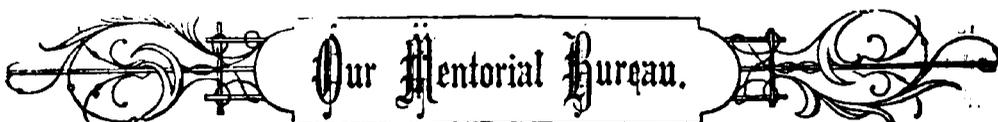
The lawyer needs to know his client, the jury and the witnesses; the minister has to do specially with mind and character, as well as to teach mental and moral philosophy; the teacher finds phrenology a special aid in his important work—it enables him to become a better teacher in every sense, making him more worthy of respect and patronage, and thus opens the way to him for advancement; the physician learns how to analyze mind and character, and thus how to deal successfully with it in its normal and morbid states. Parents, to whom are committed the care and training of the young, find no aid equal to phrenology in the fulfillment of their most important task of molding, governing, and guiding their children. Indeed, all whose life and duties lie in the field of calling out mind, and in instructing or guiding it, find that a knowledge of phrenology more than doubles their power for good. There is a growing inquiry among all classes of citizens who come in necessary contact with talent, character, and disposition, as to how phrenology can be made available in the fulfillment of their daily duties. The good, who would benefit mankind, or even the selfish, who would know how best to govern and guide and make people to subserve their interests, recognize the power and usefulness of the science in the prosecution of their affairs.

We do not, therefore, appeal to those only who wish to make phrenology a life profession to avail themselves of the advantages of a course of instruction. A salesman or a commercial traveler who understands phrenology will read his customer, and know how best to meet him, and at least make him a friend for the future if he does not secure an order on the spot.

Other things being equal, those who understand Human Nature accomplish much

more than those without this knowledge. To the clergyman, the lawyer, and the teacher, it ought to be indispensable, and would be, if once its value could be clearly appreciated by those preparing for those pursuits.

All wishing information as to the topics taught, duration of the course, terms, etc., may write for a circular. Please address, "American Institute of Phrenology," care S. R. Wells & Co., 737 Broadway, N. Y.



[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents,

THE PRESSURE OF OUR BUSINESS IS SUCH that we cannot undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

STAMMERING.—In reply to two or three recent inquiries on this subject, we think it well to quote the advice of an exchange, which seems to contain much of practical value: "Go into a room where you will be quiet and alone, get some book that will interest, but not excite you, and sit down and read two hours aloud to yourself, keeping your teeth together. Do the same thing every two or three days, or once a week if very tiresome, always taking care to read slowly and distinctly, moving the lips, but not the teeth. Then, when conversing with others, try to speak as slowly and distinctly as possible, and make up your mind that you will not stammer. A man who followed this counsel says: 'I tried this remedy, not having much faith in it, I must confess, but willing to do almost anything to cure myself of such an annoying difficulty. I read for two hours aloud with my teeth together. The first result was to make

my tongue and jaws ache, that is while I was reading, and the next to make me feel as if something had loosened my talking apparatus, for I could speak with less difficulty immediately. The change was so great that every one who knew me remarked it. I repeated the remedy every five or six days for a month, and then at longer intervals until cured.'"

WORMS.—Give your children an abundance of fresh, ripe fruit, blackberries, whortleberries, etc., or stewed apples, with but little sugar in them, at meal-time, with their brown bread or oatmeal porridge, and the worms ere long will disappear. It is the derangement of the stomach and bowels, induced by improper food and abnormal eating, which produces the intestinal torments. Rich cakes, butter, greasy food, superfine, yeast-raised, half-baked bread are not the things to feed children with.

BONANZA.—A subscriber—T. W. B.—kindly us tells that the word "bonanza" is used mainly by Spanish seamen, and signifies fair weather, to sail with fair wind, to be prosperous, successful, etc

SUNDAY — SABBATH-DAY.—The day observed by the Hebrews as specially set apart for devotional purposes, was instituted by divine injunction, one of the ten commandments having special reference to it. In the early days of Christianity it does not seem to have been supposed that the Lord's day, or Sunday, had taken the place of the Jewish Sabbath; but the Apostles regarded it with particular veneration, being the day of the resurrection, and it became customary for them to assemble on the first day of the week for prayer and spiritual communion. The only warrant for the change seems to have been apostolic usage. In process of time it came about that the first day of the week was set apart by law as one not to be employed in secu-

lar affairs. One of the earliest statutes relating to this day is that of the twenty-seventh of Henry VI., passed in the year 1449, which prohibits fairs and markets on certain feast days, Easter Sunday, and "other Sundays." Subsequently other statutes were passed by the English Parliament, prohibiting sports and pastimes and other secular and pleasurable occupations. In this country, as in Europe, a considerable body of Christians observe the seventh day as the proper Sabbath.

WEAVER'S MENTAL SCIENCE. This book is an outline of the science of Phrenology, written, as all this distinguished author's books are, in a clear, pleasant, and popular style. As an introduction to the sober and *seriatim* study of Phrenology, we can scarcely mention any work which is more desirable. He discusses the philosophical as well as the practical features of the subject, furnishes very full definitions of each of the organs of the brain, and makes their functional activities appear in a very clear light by apt illustrations. We have lately printed a new edition of Weaver's Work in one large handsome volume.

The volume entitled "Expression" is very different from "New Physiognomy." Sir Charles Bell, the author, traces the relations between the anatomical functions of each of the facial nerves, and the phases of emotion, feeling, and sentiment, as wrought upon the face. "New Physiognomy" is a work of far more comprehensiveness, and particularly applied to the signs of character as shown by the physical contour.

SLEEP.—During sleep, the brain and nervous system rest. Sleep is the only repose which the brain gets. The muscular system may find opportunities for recuperation when the body is in a state of quietude; but the brain is active while the person is awake, and so long as it continues active, it draws upon the vital functions for sustenance.

INSECT LIFE.—Every form of animated nature has its degree of susceptibility. All organisms endowed with nerves are sensitive to injury, and, therefore, pain. The degree of suffering it is impossible to estimate, but the inference is reasonable that there is actual suffering. In the case of an insect, life is of a low or special sort, and the experience of pain correspondingly so.

LONGEVITY.—H. Z. Y.—The use of flesh is not essential to labor. Some of the most vigorous men we have met had not tasted meat for years. If flesh were essential to muscular activity and vigor, how is it that the ox, the horse, the hippopotamus, the gorilla, and other animals of tremendous muscular energy exist, as their natural food is vegetable exclusively? We are acquainted with several aged persons who sub-

stist almost entirely upon vegetable diet. A few years ago we published a sketch of a very aged man by the name of Folgate, who had lived mainly on bread-and-milk, and died at the age of 110 years. We meet persons now and then who insist that they owe their strength, health, and long life to the persistent use of farinaceous food, avoiding flesh as contributing to functional disturbance and nervous excitement.

NON-DRINKERS.—Yes, persons have lived, and apparently lived well, without drinking. We met a man, a short time since, who stated that he had not drunk any liquids for two years, and his diet consisted mainly of farinaceous preparations, like brown bread, oatmeal, hominy, rice, a little milk being used to moisten them, and fruit. We are of the opinion that drinking is more a habit with people than a necessity. Most people, when they drink, drink at improper times. They usually inundate the stomach at meal-time, and thus much reduce the power of digestion. We think that the majority of cases of dyspepsia is due to excessive drinking.

RHEUMATISM.—A moist climate is more favorable to rheumatic disorders than a dry one. People who live on the coast, and are afflicted with the rheumatic diathesis, usually find relief in going to some interior and elevated region.

COLD FEET.—Inactivity of the circulation of the blood toward the extremities will be relieved by bathing them daily in tepid water, and following the bath with a thorough drying and rubbing. People who are troubled with cold feet in winter experience more or less discomfort from warm, perspiring feet in summer. A daily foot-bath at night, the feet subsequently being well dried, will afford much relief. Such people should wear shoes which will permit the air to reach the skin. Low-cut shoes, made of light cloth or canvas, would be found serviceable.

SILVER-SMITH — HEADACHE.—Your steady indoor occupation conduces to the trouble. The use of tobacco, coffee, and carbonaceous food in itself would, in the process of time, produce a condition of the nerves and vital functions more or less morbid. Unless you make some radical change in your habits, you may break down soon from some serious derangement of the assimilative function. The headache is a warning which kind nature gives you, and you should heed it.

AMBITION.—The organs related to ambition are Firmness, Self-esteem, Approbation, Conscientiousness—not necessarily the last; yet, in some circumstances, Conscientiousness proves a quickener of effort. Many ambitious

men, however, lack integrity, and are intent only upon the accomplishment of their purposes and the securing of popular consideration.

HAIR—CURLY AND STRAIGHT.—In our "New Physiognomy" you will find the subject of hair pretty thoroughly discussed. In general terms, curly hair indicates an active temperament, a lively, versatile organization. Straight hair is indicative of evenness of temper, steadiness, and thoroughness of action. Of course, there are many degrees and gradations.

CONVOLUTIONS OF BRAIN.—W. J. S.—Look in post-office, Dallas, Texas, for answer.



CHEERY.—One who signs herself "Grandmother" writes an exceedingly pleasant letter, in which she details her experiences in drug-opathy and years of suffering through indiscretion and mistaken views of remedial measures. After forty-seven years of such a life, and at the age of over sixty, she became acquainted with **THE SCIENCE OF HEALTH** and books published at this office, and now declares herself almost entirely cured, and that, too, after well-pronounced symptoms of consumption had been exhibited. Among the things which she claims to have learned, is "to throw off bad feelings at once by your health system. I use neither tea or coffee, nor take so much as a sip of sage or catnip tea." In answer to her inquiry with regard to the *Mirror of the Mind*, we will say that the document will be sent to any one on receipt of necessary postage—a three-cent stamp and the full address of the applicant.

A SWARM OF B'S.—J. H. N. sends us the following excerpt, which is, as he says, "a swarm of b's worth having":

B patient, B prayerful, B humble, B mild,
 B wise as a Solon, B meek as a child ;
 B studious, B thoughtful, B loving, B kind,
 B sure you make matter subservient to mind.
 B cautious, B prudent, B tasteful, B true,
 B courteous to all men, B friendly with few.
 B temperate in argument, pleasure, and wine,
 B careful of conduct, of money, of time.
 B cheerful, B grateful, B hopeful, B firm,
 B peaceful, benevolent, willing to learn ;
 B courageous, B gentle, B liberal, B just,
 B aspiring, B humble, BECAUSE thou art dust.
 B patient, circumspect, sound in the faith,
 B active, devoted, B faithful till death ;
 B honest, B holy, transparent, and pure,
 B dependant, B Christ-like, and you'll B secure.

INTENTION.—We are unwisely inclined to approve or condemn others too much by their actions, without making any attempt to discover their real intentions. If no one ever committed unintentional error, this might then be justifiable ; but such is certainly not the case. Mistakes, also, are not motives, and therefore merit neither honor nor dishonor. Good people always *intend* to do right whether they do or not, and this is the very reason why they are good people. No matter what we know, or what we are, what we intend to be is the only true test of character. Having the intention to do right deserves respect, and will eventually make things right, though at first we fail. The man or woman who acts from good intentions always and everywhere is a noble example of principle, regardless of all mistakes. The man of principle is an honest man, whether he be bold or bashful. He is benevolent, whether he be graceful or awkward ; faithful, whether social or reserved ; moral, whether accomplished or unaccomplished. If he exercise honesty so excessively as to lose many honorable chances of profit ; if he be so generous as to make improper bestowments ; if he be so faithful as to revere a friend in disgrace ; if he be so pious as to become monotonous, he is not a bad man. But, as a natural consequence, such a person will frequently commit mistakes—unintentional errors. For this, society inflicts upon him severe criticism, sneers, and reproach. Yet, let all the world lay hold on the man who intends to do right, and strive to keep him down, he will rise in spite of all, like the great orb of day as it emerges from the seeming depths of the universe, and will assume his rightful position in the realm of excellence. Young people who have been brought up under ordinary influences generally have more good intentions than the majority of adult people, yet it is true they make more mistakes. They intend to do right, but have not sufficient knowledge and experience to avoid committing errors. They are naturally more sensitive both to praise and to censure. They dread ridicule and criticism. Many, when laughed or jeered at for their mistakes, suppose that they are looked upon with contempt, and that people really consider them guilty of great misdemeanors ; but let every young man and young woman who feels hurt or embarrassed by such treatment be assured that by this very means they may reveal the highest as well as the most delicate sense of feeling. Great harm, however, results from excessive or uncontrolled sensitiveness. It is wrong and very injurious for young people to grieve day after day, or to get angry and spiteful about gossip caused by some misstep in society. If the intention were good, there is little disgrace attached. Mistakes in society are no worse than mistakes in arithmetic.

The rules of both must be learned by every one before they can practice them accurately. The refined and considerate will scarcely take notice of the mistakes of the young and inexperienced, unless to proffer kind advice. Yet these errors should not pass unnoticed. We should be ever conscious of them. We should be sensitive to error, and happy to discover it. We should not disdain to learn valuable lessons from it. Neither should we be cast down by it, but stimulated to persevere in the line of improvement. And last, but not least, we should not become arrogant, and lose all respect for our fellow-men and for the common courtesies of life, because we are often treated coldly and even sneered at for not coming up to the level of custom. Every one will certainly err from childhood to the grave; but all can keep rising in the world if they strive to improve and keep their motives pure. He that mistakes virtue's ways may be virtuous still, but he that deserts them never is. M.

A VOICE FROM WISCONSIN.—*"Hartford, July 15, 1876.—S. R. WELLS & Co.—Dear Sirs:* As no JOURNAL has come to me this month, I guess that my subscription has expired. I could do without its visits only on one condition, and that is the same on which we are compelled to do without the visits of some departed friend. I am a young man, and am often called queer because I take delight in such 'dry reading.' I cannot help thinking that if it is dry, I fail to see it. I am sure it is at least rich. The JOURNAL, compared with some of our publications, is cream as compared with whipped skimmed milk. While I have health of body to earn the means, I must have the visits of such a dear, good friend. Enclosed please find \$3.25. I would like the book 'How to Read Character.' Very truly yours,
D. R. A."

EXPEDIENCY OF GENERAL EDUCATION.

—Would universal education be for the best, considering that certain kinds of labor which must be performed are distasteful to refined minds? I cannot find a more fitting preface to the observations I hope to make upon this question than is contained in these truthful lines:

"How empty learning, and how vain is art,
Save when it guides the life and mends the heart."

The education which makes its possessor a physical, mental, and moral man, is an education worthy the highest reverence; and those who have it may be justly termed princes among men. Such education fits them for the guidance and government of themselves; therefore, it fits them to guide and govern others. Upon their compact and sinewy frames, deep chests, and broad and high foreheads is stamped physical, mental, and moral strength. There is

a class of persons, very numerous now, who claim to be high-born. Among them are those who flaunt college diplomas, to read which would be to them as great a task as Cæsar's speech to a "sub-prep." Their "education" has placed between them and active usefulness an insurmountable barrier—a vanity or ambition—the ultimatum of which is one of the professions. They know too much to plough, therefore they know enough to adorn a cabinet, conduct a hospital, or grace a pulpit. Theirs is the refined mind, to which physical labor is distasteful. The plough-handles would change to unseemly proportions their slender, lily hands. Such physical action might straighten their bow-bent shoulders, expand their narrow chests, and set free their compressed lungs. The life-giving oxygen of the fields might invigorate their sluggish blood, and in time give breadth to their narrow, triangularly-shaped foreheads.

There is another class, and I fear it comprises the largest part of society, whose whole life is influenced by Acquisitiveness. They make every faculty serve the one purpose of money-getting. They acknowledge no higher earthly goal. In their selfishness, they degrade the labor by which they earn this coveted wealth. This is the greatest bane of society. It is an abortive attempt to secure happiness. The natural supremacy of the moral sentiments in the constitution of man renders it impossible for him to attain true happiness except through their normal use. The stronger and more active these faculties, the greater the degree of happiness attainable. By no other means than education can these faculties be properly developed and made active.

Such is the constitution of man, that ignorance and prejudice in the society in which he lives impair and abridge his enjoyments. This makes it necessary for his advancement in morals and intellect, that his fellows should receive a similar teaching. Then, that universal education would be for the best, must be acknowledged.

Some say that there is no time for this general education. In the present state of things, I admit it; but that a condition of affairs which will allow universal education is both practicable and expedient, I shall endeavor to show.

It has been estimated that four hours of labor each day will, with economy, procure all that is needed to supply man's physical wants; then let the remainder of the time be used in satisfying his mental and moral needs. If this seems a low estimate, allow two-thirds of the time to physical labor, and one-third to the development of mental and moral activity. But as beings possessed of an intellectual superiority, it seems reasonable that the education—the development to the highest—of this intellectuality should command our first and fullest attention, and that the lower or physical faculties should be used to for-

ward this development. Man should accumulate money just to the extent necessary to give comfort and strength to his physical nature, and his strength should be used only in giving activity and culture to his higher faculties.

The discoveries in the arts and sciences, and the inventions in mechanics, will, ere long, force leisure upon the masses, which must be used for their education. This education *must* be universal. The wants of man demand it. Charity, brotherly love, every feeling of humanity demands it. Man must be taught the science of his own body, and the art of treating it rationally. He must know that every discovery and invention is not to be used as an aid to Acquisitiveness, but as a helper in the development of morals and intellect. He must learn that a man may be intellectual and dig ditches for a living. If he labors five hours in a ditch and five hours in the acquisition of healthful knowledge, he can be nearer God's noblest work—a perfect man—than if he spent ten hours each day in the British Museum. He must learn that labor of whatever kind degrades no man, but that man may degrade any kind of labor.

There is that in the constitution of man which, rightly used, might make each and every one great—not great as Bonaparte, Shakespeare, Chatham, and Wesley were great, but great in their harmony and usefulness, in the balance of their physical, mental, and moral strength. A man may be great and follow the plough successfully, if he but follow with equal pace the advancing arts and sciences. The education which unfits a man for the plough unfits him for the cabinet. Universal education will remove from any kind of labor all the distastefulness to the refined mind. O. W. CRAWFORD.

WISDOM.

“Think truly, and thy thought
Shall be a fruitful seed.”

It is one of the worst errors to suppose that there is no other path of safety except that of duty.

THERE are words which are worth as much as the best actions, for they contain the germ of them all.—MME. SWETCHINE.

WAR is an instrument entirely inefficient towards redressing wrong, and multiplies instead of indemnifying losses.—JEFFERSON.

THERE are many who talk on from ignorance rather than from knowledge, and who find the former an inexhaustible fund of conversation. It is astonishing how soon one's stock of real knowledge runs out.

If you have built castles in the air your work need not be lost; that is where they should be. Now put foundations under them.

EVERY true hero grows by patience. People who have always been prosperous are seldom the most worthy, and never the most strong.

It is not growing like a tree
In bulk, doth make man better be,
Or standing like an oak, three hundred year,
To fall a log at last, dry, bald, and eere.
A lily of a day is fairer far in May;
Although it fall and die that night,
It was the plant and flower of light.
In small proportions we just beauties see,
And in short measures life may perfect be.

—BEN. JONSON.

MEN do not make their homes unhappy because they have genius, but because they have not enough genius. A mind and sentiment of a higher order would render them capable of seeing and feeling all the beauty of domestic ties.—WORDSWORTH.

THERE is no question that it is far preferable to remain under the influence of moderate errors than to be banded about for the whole of life from one opinion to another, at the pleasure and support of superior intelligence.—SYDNEY SMITH.

A NEW YORK printer, setting up a recent report of a horse race, said “the fool-sellers were busy,” instead of the “pool-sellers,” but it did not alter the sense of the paragraph much.

MIRTH.

“A little nonsense now and then,
Is relished by the wisest men.”

POTATO BUGS.—He said he did not care, for his part, if they did ruin the crop, for he had enough potatoes of last year's crop to last him two years more at least.

SHE was very particular, and when the dealer informed her that all his ice was gathered winter before last she wouldn't give him her order. She said he couldn't palm off his stale ice on her.—*Norristown Herald*.

“ISN'T that a beautiful piece of music?” said one of Mrs. Clogger's female boarders, as she turned from the piano. “I like it very much,” replied Jones, “particularly those long rests that occur all through it.”

AN editor, wanting a line to fill the column, gave

“Shoot Folly as she flies.”—POPE.

In setting up the above, the printer had it thus:

“Shoot Polly as she flies.—POP!”

A YOUNG lady viewing Dom Pedro in St. Louis the other day remarked, as she fixed her eyes on the carriage, "It isn't exactly immortality to see an Emperor, of course, but it's a glimpse, at least, of King Dom come."

"WHY is it, my dear sir," said Waffles' landlady to him the other day, "that you newspaper men never get rich?" "I do not know," was the reply, "except that dollars and sense do not always travel together."

THE superiority of man to nature is continually illustrated in literature and in life. Nature needs an immense quantity of quills to make a goose with; but man can make a goose of himself in five minutes with one quill.

In Bath Abbey (England) is to be seen the following:

"Here lies Ann Mann.

She lived an old maid and died an old Mann."

AN intelligent foreigner, passing through the streets of Philadelphia, took out his note-book at the end of a long walk, and made a little memorandum to the effect that "eighty-per centum of the population of Philadelphia are members of the powerful family of Roomstolet."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

HAY-FEVER ; or, Summer Catarrh: its Nature and Treatment. Based on Original Researches and Observations, and containing Statistics and Details of Several Hundred Cures. By George M. Beard, A.M., M.D., Fellow of the New York Academy of Medicine, etc., Author of "Our Home Physician," etc. New York: Harper & Brothers. 12mo, cloth, pp. 266. Price, \$1.50.

The writing of a popular treatise on a malady which appears to be extending its disagreeable influence, irrespective of class or sex, is an effort which merits more than passing notice. In the opening remarks of the author, his suggestions with regard to the connection of temperamental susceptibility with the disease are much to the point, and point to his possession of some of the preliminary conditions of correct pathological diagnosis. For we hold that the physician not well-informed with respect to the nature of the human temperaments, and their differential effect

according to variety of combination, cannot thoroughly study disease or comprehend symptoms. Dr. Beard has sought to make his work thorough by procuring from all available sources of value—medical works, physicians, scientists, and those subject to the malady—pertinent data concerning its origin, different forms, and varied effects. Among the conclusions he has been led to form are that hay-fever is probably found all over the United States and in Canada; that it is a disease of the brain-working rather than of the muscle-working class; that it is a functional disease of the nervous system, arising mainly from a constitutional diathesis or hereditary predisposition; that it is not due to any single specific cause—animal or vegetable, dust, or pollen, or other vegetable emanations being at most but secondary or tertiary causes; that no specific (drug, we suppose) will be found for it, but that avoidance of heat, light, worry, dust, and other irritating atmospheric substances, and a well nourishing and strengthening diet and life will operate preventively. So, too, a residence, under the conditions just mentioned, at sea, in high latitudes, at the sea-shore, and in the mountains, will have a palliative if not remedial effect. His line of treatment is of the tonic order mainly—quinine, iron, arsenic, camphor, and electricity being mentioned as appropriate. The numerous cases illustrative of the symptomology of the disease are interesting, and disclose one important feature, that it is pretty closely related to gastric derangement, or irregularity in the assimilative functions. The pertinence of hygienic habits of diet, exercise, and sleep is scarcely recognized, while the use of stimulants, narcotics, washes, and inhalations is discussed at much length. The fact that people of careful hygienic habits are rarely troubled with this form of catarrh seems not to have impressed him. Some of the correspondence with afflicted ones is noteworthy, particularly that of Mr. H. W. Beecher, who, like many others, visits the White Mountains annually in summer-time to find relief.

BENJAMIN FRANKLIN: A Picture of the Struggles of our Infant Nation One Hundred Years Ago. By John S. C. Abbott. Illustrated. 12mo, cloth. Price, \$1.50. New York: Dodd, Mead & Company.

This volume, the twelfth in the series of "Pioneers and Patriots," edited by the popular author, is an impartial presentation of the career of one of the most remarkable men who ever lived. Franklin's life was so involved with the rise of our nation that it has romantic features notwithstanding the plain, positive, practical character of the man. Mr. Abbott, in his preface to the book, writes: "For half a century Franklin moved amid the most stupendous events, a graphic history of which his pen has recorded."

Of the many volumes written by a proverbially

instructive author, this is particularly adapted to the use of youth, and will be found to possess all the fascination of a thrilling romance, with lessons of truth and experience.

We regret to learn of the serious illness of Mr. Abbott, from which he does not expect to recover. In the preface to this volume he states that "this is not improbably the last book I shall write. * * * I have now attained the age of three score years and ten." Benjamin Franklin is his fifty-fourth volume of an historical or biographical cast.

WOMEN'S SECRETS; or, How to be Beautiful. By Lou. Capsadell. New York: The Authors' Publishing Company.

Within the space of sixty moderate-sized pages a variety of suggestions—old, new, good, and bad—are accumulated. The hints about sleep are sound; so, too, the warnings with reference to the eating of fat and greasy food, are such as may be safely followed by people who are inclined to over-eat and put too much carbonaceous matter into their stomachs. The numerous advertisements of fashionable cosmetics bound up with the reading matter, give a "business" character to the volume. Of course we cannot approve their application.

FANNY PERCY'S KNIGHT-ERRANT. By the Author of "The Whole Armor," "Gertrude Terry," etc. One vol. 12mo, muslin, pp. 267. Price, \$1. New York: National Temperance Society and Publishing House.

TABLE OF CONTENTS: Chap. I. Last Days at Home. Chap. II. New Scenes. Chap. III. Fanny Finds True Joy. Chap. IV. First Efforts in the Cause. Chap. V. John is Enlisted. Chap. VI. First Battle. Chap. VII. Sad, yet Hopeful Days. Chap. VIII. What Should Not have Happened. Chap. IX. Nettle. Chap. X. Only One Glass. Chap. XI. A Great Change. Chap. XII. Brother and Sister. Chap. XIII. A Bitter Lesson. Chap. XIV. Life Work.

Fanny Percy is an only child. Her brothers and sisters and mother have left Mr. Percy and Fanny alone in the world. After the death of his wife, Mr. Percy drank, to drown his sense of loss and dreary loneliness, until at last he could no longer control his thirsty appetite, and was a great trial to his daughter, whose patience had opportunities for its perfect work. Previous to his death he begged to hear her say once more that she forgave him for all the sorrow he had caused her, and at his request she promised never to take a glass of intoxicating liquor, not even home-made wine, saying: "Oh, if I had never touched the first glass!" The story proceeds to tell of what service to her was that promise, when, after her father's death, she went to live with her uncle, in whose house wine was used daily. It was given to her, but she did not drink it. However, her firmness in this respect led to great results.

PUBLICATIONS AND PERIODICALS RECEIVED.

THE REPORT OF THE DEPARTMENT OF AGRICULTURE for May and June is exceedingly rich in statistical information. Mr. Dodge has been assiduous in efforts to present full comparative statements of the productions of the soil and their respective values in successive years, and also the number of cattle, horses, and other stock raised, each State being tabulated. Besides this important matter, the current reports from different sections are quite full, and, on the whole, present an encouraging condition. The contributions of the microscopist and entomologist are interesting, and of value to the progressive agriculturist. A sort of price-current is added.

THE CARRIAGE MONTHLY for July, J. D. Ware, Publisher, Philadelphia, is an elaborate number.

DECLARATION OF RIGHTS OF THE WOMEN OF THE UNITED STATES. By the National Woman Suffrage Association, July 4, 1876.

THE DRUGGISTS' CIRCULAR AND CHEMICAL GAZETTE for July.

RULES FOR THE MANAGEMENT OF INFANTS AND CHILDREN. Prepared and published under the direction of the Board of Health of the city of Boston. An excellent code of hygienic practice. We trust that it is distributed so that every family gets a copy.

MAGAZINES AT HAND.—We have received current numbers of Scribner's Monthly, The Popular Science Monthly, Atlantic Monthly, The New York Eclectic, The Catholic Word, Schermerhorn's Monthly, The Manhattan, St. Nicholas, The Nursery, Children's Friend, American Builder, Manufacturer and Builder, Arthur's Home Magazine, New York Medical Journal, Cincinnati Medical Advance, New Jersey Eclectic, and Medical and Surgical Journal, etc.

WAR DEPARTMENT WEATHER REVIEW for June, by which it appears that the principal meteorological features of the month have been: first, the absence of any extensive storm and the small number of severe winds; second, the unusually heavy rains in the South Atlantic States; third, the unprecedented high water in the Upper Missouri river and in the rivers of Oregon; fourth, the extensive occurrence of thunder-storms and the feeble auroral displays; fifth, the numerous local tornadoes.

TILDEN'S GRAND MARCH. Composed by Chas. A. Noel. Published by F. W. Helmick, of Cincinnati, O. Price, 40 cents. Also, from same publisher, Mineral Springs Polka, by G. Dolfass, price 30 cents; Centennial March, composed by J. Wymond, price 25 cents.

PHRENOLOGICAL JOURNAL SUPPLEMENT

INSTITUTE EXTRA.

Devoted to the interests of the American Institute of Phrenology.

No. 1.]

OCTOBER.

[1878

The Institute.

THE act to incorporate the American Phrenological Institute, passed on the 20th of April, 1866, together with an amendment made in pursuance of an order of the Supreme Court in September, 1875, reads as follows:

"The people of the State of New York, represented in Senate and Assembly, do enact as follows:

"*Section 1.* Amos Dean, Esq., Horace Greeley, Samuel Osgood, D.D., A. Oakey Hall, Esq., Russell T. Trall, M.D., Henry Dexter, Samuel R. Wells, Edward P. Fowler, M.D., Nelson Sizer, Lester A. Roberts, and their associates, are hereby constituted a body corporate by the name of 'The American Institute of Phrenology,' for the purpose of promoting instruction in all departments of learning connected therewith, and for collecting and preserving crania, casts, busts, and other representations of the different races, tribes, and families of men.

"*Section 2.* The said corporation may hold real estate and personal estate to the amount of one hundred thousand dollars, and the funds and properties thereof shall not be used for any other purposes than those declared by the first section of this Act.

"*Section 3.* The said Henry Dexter, Samuel R. Wells, Edward P. Fowler, M.D., Nelson Sizer, and Lester A. Roberts, are hereby appointed Trustees of said incorporation, with power to fill vacancies in the Board. No less than three Trustees shall constitute a quorum for the transaction of business.

"*Section 4.* It shall be lawful for the Board of Trustees to appoint lecturers, and such other instructors as they may deem

necessary and advisable, subject to removal when found expedient and necessary, by a vote of two-thirds of the members constituting said Board; but no such appointment shall be made until the applicant shall have passed a satisfactory personal examination, before the Board.

"*Section 5.* The Society shall keep, for free public exhibition at all proper times, such collections of skulls, busts, casts, paintings, and other things connected therewith, as they may obtain. They shall give, by a competent person or persons, a course of not less than six free lectures in each and every year, and shall have annually a class for instruction in Practical Phrenology, to which shall be admitted, gratuitously, at least one student from each public school in the City of New York.

"*Section 6.* The Corporation shall possess the powers and be subject to the provisions of Chapter 18 of part 1 of the Revised Statutes, so far as applicable.

"*Section 7.* This Act shall take effect immediately." —

May 14th, 1875, Mr. H. S. Drayton was elected a member of the Board of Trustees to fill the vacancy caused by the death of Samuel R. Wells, which occurred April 13th, 1875.

OFFICERS:

EDWARD P. FOWLER, M.D., *President.*

NELSON SIZER, *Vice-President.*

H. S. DRAYTON, A.M., *Secretary.*

By action of the Board of Trustees, "S. R. WELLS & CO." have been appointed Financial and Business Agents.

All communications should be addressed to
S. R. WELLS & CO.,
737 BROADWAY, NEW YORK.

OBJECT OF THE INSTITUTE.

The American Institute of Phrenology was organized for the purpose of disseminating more widely than has been the case hitherto a practical knowledge of Phrenology and collateral branches of science by means of professional instruction, organized classes, lectures, publications, etc. During each year since its organization there has been given, at least, one thorough course of professional instruction, including upward of one hundred lectures, besides such instruction in Physiology, Anatomy, and the laws of life and health as would prepare those who have attended for entering the lecture field.

The Board of Trustees is desirous of accumulating a fund from this source, together with endowments, bequests, and donations, for the purpose of securing for the permanent use of the Institute a suitable building, with hall for lectures and for the preservation of a complete ethnological cabinet.

Mrs. Charlotte Fowler Wells, widow of the late S. R. Wells, who is now the owner of the extensive cabinet collected by her late husband and her brothers, the Messrs. Fowler, desires to leave this to the Institute with a liberal endowment, provided the business of the Institute can be placed upon such a basis as to insure its being self-sustaining, self-perpetuating, and other friends of the subject are desirous of helping the work in a similar manner. It is hoped that soon such a report may be presented as will justify this and to this end the trustees ask the co-operation and encouragement of all who are interested in this noble cause. The services of active, practical, and efficient Phrenologists are desired for lectures, examinations, teaching of classes, etc. Teachers in public and private schools are in need of a knowledge of the mind and mental constitution of their pupils, which can only be obtained by a thorough practical knowledge of Phrenology.

Clergymen, physicians, and lawyers who would meet with the highest degree of success in their high callings, must understand human nature in all its bearings, and be able to minister to the morals, health, and social standing of their hearers, patients, and clients.

In addition to its professional uses, a knowledge of Phrenology furnishes to all, no matter what their vocation, the very best means of culture and growth in all that constitutes true manhood. What will contribute more to one's success in life than a keen, discriminating knowledge of human nature, in other words, a thorough knowledge of one's self and of those with whom one comes in contact in the affairs of life? It is this clear knowledge of human nature, either natural or acquired (it must be educated in those who have a native endowment, otherwise its crude activity may not be beneficial), that secures to men and women, at this day, success. The failures in life will always be found mainly among those who have not an accurate discernment of men, and a thorough knowledge of their own capabilities.

There is, it must then be seen, great need of the instruction which this Institute is organized to give, and this instruction can be obtained nowhere else in like measure, as there is no other *organized* course of instruction of a similar nature given; and no other facilities afforded for a Phrenological education which will at all compare with those afforded by the Institute.

In addition to the services of experienced, practical, and thorough teachers in every department, the student at the Institute participates in the benefits arising from an examination of the great accumula-

tion of crania, human and animal, and the hundreds of casts of skulls and human heads, besides the extensive gallery of portraits, anatomical maps, plates, etc.

BENEFITS OF PHRENOLOGY.

In regard to the practical benefits of Phrenology we can scarcely do better than to insert, as an illustration, the following note from a gentleman, a merchant of this city:

"BROADWAY, NEW YORK, June 1st, 1876.

"S. R. WELLS & Co.—Some years ago I called at your office on Broadway with a little girl, about seven years of age, whom I had adopted, to have her head examined. I had been advised, by my physician, to bring her to you, to see how I ought to bring her up. I was an unbeliever, at the time, in Phrenology, and deemed it, like a great many other things, a humbug. You stated, in the examination, that she would make an excellent musician and a good singer; that she would be very conscientious, and that she was exceedingly strong in her affections—that it would be best to appeal to her affections, and not try to govern her through dictation or by punishment. Of course I did not know much about the child, only having had her in the house a few days; but I afterward found that she developed just as you had described that she would. In the management of the child my wife followed your instructions, engaged a first-rate professor of music and a talented female singing teacher, and the child learned to play upon the piano-forte with great success, and became a superior performer. When she was about fifteen years old I brought home very difficult pieces of music, which she had never seen, and placed them before her, and she would play them without hesitation, and very accurately. I took her to concerts and rehearsals of the Philharmonic Society, and when she came home she would play certain portions of the entertainment which were entirely new to her, simply being guided by the ear. She became a very fine singer, and could carry her voice to the highest notes. We found that the description of character was true, and I have uniformly advised all my friends and relatives by all means to have their children's heads examined, for it would aid very greatly in bringing them up, since no two children in a family are organized alike. I had not believed in Phrenology before I had the little girl's head examined, but now I am as firm an advocate of it as any man living. We found that the way to train our girl was to train her through her affections, and she soon became firmly attached to us. She is now teaching music. After you had examined her head, you inquired whether I wished to have an examination of myself, but I said: 'No; it is not necessary. I know myself, and that is sufficient.' But you then made a few passing remarks about my character that astonished me, and I thought: 'How can that man know me so well?' And I then told you to go on, and received a written description of character, which has been of great benefit to me in my business and daily life. I spoke to my friends about it, and advised them to come to you, and told them it would be the best expenditure they could, in any way, make, and that the examination would save them a great deal of trouble in their lives. I send you these lines without your solicitation, that others may derive the same benefit by Phrenology that I have. You may refer any doubter to me.

H. K."

THE SUMMER CLASS OF 1876.

With a view to meet the wants of teachers and others, it was decided to hold a summer session of the Institute, commencing on the 6th of July, 1876. This session was well attended and entirely successful. On the evening of the 15th of August, the session closed with interesting exercises, in which numbers of the faculty and of the graduating class joined. The following is a condensed report of the proceedings :

REMARKS BY MRS. WELLS.

I want to thank you all for having become interested in a subject that has so long interested me, namely, Phrenology. A young man says in a letter to us to-day, "Phrenology gives us a key to our lives and character." Those who are the first in the field, will be those to whom the country will look up and turn to for instruction, for strength, and for wisdom. You will be called upon by persons for information, for wisdom, and wisdom which you could have acquired through no means except an understanding of the science of Phrenology. You must try to impart the knowledge which you have received here, wherever and whenever you may, and by doing so faithfully you will secure happiness.

Of course, Phrenology has its struggles, and it is not through with them yet, but you will find that wherever you may go, and whatever you may do, life will not be without its struggles. This will be so, no matter whether you practice the science of Phrenology, or follow any other pursuit.

The first I ever heard of Phrenology was in 1833, and then in my reading of it I seemed to breathe it in, as if it were a part of my being. In 1837 I became connected with my brothers in the New York office, and have been connected with that ever since. Every day of my life, since I became acquainted with Phrenology, has been as a life-time to me, so many occurrences have been crowded into my work, that each day's experiences seem enough to fill up or furnish labor for an ordinary life-time.

MR. SIZER'S ADDRESS.

My friends: We have been talking to you and for you for many weeks through this heated Summer term, and now, at the close, it would seem more fit to listen to what you may feel disposed to say. We have communicated to you our best thoughts. We have tried to inform you of all that we know of the subject, all that can be communicated, all that you may be able to take, except, indeed, that which you are to get by experience and practice; and you may be certain of this, that every day that you shall practice the science of Phrenology, you will find new evidences of its truthfulness, and also of its utility. Facts will come to you that will almost stifle your breath; facts, the importance and use of which will seem almost infinite; and you may remember this, that you have opened by your investigations a subject as wide as human life, as high as human aspiration, as deep as human thought, and as rich in all that belongs to human life, as you can possibly imagine.

It is said that "A thing of beauty is a joy forever;" and a mine of truth which relates to the best and highest of God's works, namely man, must be forever rich and forever new. We can not learn it in a day, in a week, in a year, nor all of it in half a century; and when a man having

lived a life of industry and investigation, has reached ripe old age, he feels that the vestibule of knowledge has just been opened before him, and that if he could live a hundred years longer, he would really know something. He who studies and thinks, and labors in the right direction, will find, when he has attained to his highest and best estate, and the body begins to fail and life is ebbing away, that he has just begun to live and to enjoy, and were it not for the fact that there is a life immortal, he would feel that his labor here was in vain; yet joy comes to him who studies and thinks; in the acquisition of knowledge there is pleasure, just as the artist and the musician find pleasure in their work.

In the practice of this profession your knowledge will become riper and riper every day, and when you shall have been ten years in the field, you will look back to the time when you were but five years in this profession, and wonder how you could then have had so much confidence in yourself in respect to what you were doing. At the end of fifteen years, you will look back to the tenth, and think you were then but a juvenile; and this will prove that you are going forward and onward, and that when you were but five years in the field, you were really worthy of confidence and respect.

Some people go out into the field of Phrenology having prepared perhaps a few lectures, and they repeat these for thirty long years without adding anything to them; they are like some insects that never grow after they have been hatched.

We would have you learn new truths all the time and incorporate them in your work. If you go forward in this cause with the instructions which have been given you, your work will not be in vain. You will have remuneration as you go along, and in proportion as you work for the cause, will you work for yourself; for he who undertakes to work for money simply, in this cause, works away from the truth, and when one seeks the highest possible success in this field, he must fill his place fully, and do all that belongs to his position, and in doing that which is right and good, he will get recompense. We read that "he that saveth his life shall lose it, and he that loseth his life for my sake shall find it;" and that is as true in regard to our theme as in regard to religion. He who makes himself the servant of the cause, and inspires it with all the strength and power he possesses, will get the remunerations, though perhaps twenty years afterward.

I have little further to say, having talked to you for so many days, and it only remains to wish you all God speed in this new field of inquiry and labor, and trusting that we shall have an opportunity of shaking hands at a distance, if we do not meet face to face, remember that we are standing by you, sustaining you in reputation, and in your business successes, and though you may be thousands of miles away, do not forget that you have warm friends here, who are remembering you by face and by name, who are interested in your progress and in your prosperity. Fill your places well, and those who are interested in the science, here and elsewhere, will be your friends and wish you the highest success.

REMARKS BY MR. DRAYTON.

Fellow-alumni and friends: I will not attempt to do more than to continue the thread of the remarks which have already been made to you. You go into this field, if workers, with truth in your minds, and in your hearts. You have certainly been made to believe that those who have addressed you here in lectures, and otherwise, on the subject of Phrenology, believe most heartily in it. Now as workmen and workwomen in

the field, you have this truth to promulgate, and you can work in its behalf most earnestly, most cordially, because you know that you are endeavoring to promote the welfare of society—to do good to those whom you meet.

The true Phrenologist, from the first day the doctrine was announced, has been doing good work. This fact is made as plain to us, as clear as the sunlight, every day, by correspondence and by personal reference. Even those who do not admit a thorough conviction on the subject, admit the usefulness of the doctrine in many respects, and in respects most important in the relations of human life.

We are asked by some who have prepared themselves, "Where shall we work?" "What field would you recommend?" as a general answer, I would say, anywhere upon this broad continent; in every state of the Union there is a field, and perhaps not one field, but several. I hold a letter in my hand this moment, from a gentleman of Shelby County, Texas, in which he states with much positiveness, "Here is an admirable field for the Phrenologist, and several could find their time well-employed and profitably;" and he further states that he intends to study Phrenology himself because of the need of lecturers and exanimers in that region. Texas is a comparatively new State; its population is meager, but there are other States in the south, south-west, west, north-west, north, and in the middle regions of this great country, with their comparatively dense populations, in each of which many Phrenologists could find work.

The city of New York boasts of one million population. In the public and private schools of New York, there are more than eighteen hundred teachers. America boasts a population of nearly forty millions, and say that you give fifty thousand people to a lecturer in our department of work, how many Phrenologists can you use? Upward of eight hundred. A very considerable number, as compared with the few, only forty or so actually in the harness.

Some will say, "I scarcely understand the subject sufficiently to cope with and properly present it to the masses. Phrenology is so extensive in its bearings that the more one learns of it, the more inclined he is to think that he knows very little of it."

The great Newton investigated a few departments of science, and was deemed profoundly learned, but when near the close of his life he said, that he felt as if he had been simply treading the shore of the great ocean of knowledge and gathering a pebble here and there. Phrenology has to do with a subject of far more importance than physical science. Its specialty is a subject which is ever widening, mind, immortal mind! and in its relation to that, it comprehends many useful vital truths; but if you will take two or three of these and make them the subject of your thought, you can not fail to do some great good in the world. It is a great mistake in teaching this subject to attempt to cover much territory. It were better that a few of the principles were fully understood and applied in practice.

Wherever you go, and whatever they do, if it be necessary for me to urge upon you at all the importance of such a course, think of, and act with regard to, your responsibilities. Money can be made in Phrenology; there is no doubt about that, and some prostitute their noble calling to make money merely, having a lack, or rather, not entertaining a sufficient sense of their obligation to society to teach that which is true—to benefit those with whom they come in contact.

Can we not unite the doing of good with profitable industry? Certainly. It seems to me that there is no profession which offers better oppor-

tunities for uniting these two great aspirations of true men than Phrenology.

MR. AUSTIN'S REMARKS.

As you are about to go forth to assume new duties in the field of life's labors, accept the assurance, that you take with you our best wishes for your greatest success. You have chosen a profession the most exalted and important, because so intimately connected with the higher laws of human life.

You have come from great distances to acquire the knowledge requisite to fill so important a calling, and I trust you have so far mastered the principles and philosophy of the science, that the determination to practice and promulgate its important truths shall only be exceeded by the interest and the energy you will concentrate upon the work and the success which shall crown your efforts.

I regret that time did not allow a fuller opportunity for instruction in the department of elocution, but I trust the little seed sown will mature and ripen into good fruit.

May we not congratulate you that this, the beginning of a new era in our nation's life and history, may prove also a new era in the life of each and all of you which shall open into broader fields of culture and higher spheres of usefulness and success.

REMARKS BY MEMBERS OF THE CLASS.

Mrs. West.—Teachers and fellow-students: It affords me great pleasure to thank all the teachers connected with this Institute for their uniform kindness to us; and also to add my testimonial to their efficiency. Particularly would I mention Mr. Sizer, as the special teacher who has given us a clear and thorough knowledge of a science at once noble and beneficial. In knowing ourselves, the first and most difficult step in the ladder by which perfection is reached, I hope we will go forward, fellow-students, and improve ourselves until the highest round is reached, and help others to do the same.

IRA GUILFORD.—Respected teachers and fellow-students: I was first interested in Phrenology by reading the *JOURNAL*, and bought the first work upon that science in 1877; while reading it with the greatest of interest, an old and reverend friend requested me to take him as a subject, and thus learn to practice the science. After some hesitation I assented, and succeeded in delineating, as he claimed, his character perfectly. I then made preparations to come to the Institute and perfect my study, but owing to circumstances failed to get here until this term. As my mind was settled that I would lecture, let what would come, I went into the lecture field and met with much success. I never knew the rule laid down by Phrenology to fail in delineating the true character. I look upon Phrenology as the sun among the sciences; and if we go into the great field of usefulness with one-half, at least, of our soul enlisted for the salvation of our fellow-man, success will crown our efforts.

MR. PATTEN.—Teachers, friends, and fellow-students: I am unable to express my feelings on this occasion. It has been some time since I first learned Phrenology; as I owe my first impressions to my father. In 1872 I was connected with a seminary in Indiana, and from the principal of it received some instructions in Phrenological principles, and since that time I have been deeply interested in the science, but until last Spring had not been able to make many observations. I must say that my associations with this subject, at this Institute, have been of the happiest kind. I thank my associates, and those who have ever in kindness tried to impart me

their knowledge on this subject for their efforts in making my stay here so pleasant, and although I have a birth-place in Indiana and have friends and associates on the prairies of the far west, I want to call the American Institute of Phrenology my home. In the brief space of six weeks, I have learned to look upon it as such, and I shall ever turn with respect to those who have labored to make this noble science plain to me.

MRS. HOLT.—Beloved teachers: In these parting salutations I feel fresh inspiration to put into practice the many useful lessons that you have imparted to us; and in extending you my hand, Mrs. Wells, I feel the throbbings of gratitude welling up for the kind and zealous manner in which you have done this, and must say that in it I recognize a high and noble spirit of Christianity, as the main-spring, a spirit which will unite its professors in works of holiness among men on earth and in aspirations for the good that is to come in the life hereafter—which I hope you all, my class-mates, may attain in its blessed fullness.

MR. GAUMER.—Teachers and fellow-students: I became interested in Phrenology a number of years ago, perhaps ten, through the JOURNAL. The JOURNAL came to me monthly, and I lived about six or seven miles away from the post-office, on the wide prairie. I wished always that the JOURNAL could have been made a weekly, and would have contributed twelve dollars cheerfully though I was very short in means. I have received nearly every number of the JOURNAL during those ten years, and have also read some of the books on the subject, and my interest in it has increased, but I never expected that I should be able to have the pleasure of attending a course of instruction at this Institute.

I supposed always that Phrenology was in a general sense true; that it was the true philosophy of the mind, but that its practical applications were of the most difficult kind; but our worthy professors have shown me that it can be successfully employed.

Its application to the pursuits of industry is very important in regard to the relative faculties of the mind, as Acquisitiveness associated with Consciousness, is of the utmost importance. Frequently people imagine that those who are very industrious and frugal, and enterprising, are therefore very selfish; but this is a great mistake. I have found in my associations with mankind that those who had a plenty of energy and employed it in a legitimate way, were the most hospitable and the kindest of people. They were discriminative, and knew where to give and where not to give, and always had enough to give to those that were deserving of it.

From the teachings I have received here, it has seemed to me that where there exists a great deficiency in a given faculty, it hardly is wise to make strong efforts to cultivate it, for though there may be a gain of strength in the faculty, still I think it is almost impracticable to try to carry the organ to any degree of influence in the character. A person would do better to use the organs with which he is endowed in a high degree, using them in a legitimate manner, rather than to strive all the time to cultivate the deficiencies in his character.

As regards myself, Phrenology has been of incalculable value to me. I have always had a very strong and severe temper, but it has taught me to get along in my associations with people in a smooth, almost in an amiable manner, because I have learned how to restrain my faculties, and keep them within their legitimate bounds, which I never would have been able to do without a knowledge of the science of Phrenology.

The in regard to the application of Phrenology

to the choice of pursuits. It has taught me that I ought to have been educated for one of the professions, and though I have worked successfully at farming, still I have never done it with a relish. Phrenology explains to me why I never was in sympathy with such work, and goes further than this, and points out other peculiarities. When our worthy professor laid his hand on my head, he said, "You are a German." Well, I am a German; my ancestors have been exclusively German, though I was born in Pennsylvania. Phrenology can do this, can tell us what we are, and point us to the pursuit in which we are likely to secure the highest success!

W. W. BAKER.—Friends: The time has come for us to part; allow me to say that my intercourse with each one of you has been of the most pleasant kind. The subject of Phrenology lies near my heart, has been of untold value to me and is blessing thousands. Those engaged in its true practice have my best wishes. To my professors I return my sincere thanks for their kindness.

MISS PRATHER.—To our teachers, I must say that the time I have been here has been pleasantly and profitably spent. The instruction has been such as I could not have obtained anywhere else, and I deem it highly valuable. The class having conferred upon me the honor of doing so, I will proceed to read the resolutions which were passed at a late meeting:

RESOLUTIONS,

OFFERED BY CENTENNIAL CLASS, 1876.

Having attended and highly appreciated a course of instructions at the American Institute of Phrenology, we desire to express our highest regard for the Institute, and cheerfully recommend the same to all interested in mental science.

Resolved, That we will ever feel ourselves deeply indebted to Prof. Nelson Sizer for the priceless information received from his teachings regarding Phrenology, Physiognomy, Ethnology, and in fact all the collateral sciences in the wide field of Anthropology.

Resolved, That H. S. Drayton, A.M., deserves our greatest commendation for his masterly lectures, showing Phrenology to be the true mental science; for his scholarly refutation of all opposition to it; and for his patient endeavor to make us familiar with the science as well as with the lives of its founders and advocates.

Resolved, That Anatomy, Physiology, and Hygiene have been thoroughly and satisfactorily explained in the comprehensive lectures by N. B. Sizer, M.D.

Resolved, That we recognize the ability of Mr. Austin as an elocutionist; and that we are better enabled to take up life's responsibilities since receiving his instructions.

Resolved, That we will ever hold in grateful remembrance Mrs. C. Fowler Wells for her well-chosen remarks, and for the welcome she extended to us. We join in wishing her many years of usefulness; and in her labors recognize the truest and noblest friend of Phrenology.

Resolved, That we tender our sincere thanks to Dr. Ordronaux for his able and instructive lectures on "Insanity."

Resolved, That Mr. Fishbough's lectures on Psychology, Mesmerism, and Fascination have filled a long felt want; and that we shall ever recognize in him a true exponent of the science, and a faithful instructor.

Resolved, That in Dr. Richards, who lectured on Abnormal Mental Organizations and Imbe-

clity, we recognize a man chosen of God for his special vocations, and that we endeavor to mingle in our life the invaluable instruction given by him. We tender him our kindly sympathy in his labors.

Resolved, That in Dr. Fairfield, we have been highly instructed with his analysis of the nervous system of the lower animals.

Resolved, That we have been kindly treated by the different members of the firm of S. R. Wells & Co., and recommending their integrity in business, we wish them renewed success.

MEMBERS OF THE CLASS.

WM. W. BAKER, Tennessee.
 LYCURGUS EMERICK, Illinois.
 MIRIAM J. HOLT, Texas.
 WM. PERY PATTON, Nebraska.
 THOS. WILLIAM SMITH, Ontario.
 G. CHARLES, Ontario.
 IRA L. GUILFORD, Michigan.
 LEVI GAUMER, Iowa.
 GEO. D. GOODRICH, Minnesota.
 M. ALLIE PRATHER, Kansas.
 MARY A. WEST, New York.

THE LECTURE SEASON.

The season for Lecturing commences about the first of October and continues until late in the following spring. Some Lecturers on Phrenology, however, continue working throughout the year. Nearly all are now in the harness, and pushing or preparing for the work, and as soon as the Presidential elections are over, it is hoped that there will be a prosperous season. Men and women with a fair adaptation to the work, and who are well prepared, by a thorough knowledge of Phrenology and kindred subjects, and provided with a suitable outfit for lecturing and making Phrenological examinations, are sure to meet with success, and find this one of the most pleasant and profitable fields of labor known.

Many teachers, and other professional men, are making an application of the principles of Phrenology to their calling, and embrace opportunities for delivering lectures in their own and adjoining neighborhoods. We receive encouraging reports from many of the graduates of the Institute, and some who had not yet entered the field when this went to press are now working successfully and usefully.

Howell B. Parker, of Georgia, resumes the charge of his school, where the principles of Phrenology are a ruling element in the organization, and he avails himself of such opportunities as his leisure will permit for lecturing.

We copy from the September number of THE PHRENOLOGICAL JOURNAL the following resolutions:

PALMETTO, GA., July 7, 1876.

WHEREAS, We, the citizens of Palmetto and surrounding community, have attended the interesting and profitable course of lectures, given by Howell B. Parker, with pleasure and not without improvement; therefore, be it

Resolved, That we do hereby recommend him to

any town or community as a man who understands his science, and as being fully competent to convey its true principles to all who may hear him, and not only its true principle, but also the process of its application to the training of the mind, as well in the nursery as in the school-room;

Resolved further, That his advice as to diet, exercise, and the law of balancing the temperaments, was simple and very useful, being of great importance to all;

And be it further resolved, That we recognize his platform of reform, to wit: "Phrenological Societies," as based upon the true principles of nature. That we look forward with anxiety to the time when such societies will be organized all over the whole country; for then the people will be informed of, and conformed to, the motto, "Know thyself;"

Resolved further, That we tender Mr. Parker our thanks for his gentlemanly courtesy and warm kindness during his stay with us, and we hope, ere long, to have him visit us again;

And be it also resolved, That if the American Phrenological Institute in New York sends out men as honorable, refined, and gentlemanly as Howell B. Parker, we hope it will send many where now there are few.

Adopted and signed by Harry M. Reid, J. F. Ellington, W. E. Cote, H. P. Holleman, Arthur Hutcheson, W. H. Condon, J. K. Ellington, G. C. Looney, C. T. Smith, S. M. Zellers, C. H. Arnold, J. H. Watling, I. T. Bruce, D. S. Hearne, D. L. Burney, W. L. Jackson, C. M. Jackson, H. L. Johnson, W. W. Floyd, W. L. Sellers, J. Heuddon, F. W. Eburhart, T. J. Beckman, O. R. Longim, M. H. Smith, Miss Lucy Rodgers, Mrs. J. T. Beckman, Mrs. Jack Johnson, Mrs. John R. Smith, Mrs. Genuine Longim, Mrs. G. C. Smith, Mrs. Mrs. C. D. Crawley, Mrs. E. H. Looney, Mrs. N. J. Zellers, Mrs. V. O. Hollemen, Miss E. A. Holkman, Mrs. Kate P. Ellington, Susie Ellington, Mrs. Mattie Condon, Miss E. O. Smith.

L. C. Bateman will make a tour of the New England States this Winter, and in that part of the country will scarcely need an introduction, as he is becoming well and favorably known. After a recent series of lectures, the following pleasant testimonial was adopted by his audience:

Resolved, That we tender our united, cordial vote of thanks to Prof. L. C. Bateman for his able, interesting, pleasing, and instructive course of lectures, which it has been our good fortune to listen to the past week; and we hope good health and long life may be his, so that many others may be permitted to hear and enjoy his instructions in the long future."

His home address is North Searsmont, Maine, and our readers in New England who feel the need of a course of Phrenological lectures may write to him.

Dr. G. E. Chandler has been lecturing in Vermont, and is very favorably noticed by the local press. He reports good prospects.

Duncan McDonald has been spending the Summer at the Centennial Exposition. For the coming season he proposes a tour through the Southern States, and we predict for him a good season. He has spent several years on the Pacific slope, meeting with success, and sent us many subscriptions to the JOURNAL, and orders for books.

U. J. Hoffman has returned to the Normal School at Valparaiso, Indiana, where he (last year) had a good class, and placed Phrenology in its true light before many teachers and won their acceptance. He hopes to have it placed on the same standing as other studies in the curriculum of that important Normal School.

The following resolutions were presented to him by the members of his last class:

As we have listened to a course of Phrenological lectures delivered at the Northern Indiana Normal School by U. J. Hoffman, a graduate of the American Institute of Phrenology, New York City, and as a class have been instructed in the laws and principles of the science, we desire to express our great appreciation

for the science and our thanks to the Professor for his labors in our behalf. Therefore be it

Resolved, That we regard Phrenology as one of the most useful of sciences. We believe it to be the beginning of a perfect understanding of knowledge and a sure guide to the truest happiness. It is a science well calculated to elevate man intellectually, socially, and morally, giving him a good understanding of life and its object.

Resolved, That we have a more exalted opinion of humanity, consequently a greater love of God and Christianity, than ever before.

Resolved, That to Prof. Hoffman we owe a debt of gratitude for his unceasing perseverance in inculcating the truths of a science of which man may well be proud. Prof. Hoffman has proved himself to be a gentleman of the truest type and his kindness and sympathy toward us shall never be forgotten.

Resolved, That a copy of these resolutions be presented to Prof. Hoffman, and copies sent to the county papers for publication.

C. W. Huffman, F. M. Sparling, D. M. Motz, A. J. Montz, J. Van Ayer, B. M. Pierce, C. J. Dunton, Theo. Menges, Louisa J. Butler, Alice McKendrick, Olive Horne, J. J. Walter, P. F. Nice, Alvin G. Cone, F. P. Franklin, W. H. Geer, J. A. Vanleave, J. T. Mitchell, J. Wallace, H. B. Landes, W. N. Bainbolt, C. E. Rogers, J. J. Speck, W. H. Cates, J. D. Essig, N. P. W. Shaw, W. T. Loohr, J. H. Pottenger.

Rev. Geo. A. Lee is still in Armstrong Co., Penn., and combining Lecturing and the practice of Phrenology with his ministerial labors, delivering courses in his own and adjoining Counties. Mr. Lee is able and earnest, and will do much good wherever he may go. He intends to enter the lecture field this season more fully than ever before.

H. J. Olney, a student of '75, of Michigan, has entered the field for the coming season. A recent number of the Port Hudson (Mich.) *Commercial* contains the following just commendation:

"Prof. H. Olney, of Lakeport, has started out again upon a Phrenological lecturing tour. Last week he lectured through Sanilac county to large and enthusiastic audiences. Wherever he goes he is well received, and his delineations of character are pronounced marvelously correct. He is now lecturing in Huron County, and in the course of a few weeks will commence his labors in St. Clair County. Rev. Hiram Hayward, the Christian minister of Worth, in whose church Prof. Olney lectured, is very warm in his praise of the speaker. Other testimonials come in unsolicited from all quarters. We hope soon that Prof. Olney will appear in Port Huron.

Mrs. E. P. Gause, also of '75, has been lecturing in North Carolina. She reports well of the work which she has had the strength to accomplish thus far, and is highly commended by the North Carolina press. She is now working in Tennessee with increasing success.

Halph Rogers is in Texas, where he has charge of a school, applying his knowledge of Phrenology successfully in teaching and to the management of pupils.

E. C. Sargent has been engaged mainly in canvassing for Phrenological publications and making examinations and awakening in this effective manner an interest for the cause in New Hampshire. He has returned to school and hopes to enter the lecture field at the close of the present term.

E. E. Candee is studying law. He will find in this profession ample and profitable opportunities for the application of his very thorough knowledge of human science. His earnestness in the subject has awakened an interest on the part of a sister, who expects to attend an early session of the Institute.

T. G. Wycarver has charge of a large school in Ohio, and his teachers and pupils receive the bene-

fit of his knowledge of the subject. He also delivers occasional lectures in the surrounding country, addresses teachers' institutes, etc. He hopes to give up teaching and enter the Phrenological field as soon as his health will permit.

B. F. Pratt reports from Ohio that he intends to enter the lecture field early in the season. Mr. Pratt will have an excellent opportunity to exercise his skill in elocution.

James McCrea was engaged, when we last heard from him, in Illinois, and his earnestness and sincerity will doubtless assure his success.

J. Musgrove returned, soon after the close of the session of '75, to England, his native land, intending to do something there in the Phrenological line.

F. W. Oliver, Iowa, has entered quite fully upon the Phrenological work, and judging from his zeal, he will make it his life-work, and accomplish good results.

C. H. Bronson has been well received in many parts of the West, and sent us frequent orders for books, charts, subscriptions, etc., notwithstanding he is blind.

Dr. U. E. Traer had not been heard from this season, up to the time of going to press, but, no doubt, he will lecture during the season in Iowa.

Miss May Chapman is lecturing and making examinations in Boston, Mass., and vicinity.

Dr. G. E. Chandler has recently gone to New Hampshire, returning from the west to his native State, where he expects to remain some time, and will make himself heard in Phrenological matters.

H. E. Swain is still making examinations, and we hear favorable reports of his work. He spent a part of the past Summer in Philadelphia.

Levi Gaumer, a graduate of our late Summer class, is already at work in Maryland, but expects to go into the Western country during the season, where he will feel more at home and work more easily. We shall expect a good report of, or from him, wherever he may be.

Mrs. M. J. Holt, of Texas, a member of our late Summer class, is now in Virginia resting, and preparing for lecturing, confident of her success when fully ready.

R. J. Duncan, of Dallas, Texas, continues his occupation as locomotive engineer, and also has a class in Phrenology and delivers, every week, a lecture on the subject.

L. Emerick, a member of the late Summer class, has already had experience as a lecturer and examiner, and he will now be able to do good service wherever called upon.

Ira L. Guilford had also had experience before coming to the Institute, and is, therefore, now doubly prepared.

Rev. J. D. Laner, of Ohio, is preparing for the field by materially increasing his stock of portraits and other cabinet.

Rev. A. A. Constantine and his daughter, Miss Constantine, are anticipating a tour in the South, where they should certainly be well received.

F. E. Aspinwall, M. D., has recently graduated at the Hygieo-Therapeutic College, and is now preparing for practice as Phrenologist and physician.

Mr. Brettell, Mr. Espy, Mr. Davis, Mr. Horne, Mr. Wightman, Mr. Arthur, Mr. Clark, and others are in the field, from whom we have not heard up to time of going to press with this number, but who will, no doubt, do good service during the coming season, and we wish all co-laborers in this useful field abundant success in all their labors.

J. F. McNeill, of San Francisco, will re-enter the field in the Autumn of this year.

AUTUMN SESSION. 1876.

THE American Institute of Phrenology,

(Incorporated by the Legislature of the State of New York, April 20, 1866.)

WILL OPEN ITS THIRTEENTH SESSION

November 10th, 1876.

AND CONTINUE SIX WEEKS.

**Terms for the Course, including Diploma, One Hundred Dollars,
Ladies Seventy-five Dollars.**

It is desirable that all who intend to be students of this course should send in their names at once, and be present at the opening.

THE publication of the AMERICAN PHRENOLOGICAL JOURNAL since the year 1838, together with the wide sale of a long list of valuable books on the subject, as well as public lectures and private classes, have exerted an extensive influence upon the public mind and awakened a desire on the part of many persons of both sexes to obtain a thorough knowledge of human nature, as taught by Phrenology and its kindred sciences.

Accordingly, in the year 1866, a Charter was obtained for the "American Institute of Phrenology," in order to establish permanently a school, in which the whole subject should be taught and students be qualified for giving public lectures and applying Phrenology professionally to choice of pursuits, domestic and scholastic education, and to all the phases of social and moral life.

Since the opening of the Institute in 1866, there have been annual sessions, and occasionally an extra session, and many earnest men and women have gone out from it. Each pupil thus taught has received a Diploma as an evidence of discipline, drill, and training, the valuable results of which would have cost many years of unaided study and practice to obtain.

In these courses of instruction it is proposed to teach students how to lecture and describe character on scientific principles; how to become practical phrenologists and delineators of character. The science needs more public advocates, and the world will gladly extend its respect and patronage to those who are qualified to deserve them.

Clergymen, physicians, lawyers, teachers, and business men, not expecting to make Phrenology a profession, have been our students, as a means of learning how to read character and how to understand, instruct, and manage those who come within their sphere of activity.

The subjects will be illustrated by our large collection of skulls, busts, casts, Anatomical preparations, skeleton, manikin, and portraits. Among the topics treated in the course of instruction, the following will receive special attention:

Outlines of Anatomy, particularly of the Brain and Nervous System, and also of the Vital Organs; their office in the maintenance of bodily vigor and proper support of the brain.

Physiology; its general laws; reciprocal influences of brain and body; the nervous system; respiration; circulation; digestion and assimilation; growth and decay of the body; air, exercise, sunlight, and sleep.

The Doctrine of Temperaments, as giving tone and peculiarity to mental manifestations, also as affecting the marriage relations, or what constitutes a proper combination of temperaments for parties entering into the marriage state, with reference to their own happiness, and also to the health, character, and longevity of their children. This branch of the subject will require several lectures and will be copiously illustrated.

Food and Diet.—Nutrition, its laws and abuses; what food is best for persons of different temperaments and of the various pursuits. What to eat and what to reject to become fat or lean, or to feed brain or muscle; influence of bodily condition as affecting mind and character; stimulants, their nature and abuse; alcoholic liquors, tea, coffee, spices, vinegar, tobacco, opium; their effects on the bodily conditions as affecting mind and health; what to avoid, and why.

Comparative Phrenology; the development and peculiarities of the animal kingdom; hints toward their gradation in the scale of being, from the lowest to the highest, including the facial angle, embodying some curious and interesting facts relative to the qualities and habits of animals, all tending to show that disposition is according to organization.

Human Phrenology; mental development explained and compared with that of the lower animals; instinct and reason, the line drawn between them; the phrenology of crime; imbecility and idioy, causes and management; insanity, its causes, and how to treat it.

Location of the Organs of the Brain; how to find them and estimate their size, absolute and relative, a matter of great importance—indispensable to the practical phrenologist.

The Elements of Mental Force—courage, energy, perseverance, and industry—and how to estimate them in the living person, and train them to become the servants of virtue and of success in life.

The Governing and Aspiring Group of Mental Organs, their influence on character and in society, and the mode of estimating their powers and regulating their action.

Self-Protecting Group of Faculties, their location and how to judge of their size and influence in the economic and decorative phases of life.

Division between the Intellectual, Spiritual, and Animal Regions of the Brain; how to ascertain this in a living head.

Memory, how to Develop and Improve it; its nature, quality, and uses.

The Reasoning Faculties, and the part they play in civilisation, and in the great developments and duties of human life. How to judge of the size of these organs, and how to cultivate them.

The Examination of Heads Explained; practical experiments; heads examined by each of the students, who will be thoroughly trained and instructed how to make examinations, privately and publicly. Special training in the examination of skulls.

The Combination of the Organs, and their influence on character. How to ascertain what group or organs most readily combine in an individual, and how to determine his mental tendency or leading traits of character; how he may correct his errors and improve himself.

The Moral Bearings of Phrenology and a correct Physiology; home training of the young, and self-culture; Phrenology applied to education, to matrimony, to legislation, and to the choice of pursuits.

Matrimony; its laws and the proper developments of body and brain, for a true and happy union. How to determine this.

The Natural Language of the Faculties; philosophy and bearing on the reading of character as we meet people casually as strangers.

Physiognomy—Animal and Human; or "Signs of Character," as indicated in the face, form, voice, walk, expression, and so forth.

Ethnology, and how to judge of Nativity and of Race, especially how to detect infallibly the skulls of the several colored races.

Biology, Psychology, Mesmerism, Clairvoyance, etc., explained.

Resemblance to Parents, or how to determine which parent a person resembles, and what features of face, what classes of faculties, and what portions of the general build are inherited from the father, and which from the mother. A most desirable attainment for any person, especially so for the practical phrenologist.

Objections to Phrenology Considered. How the skull enlarges to give room to a growing brain; the frontal sinus; loss or injury of brain; thickness of skull; fatalism, materialism, moral responsibility.

Elocution, how to cultivate the voice. Eloquence, how to attain the art. Instruction in reading and speaking will be given by a competent and experienced teacher in oratory.

A Review of the whole, answering questions on all points relating to the subject which may be proposed by students. Each student will be carefully examined in the branches taught, and will give, in his own words, his knowledge on the subject.

How to teach Phrenology. Instruction as to the best methods of presenting Phrenology and Physiology to the public, by lectures and in classes; not only how to obtain an audience, but how to hold it and instruct it.

Dissection and Demonstration of the Human Brain, in detail, giving the students a clear view of this crowning portion of the human system.

The course will consist of ONE HUNDRED or more lessons, and it is proposed to give at the rate of three or more daily till completed; though the wishes of the class will be consulted. TERMS of the entire course of instruction, with Diploma to graduates, ONE HUNDRED DOLLARS. LADIES SEVENTY-FIVE DOLLARS.

The Works most essential to be mastered are "How to Read Character," \$1.25; Phrenological bust, showing the location of all the organs, \$2.

The following are exceedingly useful to the student, and they should be read, viz., Memory, \$1.25; Self-Culture, \$1.25; New Physiognomy, with one thousand illustrations, \$5; Constitution of Man, \$1.50; What to Do and Why, and How to Educate Each Man for his Proper Work, \$2.

All of the above works may be obtained at the office of the PHRENOLOGICAL JOURNAL. Those who order the entire set, to be sent at one time by express at their expense, can have them by sending us \$10. Post-office order or draft will be safe.

Apparatus for the use of Lecturers, such as portraits, skulls, and casts of heads, can be furnished to those who desire them.

Application for membership should be made at once, that complete arrangements may be made. Address, S. E. WELLS & Co., Agents, 737 Broadway, New York.

OUTFITS FOR LECTURERS.

A lecturer on Phrenology or Physiology, and the laws of life and health, requires for his use suitable illustrations and apparatus, just as a mechanic requires tools with which to work at his trade. We are often asked the question, what is needed by a Phrenological lecturer on entering the field? Our reply is that it must depend upon circumstances. A man with enough capital had better go out well prepared, having all that can be used to advantage. One starting with limited capital can begin with a small outfit, and increase it as his experience shows him it is needed.

We are prepared to furnish lecturers with every needed appliance, and where it can possibly be afforded, we would recommend, by all means, that the lecturer be provided with our new set of Phrenological illustrations. This consists of fifty diagrams and portraits; the heads life-size, and mounted on forty sheets of canvas; some of these drawings illustrate the temperaments and the groupings of faculties, and all the organs, large and small, are shown severally and in contrast. These illustrations are made from life, from authentic portraits, casts, etc. We have, also, a set of four fine plates illustrating the anatomy of the human brain. These plates were enlarged from Gray's Anatomy, and lithographed with great care, and are mounted together on canvas, so as to fold very compactly. They are unquestionably the most attractive and best set of illustrations of the kind ever introduced, and are sold at the exceedingly low price of \$5.00 the set. A cast of the brain showing its contour, convolutions, etc., is essential; also a good skull and a Phrenological bust. Lecturers, to be sure, can start with any one or two of the above, but we would recommend that (as soon as circumstances permit) all we have mentioned be obtained. In addition to these, a pair of callipers, a good set of anatomical plates, a human skeleton, and additional fine portraits in oil, etc., would be useful, and, in time, will be found almost essential to the lecturer.

We are prepared to execute portraits in crayon, water-colors, or oil, in every style, to order. Frequently some person is attracting unusual attention, and the public are eager to know something of him; then is the time for the lecturer to make an addition to his cabinet by having a portrait made at once which will be likely to prove a permanently attractive feature.

Nearly all lecturers, in connection with their travels, require posters for advertising purposes. These we keep on hand, in different sizes, and printed in colors with beautiful wood-cuts, blank spaces being left for name and place, with date, etc.

For the use of our students, we also furnish circulars from stereotyped plates, making one page for their use. These are furnished at cost. All apparatus is furnished to the graduates of the Institute at the lowest possible prices. We publish a variety of charts ranging in price from \$5.00 per hundred to \$1.25 each.

On another page will be found a partial list of our apparatus. More extended and complete circulars will be sent on application, and we would say to all lecturers who desire success, make your cabinet as valuable, attractive, and extensive as you can.

WHERE TO LECTURE.

We are frequently asked where the best places to start in a course of Phrenological lectures would be. We are also frequently asked by our subscribers and correspondents as to where the services of a good Phrenologist could be obtained for a course of lectures, or for making examinations. These latter inquiries come from all parts of the country, indicating the wide-spread demand for the service of lecturers and practical Phrenologists.

As a rule, we would say to new beginners, start out in a region of country in which you are acquainted with the habits and customs of the people; not necessarily your own neighborhood where you are acquainted, and would be likely to labor under the embarrassment that comes from the criticism of friends, but in adjoining towns or counties. It is, however, a good discipline for young graduates to commence in new fields and among different kinds and classes of people. The experience desired in this way is invaluable for future use; but, as a rule, we would not advise an Eastern man to begin in Western States, or *vice versa*. After the requisite experience it will make little or no difference in what region a Phrenologist sets to work.

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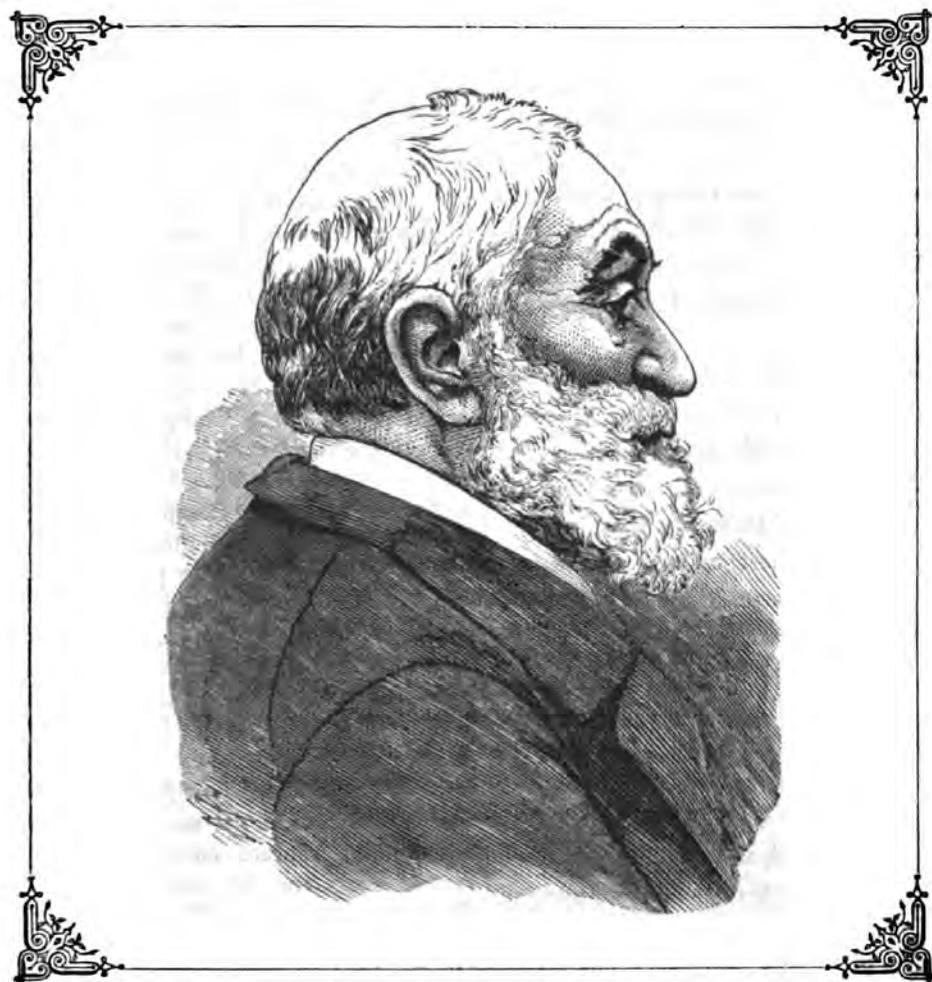
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D. MARIANO CUBI Y SOLER,

THE EMINENT SPANISH PHRENOLOGIST AND EDUCATOR.

THE head and face of this gentleman, as represented by the portrait, indicate most marked characteristics. Strength and activity appear to be combined in the temperament. Those strong features evince power of endurance and mandatory force. Be-

ing well convinced of the truth of his own positions, such a man would be steadfast, brave, and even aggressive.

Don Cubi's characteristics were those which belong to the pioneer and martyr. He had a good deal of the motive or enduring temperament, which gave him positiveness and hearty earnestness in that which he attempted to do. His thoughts were brave, positive, and imperative. He had also a full share of the mental temperament, which gave him a thoughtful tendency and decided intellectual activity.

His perceptive organs were large enough to make him sharp in the acquisition of knowledge, and in practical criticism. His reflective intellect was amply developed, the upper part of the forehead being well-rounded, and elevated, and the length of the head from the opening of the ear forward being ample.

He had strong Benevolence, which made him sympathetic, inclined to render assistance and make people better and happier. He would devise ways and means for the aid and comfort of those who were in need. He appreciated character and motive, and was a quick and accurate judge of disposition and talent.

He had strong faith in the spiritual, and though intellectually analytical and inclined to be critical, he had a spirit of liberality in reference to new ideas, and also in respect to religious subjects. He had reverence for whatever is sacred, and rather large Conscientiousness which rendered him upright. His Firmness and Self-esteem qualified him to take a good rank and make himself an independent position.

Combativeness and Destructiveness seem to have been large, hence there was a good deal of vim and severity about his disposition, when provoked to action. His Language was large, qualifying him to express himself

with freedom and fullness. He was emphatically a man of power, a thinker and a critic, sincere, truthful, sympathetic, and inclined to be serviceable to others. He had abundant ingenuity, and was adapted to mathematical and mechanical sciences, and also had an appreciation of property which enabled him to make good provision for himself, and to take good care of his financial interests.

The recent death of this eminent Spanish Phrenologist has called forth a pamphlet biography from Don Miguel Arano, of Barcelona, also a well-known Spanish educator, from which we obtain most of our details with regard to our subject's long and useful career. Don Cubi was a native of Malgrat, in the province of Barcelona, and was born December 15, 1801. His father was originally of Italian family. At the age of twenty, young Mariano came to the United States, where he readily found employment as an instructor of classics in the Spanish, and became what is known in our seminaries as a Spanish professor. He landed at Norfolk, Virginia, June 21, 1821, and was for some time a resident of Washington, supporting himself by giving lessons in his native tongue. In the October following he made the acquaintance of Edward Damphaux, President of St. Mary's College, Baltimore, by whom he was offered the Spanish professorship in that institution. His first literary publication was a contribution to the facilities, meagre at that period, for learning Spanish, and consisted in a well-arranged and long-popular dialogue book, Spanish and English, which was very successful. As at that date a good grammar of the Spanish language was a desideratum, the success of his first unambitious venture encouraged him to further effort, and his *Nueva Gramatica Espanola* soon became the popular Spanish text-book in Maryland seminaries and schools. His Castilian grammar, intended for Mexico and the South American States, was published in 1824, but did not succeed in purifying the Spanish spoken in those countries. Cubi's "Spanish Dictionary" completed the series, and gave the young professor of the Spanish language at St. Mary's a distinguished reputation. He remained in Balti-

more until 1829, when, in February, he embarked for Havana, where he devoted himself to the cause of education, in conjunction with Juan Alivella y Sala, and others, and was instrumental in establishing Buena Vista College, the first collegiate institution founded in Cuba, and afterward styled San Fernando College. The publication of the *Revista Cubana* (Cuban Review) was one of the results of Professor Cubi's removal to the Cuban metropolis, where he remained until 1832, in December of which year he visited New Orleans. The next three years were devoted to a tour in Mexico, passing some months at Tampico, where he was instrumental in founding another institution, and became one of its officers. He left Tampico for New Orleans in December, 1835.

Originally, Professor Cubi seems to have had a passion for metaphysics, and he was pretty well acquainted with the doctrines of the leading schools, the German among them, when in 1828, Combe's well-known work on Phrenology fell into his hands, and was influential in subverting all his previous theories of psychology and converting him thoroughly. His first course of lectures on what was then a new science, was delivered in New Orleans on his return from Tampico; and from that date he applied himself assiduously to the works of Gall, Spurzheim, Combe, the Fowlers, and other leaders in the new science. He now made the tour of the United States as a lecturer, visiting colleges and seminaries, and endeavoring to impress upon our educational leaders the importance of Phrenology in its bearing on their function. True to his instinct, he was soon in the field as a writer, and published in Spanish an "Introduction to Phrenology," in October, 1836.

In 1837, he was called to the professorship of modern languages in the University of Louisiana. The Phrenological Society of Louisiana was the direct result of his efforts, and for some years exercised a commanding influence in the southwest. In 1840, he represented his University at the educational congress held in Washington, visited Harvard College, and again made the tour of the United States, making special studies

for his science from prison and hospital life. His devotion to the science cost him his professorship in 1842, and in June of that year he embarked for Spain, where he became the great pioneer of the new method in psychology.

The science was, at that date, almost wholly unknown and unrepresented in Spain, with the exception of the efforts of Davila and Alvear Herrera, of Seville, who had issued a few tracts. Professor Cubi commenced his operations at Barcelona, and published there, in 1843, his "Manual of Phrenology," which was afterward followed by his larger work on "Systematic Phrenology."

In 1844 he became interested in the marvels of Mesmerism, of which Alfonso Teste was the representative pioneer in Spain, and in connection with which he became involved in a controversy with the religious authorities—no light matter in Spain—but extricated himself without serious difficulty. Four years later, he established a periodical, devoted to the dissemination of Phrenological doctrines, but having the form of an encyclopedia of the arts and sciences, published in numbers. In 1851, he visited London and was present at the Peace Congress, then in session, and, being called to a connection with the Phrenological Museum of that city, removed to England.

He made the tour of Europe as a Phrenological lecturer in 1867, and died December 5, 1875, at the advanced age of 74. His works embrace, in addition to those mentioned, a "Manual of Philosophy," a "Treatise on Æsthetic Psychology, Ideology, Logic, and Ethics," "Elements of Phrenology," "Phrenology and its Glories," a very elaborate work containing upward of 1,160 pages, a treatise on the "Relations of Phrenology to Social Science," and various dissertations on philological questions.

The work "La Phrenologia y sus Glorias" gave Don Cubi a wide reputation. It received the approbation of ecclesiastical authority in Barcelona, a matter to be commented upon with surprise when the jealousy of the Roman Catholic Church, in Spain, with reference to progress in mental science, is considered.

CONSIDERATION OF SOME APPARENT INCONSISTENCIES.

MESSRS. EDITORS:—Permit me to offer to your readers a few words of criticism upon the nomenclature of the Phrenological science, and to call their attention to the effect which it has had upon the popular mind, and upon a class of more skeptical persons, including many of those who become opposers of the science. I refer to the names given to the "Organs," which in many cases signify far more than is sustained by them, and to the general literature of the science, growing out of these figurative terms. The nomenclature introduced by Dr. Gall himself did not greatly interfere with his object, which was to demonstrate to scientific men that the brain is the organ of the mind. His work is secure, but to the further object of establishing a system of signs of character, the terms he used are not sufficiently accurate, for experience has proved that many persons are misled by them.

Dr. Spurzheim modified the nomenclature in many particulars; but while the harshness of the system was thereby softened, it is possible that the effect may have been to delude a greater number of persons into the opinion that the names were supposed to be literally correct. Phrenologists have fallen into the habit of using these terms as though this were the case, and some of them so persistently as to awaken a suspicion that they have only learned by rote what they have not understood. The consequence has been that many students of Phrenology have been perplexed by not finding character to correspond with their reading of the developments. Probably few have escaped this experience except such as have little discrimination of character and a credulity so profound that their own deductions from theoretic premises have been accepted as evidence of character.

It can not be doubted that many honest investigators, having insufficient confidence at the outset, and being pressed with other subjects, have, from this cause, decided against the reliability of the system at this early stage, and that they have therefore become its opposers. Yet it is worthy of

remark, that of all those who have persevered long enough to overcome these early difficulties, none have failed to remain the firm friends of the science; nor is it difficult to relieve the student of much of his embarrassment and teach him how he may find ample evidence of the truth of the system.

All important subjects have difficulties which none but the resolute overcome; and did it not appear that there is a remediable perplexity of an artificial nature in this case, this article would not have been written.

As an illustration of the perplexities of beginners, a brief statement of the following cases may serve the purpose.

A lady having a large head, high and narrow between the ears, in which "Benevolence" was quite large and the "Selfish propensities"—Combativeness, Destructiveness, and Self-esteem—were small, was ever ready to receive favors, but when her friends were ill or in trouble she would leave them at once until their good fortune was restored to them. In contrast to the above is the case of a very useful woman who has a wide head, with quite large Combativeness, Destructiveness, Acquisitiveness, Secretiveness, Firmness, full Self-esteem, and only full Benevolence, who is always on hand to help her friends in sickness and trouble.

The number of such apparent contradictions is very great and their nature is understood by all competent Phrenologists. They arise from the fact that brain denominated "Benevolence" does not sustain the full strength of so important a faculty, although it suggests the emotion and is an indispensable element of the faculty, much of the *work* of benevolence being done by the so-called "Selfish faculties."

It is undesirable to change names, even for the better, until it is reasonably certain that an increase of knowledge will not soon demand further changes; but, in the meantime, it is necessary to define as nearly as possible what impulse or trait we may be confident of always finding associated with

the several divisions of the brain, and not until this can be done with a considerable degree of completeness will it be possible to reason synthetically upon the subject. To this work there are difficulties, the causes of which lie in the great difficulty of studying the developments of the head severally, so as to learn directly what is their primary function, and in our bringing to the investigation, perhaps unconsciously, preconceived opinions. Let us endeavor to avoid the last of these errors, that we may be the better able to overcome the first-named difficulty.

Mental science, as a branch of Metaphysics, contemplates mind in the united exercise of many faculties, or it endeavors to analyze mind into its various faculties, without having the power to determine what physiological conditions of the system are concerned with their exercise. Phrenology, embracing the science and the practice, consists, first, of the physiology of the brain, and, second, of the physiognomy of the head, face, and body; and the student must make himself acquainted with the instrument by which mind is sustained, and with the conditions affecting its quality and efficiency.

The anatomical divisions of the hemispheres of the brain are into cells and fibres, the minuteness of which is too great to be of any physiognomical expressiveness; surfaces of considerable extent, which have been denominated "Organs," cover an infinite number of cells and doubtless sustain a variety of functions, each separate one of which is a mere instinct, which, like a spot of color on the canvas, is of little significance, except when viewed in relation to other portions which make up the picture, and which is capable of taking a part in diverse scenes at the control of the whole, without any disturbance of harmony.

As a guide to the investigation of the function of the faculties, we should understand this first proposition: Every faculty relates primarily and constantly to self.

The truthfulness of this statement, as applied to the lower faculties, will not be doubted. The stomach and its adjvants

digest food exclusively for the benefit of the system. It is but little more difficult to admit that some of the mental faculties have an equally exclusive reference to self. Alimentiveness knows no other motive but its own gratification. Acquisitiveness has only a blind desire to acquire, although its preference for objects is obtained through the aid of other faculties; but is it equally clear that Benevolence has any such regard for self? Deluded by the name, many will be induced to doubt this; but is it not reasonable to suppose that a faculty of the mind, having its origin in self-interest, may make the possessor most comfortable when there is no object of unhappiness within its range of perception?

Ideality is offended by disgusting objects, and it operates in two ways, sometimes to stimulate the executive faculties to improve the offending object, and at other times to remove the individual from it. It would be analogous to this function of Ideality were it to appear that the sensibility of any faculty to pain in others excited the necessary effort to relieve, when the required powers existed, or induced a movement of withdrawal when another condition of the organization predominated; and what name would be more likely to be given to such a faculty than that of "Benevolence"? In this case the primary impulse of "Benevolence" refers to self, while the resulting effort which combines the harmonious activity of many faculties, which have been denominated "Selfish," is converted into an act of benevolence.

A second proposition, equal in importance to the first, is this: No faculty of man is naturally or necessarily injurious to another person.

Dr. Gall named a portion of brain around and behind the ears, "Murder"! The locality was afterward divided, and at the suggestion of Spurzheim called Destructiveness and Combativeness. Had the original name been retained, it might have been better for the science, for it would have been impossible to have believed such a name applicable to anything else than the abuse of a faculty, while the improved names seem to have been frequently taken

in their literal significance with little exercise of judgment. Were it true that man possesses a faculty that desires to destroy, to kill, or to inflict pain, it could seldom be in harmony with his better nature, and a wasteful conflict of desires would result. Those persons in whom the organ was the largest, other conditions being equal, would do the most killing or inflict the most pain, which is not the case, while it is possible for a man with a large development of brain between the ears to be one of the kindest of men, and for one who is feebly developed there, to be very cruel. A case illustrative of this fact came to my notice a short time before the last war. It was that of a gentleman with a very thin head in the region of "Destructiveness" and with quite large "Benevolence."

At the close of the examination, he very reluctantly yet voluntarily related to me what he said he had never told any one before. When he was a lad of about twelve years of age, a rooster belonging to him engaged in a fight with one of his neighbor's, and was beaten; his anger and resentment were so great that he caught the victor and horribly mutilated it, by thrusting a nail into its eyes and through the head!* Sufficient changes in the form of the head probably never occur to account for such cruelty.

It will aid us to reconcile the facts to suppose that the function of the organ is the instinct or sense for the appreciation of pain and of the conditions which produce it, in which case it will become a power to injure when prompted to do so by other faculties, a regulator of the degree of severity to be inflicted, and an aid to gentleness when so directed.

The classification of the organs into groups, of which one is called "Moral" and another "Selfish," is therefore likely to mislead, since all the organs are in an important sense selfish, while none of them are necessarily offensively so, nor do they tend to become so, except in some form of self-defence, either real or imagined, or under the perversion of passion or insanity.

* Would it not have been more to the point had the subject given some account of his conduct and feeling with regard to Destructiveness in adult maturity?—Ed.

If this is the correct theory of the instinctive action of the faculties, in what does the moral distinction between men consist? The faculties begin with self and relate to outside existences and influences, and the elevation of the being is in proportion to the number and importance of the external objects to which it is related and to the power of its adaptation to the greater number of the nobler objects.

Thus it appears that there must be an important inherent difference between those persons who seek inferior objects and those who are attracted to the good and the noble.

A man with a broad low-head, in which the so-called selfish propensities predominate, if he have also a good constitution, will have great power for the practical and plodding duties of self-preservation, and perhaps energy of this kind to spare for his needy neighbor, with no aversion to characteristics that are high and noble, but, indeed, a faint desire for them. He may be a truly good man and an inoffensive neighbor, though moving in an humble sphere. Were it true that the natural desire of one of his strongest faculties was to destroy, this could not be. On the other hand, a man with large moral organs—Benevolence, Conscientiousness, Veneration, etc.—but with weak selfish propensities, must be most unselfish and noble were these names strictly diagnostic, yet he is a very poor observer who has not found many exceptions. Are we not, then, compelled to infer that brain on the superior part of the head as really contributes to some of the individual's own wants as brain elsewhere, and that it is equally liable to abuse? If so, we shall not expect the form of brain alone to make a man more unselfish than others.

Every man will be good who is in his right place and who has the most exercise of the right kind for his strongest faculties. He will then appear to the best advantage, do the most good, the least harm, and enjoy himself most. Were a thin, high-headed man, with feeble muscles, placed in the company of men of the opposite build, and in a sphere which required labor of a heavy, plodding character, he would be

come the least respectable of the number, and perhaps turn traitor to the others, but in a sphere where thought and imagination are required he would excel.

In society, we find men who have a degree of choice of positions, drifting, often by very circuitous ways, toward the occupations in which they can find exercise for their most active faculties. A well-developed man, in his right place, is equally well related to all his surroundings—by the executive faculties, to the battles of life; by his social faculties, to society; by the reflective, imaginative, and moral faculties, to all that is around and above him—and thus is his character balanced.

There is a self-interest in the preference

for a clear conscience with an empty pocket over wealth obtained dishonestly. What is called self-sacrifice is a choice between the gratification of some of the lower propensities or animal wants and the higher faculties of man's nature, decided in favor of the latter, for self-interest is as really involved in the gratification of the moral faculties as in the indulgence of the propensities.

These suggestions are offered with the hope of stimulating attention to the more accurate discovery of the instinctive impulse of the separate mental faculties, and they are based upon an interpretation of a great number of observations.

JOHN L. CAPEN.

THE CHIN, AND WHAT IT SIGNIFIES.

PART II.

HAVING considered the chin in regard to its size, we come now to consider some of its peculiarities of contour. And taking our first division, the broad chin, we find it may be further sub-divided into

- The Square Chin;
- The Round-cornered Chin; and
- The Round Chin.

The contours of the square chin are formed almost entirely of straight lines: thus (fig. 6). It properly belongs to the square, angular face. Now, we all understand and appreciate the hard, unyielding character of straight lines, that they go directly from one point to another, refusing to accommodate themselves to the needs or requirements of aught that might turn them out of their course—unbending and inflexible, in short, and emblematical of directness and coercive force. The character that is embodied in a contour made up of such lines as these is unmistakable: it is hard, inflexible, uncompromising. The possessor of the regular square chin will be found to be, in more ways than one, a hard customer; and this, whether the chin be broad or narrow in comparison with other chins, provided it be broad in relation to the other features of the same face. In the relatively narrow square chin, however, other

qualities are indicated which tend to modify the character of the straight lines, and give them a somewhat different meaning. There is also a broad, square chin which accompanies a more rounded contour of the other features—thus seeming to contradict them all by its own configuration—and



FIG. 10.—LORD STANLEY.

thus is produced a more amiable modification of the preceding type; though where the features rather contradict each other than blend their several characteristics, as in this case, similar contradictions may be looked for in the character.

The reverse of the foregoing is the round chin, made up, where it is broad, of sweeping curves (fig. 10). Curved lines are as yielding and accommodating as they are graceful; and we naturally look for the indication of the same characteristics in features whose contours are expressed by such lines. Nor do we look in vain: geometry and physiognomy are in perfect accord on this point. However much of force and determination may reside in the broad, round chin, it will be usually, if not always, found to be tempered by benevolence, and a due regard for other considerations besides the attainment of its own purposes; or, perhaps, we might say that its purposes themselves will be likely to be of a benevolent character. People with large, round chins will be

Here we have a union of straight and curved lines, with their accompanying characteristics nicely blended and harmonized. Such a chin will most admirably combine firmness and benevolence—firmness in all important matters wherein firmness is desirable, and benevolence in little things in which benevolence most shines. It is your weak-minded tyrant who is ever enforcing his will in trifling, unimportant matters. It is, therefore, with good reason that we speak of a benevolent chin; for there is an intimate relation between benevolence—which is simply good-will—and the will-faculty which has its physiognomical sign in the chin.

Besides the foregoing varieties of contour, which, as we have seen, pertain, in a modi-



FIG. 11.—PROMINENT.

FIG. 12.—RETREATING.

found to be easy and indulgent, especially in small matters, though not unfrequently so in great ones also. In fact, in this type of chin, force and benevolence seem mutually to control and counteract one another. Parents with such chins would be apt to indulge their children more than was good for them; for this chin is especially susceptible to the claims of kindred. Similar characteristics, in a modified form, pertain also to the small, or somewhat narrow, round chin (see fig. 9, Joseph C. Neal); where the chin is *very* narrow, it is no longer round, but pointed or sharp.

A good modification or blending of these two is found in the middle type of our present classification—the round-cornered chin.

fied form, to narrow as well as broad chins, there is a third, which is peculiar to the former, viz., the pointed chin, of which, as it has already been considered in connection with the type to which it is limited, we will defer any further analysis until we come to consider its more minute and detailed peculiarities.

Viewing our subject now in *profile*, a third general classification at once presents itself to us, viz., the

PROMINENT AND RETREATING

chins. Prominence courts observation and its attendant perils, as retirement shuns both. The protrusion of the chin, as with all agents of offensive warfare, means ob-

jectivity, activity, aggression. The retreating chin would denote the reverse of this—passivity or receptivity, inactivity, defence. Protruding objects dispute your path or assail your position, like the lance or spear which presents its point to you to stop your progress, repel your advance or drive you back. Retreating objects, on the contrary, make way for you, or at least oppose no serious resistance (figs. 11 and 12).

So the forward chin gives us those *active* qualities of hope, desire, and anticipation; while the backward chin evidences those *more passive* qualities of fear, apprehension, and despondency. The one *acts* from its powers upon outward things; the other, retiring into itself, is *acted upon* by the world without. The one deals more in *expression*, the other in *impressions*. The retreating chin, like the weapon reversed, permits approach—proffers no untoward act of hostility. It defends by doggedly retiring from the subject at issue; or, if hard pressed and brought to bay, plunges into obscure thickets of sophistry or casuistry; excuses and tergiversations; if the chin be broad—with great persistency and resolution; if narrow—like the timid hare, from covert to covert, but with great agility and alertness.

THE PROMINENT CHIN.

As the result of these observations, we conclude that an individual with a very prominent chin will be ardent, enthusiastic, and hopeful, sometimes even to excess—preferring to look on the bright side of things, confident of success, always anticipating some great thing to come, and rising, like Antæus, from one defeat after another, with renewed hope, courage, and determination. And, as a consequence of such an organization, he will be eager to take an active, personal part in everything in which he is interested, and always ready to throw himself into the breach.

The large prominent chin is the *positive* chin—a sure indication of the strong, positive character whose activities flow outward upon surrounding objects, and which is certain to leave its unmistakable impress upon all with whom it comes in contact. This is the chin *par excellence* of the able general,

the great warrior, and is a marked feature in the faces of Cæsar, Wellington, and men of that stamp, renowned for military genius and for success in military endeavors (fig. 13).

THE RETREATING CHIN,

on the contrary, indicates a character more or less cold, unimpassioned, apathetic, indifferent to all such things as do not affect it immediately and personally; undemonstrative, not easily aroused to enthusiasm, and then only to that vaporous kind which expends itself in words, and rarely or never ultimates in act or effort. Such characters have little or no confidence in their own abili-



FIG. 13.—MENSCHIKOFF—A LEADER.

ties and powers, are cautious, retiring, and despondent. These are the people who are constantly saying, "I can't," and "It is impossible;" while with the typical representative of the first class, the word impossible finds no place in their dictionary.

This is never the aggressive chin; but ever fearful and apprehensive of danger, is always ready to act on the defensive, oftentimes when no attack is really made or meditated. If narrow, as well as retreating, it will seek safety in all cases by flight, and when brought to bay, can offer but feeble resistance; if broad and retreating, it stands squarely on the defensive, and is constantly

on the look-out for real or fancied affronts—in other words, it is "touchy" (fig. 14).

This is the negative or passive chin. It is easily acted upon by stronger wills, but has no compelling power of its own. It receives impressions from, but does not produce them upon, the age in which it lives.

This type of chin is sometimes, though not often, found in men who have attained some eminence in statesmanship, or even in military affairs; but such men will usually be found to be more remarkable for cautiousness, astuteness, deliberation, and painstaking discharge of the duties of their office, than for boldness, originality, or comprehensiveness. Many, indeed, without the support of powerful friends could not sustain themselves at all; and others are indebted to favorable and favoring combinations of circumstances, rather than to their own



FIG. 14.—APATHETIC.

energies for their success. Where this configuration is seen in a military man of any note, it indicates the wary tactician, rather than the bold and warlike soldier (fig. 12). A man of this character will be more powerful in the camp than on the field, where the promptness and decision that spring from confidence and determination are most essential. He can better devise plans for others to execute. General Wolfe furnishes a marked instance of this type, nor do we think, if the portraits of him that have come down to us are correct in their delineations, he would be found to belie its strongly-marked characteristics. The great conquerors of ancient and modern times, however, had full, if not large, prominent chins, in

all cases where they fought their own battles and gained their own victories.

A better type than either, perhaps, is formed by a combination of both the preceding—or rather, since it is impossible to combine two opposites, one of which destroys or obliterates the other—by a medium drawn between the two; wherein the chin, neither too prominent nor too retreating, but forming very nearly a perpendicular line, expresses steady self-reliance, and which is very well exemplified in the chin of Washington.

But, although this type is better than either of the foregoing carried to excess—certainly vastly preferable to the second—it is not, after all, the highest; for the chin, like the nose, is essentially a prominent feature in its most perfect development; and within suitable limits, the more strongly-marked and prominent, the better.

Looking at the chin, either from a front or side view, we find it is capable of being once more distinguished by two general classes,

THE LONG AND THE SHORT CHIN.

The length of the chin, properly speaking, is its perpendicular measurement, when the head is held in its normal position—that is, with the eyes directed forward; and this measurement will be found to be a distinctive feature, quite independent of breadth or protuberance. The dimensions of the chin in this direction indicate the power and endurance, or the force and intensity with which the qualities denoted by its other developments are likely to manifest themselves, but is also indicative of the qualities of restraint and self-control, which serve to hold all the others in check. The long chin indicates more of this compelling and restraining force, and the short chin less, until we come to the extremes of no chin and no power, and all chin and all force, alluded to above.

The foregoing general types are capable of combinations and modifications almost without number, in varying forms of beauty or ugliness, strength or weakness. Here we see a long, broad, and prominent chin, whose every line is a massive sweep that tells unmistakably of great and compre-

hensive energies, and of deep, strong, enduring affections; there we have a short, narrow, retreating chin, revealing only too plainly its owner's lack of energy and almost total dearth of affection. So, we may have the long and narrow, and the short and broad, the narrow, but prominent, and the broad, but retreating chin, each of which tells its own story with a distinctness and certainty that leaves no ground for misapprehension (fig. 15).

REGULAR AND IRREGULAR.

Some chins, but principally those of the positive order are marked by regularity of

retreating, rather than very prominent; but whatever their formation, the lines which compose them are undecided in their character—broken, irregular, and incomplete. Unstable as water, these are treacherous chins, and of such beware, for in love or war they will be found to be alike unfaithful, inconstant, and unreliable.

We come now to consider the why and the wherefore of these modifications, by investigating more particularly the representative physiognomical part which has been given the chin to sustain among the other features.



FIG. 15.—EARL OF BEACONSFIELD.

contour, whatever may be their form; that is to say, the lines that go to compose this contour and give it its definitive shape, are clear-cut and decided in their character, being what might be called perfect, whole or complete lines, whether curved or straight. But there are others, on the contrary, which are as noticeable for irregularity of contour, even when their shape, as a whole, would, but for this irregularity, be considered good. Such chins may be either broad or narrow, but are seldom or never very broad, and are usually short rather than long—slightly

It is well known to every one who has even a smattering of Phrenology, that in the lower part, which is also the back part, of the brain, the basement, so to speak, of the cranial edifice—the temple of the mind—are lodged the organs of those affections, desires, and impulses which are the most powerful springs and incentives to action that are known. Here is situated the furnace that supplies the incentive heat, the engine that generates the motive power, the mighty driving-wheel that sets in motion all the many and complicated parts of the wonderful human machine, and

keeps them running till the end. And as the chin and mouth form the lowest part, the basement, so to speak, of the countenance, it is most appropriate that they should be the facial representatives of these very qualities and forces which, hidden away in the brain as potencies, are brought forth to view in the countenance as activities.

This two-fold representation of qualities, in the head and face, seems to run through the whole mental organization of man; and these double signs will be found to correspond in the relative position which they occupy in their respective stations. While the phrenological organ of a quality denotes its latent power or potency, the corresponding facial sign indicates in the main its voluntary power or activity.

LOVE IN THE CHIN.

For that mighty power that makes the world go round, and sometimes, in its erratic manifestations, threatens to turn it upside down—Love has his abiding place in the chin. What, in the chin? We supposed that Love dwelt in, as well as looked through, the eyes, his avowed interpreters; that Cupid had set his bow upon, as well as lent his persuasive eloquence to, the lips; but by what signs and tokens shall we find him in the chin? By the most enduring of all; for this is his permanent abode. Love may beam as a momentary inspiration from the eyes—may glow for a time with passionate ardor upon the lips; but if the chin draw back and refuse to ratify the fervent avowals of lips and eyes, such love is but a transient thing, a fire that will soon burn itself out, or flicker on for a while by fitful starts, till it is smothered in its own ashes. But if the chin confirms the story that the lips and eyes have been telling, and by its size and contour shows that Love is not only a transient or occasional visitor, but a permanent resident (potentially till its object is found, and then actively), this love is seen to be an integral part of the character itself—an ever present motive and power.

This is why the chin is, of all features, the one to marry. We hear sometimes of lovers becoming enamored of, and marrying the eyes, the lips, the forehead (which women often marry), even the ear and the neck, or,

vanity of vanities! the hair or the moustache! But if lovers are willing to stake their happiness upon any one feature alone, let them take our advice, and *marry the Chin*; for in this, at least, if they understand its meaning never so little, they can not be deceived. The eyes may feign and the lips may dissemble; but the chin has no language but the truth, and can seem none other than it is.

The signs of love in the chin are to be looked for along the line of its anterior projection—as in the head it is denoted by the posterior fullness backward, and in front, along the line of its breadth, by which it is also marked in the back head. The first measurement indicates its activity and intensity, and the second its strength and endur-



FIG. 16.—LOVING.

ance. Thus we see at once that we are not to look for ardent affection in a retreating chin, nor for devoted, untiring faithfulness in a narrow one. Stability and endurance being denoted by and proportionate to breadth, we find that the broad, prominent chin will love most, and longest (fig. 16).

On the other hand, the narrow or pointed chin, whose prominence though delicate is marked, indicates that quality of congeniality which concentrates its affections upon the one best suited to it, and from whom it can not transfer them at will. It loves with all its strength, one and but one; while the broader chin, impelled by its strong necessity of loving, can admit a wider range of objects to its affections, which are capable of being transferred from one to another.

Especially is this so of the moderately broad and rounded chin.

The various forms in which love manifests itself in the chin, as in congenial, ardent or violent love, and desire to love or to be loved, are located and fully described in the chapter on the Chin, on page 151 of "New Physiognomy," which it is unnecessary for us to reproduce here.

In taking leave, then, of this part of our subject, we would once more urge upon you, men, who wish for a tender, loving, and devoted wife, to marry her whose full and fair round chin denotes her warm, affectional nature. And you, girls, if you want a husband whose affectionate regard and loving courtesy will outlive his courting days, marry no man who comes not well recommended with a good chin. But if he has little or no chin, or worse still, one of those irregular chins of which we have spoken above, turn a deaf ear to his protestations of love, however ardent they may be, unless you are willing in return for a brief honeymoon, so brief that it is scarce begun ere it is ended, to endure the miseries of coldness, indifference, and neglect on the one hand, or of caprice and unfaithfulness on the other.

We will take occasion, also, to offer a word of encouragement to despondent lovers, whose ladyloves turn a deaf ear to their sighs. If the obdurate fair one is possessed of a full and loving chin, take heart; for unless her affections are irrevocably enlisted in another quarter, her indifference is for the most part assumed—perhaps to incite you to more devoted efforts to win her favor, which she will not give unsought, and if you press your suit like a man, the success you deserve will be yours. But if, on the contrary, she has a very narrow or retreating chin, and shows herself indifferent to you, you may as well abandon the field at once: her coldness is but the expression of her real feeling toward you, which it would be hopeless to try to alter. For where there is no spark, a flame can not be kindled.

WILL IN THE CHIN.

We have seen above that large chins usually accompany a positive and determined character; so we are not surprised to learn that will is another of the faculties indicated

in the chin. It is expressed by the length of the chin downward. Where the chin is long, and the jaw-bone strongly curved or arched, look for a resolute, indomitable, persevering character that bends everything to its own purposes. Out of such stuff heroes are made. While love in the chin is the driving power, will is the restraining and compelling power.

But in ascribing so much to the chin, do we not rob the nose of some of its accredited importance? Have not many of the qualities been attributed to this feature that are now claimed by the chin? The truth is, the chin and the nose divide the honors between them. The nose being on the plane of Combativeness, Destructiveness, Secretiveness, and Acquisitiveness, becomes naturally the facial representative of these qualities and others, resulting from them or their combinations. Thus the nose is ably fitted to be the leader—to act the part of a general in life's battle; but the leader requires followers—the general must have soldiers, and able ones, at his command to sustain him; so if beneath the strongly-marked energetic nose there is a no less strongly-marked and energetic chin, to follow up every advantage and keep it, victory is certain if not easy. Otherwise, many a brilliantly-won advantage may be lost for want of sufficient power and solid force to hold it.

There are some chins which are long in front, but from which the jaw-bone slopes directly up to the ear, in almost a straight line, giving an aspect of weakness to the profile. Such persons will be found to be greatly lacking in enterprise, energy, or decision of character; but to counterbalance this, they are often extremely obstinate, or what is called "pig-headed." The will, in their case, is transformed into a very decided *won't*. A straight line might be drawn through some of these profiles, one end of which should abut in the organ of firmness, and the other in the lengthened extremity of the chin, and in the direction of this line lies all their strength.

LANGUAGE OF THE CHIN.

The desires and affections indicated by the chin, usually have the eyes and lips for their interpreters; nevertheless, the chin has a

distinctive, though necessarily limited, language of its own, in which position and movement take the place of sound or glance. The natural position of the prominent chin, the one which it oftentimes assumes, is raised and thrown slightly forward, as if in anticipation; while the retreating chin is as often drawn backward and downward, so as to rest against the neck. Complacency, approbation, the desire to win or possess the regard and affection of others, incline the chin slightly backward, and more or less to one side—the first less, and latter considerably so—which is also the attitude oftentimes assumed in affectionate remonstrance, coaxing or pleading. Dismay or disapprobation, and especially a union of both, as is well known, lengthen the whole countenance, draw the chin down to its lowest extent, and give it an appearance of unusual length. Determination, sternness, or resolution sets the chin perpendicularly and carries it so.

These various positions become more marked and decided when they take the form of frequently-recurring movements, as is often the case in the course of conversation, or when otherwise moved and excited. Besides the foregoing, there are other more circumscribed, but none the less expressive movements of the chin, as the trembling or quivering of grief or compassionate sympathy, its elevation in scorn or contempt, etc. The ordinary motions of the chin in talking are also interesting to observe. Some people scarcely move the chin at all in speaking, while in others, its motions constitute an important part of the general movement and expression of the countenance. So marked, indeed, are these motions in most people, and so inseparable from the action of talking, that they have given rise to the slang term, "chin music," as applied to the latter.

CUI BONO?

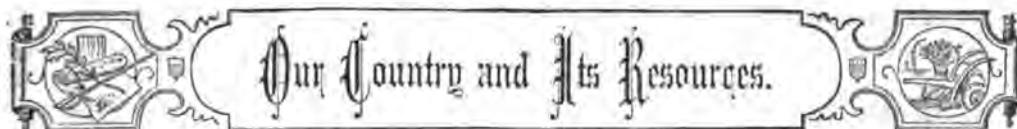
Having considered the chin in its several varieties, next comes the question, "What are we to do with it?" We have already said that the chin seems to be the feature for the formation and consequent character of which we are least responsible, and which it is most difficult to change; and this because, being situated on the plane of that basis or ground-work of impulse, affection

and energy, on which, and by means of which we are to rear the superstructure of our future character, it comes to us from the very first, as it were, already-made, and before we have arrived at the age to enable us to decide how we should like to have it. Still, there is nothing, even in the very foundation of our characters, as we inherit them from our progenitors, which is so irrevocably fixed as to be beyond our power, by persistent effort, to modify if not altogether to change; and Phrenology, or Physiognomy, has done but half its work when it has shown us our defects; it must also, to complete and perfect its mission, instruct us how to remedy them, for the great end and object of self-knowledge is self-improvement. Although vastly harder it may seem at first sight, and incomparably more intractable as they are, the will-power and the affectional nature are susceptible of cultivation as well as the intellectual.

If then, thoughtful reader of these lines, your chin, when compared with the models here given, be found to come short in any essential respect, do you at once begin the work of remedying all defects by cultivating in the manner and by the methods indicated alike by Phrenology and common sense, the qualities in which you find yourself most deficient; and with the blessing of heaven on your labors—and the blessing of heaven always rests upon every conscientious effort toward self-improvement—they will be sooner or later crowned with success. It is, indeed, a difficult matter for one to cultivate resolution who possesses little or no resolution with which to make the first—which is always the hardest—effort in the desired direction; but after all, it is not so very much more difficult than to make a fortune with no capital to start from, or to gain health with no strength to begin on, which has nevertheless been again and again accomplished.

So take heart, ye despondent ones, for whatever may be your natural shortcomings and deficiencies, science, reason, religion, and the history of mankind unite to assure you that there is abundant hope for all—so may each with patience and courage, with the help of Him who made him, work out his own salvation—if at first with fear and trembling, afterward with ever-increasing hope, confidence, and joy.

A. C.



That which makes a good Constitution must keep it, viz., men of wisdom and virtue; qualities that, because they descend not with worldly inheritance, must be carefully propagated by a virtuous education of youth.—*William Penn.*

PETER COOPER,

CANDIDATE OF THE INDEPENDENT GREENBACK-PARTY FOR PRESIDENT.

IT may be inferred from Mr. Cooper's advanced life and remarkable vigor, that his constitution was at the start of the most robust and enduring sort. With a head larger than the average size, he is endowed with a strong frame, the motive temperament being somewhat predominant. The perceptive organs generally are large, and the head is wide between the ears, thus giving him that type of mental development which indicates a close correlation between body and brain, the type which is essential to vigorous and continued health of body and mind. His life, from youth upward, has been a prudent and abstemious one, so that his habits have not been inimical to the acquirement of a harmonious or well-balanced development.

Among the more prominent qualities of his character may be mentioned perseverance, steadfastness, determination, and industry. Whatever he determines to do, he follows earnestly and assiduously, and is with difficulty turned aside from any object which he seriously entertains. By no means lacking in caution, he takes a realizing view of the situation before entering upon a practical carrying out of any object.

The order of his intellect is practical

almost to extreme. He takes into account the details of whatever subject engages his attention, and draws his conclusions from actualities, not from any conjectures or guesses. His large perceptive intellect enables him to be an excellent judge of qualities, conditions, and general characteristics.

We judge that he was never distinguished for imitation, never inclined to follow the customs and usages of others, or caring particularly about conforming to conventionality, even as regards matters which are deemed essential by society. He has always preferred to follow the bent of his own impressions and inclinations, to express and act out his opinions in his own way, whether they affected his mode of dress, his manners, or his work.

With that broad head and that strong practical intellect, he can scarcely be otherwise than energetic, practical, prompt, and efficient. His social nature is by no means deficient. He is cordial toward friends, appreciative of the pleasures and ties of home, and usually retains the intimacy and friendship of those with whom he consorts.

The prominent development in his moral nature, according to the portrait before us, is Benevolence. In the exercise of charity

and sympathy, however, he would exercise something of eccentricity; would not be likely to confer benefits according to established modes, but would devise and organize schemes which would be marked for their peculiar individuality. He is evidently fond of the young, particularly of those who are helpful in some way. He likes to see

ness, and labored assiduously until he had attained the age of seventeen, when he was apprenticed to Mr. Joseph Wardwell, a coach-maker. His advantages for school education were very limited. He attended school only half of each day for a single year, and beyond the humble knowledge thus gained, his acquisitions are all his own. After the expiration of his apprenticeship to



those who are able to work in some department of life, industriously employed. He can scarcely tolerate the idle, lazy, shiftless.

Mr. Cooper was born on the 12th of February, 1791. His father was a lieutenant in the Revolutionary war. The business of his father was that of a hat manufacturer, and there being a large family, he found it difficult to support it; hence, at an early age Peter was employed in the busi-

ness of Mr. Wardwell, he continued working as a journeyman until the opening of the war of 1812, when he abandoned coach-making and turned his attention to the building of machinery for shearing cloth. This business he carried on successfully to the close of the war, and then commenced the manufacture of cabinet ware, which he subsequently quitted and opened a grocery. The selling of sugar, starch, and soap, however, by retail, appeared to be out of his line, for

he did not prosper in it, and deemed it expedient to return to manufacturing. It was a lucky thought which led him to the manufacture of glue and isinglass, a business with which he has been connected ever since.

He was but a young man when he became interested in the development of the American iron interest. In 1830, he associated with others in the management of iron works near Baltimore. Disposing of his interest in these, he started a rolling and wire mill in New York city, where he made the first attempt at the adaptation of anthracite coal to the reduction of iron. This mill was removed to Trenton, N. J., in 1845, where it is still in operation on an extensive scale, the business being in the hands of a company of which Mr. Cooper is a director, and a son-in-law of his principal owner. It is an interesting fact in his career that the first locomotive in general use on this continent, was built by Mr. Cooper at Baltimore after his own designs, and was worked on the Baltimore and Ohio R.R. The first trip of this locomotive was made under the hands of Mr. Cooper himself.

He has for many years past been prominently identified with most of the important public undertakings having reference to the development of science and social improvement. He was warmly interested in the electric telegraph from its earliest conception, and invested his money liberally for its establishment.

His aspirations for political reputation have not been dominant at any time, although the interest shown by him in public measures of a beneficial character has brought him into close relation with the city government of New York, and his fellow-citizens have upon several occasions given him official position in the Common Council, in the School Board, and in special measures of public utility. His name is more particularly famous through his public spirit and practical charity. In the cause of education, he has lavished a good part of a colossal fortune. The splendid building known as the Cooper Institute in New York, is a monument of his sympathy for the promotion of scientific investigation in

general, and for the free education of worthy youth in particular. Thousands of young men and women have been educated in the higher branches of knowledge through this magnificent gift of Mr. Cooper. In the "American Cyclopaedia" will be found a very full account of the management of the Cooper Institute, and of the constant regard paid to its prosperity by the munificent founder.

From time to time Mr. Cooper has evinced his interest in questions of the day involving measures of state and national policy, by pamphlets and letters exhibiting his opinions. His views on the financial question have had a wide circulation, and are deemed by many eminent statesmen and economists as embodying a sound philosophy. He has lately re-expressed these views in an "open letter" to the Republican and Democratic candidates for President, from which we extract :

"The worth of exchangeable value of gold is as uncertain as other products of human labor, such as wheat or cotton. The exchangeable value of anything depends on its convertibility into something else that has value at the option of the individual. This rule applies to paper money as to anything else. But how shall government give an exchangeable value to a paper currency? Can it be done by a standard which is beyond its control and which naturally fluctuates, while the sign of exchange indicated by the paper remains the same?

"This is the unsound theory which possesses the minds of our people and of our politicians.

"We must cut loose from this unreasonable theory, or we shall be subject, for all time, to these periodic disturbances of our currency which bring such wide-spread ruin and distress to our commercial industries and work, on the part of the government, positive and cruel injustice. The remedy seems to me to be very plain.

"1. We must put this whole power of coining money or issuing currency,

"As Thomas Jefferson says, 'where it properly belongs'—into the hands of our government. That govern-

ment is a republic; hence it is under the control of the people. Corporations and States have hitherto, in some form or other, divided this power with the government. Hence come the embarrassments and the fluctuations, as may be easily shown.

"But now we must trust our government with this whole function of providing the standards and measures of exchange, as we trust it with the weights and measures of trade. So far from putting the people in the power of our government, and at the caprice of parties in power, I contend it will bring the government more under the control of the people, and give a check to mere party rule. For the more stake the people have in the wisdom and honesty of the government, the more watchful and firm they will be in its control.

"2. We must require the government to make this currency at all times, and at the

option of the individual, convertible. But **THE CURRENCY MUST BE CONVERTIBLE** into something over which the government has control, and to which it can give a definite as well as a permanent value. This is its own interest-bearing bonds. These are, in fact, a mortgage upon the embodied wealth of the whole country. The reality of value is as sound and as permanent as the government itself, and the degree of their value can be determined exactly by the rate of interest the government may think proper to fix."

Such sentiments as these finding a large sympathy in the country, particularly in the West, led to his being nominated as an independent candidate for the Presidency by a Convention held at Indianapolis, Ind. Mr. Samuel F. Carey, of Ohio, being subsequently named for Vice-President. The campaign in favor of these candidates is being pushed with considerable vigor.

GREEN CLAY SMITH,

TEMPERANCE CANDIDATE FOR PRESIDENT.

TAKING the portrait as we have obtained it through the courtesy of the editor of the *Riverside Weekly*, we would remark that the representative of the Temperance (Prohibition) party is distinguished, among other things, for mental intensity. His head is evidently large, the faculties of the crown and the upper lateral regions predominating, giving him character for earnestness, prudence, enthusiasm, aspiration, sympathy, resolution, and originality. His Language appears to be large, enabling him to be a free talker on all subjects with which he is acquainted.

He is not so distinguished for practicality as for philosophy. He has more power, we think, to originate and organize than to carry into effect the details of a plan. He ought to be a good reasoner, the organs appearing large which appreciate the relation of cause and effect, and in combination

with other faculties are mindful of the influence of side events and issues.

He has a strong social nature—is very warm in his friendships and earnest in his home feeling. Few men will exert themselves more and sacrifice more for the welfare of the family and its intimates.

His Cautiousness is large enough to make him prudent in the discharge of duty. He is far from being reckless. He aspires for position, and is fond of authority; but it is not an aspiration pervaded with selfishness. He is anxious to accomplish, not for himself, but that others may share the benefits.

He enjoys compliment and social consideration, but we think that he is scrupulous about his merit of commendation. In opinions, he is inclined to be thoroughgoing and radical—does not believe half-way in things; must believe all or nothing. There can be no half-truth according to

his way of thinking. It must be the whole truth. No structure reared upon an artificial or assumed basis can have for him the quality of solidity. He is appreciative of duty and moral obligation in a high degree, and disposed to be enthusiastic and lead in matters of a reformatory nature.

school in Danville, and then entered Transylvania University, where he was graduated, making choice of the law, the profession of his father. He attended the Lexington law-school, and then commenced to practice in partnership with his father when about twenty-one years of age. It should be stated that he had some military expe-



Green Clay Smith was born in Madison County, Kentucky, July 21, 1832. He numbers among his near ancestors several persons of considerable distinction in the political and social history of his State and nation. His early life was not remarkable for incident; his first school-days being spent at Richmond, the county seat of Madison County. Subsequently he attended the preparatory

rience at a very early age, having volunteered, when about fifteen, to serve in the Mexican War. His regiment served one year, and distinguished itself at the battle of Buena Vista.

In 1858 he removed to Covington, in the same State, where he practiced before the courts. A few years later he was elected to the Legislature, and participated in some

of the stormy debates which the war measures of the time precipitated. On these occasions he held firmly to Union principles, and, as if in illustration of his opinions, volunteered, soon after the opening of hostilities, as a private soldier in the defence of the frontier of Kentucky. He had been but a short time in the ranks when he was appointed Major of the Third Kentucky Cavalry. To complete his regiment he assisted in recruiting, and subsequently resigned and returned to his place in the legislative hall, and remained during the session of 1861-2. In May, 1862, he received the appointment of Colonel of the Fourth Kentucky Cavalry. He immediately took command of the regiment, and participated in the military operations in the Department of the Cumberland, under the leadership of General Rosen-cranz. In an engagement on the 5th of May, with General Morgan, at Lebanon, the Confederates were badly defeated, and Colonel Smith was promoted for gallant services to the rank of Brigadier-General. In this position he served through many engagements with the army of the Cumberland, in Tennessee, until June, 1863, when he was assigned to the command of Covington and Eastern Tennessee. While holding this position he was elected to represent the National Congress from the Covington District, and took his seat December 1, 1863. In Congress he was known as a Union or War-Democrat; though in the race between Mr. Lincoln and General McClellan, he espoused the cause of the former, and canvassed in his behalf in portions of the Northern and Eastern States. At the close of his Congressional term, he was appointed Governor of the Territory of Montana. In 1868 he resigned, and withdrew from political life.

The following year he entered the ministry of the Baptist Church, in which relation he remains, being the pastor of the Baptist church at Frankfort, Ky.

During his term in Congress he was regarded a good debater, indulging rarely in rhetorical flourishes or flowers of fancy, but maintaining his points through argument based upon the evidences of fact. He was offered a foreign mission to Spain by President Lincoln, but declined the honor.

As regards his relations to temperance, it may be said that they are but the natural complement or outgrowth of his strong reform principles. For many years a member of the Sons of Temperance, he ranked among those regarded as the most effective officers and speakers. He is now a member of the Good Templars, holding high official position in the Order. He has for a long time advocated the carrying of the question of temperance into politics, believing the cause would never succeed until the Temperance party should have become strong enough to control the legislation of the country. Holding emphatic opinions, with a record that is certainly creditable, temperance men have thought it expedient to give him the prominence which his nomination as their candidate for the Presidency bears with it.

The candidate for Vice-President associated with General Smith is Mr. Gideon T. Stewart, of Norwalk, Ohio, a gentleman well known in the legal and political circles of his State, and prominent because of his assertion of high temperance motives.

In this connection it is appropriate to notice the manner in which the temperance men urge their claims for consideration upon the country at large. From an address, adopted by the Cleveland National Convention, we extract the following practical statement and propositions:

"Intemperance is the dry-rot of the body-politic, by which the vital forces and solid substances of the nation are being turned to poisonous dust by that fatal 'worm of the still.' Without presuming to be exact in our figures, probably 80,000,000 bushels of grain are annually destroyed by brewing and distillation, being thus not only rendered worthless for food, but actually converted into poison to corrupt the physical and moral fountains of society. Not one dollar of real wealth is restored to the nation as a compensation for this enormous waste! In some States one in thirteen of the entire population receive charitable aid, while seven-tenths of all this poverty is produced by the use of strong drink. The estimated annual mortality of the nation from intemperance is from 60,000 to 100,000. To re-

cruit this waste, a corresponding number of the youth of our country are enrolled by the dram-shops, so that a vast army of probably 600,000 confirmed inebriates is constantly maintained by the drink-system, while to manage that system the labor of from 400,000 to 500,000 more persons is required; these, together with the vast sums of capital employed, are not only non-producers, but actual destroyers of wealth which might otherwise augment our national resources and bless with plenty the thousands of our wretched poor. It may be freely conceded that this gigantic evil is not wholly nor primarily the result of bad legislation, neither can it be entirely or at once removed by governmental measures, however correct in principle or faithfully applied. Nevertheless, reason, religion, and civil law should act in harmony; in either the neglect or malapplication of one of these potential social forces, the others necessarily operate at disadvantage. We, therefore, insist upon prohibitory law as the proper complement of moral means in efforts to remove intemperance, as being the greatest curse and shame of our times and country. That the enactment and execution of such a law is both political work and a question suited to form a sharply-defined issue between parties, it seems to us superfluous to discuss. No person of ordinary intelligence can honestly deny it.

"OUR POSITIONS ARE:

"*First.* That the public traffic in alco-

holic beverages is not only immoral in the highest degree, but is also the greatest political evil of the times.

"*Second.* That prohibitory law, faithfully enforced, is the true and only proper remedy for this political evil; that all other methods of legal treatment are false in principle and radically defective; while some of them may temporarily embarrass the business, they do not seriously abate its force nor honestly contemplate its overthrow.

"*Third.* That, because of this radical difference in the method of dealing with the question—other political parties being composed of thoroughly discordant elements in this respect—it is utterly impossible for either of them to adopt our principles.

"*Fourth.* That under our system of government, through the agency of political parties, we are driven to the alternatives of either abandoning the policy of prohibition or of organizing separately for its accomplishment.

"*Fifth.* That logical consistency, therefore, necessitates the practical distinction between our fellow-citizens of *supporters* or *opposers* of the infamous liquor-trade, with all its direful concomitants. Hence, though cherishing 'malice toward none, but with charity for all' as individuals, we are in truth compelled to brand as aiders and abettors of the dram-shop system all political organizations not clearly committed to the policy for which we have declared on this subject."

THE NATIONS IN THE AMERICAN FAIR.

IN continuance of our remarks upon the Exposition, we purpose now to mention some of the characteristics which have impressed us as being specially deserving of notice.

On entering the Main building at the west end, one finds himself in and near some of the most interesting departments. Immediately at hand are those of Italy, one or two South American States, China, Japan, Sweden, and Orange Free State. The products of Italy are artistic or nothing, and as one contemplates them he thinks that their proper place is in the special art de-

partment. Statues and statuettes, vases and oddities, carvings and mosaic work, fill large spaces. Several fine cabinets of inlaid ebony, and tables gleaming with mosaic designs, claim the close inspection of the visitor. The mosaic work of Florence is unrivalled. The best specimens of Italian mosaic work, however, are in the Art department, where many pictures hang whose delicate coloring and faithful delineation of subject are constituted of minute bits of tinted stone. There are also many fine specimens of electro-galvanic work from Italy, the more noticeable of which are

copies of famous pieces of sculpture, and of ancient armor—like the shield of Achilles, the helmets of Henry IV. and Francis I.

Among the *terra cotta* exhibits is a life-size statue of Garibaldi, sitting with his chin upon one hand, studying the map of his project for turning the course of the Tiber into a new bed to be cut through the mountains, so as to save Rome from the inundations. The soldier's cloak is thrown back from his shoulder, and the elevated position of the watchful figure makes him seem almost the guardian spirit of the place. Above him hangs the flag of a united Italy. All around are the coats-of-arms of every State. Near him are the indications of her progress in the arts, and just before him the samples of her school-books and methods of instruction for her youth.



FIG. 1.—FLORENTINE MOSAIC.

The square of the Orange Free State may appear small in comparison with the large areas occupied by neighboring nations; but when it is remembered that what is shown is the product of a nation but a few years old, and African at that, one must find in its exhibits a powerful appeal to his admiration and curiosity. The leather-work and woolen fabrics, and the large variety of cereals, indicate how great a stride has been taken toward the higher civilization by people heretofore near the bottom of the ladder as illiterate and barbarous.

China and Japan exhibit collections of silk fabrics, carved and inlaid work, and porcelain which fascinate the examiner. In their carvings on a large scale, the Chinese work in many features of their relig-

ion and of their national sentiment, the dragon predominating. Birds of brilliant coloring gleam in the embroidery of their silk. The impression of patient industry which one gathers from an inspection of the minute and delicate wood and ivory tracery which ornaments boxes, cabinets, and screens, is, of course, favorable to the Chinaman's phrenology.

The Japanese have less of the burlesque, or what strikes our Western civilization as burlesque, in their art, and perhaps some attempt at perspective may be allowed them. What particularly engrosses the attention among so many curious and odd things from Japan, is the collection of bronzes, or rather, vases, cups, stands, etc., which in most cases are combinations of bronze, silver, and gold. The women of that far-off country have sent some specimens of needle-work which, for delicacy, are not surpassed by any showings of embroidery from the hands of their sisters of the Christian West. In the matter of carving in wood and ivory, the Japanese are surpassed by their Mongol neighbors, but in lacquer the former take superior rank, and in some methods of treating porcelain.

Near China is the territory of Chili, whose exhibits show us, as do those of other South American States, that she is advancing in intellectual culture and physical prosperity. From her mines of copper and her quarries of marble, she sends many evidences of her fundamental resources for industrial prosperity. Her strength, too, in the *material* of subsistence is well indicated by their variety in kind, and in methods of preparation for export.

The beautiful pavilion of Brazil attracts the visitor, but as a manufacturing country this new empire scarcely ranks with the South American republics. The wealth of her resources are seen more in Agricultural Hall than in the Main building. Yet, what may come of her industrial efforts—and we hope that Dom Pedro may live long for their promotion—is visible in the contribution of Brazilian manufactures, consisting mainly of saddlery, shoes, hats, soap, candles, and hammocks.

Mexico, as if she were not the theatr

of almost constant conflict and revolution, sends so many specimens of her agricultural and mechanical products, that one is inclined to think that in her semi-barbaric population must dwell a good deal of the spirit of Antæus. In laces and leather, in wines and fruits, in silks and woollens, Mexico looms up creditably. Her mineral resources are, of course, her principal stay, and as evidence of that a cake of silver four thousand ounces in weight is shown, and said to have been reduced from two hundred and seventy-two tons of ore, at a cost of less than one cent per ounce. But more attractive, in our estimation, is the block of tecali marble with its superb polish and changing tints. Mexican civilization has proven the susceptibility of the Indian to cultivation. Why can we not profit by the example of our half Spanish neighbor in our treatment of the aboriginal?

In the departments of Sweden and Norway, we find many similar characteristics of production. Specimens of wood-carving and of iron forging are there. The tall stoves, with their outside plates of porcelain or bronze, and the peculiar sleighs and furs, remind us that these are cold, cold regions when winter reigns. To show how much these northern people appreciate the importance of education, we find specimens of the text-books used in their common schools, and on the Exposition grounds a neat, substantial copy of the Swedish school-house. It should be mentioned that the crayon drawings by pupils of public schools of Stockholm, Orebro, Malmo, deserve the highest praise, as being the best of their class in the Main building. There are several groups of figures which exhibit the costumes and social habits of the Swedes with vivid ex-

actness, and are in themselves a prominent feature of the section.

New Zealand and Australia show a wealth of natural resources at the dawn of development which remind the American of the condition of many of the far West and Southern States. The hundreds of photographs of Australian scenery, remarkable for their distinctness of detail, furnish the visitor with practical hints of the nature of the country in that great island empire, and the progress already made in its colonization.



FIG. 2.—FAMILY GROUP FROM SWEDEN.

The busiest kingdom of Europe, little Belgium, is well represented in the Exhibition. Most of her textile products are similar to those of her neighbor, France, although in laces and metal work she leads Europe. A massive pulpit covered with carvings of scenes from the Bible, illustrates well the excellence of the Belgian craftsman in that line of art. Cases of silks, fine blankets, heaps of snowy linen, gorgeous pieces of tapestry with scenes from royal history and mythology, and immense mir-

rors, add piquancy to the brilliant display of Belgium's handiwork.

In the French department the visitor is charmed by the perfection to which decora-

elegance. The jewels, the silk fabrics, the cabinet-work, artificial flowers, and especially the ceramics, so far as they go, of France, are exquisite. The massive man-



FIG. 3.—VASE AND FLOWERS IN ZINC—AMERICAN.

tive art is carried and its multiplex application. Articles of every-day use, whether of iron, or of wood, or of bone, or of clay, are invested with elements of symmetry and

tels, side-boards, and cabinets in ebony, oak, walnut, and inlaid wood, challenge a Yankee's inquisitiveness as to their cost. It should, however, be stated that in the

American section some furniture manufacturers of Boston, New York, and Philadelphia are represented by pieces of wood-work which make us pause when we think of yielding the palm to French artisans. It is surprisingly true, however, that in the mounting of precious stones in gold, and in silver-ware, the American exhibits are generally acknowledged to be superior to similar work from Europe. In china, porcelain, terra cotta, etc., it was expected that France would represent herself most conspicuously, but she has permitted England to exceed her considerably in the number and variety of articles of utility, the celebrated potter Doulton, of Lambeth, being accorded the highest rank among the living manufacturers whose wares are exhibited. The furniture peculiar to Roman Catholic and other churches of the Episcopal class, high-backed chairs, brasses, fonts, chalices, crucifixes, stained glass, is shown in great profusion in the French section.

In Austria we find a goodly array of that peculiar bent-wood furniture, so suggestive of strength and lightness, which has been introduced lately by importers to the American furniture trade. A pavilion constructed of this bent wood is a study in itself. Then there are musical instruments in great number and variety, Bohemian glass-ware of charming design and coloring, beaten silver work, a great amount of smoker's material in the way of meerschaums, and not a little tinsel of an ecclesiastical sort.

The experienced visitor is disappointed by the furnishing of the German department, as in articles which one would expect to see in competition with the producers of other European nations, it is conspicuously weak. Of toys and dolls, however, the exhibit is large, and there are some admirable ivory carvings and bijouterie, otherwise the display of artistic invention and skill is inferior. Prussia is strong in warlike pretension, but her performances in that respect are grouped chiefly in Machinery Hall. Some fine bits of porcelain from Dresden are noticeable, and the dyes of the German chemists excite comment upon their brilliancy.

Spain, poor faction-torn Spain, exhausted by successive civil wars, as one would think

she ought to be, makes a good appearance among her stronger European neighbors.

Egypt furnishes her history in her contributions. We are drawn into communion with her mighty past as we look upon the antiquities which fill a large part of her space, while we are awakened from our dreams of her modern barbarism by the sight of the many highly-finished articles there, and the fastidious typography of her literary publications. The opulence of her soil, famous in the remotest ages, is shown by the variety of her grains and grasses, fruits and wool.

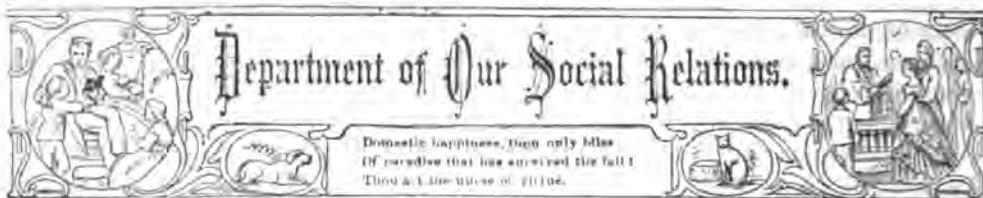
The disposition to ease and indolence of the Turk is indicated in everything he has brought to swell the gifts of the Orient, but particularly is his fondness for sensual gratification illustrated in the bazaar and café, where the intoxicating fumes of coffee and tobacco suggest to the visitor certain causes for that "sickness" which has made the Ottoman the subject of international commiseration for a century.

Russia illustrates her nascent energy and her tremendous extent of territory, by a very liberal and varied display. What she has been able to do thus far in science and art, both mechanical and polite, there demonstrates her zeal for progress. The spread of ormolu furniture and of malachite wrought in a hundred ornamental and useful forms, is a treat to the lover of the beautiful. Strange as it may appear, Russia is about the only foreign country which comes in competition with the United States at Philadelphia in the matter of grand pianos.

Switzerland should not be omitted in our rapid enumeration, for she shows her aptitude for science in the splendid typographical map of the country, and her skill as a mechanic in those amazingly delicate bits of imprisoned music, carved wood, and inlaid furniture, which have so long made her people famous in the world's trade.

Without specifying anything in the broad area of the United States section at this time—for our article has already exceeded its prescribed limit and must be brought to a close—we will say that our people show well their capability to contest, in every department of useful industry, with the old peoples of Europe, and in some respects the exhibits of American manufacturers are confessedly superior to anything from foreign lands.

EDITOR.



THE WAY IT ENDED.

CHAPTER V.

A DISPUTED QUESTION.

THERE began with Lacrosse, about these days, to be a mental agitation to impulsion to speak out on a subject which, though it had not heretofore deeply engrossed his attention, had yet struck him with very clear convictions that had probably only lacked the impetus of favoring circumstances to break into open expression.

From time to time, as he was called by the duties of his office to comment on the needs and perils of the hour, he had uttered his note of warning, urged his thrilling appeal, sent forth his rallying cry with a fervor and earnestness that had given an electrifying power to his words, and brought very many well-meaning, but not closely-discriminating souls, to clearer conceptions of the truth and nature of things hitherto carelessly considered in the light of long-established custom and opinion. When, therefore, he found in his way the problem of marriage laws, he proceeded to its discussion with the same frankness, candor, and unbiased action of judgment that he had exercised in the investigation of other subjects affecting the interests and progress of the human race, regardless, in his zeal for the truth, of the prejudices he had to encounter in what might appear a profane attack on the holiest institution of society.

But, first of all, he dilated on the internal quality of a relation which he had the boldness to criticise in its ultimate or exterior character.

He said: "Next to the inborn recognition of, and reverence for, a Supreme Power and Government in the Universe, which to a greater or less degree exists with every soul, is the divinely implanted instinct that seeks perpetually after that complement and

fulfillment of being, without which there may be no perfection, power, or harmony of life. Seeing in every atom of nature this instinctive searching and reaching after its own in another organism, incomplete, and seeking, like itself, the consummation of the deepest, if unconscious, need and purpose of its existence; we can, indeed, but conclude, that in human life, which is the aggregate and culmination of Nature's elements, there must be an intensification and refinement of this irresistible attraction of forces which can find their true development and arrive at perfectness of power only through sympathetic, reciprocal, and indissoluble union. And thus in every sphere of intelligence we mark an intensity and absorption of interest in the passion of love, which, however perverted and profaned it may become, has its pure, clear fountain in the bosom of Divinity.

"Any indifference to, or contempt of, this divine impulsion of being toward the completeness which is its aim and end, indicates not a superiority of wisdom and a perfect balance of power, but a nature quite out of harmony with the central law of the universe.

"The principle of marriage being so wrought in the very constitution and soul of things, it must follow that its development in the external life is essential and conducive to the growth, grace, and happiness of the individual so far as it is a true and not a false, abnormal development. But in the degree that human nature possesses this element and capacity of perfection and enjoyment, there exists the possibilities of a wretchedness and inharmony fatal to every lovely trait and grand, strong attribute of

character. So long as there is a limited and finite comprehension of ourselves and of each other, so long we shall be liable to make mistakes and fall into grievous follies in our matings; since, despite the romantic faith of youthful lovers, there is no clear infallible instinct that can be trusted, without reason, to guide us in the case. It is to be regretted there is not this instinct, or, in its absence, a more careful and thoughtful consideration, a more thorough and just discrimination and understanding of qualities adapted to close and intimate relationship; and the cultivation of such a habit of deliberation and inquiry is, without doubt, the wisest remedy of the evils we lament. But this remedy must inevitably be slow in application, and the question naturally arises, Ought those who have ignorantly chosen be compelled to abide by such choice after they have tasted the bitter consequences, and come to a full knowledge of the truth? Is there any law founded in justice, and in harmony with natural and spiritual laws, that will hold two souls together in a union that has become hateful and repugnant to both? It does not matter that it was formed of their own free will and choice. It may be all the more galling and crucifying because it was entered upon in the tender faith of a happiness which has sadly failed of realization. It may be all the more chafing and unendurable because of a preponderance of the conjugal element in the character of one, or both, which demands the finest adaptation of tastes, agreement of aims, unity of action, reciprocity of affection, and senses any jar and discord with a keenness that renders the relation tortuous and maddening to the degree of susceptibility with which each, or either, is endowed.

"It may be said—it *is* said—that there is a discipline in such inharmonies necessary, or, at least, favorable to the development and culture of the Christian graces and virtues; but where one reaps the blessing of the infernal rack of torment in an unhappy marriage, a hundred fall into rasping vices of temper, and jaundiced, uncharitable, distorted views of life, which unfit them for any faithful discharge of its duties.

"It is a principle of nature, and, we believe, of heaven also, that an association, when it ceases for any reason to minister to the highest good and happiness of its members, dissolves as inevitably as particles of matter gravitate with seeming intelligence to their proper and appointed place in the progressive circles of dissolution and reformation, by which they reach the height of their development; and any extraneous arbitrary force exerted to restrain or interfere with their orderly action works confusion, disaster, and delay to the accomplishment of their ordained use and mission. Any law of man not in conformity with the spirit of universal law, must unavoidably impede the growth and progress of the individual, and of the race to the extent of its accepted or enforced authority, and in tracing the irrepressible stream of human life through the winding channels of the centuries, we mark the influence of such laws in the obstruction of its free, forward movement, and its pressure into dark, tortuous passages, dismal with the cries of oppression, the threats of tyranny, the howls and mutterings of ignorance, bigotry, and superstition. Yet does this strong, grand current of destiny, with its divine impulse toward the light, still bear onward to the celestial ocean, in which it shall at last find free expansion and deliverance from the powers of ill that have perverted and hindered its advancing course."

This extract is enough, and probably more than enough, to show the tenor of our young man's maturing philosophy on the subject of marriage and divorce, for which he was called to account on the morning succeeding the publication of his unadvised article.

"See here, my dear Lacrosse," said the proprietor of the paper on which he was engaged as managing editor, breaking in unceremoniously on the composition of his next possibly startling leader; "I think you are rather betraying the confidence I have reposed in you as to the editorial matter and management of a journal which it is my design to make a moderator, rather than an agitator, in the questions of the day.

"How is that?" the accused asked quickly, laying down his pen, and rising to his feet in swift excitement of interest. "You make a very serious charge, Mr. Eliot. I should feel deeply the shame of betraying any man's confidence in me."

"I don't mean that you intended or thought of it in that light," was the response; "but this marriage question is a thing you don't want to meddle with. I should have stipulated so much, if I had supposed you were going to branch out in that direction. There are reforms enough, heaven knows, to occupy your pen and tongue without going after this Jack-o'-lantern, that will lead you, the Lord only can tell, into what dismal swamps and slough-holes for your conclusions."

"But suppose," suggested Lacrosse, quietly, "that the basis of all reforms is the reform of the marriage relation, or the internal quality of life involved in that relation."

"Stuff!" pronounced Mr. Eliot, contemptuously. "That is the sickly talk of addle-brained sentimentalists. I am sorry to find you falling into the sophistries of that school of pseudo-philosophy. What has the marriage relation to do with political chicanery, bank monopolies, labor problems, criminal codes, public plunders, laws of commerce, and state of finance?"

"Well, I should say it had everything to do; inasmuch as it is the foundation of the whole superstructure of moral and political economy; the fountain-head of every element of wisdom and virtue that we would desire to enter into the national life," was the reply.

"That's reducing matters to too fine a point," Eliot said, skeptically. "Most of people are too obtuse to sense anything so subtle. We have to deal with facts, not with figures."

"If we would begin with principles, we might have less trouble with our facts," mildly insinuated the young editor in leading strings.

"Well, now, what would you propose?" demanded the other. "Suppose all arbitrary restraints and compulsions were removed, and the most absolute freedom

permitted in choice and change of heart relations—what would be the result?"

"The present result would be very bad," Lacrosse returned, emphatically. "Society is in no state for absolute freedom in any direction. What I would propose—if I have the presumption to propose anything—would be to put the popular mind in training for that essential liberty which rests in obedience to the divine law of brotherhood; to lead it to some habit of reflection and reasoning on matters which it is too much inclined to passively regard and accept in the light of established opinion; to waken it to broader, juster, wiser, more rational views of life, its relations, aims, powers, possibilities, ends."

"Yes, my dear sir; but you need to be cautious in your assault on, and interference with, the civil laws controlling a matter in which any lack of order and discipline would work the most disastrous results," warned the elder friend.

"I have no quarrel with civil laws," Lacrosse said. "They express the intelligence of the times for which they were framed, and as fast as community advances in wisdom and enlightenment they will undergo a quiet and gradual change, which will cause no confusion or disastrous results. The law that I assail is the law of blind, bigoted, social prejudice, far more fettering and tyrannical in action than any in the civil code. To weaken and break down such ignorant, brute dominion in society, so far that any brave, honest soul with convictions of duty running counter to popular sentiment, may follow the dictates of conscience without being howled at and hunted down by a Pharisaical mob, whose whited sense of purity and justice strains at a gnat and swallows a camel; this, Mr. Eliot, is the aim of my efforts in the direction you condemn, and all that I propose at present to accomplish."

"Indeed! you are as modest in your aims as a young preacher who expects to convert and save the whole world by the vivid eloquence of his first sermon," sneered Mr. Eliot. "But I can not allow you to use my paper as a rod to break the hard Pharisaical skull of society, lest you snap the rod, and

find the skull not even indented by your Samson blows. I can not see the sense in destroying your lever in the vain effort to raise impossible rocks and mountains, when there are countless stumbling-blocks in the way, which the same application of force would effectually remove; and I will not consent to any discussions of this nature through the columns of a journal which I aim to control."

Lacrosse put out his hand with cordial and approving spirit.

"You have the right to dictate, Mr. Eliot, and to a degree I sympathize with you in the feeling that influences your decision in this matter. There is so much blowing of foul breath and mouthing of ambiguous

phrases among reformers of a certain school, that one can only reconcile one's self to work with them by a consideration of the cant, hypocrisy, and desecration of names and principles which prevail with the other party. It is my aim to avoid extravagances and extremes in my quest of truth, and I fain would believe I have hit the golden mean; since upon one hand I am assailed as a conservator and time-server, and upon the other gravely charged with too much radicalism and free-thought. And, now, if you will bid me good-morning, friend Eliot, I will try to finish this leader in accordance with our highest convictions of truth on the subject of 'Political Rights.'"

(To be continued.)

OUR PARLORS.

UNDER this title we find an excellent little sketch in *Arthur's Home Magazine*, and reproduce it here. The fashion of having a "fine room" which may not be used by the members of the family, lest the pretty things in it should be injured or soiled, is one which thoroughly deserves the sarcasm which gleams in every sentence of Mrs. Bell's story. What home is worth the having that can not be used in its every part?

"Now, pa, don't go in there, with your old, dirty clothes on. I've just got it cleaned, and I don't want the carpet soiled and the room all mussed up for nothing!"

"Pa," as Mrs. Fowler called her husband, stopped on the threshold, and looked for a moment across upon the forbidden ground; then, with a sigh, turned away, passed out and took a seat on a wooden chair in one corner of the old, dingy kitchen.

He had spent nearly a quarter of an hour brushing and cleaning up before he dared venture to even go into the sitting-room, and thought he would just step into the parlor and try that new easy-chair he brought from town last week, and hear Jennie play on the piano he had sacrificed so much to buy for her. He seldom if ever heard it any nearer than the kitchen, and there he sat now, thinking and wondering. He toiled and worked hard all day on his broad acres, and

for what? To earn a corner of the poorest room in his own house, and a wooden chair to sit upon! He used to enjoy himself when they had but one room, and all sat together of an evening. But the wife and daughter had outgrown and outlived those old primitive ways, and those old-fashioned days, and the consequence was, the parlor was too nice for "pa" to enter, unless, indeed, when the stove had to be moved, or the white-washing done, or the carpet taken up and dragged out once every year. And he sometimes found himself wondering if there were not a bit of reason in the question little four-year-old Freddy asked him one day.

"Pa, will they have nice rosy carpets, and soft chairs, and lace curtains up in Heaven?"

"I hope not, child. Why do you ask?"

"Because I was thinking, papa, maybe they wouldn't let you and me in, you know."

But how many homes there are all over our land, where the proper head of the family, the one whose money buys all the fine things, the one who toils to earn them, rarely is permitted to enjoy them. How often do the dear, tired feet walk across the velvet roses on the new carpet, to purchase which they have, perhaps, plodded many a mile, uphill and down, behind the plough?

How many times a year, in such house-

holds, does the weary head, over which the silver threads are beginning to creep, lean back, in quiet, restful peace, against the cushions of those easy-chairs? and yet, there they stand for—somebody.

Perhaps the buying of them made some of those same silver threads steal in among the dark locks, for the brow was wrinkled in deep, earnest thought for weeks, planning how to afford the means to buy just those same easy-chairs. But wife and daughter said "*must*," and so they were purchased.

Oh, dear women! don't shut up your parlors. Don't, after you have cleaned, and repapered, and put up your prettiest pictures, and brackets, and ornaments, and have stood back and looked all around, and thought how such a painting would look to Mr. So-and-so, or such a piece of furniture would set Mrs. Not-over-wise raging with envy. Don't, I say, give a satisfied nod, and then go 'round to each window and slam shut the blinds, and close up every chink where the least ray of sunlight can peep in, and go off in the little, heated back room and sit down, tired, and warm, and exhausted, and imagine you have done your duty. No, don't do it, dear, whoever you are, wherever your home is; but open the windows—don't be afraid of a little sunshine. Of course, nobody wants her best carpet all faded out by the glaring, noon-day sun. To enjoy the sunshine, it isn't necessary to broil in it, but let in enough once in awhile to take away that gloomy, chilly, parlor-y atmosphere that is so often found in this one best (oftener worst) room

in the house. Let in a laughing sunbeam once in awhile, and see how much prettier the roses on the carpet will blush, and how the pale photograph faces will brighten in their walnut frames, and almost seem to nod a pleasant "thank you" for the cheering ray of out-door beauty. And when you arrange your rooms, instead of trying to excite emulation in those who come and sit, perhaps, ten minutes with you twice a year—ruffled, and puffed, and furbelowed, and crimped, and curled, and kid-gloved—think lovingly of the dear ones at home, and of their comfort and happiness. Think, "Now I'll put this easy-chair here by this pleasantest window, where the rose-bush grows, for father will like to sit here after he comes in 'at evening, and this footstool for little Jennie at his feet; and this pretty picture of little Nellie, who went to Heaven a two-year-old baby, shall hang right here, low down, where grandma can see it, for she was grandma's pet; and the stand and the bracket that Charlie made shall be here in this corner, for though they are a little rough, yet the dear boy-hands made them for mamma's birth-day present." And so weave love into every nook and corner, and you'll never want to shut it all up—your best room, your parlor—and only open it to outsiders. You will enjoy it best then with your own loved ones around you, for they will appreciate your thoughtfulness, and pay you in the home endearments that are better than fashion, better than glitter, better than anything outside of the four walls made dear and sacred by sweet home ties.

A REFORMED CRIMINAL AND HIS WORK.

UNDER this title Dr. E. C. Wines, the eminent advocate of reform and improvement in prison discipline, publishes an account of the career of a person who, as a young man, evinced strong criminal characteristics, and was frequently the subject of judicial punishment for his transgression of the law. Fortunately he fell into good hands; his keeper perceived elements of good in him, and labored for their development, and succeeded. A "new creature" was the result, an earnest, industri-

ous, Christian man survived the knave and ruffian, against whom a whole community had been turned in associated self-protection, and for several years he has been performing excellent work as a missionary and teacher.

The following is a letter with which Dr. Wines prefaces his statement:

"EBENEZER STATION, SANTHAL MESON, }
"RAMPORE HAUT, INDIA, JUNE 14, 1876. }

"Dear Sir:—The fact of your being, as I learn from Director —, a great friend

of prisoners, and of my having been a convict, will, I trust, be an acceptable apology for my intrusion. It will be a satisfaction to you, I know, to learn that of the many who, having lost their moral equilibrium, have infringed upon the rights of others, I am one of those who have been reclaimed to society through the institutions to which you have devoted your whole life; and it will be a matter of still greater gratification to you when I tell you that not only have I enlisted on what may be termed the negative or preventive side of your work, but also have succeeded very largely. My colleague, Mr. —, and myself have been laboring among the hill tribe, the Santhals, for eight years, without society and without any guaranteed subsistence whatever; and we have now a Christian population of more than 6,000 in number, and some 2,100 communicants, whereas when we came here into the forest the Word of God had not even been heard, and still less was there a single Christian. Our churches, thirty in number, have native teachers, and the principle of our mission is self-supporting Christians, who spread the Gospel of their own accord. By studying the traditions of the people we have been enabled to show them that there is nothing in Christianity which would violate those (traditions). Hence they have agreed to leave Christians in all their social privileges. Hence, also, there is no excommunication here (for embracing Christianity); and this social equality has so opened the door that the whole country is well disposed toward Christianity; in fact, to such an extent that the christianization of the Santhals will be only a matter of time. We have more than forty schools, besides two training-schools, and we hope next year to build a college for training pastors. Mr. —, my colleague, has started for Europe to collect funds for the mission, and he will probably visit America too.

"Our mission operation differs very much from that of any missionary society, but it would be impossible to give you an adequate idea of it in a short letter like this.

"I have often been thinking of writing the subjective experimental side of prison life, as only a reclaimed convict can do that;

but I have not as yet got time to do so. A book for prisoners I have promised Director — in the — language, and hope soon to be able to fulfill my promise. Should there be any points on which I could enlighten you with regard to the subjective side of prison life, I should, of course, be glad to serve you.

"I am, dear sir, yours faithfully,

" — — —."

"In the above transcript," says Dr. Wines, "I have, in a few instances, substituted blanks for the names written out in the original, because I have judged it not prudent under the circumstances to betray either the name or the country of the writer without his authority, while I have felt that the facts stated in the letter of my correspondent and to be stated in this communication, are so striking, so instructive, and withal so encouraging, in more than one direction, to those who are working for the redemption of the race from ignorance and sin, that they ought not to be withheld from the public.

"In one of the capitals of Continental Europe there is a penitentiary, at the head of which is a gentleman who in the administration of his trust has but one thought, one wish, one aim—that of changing, by the blessing and help of God, bad men into good ones. To this work, with a sleepless and unselfish activity, he devotes his whole study and effort. In the same city, some thirty-five to forty years ago, a child was born who had the misfortune to have a professional thief for his father. Thus he grew up with thieving for his trade. More than once he had been sentenced to the penitentiary for short terms; terms too short to do him any good, but quite long enough to do him a great deal of harm. At length, going from bad to worse, he committed a graver larceny, and was condemned to a term of several years. Having before failed utterly with this young man for want of the requisite time to bring reformatory processes to bear upon him with effect, the director of the prison, receiving him anew and for a long term, said to himself, 'Now is my opportunity;' and he at once set

about the work with a will, and continued it with noble steadfastness to the end.

"No day passed during all these long years of hope and fear, of prayer and watching, of anxiety and toil, in which he did not visit the cell of the young prisoner with words of tenderness and encouragement, with counsels of wisdom and with persuasions eloquent from their sincerity and tearful earnestness. Drop by drop water works through the granite rock. So looks, and tones, and words, and acts of kindness persisted in for years, despite ingratitude and opposition, can not fail, never do fail, to make in the end an impression upon the hardest of human hearts. This youth, though steeped in crime from infancy, formed no exception to the rule. The medicine at length took effect; the cure was radical and complete. He left the prison a changed man; changed through and through; changed in heart, purpose, and life.

"For some time—a year or more—he worked at the trade he had learned in prison and ate honest bread. But there was something in him higher, nobler, diviner than bodily toil, honorable as that is, and it burned to come out. He felt an irrepressible longing to do something for Christ, for humanity. He offered himself—stating honestly his antecedents—to an association organized for Christian work, first to be suitably educated and then to do missionary work wherever a field might open to him. He was accepted and placed at school. For several years he toiled at learning with the energy of a man struggling for his life. He developed a genius for language, and took in Latin, Greek, Hebrew, and other more modern tongues as a sponge absorbs water. At the seminary he made the acquaintance of a kindred spirit, between whom and himself a friendship was knit like that of David and Jonathan. They determined to work together on some heathen field. They plunged into the very heart of heathendom, divinely led to a tribe whose soil had never been pressed by foot of missionary."

Then follows an account of the aboriginal tribes of India, to which enlightenment this remarkable man and his friend have devo-

ted themselves. The length of the sketch forbids our giving it entire:

"When the two young missionaries first went among the Santhals, they were living in great misery—oppressed by Hindoo rajahs, defrauded by Hindoo money-lenders, and cheated by Hindoo venders. But through their efforts with the Bengal government, matters are much improved, and it is now possible for the Santhals to keep their own. They also found the members of the tribe in a very low moral condition from the prevalence of drunkenness and licentiousness. They worshiped the sun as a good God, and many ghosts as malevolent deities; and they offered up all sorts of sacrifices to appease these evil beings. They threw themselves right in among the people, and became, as it were, part and parcel of them. They accompanied them on their hunting excursions; to their funerals; their marriage festivities, and their religious ceremonies. They studied their institutions, mythology, traditions, habits, and character at the same time. The colleague of my correspondent, being a skilled engineer, and availing himself of the labor of the people, constructed for them an excellent system of roads. In these ways they made friends with them and stood high in their favor. Sometimes, at their public gatherings, and particularly when on the chase, they would have not less than ten thousand Santhals to speak to. On these occasions they would go into the midst of them and begin to sing a hymn, which they had been able to translate into the Santhal language.

"After a year of praying, working, waiting, and watching, the first fruits were given in the conversion of three boys. And from that time their success was really great.

"While in Europe, two years ago, this missionary and accomplished linguist and scholar, once a criminal and a convict, revisited his native city, and the cell in which he had been confined for so many years. On re-entering this latter he burst into tears, and falling upon his knees thanked God that His good providence had put him there, and that His grace had wrought such a moral miracle upon him during the years in which he had been its lonely tenant."



True philosophy is a revelation of the Divine will manifested in creation: it harmonizes with all truth, and can not with impunity be neglected.

HOW TO TEACH;

OR,

PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.

ABSTRACT THINKERS.

THOSE in whom the top of the forehead is large and the lower part small (see fig. 15) will study abstract subjects with ease and readiness; while one with a retreating forehead (see fig. 13) will be puzzled to comprehend the abstract, and in that field work very slowly. By a just classification of the pupils according to their talents and the topics to be taught, the education of all can be facilitated and no time wasted by one waiting for another.

THE ANALYTICAL THINKER.

But Individuality is the open door through which specific facts as well as objects are recognized. If the reader will observe the manner in which a man talks who is particularly full just above the root of the nose, where Individuality is located, he will notice that he insists on specific declarations, on definiteness of statement; and more especially if the forehead be full in the middle of the upper part where Comparison is located, he will divide subjects and sub-divide, and deal with each department separately from everything else. He will individualize the topic, and argument, and not mix up the parts of his subject; but where this organ, Comparison, is small, there is frequently a generalizing tendency. Such a person will talk about everything in general, and nothing in particular; will seem to have no starting

points, and he will deal with a subject very much as a stupid person would who should take his scythe and climb over the fence into a field of grass and commence mowing anywhere but at the right place or edge, cutting here and there and everywhere, without regard to consecutiveness or order.

ABSENCE OF MIND.

Some persons are inclined to wander in their thoughts, when the teacher or conversationist is defining or explaining a subject. Those, however, who are fully developed at Individuality, will watch the speaker, keep their eyes wide open and upon him, will not sit with half-closed eyes, dreaming, as if they did not half understand the subject; but will lean forward, drinking in every word, letting no gesture, intonation, or statement escape their attention.

SPECIAL KINDS OF TALENT.

Teachers will rapidly learn, under the light of this method of investigation, which of the pupils can take facts, and feel an interest in them; which will watch for the illustrations with most interest and profit, and when there is a class, or section of a class, under instruction, will see which pupils have a weak development of the perceptive, and strong reflective organs. In such cases we would suggest that the general explanation be first made, the logical

statement set forth clearly, and the ultimate result given; then the question may be asked, if the class wishes to go back to the foundation and watch the progress of the structure, and they then will be willing to go back, and will enjoy all the steps that have led to the result. The teacher may be certain that these square-headed boys and girls will feel no interest in the details until they have some inkling as to what the details refer to.

PAPER-MAKING : TWO WAYS OF LOOKING AT IT.

The process of manufacturing paper would be wonderfully interesting to one of these retreating foreheads. He would hear a rumbling machine, and rush up to see what it was that made the fearful noise; and there he would see dirty rags being cut up into ten thousand pieces, and the machine running with such rapidity as to make a continued roaring, and it would be very exciting to him, without regard to the ultimate result. As he went into the next room, he would see certain great vats and boilers, and he would ask: "What are these?" and there he would see that the dirty rags, which he saw in the process of being cut, were now undergoing the bleaching process. He would learn that certain acids and alkalis were working at the rags and cleaning them until they became as white as snow, and still he does not ask: "What are you doing this for?" but he sees what is being done, and rejoices in that, without regard to what it may be done for. He is then introduced into the grinding mill, where the rags are reduced to pulp, and as it floats around in the vat or engine it looks like curdled milk. He next goes where by the processes of machinery these rags, now a milky pulp, are being worked into beautiful white paper. He sees how it is

dried, and sized, dried again, and ruled and cut, and brought into condition to be used for the manufacture of ledgers, account-books, writing-books, and letter-paper. He has followed the rags through all the processes from dirty, worthless, and disgusting things, and seen the material come out in the form of fair and beautiful paper, and has thus been educated from things and facts to results and ideas. He has learned the why and wherefore from the facts and details.

HOW TO TEACH THE THINKER.

The boy with the square forehead must be first taken into the finishing room. He must see the complete ream of paper, and as he saw over the door "Paper-Mill," as he came in, he looks for paper first, and when that is shown him, his reasoning organs begin to ask: "How is this constructed?" and the last process before completion, namely, the ruling, must be shown him. Then the process of forming and drying the paper, then the process of grinding the rags, then the process of bleaching, and then the first rude process of assorting and cutting the stock; and there also he sees a bale of stock untouched, and he looks at that and thinks of the white paper and says: "Is it possible that that dirty, ragged stuff can be made into such beautiful white paper?" Then he is ready to begin with the dirty stock, and go through as the first boy did, and follow the process from the beginning to the ending. But in order that he may understand paper-making with his cast of mind, he must begin at the ending and go back to the beginning in a reverse process. When the two boys are dismissed from their visit to the paper-mill, one going through it one way, and the other in the opposite direction, they are equally well-informed. Both have become acquainted with the facts; both

have learned something about the philosophy of the process, and both can go home and describe it, remembering all their life-time what the process of paper-making is. But they learned it by entirely different methods. One form of instruction would not have answered for both. One must take the facts by the observing powers; the other must, by the exercise of the reasoning faculties, go back from effect to cause.

READING AND SPELLING.

In reading, the faculty of Individuality is trained. Those who can see the letters and their combinations most readily, or detect most readily if a letter happens to be turned wrong-side up, or if the top of an *h* or of a *d* be broken off, will make the best readers, so far as seeing what the words are is concerned, and spelling is greatly aided by this faculty. The looks of a word as a whole, though it may employ the faculties of Size and Form nearly as much as Individuality, will impress the mind of the observer as to whether it is correctly spelled; and who has not, when in doubt about the spelling of a word, hastily written it, to see how it would look, written one way or another?

TYPE-SETTING AND INDIVIDUALITY.

This faculty is employed successfully in some of the trades and arts of life. In type-setting, for example, he who has a high degree of Individuality, can quickly put each type in the right place. He can see one special type, how it lies, and how it is to be picked up, and turned, or not turned, to be put into the "stick," as it is called; he is the one who will accomplish most in that direction, and the instant he has found one type or letter, and recognized how it must be handled, in order to set it correctly, he lets his eye fall on the next box, which is filled with the next letter,

and catches the image of another. He does not wait till he gets the first letter fixed, before he looks for the second, but he lets his eye go a notch ahead, all the time, and thus he will pick up type as fast as a chicken will pick up corn; but persons with small Individuality have to *look* before they can identify a letter, and they get in the habit of making motions with the head and body; printers call it "ducking and bobbing." Printers with a full development of Individuality are not likely to make that motion.

TACT IN TRADE.

Persons employed in variety stores, require this faculty strong, together with Locality and Order, to remember where the different articles or goods are. A clerk with a full brow, especially in the center, will at his leisure be looking all around the store, identifying different things, and studying their nature and their names, their prices and their uses, and will learn as much of that kind of knowledge in three months, as one with a heavy top-head and a deficient brow will in a year. Those who wish to employ clerks in book-stores, in drug-stores, in fancy stores, in hardware stores, where many things are to be recognized and understood, will see to it that those they employ have a large development of the perceptive organs, especially of Individuality. Two persons of this sort would be worth as much as three or four of the other sort in daily life, outside of the school-room, where we ought to learn the facts which outward life will employ in the conduct of its affairs.

MANUFACTURERS NEED INDIVIDUALITY.

Instances will occur to the reader where observation and perception are requisite to his success. In a manufactory where there is much machinery, and many details and processes to be

attended to, the observer is the one to be useful. In the daily duties of house-keeping, the observer is the one who keeps everything tidy, and accomplishes promptly the duties required. Let two persons go out picking berries, each anxious to get as many as possible; the field being the same for both, the one with the full brow will think the berries are thick, and the other will gaze, and not see them quickly, and think the picking is poor, and will go home chagrined and mortified, with the basket half full, while the other comes with a full basket, and thinks the berries were very thick; and the one who has picked the basket full will "look over" his in less time than the other will "look over" his half basket. Besides, the one with the full basket will present his berries clean and ready for the table, and the other, after all his care, will have here and there a leaf, or a stem, or a poor berry.

CHILDREN IMPROPERLY BLAMED.

We hardly need suggest to the mother that if she understands as well the capacities of these two boys or girls, as we hope she will, when she has finished this chapter, she will cease to praise one for being attentive, and willing, and industrious, and to find fault with the other for being stupid and a blunder-head, not caring to do right. It is quite possible, that when these boys come to struggle with their lessons, the one with the heavy top-head may be able to understand the theory and philosophy underlying the subject, while the smart one, having got into something a little more profound than berry-picking, will be compelled to lean upon his delinquent brother for the knowledge that comes through the upper half of the head, or through the reflective and retentive intellect.

The young should be taught to *look,*

to criticise, to observe, to let nothing escape attention and pointed investigation. Those who pursue the natural sciences, which so largely depend upon observation, need the best condition of the perceptive organs, as to Development, Activity, and Training. The physiologist, the chemist, the pathologist, the botanist, the entomologist, the ornithologist, the geologist, and the rest, must see and discriminate sharply—must use perception—for it is through the activity of these faculties that he obtains his knowledge.

INDIAN OBSERVING POWER.

The North American Indian has a large development of the organs of observation. He wanders through the forest without roads or marked trees, and never loses his way. He observes the peculiarity of everything he sees, and, it is said, he will track the bear, when the dry leaves deeply cover the ground, and he will know the size of the bear, the way she was going, and the speed; when a white man carefully looking, can see no marks of bear's footsteps. The character of the bark of the tree tells the Indian which is North or South, the moss being more abundant on the shady side.

INDIAN STORY.

As an instance of close observation and critical perception by the Indian, a story is related of one who lived where white men had trenched upon the red man's domain, and thus brought the two peoples in contact. He had killed a deer, and hung the hind-quarters on a tree, as high as a tall Indian could reach, and leaving it there, he pursued his tour of hunting. During the night a little snow had fallen, and the Indian returning the next day for his saddle of venison, saw that it had been stolen. He set about ascertaining what kind of person had taken it, and how he might

be identified. He observed the indications with a detective's tact and sagacity, and started off in pursuit of the lost property and him who had taken it. He was certain he would know the man anywhere, even though the venison were disposed of. Meeting a settler he asked him if he had seen "a little, old, white man, having with him a short gun, and a little, bob-tailed dog, and carrying a saddle of venison on his shoulder. Such a man has stolen one from me." The man who was thus accosted replied that he had seen such a person with such a dog, gun, and venison, and asked how he knew all about it, and whether he had seen the thief. "O, no, I have not seen him, but I know it was a *little* man because he piled up things to stand on to reach the venison. I know he was *old* because he took short steps; that he was a *white* man because his toes turned out as an Indian's never do. I know that he had a *short gun* because I saw where he set it down in the snow by a tree, and noticed the mark the muzzle made where it leaned against the tree. I know the dog was a *little* one, because his tracks were small and near together, and that he had a *bob-tail*, for I saw where he sat down in the snow to wait for his master, while he was getting down the venison."

SELF-TAUGHT.

Having no science and cultured civilization, the son of nature studies *things*, and learns and remembers by observation, and his Perceptive organs thus become wonderfully acute, and show us how culture may be applied to the same faculties, as aids in science, and in the daily economies of life.

Teachers, when they know the natures of this faculty, separately, and its office and influence when it acts with its fellows, and the many ways in which it can be brought into use, will see the oppor-

tunity, in every part of their teaching, how to awaken interest in the pupils, how instruction may be readily imparted, and thereby the progress of learning greatly advanced, and the drudgery of teaching essentially mitigated.

The teacher soon finds that he has disposition as well as talent to deal with. Having given some general statements in respect to perceptive and reflective intellect, and having shown how the first intellectual faculty opens the mind in a practical way to all the realms of truth, we invite attention to some of the propensities and emotions before going on to complete the analysis of the other intellectual faculties; because the child has to be regulated in his dispositions as well as being instructed in regard to facts and ideas.

INTELLECT NOT THE WHOLE MAN.

It is not the whole of education to inform and guide the intellect. Teachers are very apt to start with the thought that they are expected only to develop the understanding, to store the memory of the pupil with facts, and to train him to think. This of course is the ostensible sphere of the teacher, and if children had intellect only, or according to old mental philosophy, PERCEPTION, MEMORY, and JUDGMENT, education would be a comparatively simple task; but when it is considered that the pupil has propensities and passions, affections, aspirations, sentiments, imagination, and moral qualities, as well as intellect, to be dealt with, the problem of education becomes complicated. We often hear the statement from those who are guided in their ideas of mind by the old-school mental philosophy, that there is an education of the heart as well as of the intellect. By this we suppose they mean the same that we do when we say the sentiments, affections, and propensities need to be educated as well as the intellect.

TWO MODES OF EMOTIONAL ACTIVITY.

There are two ways of training and educating the emotional nature. One may be called the normal and the other the abnormal. We learn bad habits; we acquire good ones. The imagination, for instance, may be diverted from its legitimate action, and led into the realm of wild and romantic fantasy until the mind loses its just balance. The faculties which give energy, courage, industry, and force, are frequently perverted by training so as to act in the form of low and quarrelsome dispositions. Prudence, arising from Cautiousness, may be diverted to fear and timidity; ambition, arising from Approbativeness, may be perverted to vanity; and pride, which originates in Self-Esteem, and which gives a just self-estimation and dignity of character, may be so warped as to exhibit austerity, haughtiness, and egotism. Alimentiveness, or the faculty which lies at the foundation of appetite, instead of being guided and regulated in its action towards objects legitimate and proper, in the use of nutritious and wholesome articles, may be so trained as to crave noxious drinks, stimulants, and narcotics, and what is true of the propensities here named, is true of every mental power; especially is this true of everything but the intellect.

The old style of mental philosophy is more nearly correct in respect to the intellectual faculties than in respect to the affective faculties or feelings, out of which character proceeds. One writer teaches us that man has conscience, and another that he is induced by the love of praise to do that which is approved as just and proper by the community. Some believe that man has by nature a spirit of devotion. Others teach that man reverences according as he is instructed to reverence, and that his religious training is the mother of his relig-

ious sentiments, and so of nearly all the emotional elements of the mind.

RIGHT VIEWS OF MIND NECESSARY.

Until the true philosophy of the mind can be understood and applied, there will be no system of instruction which shall be fully adapted to the wants of the human race. In imitation of the lessons which nature teaches, let us study to know what are the elements of the mind, and then we can impress the young learner in regard to obedience to the laws of his body, his disposition, and his intellect. Every school should teach physiology. By this we do not mean a long list of hard technicalities, but the subject of right living and right feeding should be so simplified that children ten years of age can understand it as well as they can a game of marbles or checkers. It certainly would not be difficult to inform an intelligent child that while it would be his duty and privilege to nourish the body, the entire system may be debased by the over-indulgence of appetite. If teachers would learn, in their own experience, how to nourish the body so as to insure health, and the highest order of physical and mental development, it would not be a difficult task for them to train the young in such a way that appetite will be kept in its normal channel. As perfect health is the first condition of human happiness, if this can be attained, one-half the task of training normal propensities is accomplished. A fever of the brain or of the body causes a fevered state of all the mental functions, and especially of the lower feelings.

THE ELEMENTS OF ANGER.

So long as the teacher supposes that the whole mind is engaged in each of the emotional feelings, he will not be likely to impart to those under his charge any higher or clearer views, and it will

be quite natural for one of his pupils, when indulging the feeling of anger, and when under its domination, to suppose that he is really outraged, and grossly and maliciously wronged. He feels that he is doing the right thing to chastise the object of his displeasure. When, however, he shall be instructed sufficiently in the philosophy of the mind to know that he is under the influence of perhaps a single faculty—*Combative-ness*—his inclination to submit to its sway will be modified; but so long as he believes that his whole mental nature is invaded, that he is suffering indignity and insult, and that every power of his mind should be engaged to repel it, he will of course lose his self-control, and be impelled, as by a moral necessity, to act, for the time being, the part of a maniac. It is not difficult to teach an intelligent boy or girl, ten years old, that this feeling is but the perversion of a single faculty or propensity, and that an effort should be made through other faculties to repress it.

LIKE EXCITES LIKE.

There is one law of mental action which needs but to be stated to be understood and accepted, namely, that the excitement and exercise of a given faculty on the part of the teacher or parent, tends directly to excite the corresponding faculty in the child or pupil; yet nothing is more common than for a boy who is gritty and fractious in his temper, to be treated with severity and annoyed with provoking threats by the teacher. There seems to be an erroneous general idea that we must meet might with might, severity with severity, quarrelsomeness with a corresponding state of mind; and most teachers, when they come into the presence of a boy of rough temper, feel that they must put on a stiff face, and a firm voice, and a rigid form of statement, just as they

would hold a head-strong horse with a stiff bit. If *Combative-ness* and *Destructiveness* are the leading qualities of a child's mind, it is the true philosophy not to awaken these feelings, but to talk to something else. The boy may have the sentiments of honor, justice, kindness, affection, any one of which qualities may be easily awakened by a kindly address, and his *Combative-ness* will subside. We have seen a party of angry men ready to commit violence in the destruction of property, and possibly in the shedding of blood, who were quieted by some wise and well-balanced person. The men would have resisted bludgeons and blunderbusses bravely, but when a benevolent man with a calm face calls them "friends" or "gentlemen," and asks permission, as a friend, to communicate to them some thoughts that might seem true to them, they listen, and in five minutes are ready to defend and protect, with their lives, that which they had just been plotting to overcome and destroy.

HOW TO TRAIN THE TIMID.

On the other hand, pupils who lack energy, who have too little of *Combative-ness* and *Destructiveness*, having narrow heads in the region above and about the ears, require to be built up and excited, in the region of force and courage. To such persons emphasis should be given to directions. There should be spirit in the instruction of the teacher which would excite bravery and force; but where these feelings are very strong we should never add fuel to the fire of passion, by angry words and denunciatory treatment. The most successful administrators of government in school, whom we have seen, are those who had thorough control of their own temper. A plain, calm, truthful statement of a child's delinquency, would awaken his understanding, his moral

sentiments, and his affections on the side of truth and duty; while the combative element, not being addressed, becomes placid and quiet; in short, it is thrown into the minority. Then all the pupil needs is simply a suggestion as to what he ought to do, and he hastens to accomplish it as he would to escape a great difficulty when the proper course should be pointed out to him.

RIGHT MODE OF PUNISHMENT.

But we may be told that some headstrong, quarrelsome natures can not be won over by this patient, gentle appeal to the other faculties. Admit it, and this brings us to say that nearly all the whipping that is done in schools and in families does more harm than good. We say nearly all. We have said that the exercise of a given faculty in the parent or teacher awakens the corresponding faculty in the pupil. Suppose then that the child is angry, mischievous, and wicked, and really needs to be punished. Admit that he is one of the kind that can not easily be reached by collateral influences; that he must be addressed through his sense of feeling, rather than through his moral sentiments, self-respect, or ambition. Let there be no haste in the punishment. The more deliberation and coolness that shall be exemplified on the part of the administrator, the better. If a time, three hours distant, should be set for the settlement of the difficulty, it would have a good influence, for it would give the child time to cool off and think over his delinquency or crime, and thus all the faculties of hope, and fear, and shame, and judgment, and affection might become active, while the irritation of the faculties which produced the disobedience would have subsided. Then, the adjournment of the case indicates deliberation on the part of the parent or teacher, which has a good effect in its appearance and often in reality. Certainly it gives all angry feelings time to subside. When it is decided, after calm deliberation on the subject, that there seems to be no other way but to inflict some kind of punishment, either a denial of some desired object, to-morrow or next week, or the infliction of corporal punishment at a time not distant, the child begins to wish to take the

whipping and have done with it. He does not want to be talked to any more, nor be obliged to think of, and dread the punishment any longer. He feels tender, mellow, and sorry, and has come to the conclusion that he is looked upon not as a mere object on which the wrath of the parent or the teacher is to be inflicted. Then a few well-laid-on blows, slowly, deliberately, and sharply administered, giving time for each one to strike in and take full effect, it would seem to the delinquent as if the punishment were very severe, but it being inflicted with deliberateness, he would not regard it as vindictive. One such whipping would be likely to last a child a year, perhaps five years, or a lifetime. But when the teacher or parent detects the delinquent in some mischief, and roughly seizes him and gives him a severe thrashing, and the blows are piled on thick and fast, it only makes him more angry, and he wishes he had the strength to vindicate himself on the spot, and he would do it then and there, if he had the strength to defend himself. The manner of the punishment, not the frequency of it, nor the severity of it, produces reformation. The common idea that a child's will or temper must be broken is erroneous. The whole nature of the child needs to be taught obedience, but we would neither break his will nor crush his temper, but teach him how to use both, or the elements which produce them, in obedience to all the laws of his being, and of all the rights of those who surround him. We praise a boy's bravery when it is legitimately exercised; we glory in his steadfastness when he uses it properly. It is only when he sets up his will against the requirements of parent or teacher, that they think his will is a very bad faculty, and that his temper will be the ruin of him. We assert it without hesitation that a person with a high, strong temper, may be so trained that he will use it in obedience to all that is lawful, just, and moral. Anger, like fire, should be kept within its legitimate bounds, then it becomes energy and courage, instead of quarrelsomeness of spirit; and this is an element as important in character as lemon-juice is in lemonade.

NELSON SIER.

(To be continued).

REV. BENJAMIN F. TANNER, D.D.,

THE COLORED DIVINE AND EDITOR.

THE subject of this notice has a fine-grained and enduring mental organization. In stature he is of ordinary size, common-place in manner, yet natural and pleasing in address. His life-work has been that of an educator; a close student of nature as well as of books, his mind has been nourished and expanded in various directions. He has a full, piercing eye, showing

"rank and file" of a poor and unfortunate race, the faithful son of a widowed mother, compelled to "paddle his own canoe" all the way from a dingy barber shop in Pittsburg upward, as he has with success, to a position second to none of his race, except, perhaps, Mr. Fred. Douglas. It will be noticed that the portrait has a marked development in the region of his moral senti-



Language to be well developed; Caution is but moderately marked, which, with a good deal of moral courage, a ready judgment, and a sharp discrimination, makes him bold in the presentation of original thought, even though he stand alone and in opposition to popular sentiment. He has much force of character and original purpose in all that he says and does. When a boy he was hedged in by circumstances. Born in the

ment, while there is considerable breadth of brain between the ears; hence his leaning toward the ministry or some other philanthropic work, and also his manifestation of force and ability to remove and combat the obstacles in the way of his advancement. He reasons by analogy, expressing himself in a clear, well-defined, crisp manner. He is rhetorical—sometimes highly so; and yet his language has an edge, and

a snap which cuts off all unnecessary verbiage. He follows his own convictions, and is willing to take a position touching public matters in the interest of his people; he often differs from other prominent men of his race, daring to advocate his policy, till finally it is often accepted as the best thought and the safest judgment; and avoids entering into a public debate or a newspaper discussion for the mere sake of controversy. He seems to take conscientious issue with the strong rather than with the weak; and like most men of his class who are great in some directions, and correspondingly weak in others, he is a man of strong prejudices against encroachments upon the rights of his church, while he readily recognizes the rights of others. He is witty and sarcastic, but courteous as an antagonist, and generous toward the less favored in mental endowment. Though the bilious temperament stands out prominently in the doorway of his physiology, and gives strength to his mental constitution, his habits of study and thought draw too much upon his bodily vigor for perfect health.

Benjamin F. Tanner was born in Pittsburg, December 25th, 1835. Early in life he learned the trade of a barber, and depended upon it for a living, meanwhile studying with a view to a profession. He at last became a student at Avery College in Alleghany, near his native city, and took a good rank in his classes. He subsequently prepared himself for the ministry by prosecuting the study of theology at the Western Theological Seminary in Pennsylvania; and soon appeared on the scene of active life, and commenced winning his way to eminence. He has published an "Apology for African Methodism," an octavo volume of about 600 pages, which received high encomiums from both the English and American press. He is a welcome contributor to the New York *Independent*, and prepares himself carefully on social and scientific subjects for the lyceum platform, to which he is often called in Philadelphia during the lecturing season. He is considered a good book critic, and to literary people this is an important department of his paper. This eminent colored man saved his peo-

ple from a most shameful reflection by withstanding the assaults of those who desired a separation and disavowal of the benefactions which the philanthropists of Europe and America are showering so lavishly for the education of the colored youth of this country. His paper represents three hundred thousand church communicants—the largest organized moral force of the race on the continent. Dr. Payne, the President of Wilberforce University, a scholar and Bishop of the Church, said that Dr. Tanner's address before the Pittsburg Conference, in behalf of Wilberforce, was a masterly effort, and requested him to deliver the same address in the same words before his Conferences in the West. A history of the colored race by Dr. William Wells Brown, of Boston, says, "He wields a masterly pen; while he is pithy, witty, and brilliant, there is a tinge of opulent fancy running through all of his editorials which refreshes the reader; he is fluent, ready and easy in his manner, and reliable in his statements." The wide reputation of his paper outside of his own denomination is probably the best test of his ability. He has done much with his eight-page journal to build up Methodism among his people, and to inculcate the feeling for a better educated ministry, which is so much needed; it speaks of his great work in behalf of his race, and of his prospects as a young man for accomplishing good for his people. While his church is distinct and separate from the white Methodist, it has been, and is, his policy to keep up the most friendly relation, which is quite reciprocal on the part of the M. E. Church. It was said by Messrs. Sampson and Moore, both experienced publishers in Ohio, that he was not only one of the best understood writers, but that he was the best editorial paragraphist among colored journalists—long editorials being considered the great fault of small papers published by colored men. Dr. Tanner is a mulatto of modest and social bearing, of strong domestic affection, and resides with his well-ordered family in the suburbs of Philadelphia, where he is highly respected, and where he edits the *Christian Recorder*.

AN AFTERNOON IN THE ASTOR LIBRARY.

THE Astor Library of New York is a pleasant place in which to while away the hours. So quiet, so nicely arranged, ventilated, and lighted, so luxuriously furnished with easy chairs and convenient tables, and, lastly, so much a world of thought, and all free of charge. If a poor but aspiring young man is in that agonizing state of having nothing to do, when his landlady's and washerwoman's bills rest heavily on his mind, sinking his spirits down twenty degrees below zero into the bluest indigo weather, we would say to him, seek the Astor Library.

If you are fagged out in hunting for a situation, which nowadays is like hunting a needle in a hay stack, go to the Astor Library and give your body and mind a rest. Call for the lives of some of our great men; in reading their trials, troubles, and tribulations you will lose sight of a part, at least, of your own misfortunes; will fall into the reflection that an empty pocket is the fate of budding genius; that you are a soldier in the ranks of those great mental martyrs. A look of sweet resignation will rest on your face when you return to your boarding house, and you will eat a hearty supper in spite of the fierce eyes of your landlady.

For my part, this reading of, or listening to, others' troubles has got to be as monotonous a jingle as my own. I, therefore, throw dull care aside whenever I can, give myself up to books of pleasant thought and fancy, books untainted with morbid life.

To-day I sit at a small table in the second and more retired room of the Library; my eyes are tired of reading, and I let them rove around the room, studying the faces of the men and women who are browsing over written lore. Some are busily engaged in copying from old, time-worn manuscripts, perchance stealing the thoughts of a past age which will come forth in glowing colors in some of the standard literary periodicals of the day. "Nothing new under the sun," so Solomon said, and so these literary creepers think; and after vainly trying to find something

new and true in their own brains, they come to the Astor Library to rake over dead mens' thoughts. If they have not original genius, their mechanical serves the same purpose, and so long as the great public mind lives in the present, not in the past, few, if any, will ever know their petty thievery. It is well, however, to have the good of the past produced for the counsel of the present, so our mechanical plodders may be doing some good after all. At the table on my right are two women engaged in the copying process. Both are in the prime of life. Both are evidently earning their living by the pen. A very poor living it must be—judging from appearances. One has a quiet, impassive face; perfectly tantalizing in its entire submission to the dull routine of labor. To work is just as natural to her as to breathe. Work is, in fact, her life. She knows nothing else, desires nothing else, and will continue in this tread-mill existence to the last. Her first recollection must be of the schoolroom, under New England's glorious system of education. It was study with her from morning till night until she went out into the world to earn her living. Glorious independence! She has never known what it is to have good times, to romp and play in her childhood, to have lovers and beaux in her young ladyhood. She had no time to waste on "such foolishness." Intellectual independence was her aim in life. Of course she is not married; no married woman could have such a stolid, matter-of-fact expression. She is one of the most frequent visitors to the Library. She calls for old magazines and story books, and by transposing, culling from this and that she writes her pieces, doubtless stories—stories which young men and maidens read in delight. Surely, there is little freshness, little feeling in this plain working woman. Idle, luxurious dreams are to her among the impossible. She could not build an air-castle higher than an abundance of black silk dresses to wear, and a plenty of tea and cookies to drink and eat. But I am only surmising from

the facial expression. She may be the happy mother of a happy family!

The other lady is not so good a philosopher. She champs at the fetters of labor. There is a cross expression on her face while writing. She must have been pretty in her younger days, but she has worried and fretted herself lean and fallow; has also many deep wrinkles, the consequence of making too many wry faces at fate. Again, I fancy, she has a docile, worthless man for a husband. It is not likely that she will give him a sweet smile when she returns home; and the children are apt to get their ears boxed and go supperless to bed if they presume to ask questions, especially when she is engaged in writing a sweet Sunday-school story for good little boys and girls. Religious sentimentality I would suppose to be the character of her writings.

At the table on my left sits a strong, robust woman, who feels as if she would like to set the world on fire by some prodigious feat of mind. She would at least like to have all the masculine world at her feet—kneeling in admiration. I notice that she is never too intent on her reading or writing not to observe every man who enters the room, and is continually casting side-long glances at the two rows of tables around which the gentlemen congregate. I am pretty sure that she is now writing a discourse on women's rights. At the first opportunity she will be canvassing the country trying to stir up strife between man and wife, and is now looking up historic records of women's mental achievements, hoping that some day her name will be added to the list of glory as one of the great heroines in the war of the ballot.

At another small table sits a fresh, rosy-cheeked boy, or rather young man. His face is perfectly charming in its pink and white coloring, delicate features, and innocent expression almost angelic in softness and tenderness. He seems deeply immersed in a ponderous law book. I wonder if his apparent softness is only strength's delusion. Opposite to the pretty youth sits a gray-haired gentleman, with an imposing countenance. He looks like a minister, perhaps,

too, a lover of broiled chicken. Spiritual and material loves are so mixed up in this world of ours. However, this old gentleman has a real good, fatherly look, such as any poor lone woman would trust. In passing by his table I glanced at the book he was reading. It was Ouida's "Strathmore;" such a good old man! so much for appearances.

Finally I weary of studying faces, and was just going to resume my reading, when a wonderful object appears upon the scene in the shape of a little, wrinkled-up, old lady, a regular centennial piece of humanity, a truly marvelous body. Her dress is amusing in its oddity; a checkered silk bonnet covers the head, from which peeps out a kind, earnest face that you would call lovely in spite of the setting of wrinkles. A long gray cloak, a bright flowered dress, white stockings and slippers complete the attire. She carries in her hand a striped silk parasol and a queer looking bag. Her figure is greatly bent, but she moves along with a firm step and deposits her bag and parasol in the corner. She then goes to the clerk's desk and calls for the "History of British India." Laying it on a "reserved" table she makes another trip to the bag in the corner, out of which she brings forth a bright calico reticule and a cigar-box. She then takes her seat at the table, making the cigar-box serve as a footstool. She pulls off her black silk gloves and lays them carefully away in the reticule, and is now ready to read. Opening her book she reads for a few minutes, then falls into a short, gentle nap. Alternately sleeping and reading she makes slow progress with her book. So old, surely thought I, she can not understand what she is reading. She is only dreaming beautiful dreams of the past, and imagines that she is reading them from the book. Greatly interested in the aged lady, and anxious to know more of her history, I walked over to her side and asked her some trivial question about the book she was reading, expressing my wonder at her not using glasses. She said that she had never worn glasses, and was over ninety years old. She then spoke of Queen Victoria, her court and government, dwelling largely on British India, its

wealth and trouble to England, all in such a grand and elegant way that I was astonished. I returned to my seat lost in admiration of this queenly old lady. She must have been a woman of great literary attainments, a writer, to be at such an age so earnest in the pursuit of knowledge. At four o'clock a plainly dressed woman, her maid, came and whispered to her that it was time to leave. She arose, left her book at the desk, put on her gloves, and in passing by my table to her bag and parasol, noticed my rubbers lying on the floor. "Allow me," she said, in the most dignified manner, "to look at your shoes." I handed her one of the rubbers.

"They are of rubber," she exclaimed, in great surprise, examining it as if it was one of the greatest curiosities of the age. "When were rubber shoes invented?" she earnestly asked.

Not knowing I mumbled a reply.

"Did you send to England for these?" she continued. I answered in the nega-

tive. "Can such shoes be found on the Broadway?" she again asked. I said yes; that they could be found at any shoe store. Thanking me politely for permitting her to look at the new fashion, she got her parasol and bag, and walked slowly out of the room.

I resume my reading, but am soon startled by a long-drawn snore of delightful slumber, followed by a book falling to the floor with a loud crash. It was the snore and book of a—I was going to say gentleman, but to be matter of fact must say sleeping idler. He may be a man of leisure with a scolding wife, and is compelled by the force of tongue to leave his fireside and seek the Astor Library for quiet and repose. But he should school himself like some good old deacons to repress loud demonstrations in sleeping, and to grasp his book the tighter the sounder his slumber. "Library closed," calls out the polite clerk giving a loud knock on the desk, and I depart. z.

SQUALL ON THE MOUNTAINS.

On the crags burst a fierce wind,
And the sharp hall o'er the rocks swept;
And the quick lightning flashed far
Throughout the air, gilding the bald peaks;
And the loud thunder at times roll'd
Like the dread voice of a great god;
And the hills awed, to their base shook,

And the loose stones to the vales fled.
Then the storm lessening passed on;
And a thick darkness enwrapp'd all
With a strange beauty, a wild awe
That th' unseen gilda. And the loud crash
Of the storm waned to the soft voice
From the rills hastening downward.

HENRI.

PHYSIOLOGY A LA CHINESE.—This is the way it is done, according to a medical authority of the Flowery Kingdom called the *Mirror of Medicine*:

"The spleen rubs against the stomach and grinds the food; it also keeps up the proper degree of heat in the five tsang. It moves the muscles and the lips, and thus regulates the opening of the mouth; moreover, it directs our secret ideas so that they become known to us.

"The liver regulates the tendons, and

ornaments the nails of the hands and feet. The heart regulates the blood-vessels, beautifies the complexion, and by its means we are enabled to open the ears and move the tongue. The kidneys govern the bones, beautify the hair, and open the orifice of the two yin.

"The diaphragm being spread out like a membrane beneath the heart, and being intimately joined all around to the ribs and spine, thus covers over the thick vapor, so that the foul air can not arise."

THE RIME OF THE ANCIENT MARINER.

BY S. T. COLERIDGE.



FIRST VOICE.

“BUT tell me, tell me, speak again,
Thy soft response renewing—
What makes that ship drive on so fast?
What is the ocean doing?”

SECOND VOICE.

‘Still as a slave before his lord,
The ocean hath no blast:
His great bright eye most silently
Up to the moon is cast.

‘If he may know which way to go,
For she guides him smooth or grim.
See, brother, see! how graciously
She looketh down on him.’

FIRST VOICE.

‘But why drives on that ship so fast
Without or wave or wind?’

SECOND VOICE.

The air is cut away before,
And closes from behind.

Fly, brother, fly! more high, more high,
Or we shall be belated:
For slow and slow that ship will go,
When the Mariner’s trance is abated.’

I woke, and we were sailing on
As in a gentle weather: [high:
‘Twas night, calm night, the moon was
The dead men stood together.

All stood together on the deck,
For a charnel-dungeon fitter;
All fixed on me their stony eyes
That in the moon did glitter.

The pang, the curse, with which they
died,
Had never passed away;
I could not draw my eyes from theirs,
Nor turn them up to pray.

And now this spell was snapp'd: once
more
I viewed the ocean green,
And look'd far forth, yet little saw
Of what had else been seen—

Like one that on a lonesome road
Doth walk in fear and dread,
And having once turn'd round, walks on
And turns no more his head;
Because he knows a frightful fiend
Doth close behind him tread.

But soon there breathed a wind on me,
Nor sound nor motion made:
Its path was not upon the sea
In ripple or in shade.

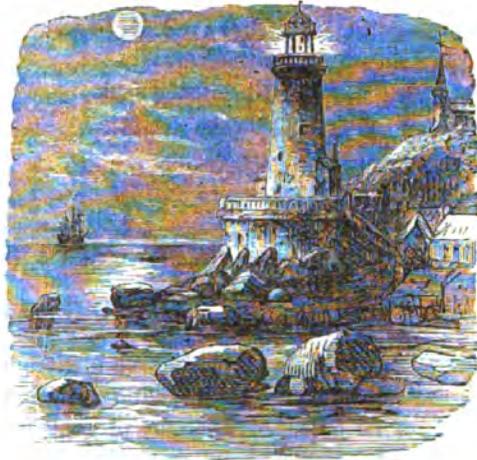


*Like one that on a lonesome road
Doth walk in fear and dread.*

It raised my hair, it fanned my cheek,
Like a meadow-gale of spring—
It mingled strangely with my fears,
Yet it felt like a welcoming.

Swiftly, swiftly flew the ship,
Yet she sailed softly too;
Sweetly, sweetly blew the breeze—
On me alone it blew.

Oh, dream of joy! is this indeed
The light-house top I see?
Is this the hill? Is this the kirk?
Is this mine own countrée?



We drifted o'er the harbor-bar,
And I with sobs did pray—
'Oh, let me be awake, my God!
Or let me sleep away.'

The harbor-bay was clear as glass,
So smoothly it was strewn!
And on the bay the moonlight lay,
And the shadow of the moon,

The rock shone bright, the kirk no less
That stands above the rock;
The moonlight steeped in silentness
The steady weathercock.

And the bay was white with silent light,
Till rising from the same
Full many shapes, that shadows were,
In crimson colors came.

A little distance from the prow
Those crimson shadows were:
I turned my eyes upon the deck—
Oh, Christ! what saw I there?

Each corse lay flat, lifeless and flat;
 And by the holy wood
 A man all light, a seraph-man,
 On every corse there stood.

The seraph-band, each waved his hand;
 It was a heavenly sight:
 They stood as signals to the land,
 Each one a lovely light.

This seraph-band each waved his hand;
 No voice did they impart—
 No voice; but oh! the silence sank
 Like music on my heart.

But soon I heard the dash of oars,
 I heard the pilot's cheer:
 My head was turned perforce away,
 And I saw a boat appear.

The pilot, and the pilot's boy,
 I heard them coming fast:
 Dear Lord in Heaven! it was a joy
 The dead men could not blast.

I saw a third—I heard his voice;
 It is the hermit good!
 He singeth loud his godly hymns
 That he makes in the wood.
 He'll shrieve my soul, he'll wash away
 The albatross' blood."

VALUE OF A TRADE.

THE importance of having a knowledge of a trade or of some solid vocation need not be enlarged upon by precept, for it is best illustrated by example. In a New York weekly the following was recently published:

"Karl Frostern, the old nail-maker of Luben, in Silesia, was a jolly, story-telling man, who sang at his work, and whose busy hammer made merry music.

"Not far away lived Herr von Koben, a wealthy land owner, whose only son, when not at school, was wont to come to the nailer's, where he would sit by the hour and watch the bright sparks as they flew in showers from the ringing anvil. 'Come, Master Conrad,' said the nailer, one day in a jolly mood, why not set the world an example? Show them that the son of a rich man can learn a trade. Who knows but that it may profit you one of these days?' The youth fell in with the humor of the thing, and pulling off his fine jacket, he donned a leather apron, and went to the anvil. He was a bright, quick lad, and, when he had at once attempted to make a nail, he had a pride to make it well; and so it came to pass that ere long he could make shoe nails as deftly and as well as could old Karl.

"Time passed on, and Herr von Koben died, leaving his great wealth to his son Conrad. A few years thereafter the armies of Frederick came sweeping through Silesia, and Conrad's inheritance was lost. In poverty he wandered away toward the mountains of Bohemia, until he came to a town where a host of shoemakers were at a stand for want of nails. Shoes were in great demand for the soldiers, and a great price was offered for nails. 'Here,' thought Conrad, 'is my opportunity. Let us see how my trade will serve me.' And he told the shoemakers if they would help him to a shop and a forge, he would make nails for them.

"They furnished him what was required, and he went at the work in earnest. He made better nails than had ever before been seen in that section. He took apprentices, and enlarged his shop, and in time Von Koben's nails were demanded on both sides of the mountains. By slow but sure degrees he arose to opulence as a manufacturer, honored and respected as the founder of his own fortune. And it all came, as he was proud to tell his children in the after years, from having learned a trade in his youth."



It is only by training all together—the physical, intellectual, and spiritual elements—that the complete man can be formed.

THE GLUTTONY PLAGUE.

THE one thing that to our mind more than any other, or all others combined, is the producing cause of the diseased conditions of our people is, *intemperance in eating and drinking*; but more especially in *eating*. "I tell you honestly," said blunt old Abernethy, "what is the cause of the complicated madness of the human race. It is their gormandizing and stuffing, and stimulating the digestive organs to excess, thereby producing nervous disorder and irritation." Sir Francis Head states it as his firm belief that almost every malady of the human frame is connected with the stomach; and he owns that never does he see a fashionable physician mysteriously consulting the pulse of his patient, or, with a silver spoon on his tongue, importantly peering down his throat, without feeling a desire to exclaim, "Why not tell the poor gentleman at once: 'Sir, you have eaten too much, you have drunk too much, and you have not taken exercise enough!'"

It has sometimes occurred to us that the passage in the 3d chapter of Genesis, wherein is related the story of the Fall of Man, was intended to teach us that many of the miseries which afflict the race come mainly from the abuse of the eating and drinking propensity. Certainly our physical ailments are due mostly to this cause; and we think it can be shown that much of the moral evil which at present exists in the world, proceeds, either directly or indirectly, from the same source. It is the testimony of some close observers that while Alimentiveness is kept under proper control, but little trouble is experienced from the other propensities; but once give that free rein, and all the rest will run riot. Many a murder

has been committed under the influence of intoxicating drink; and other crimes—which shall be nameless—have been committed while under the dominion of passions lashed into fury by full feeding. An eminent divine once took occasion to tell his hearers in a Sabbath morning discourse, that much of the ill-temper and moroseness of people was induced by a too free indulgence in the use of an animal diet and other kinds of stimulating food and condiments.

It is not, however, moral evil, but the physical and organic evils which we see on every hand that we have to do with more especially at present. Nor do we wish now to speak specially of the vice of intemperance in the use of alcoholic and stimulating beverages. But it is to the vice of inordinate eating that we would more particularly call attention in this article. Says a retired physician: "How does it happen that amid the everlasting cry against drunkenness, we never hear a word against its sister evil, gluttony? I think I can assert with truth, that in a long practice, three have died among my patients from over-eating, where one has died from drink." Crusades have been preached time and again from the pulpit and the platform, and by the press and other agencies, against the sin of drunkenness; but with a few recent and honorable exceptions, no warning voice has been raised against this greater and more desolating evil; greater and more desolating because more wide-spread; for, whereas, not one man in fifty, nor one woman in five hundred, is a drunkard, it is our deliberate conviction, based upon close obser-

vation and a careful study of the subject, that nine in ten of both sexes consume from a fourth to a third more food than is requisite to keep them from youth to old age, both physically and mentally, in the highest possible degree of constitutional vigor. Sir Sidney Smith, in a letter to Lady Holland, emphatically declares that all people above the condition of laborers are ruined by excess of stimulus and nourishment. "I never yet," says he, "saw any gentleman who ate and drank as little as was reasonable." He need not have made this distinction in favor of the laboring classes, for they are just as guilty of the sin of gluttony as the gentry, but their more active habits and laborious lives counteract, in some measure, its effects.

Gluttony is indeed a great and crying evil; a form of sin taught to children so early that many never have known what its simplicity and moderation in diet. Alimentiveness comes into exercise at the earliest period of our existence, and is the first of all our natural propensities; in fact, its development is coeval with the birth of the creature itself. Children are, therefore, stuffed and surfeited, and the process of perverting their appetites begun oftentimes before they leave their mother's arms. They are fed at all hours of the day, and perhaps several times during the night. If a child is fretful and restless, refusing to sleep, the tender-hearted, but injudicious mother thinks it must have nourishment to still its cries. When it gets a little older, if it learn to answer the question, "Who made you?" or to tell who was the first man or the first woman, a piece of rich cake is awarded for its precocity. When its reason becomes sufficiently developed to enable it to connect right-doing with its reward and wrong-doing with punishment, a piece of mince-pie or a cookey answers the first indication; the deprivation of its dinner, or the sending of it supperless to bed, answers the latter. If either or both of the parents have occasion to go from home, good conduct during their absence is secured by the promise of sugar-plums on their return. Thus a direct appeal is made to appetite,

and a premium offered for gluttony. After a while the child comes to think that the only thing in this world worth living for is something good to eat. Thus we go on from bad to worse, our appetites increase with our years, and long before the age of puberty is reached they have become morbid and greatly depraved, and the foundation has been laid for a long train of evils. When grown to man's estate, we go out into the world, mingle in society, eat and drink, and overtask our digestive organs, rob the brain of its energies, become gross sensualists, bring on disease, and thenceforward drag out a miserable existence, ending only in death; having, in the meantime, perhaps, transmitted to posterity our constitutional weaknesses and tendencies to disease, with the beastly appetites that produced them, and all these in an increased and ever-increasing ratio.

Alimentiveness has most of us under complete control. We are slaves to appetite, making gods of our bellies. With what longing do we look forward to meal-time? And if by any accident we are deprived of an expected enjoyment of a favorite dish, our complacency is gone on the instant. As to the loss of one's entire dinner, that is something which no ordinary amount of philosophy will enable us to contemplate with indifference; we regard it as a calamity indeed! How much, too, is our good-humor in this regard affected by the veriest trifles. If our neighbor happens to be a little better or more liberally served than ourselves, how quick we are to notice it! We have noticed more frequent exhibitions of selfishness at the table than anywhere else. Persons who will, without hesitation, give to others the preference in everything else, can not always be depended upon to do it here. What a difference there is, oftentimes, between a man's ante-prandial and his post-prandial condition! A quaint old book says: "If you have a favor to ask of a man, go to him after he has dined." There is a world of philosophy in this. There is many a man to whom if you go for a favor before dinner, especially if it be during the last hour or two of his fast, who will meet you

with a frown. You will be treated very cavalierly, indeed, your petition refused, and ten chances to one yourself *snubbed* into the bargain. But go to the same man after dinner; if he has dined satisfactorily, instead of frowns you will find his countenance wreathed with smiles; he is now the perfection of politeness and courtesy, and your chances of obtaining what you wish are improved a hundred per cent.

Man's appetite is almost omnipotent; as omnipotent as omnivorous. Every clime and the utmost ends of the earth are ransacked to furnish something for its gratification. Every land contributes its products, and every sea its treasures; yet it is still insatiate and insatiable. Some there are who think that everything that can be eaten was made for that sole purpose. Half the commerce of the globe consists in the trade in commodities which are either eatable or potable; and half the trading capital of the civilized world is employed in their exchange. Lest some of our readers might think we exaggerate, we will mention, by way of illustration, a single item, and that an insignificant one. Great Britain pays yearly to Greece \$8,000,000 for the plums which John Bull puts into his pudding! Not to speak of the capital legitimately employed in the carrying of grain and other necessary products, look at the vast sums invested in the tea trade, the coffee trade, the manufacture and sale of confections and preserves, together with other luxuries too numerous to mention.

Millions are spent annually for the purpose of ministering to the gratification of the palate. We hear of suppers costing three thousand dollars; of dinners costing thrice that sum; banquets costing ten dollars a head for each of the guests are quite common. Nay, we have known entertainments of this kind to be given in the city of New York for which the charge was *one hundred dollars* a plate! This included, of course, eatables, drinkables, and *smokables*. We have recently read of one given in Philadelphia, though some years ago, at which the guests whetted their appetites at the commencement with brandy costing six dollars a pint at whole-

sale, and during its course drank wine one hundred and fifty years old. This merely to whet their appetites and enable them to eat the more. They sat down at six o'clock in the evening, and ate and drank and smoked till six o'clock next morning, from sun to sun, twelve mortal hours of stuffing and guzzling. We have seen a bill of fare entitled, "An Entertainment given to the American Medical Association by the Medical Profession of the city of St. Louis," in which we count no less than eighty-one different dishes, most of these *made* dishes, compounded of from five to twenty-five ingredients each, and ranging all the way from rice pudding, with rum sauce, to calves' brains and young Rocky Mountain bear! There were also nearly forty different kinds of grog, and half-a-dozen or more brands of cigars. And all this gormandizing and swilling by an association of physicians, the conservators, or supposed to be the conservators of the public health!

It seems to us that no more wasteful and sinful expenditure of money could be made than in giving a feast to a man, or to a set of men. Had the money which the entertainment last described cost, been given to the poor of St. Louis, it might perhaps have kept them in food and fuel for an entire season. If the twenty-five thousand dollars once expended on a banquet given in this city to a certain English baronet had been applied to the liquidation of his debts—for he has since become bankrupt—it would have been a more fitting bestowal of it.

If a man who belongs to the church should happen to get drunk, he is excommunicated *instantly*. He may bring himself to the verge of a fever seven times in a week, though, by his intemperance in eating, and his sin is not rebuked. Should a man die from the intemperate use of alcoholic stimulants, he is said, in popular parlance, to have killed himself. He goes down in shame to a drunkard's grave; and the cause of his untimely end is never alluded to by his family or surviving relatives. But if, instead of this, he eats himself into an apoplexy, and meets with sud-

den death, it is universally regarded as "a dispensation of a wise and mysterious Providence." If a man, by an excessive use of ardent spirits, brings on a fit of *delirium tremens*, and cuts his throat with his razor, he is justly held accountable at the bar of public opinion for the guilt of suicide. But if he should kill himself in the most fashionable and approved style, with dyspepsia, induced by a long indulgence of a morbid appetite in the use of unwholesome food, taken in excessive quantities and at irregular hours, it is looked upon as "one of the inscrutable mysteries of the Divine Mind," if his taking-off be a sudden one; otherwise no particular notice is taken of it. Perhaps a sermon is preached over his mortal remains, extolling the virtues of the deceased, and holding him up as a bright exemplar of the true Christian character. More men are killed by excessive eating than by excessive drinking; yet who ever heard the officiating minister, on an occasion of this kind, utter a warning cry against the sin of gluttony.

Will the time ever come when death produced by inordinate eating will be regarded as suicide as well as that caused by intemperate drinking? God, who is no respecter of persons, regards them both alike. The Bible pronounces the same fearful woes upon both: "Be not among wine-bibbers, among riotous eaters of flesh: for the drunkard and the glutton shall come to poverty." To our view a glutton can no more serve God acceptably than can a drunkard. Yet how many of our churches are warned by their pastors against this most disgusting vice, and the evils which are sure to spring from it! When will the clergy awake to their duty in this matter?

In fact, some of the most notorious instances of intemperate indulgence in the luxuries of the table are found among the clergy themselves. The Bishop of Verdun, France, who died recently, was of the type of gourmands. The quantity of food he was accustomed to consume was said to have been something extraordinary. Owing to the frequent illnesses brought on by his voracity, he had always to be accompanied

by a servant, whose sole business it was to prevent him from eating more than was good for him. Whenever the bishop dined out, this domestic stationed himself behind his master's chair and scanned with a critical eye the amount of cutlets, *pates de foie gras*, *perdreaux truffes*, etc., eaten by his Lordship; and when he considered that he had had as much as was good for him, he made a sign to the mistress of the mansion, who, instructed beforehand, cut off the supplies.

We have some bowels of compassion, however, for our brethren of the ministry in this country, for we know they are sorely tempted. A visit of the pastor to the family of one of his flock is usually the signal for getting up an exceptionally good dinner, when viands of a richer and far more unhealthful character are provided than are set before the family on ordinary occasions. The minister is pressed with this delicacy and with that, until he is almost killed with such kindness, and he is ready to cry out, "Save me from my friends!" Addison used to say: "When I behold a fashionable table set out in all its magnificence, I fancy I see gout and dropsies, fevers and lethargies, with other innumerable distempers, lying in ambush among the dishes." We have often thought that the ill-health which prevails so extensively among ministers of the Gospel, was due to this cause more than to their sedentary and studious habits; for it has been satisfactorily ascertained that literary pursuits are not unfavorable to longevity. Men of studious habits have in many cases been long-lived; in fact such is generally the case, *unless it is where they have given way to appetite.*

We have thus treated this subject at some length, but have by no means exhausted it. Indeed, as the ways of eaters are different, and there are many different eaters, much space would be filled in an attempt to treat them suitably. We trust that other and abler pens than ours may take it up where ours has left off, and not give over until the attention of hygienists is aroused in a degree that its importance demands.

JAMES COULTER LAYARD, M.D.

THREE VICTIMS OF FASHION.

[From the German of Dr. Bock.]

IN that part of the human body near the junction of the chest and the abdomen, the part where in males the vest buttons closely and in females the band of the skirt-undergarments comes, lie three important structures or organs, viz. : the stomach, the

blood, and thus a continuance of those manifestations of power produced by combustion.

The stomach, between the liver on the right and the spleen on the left, lies behind the part called the stomach-pit, and works

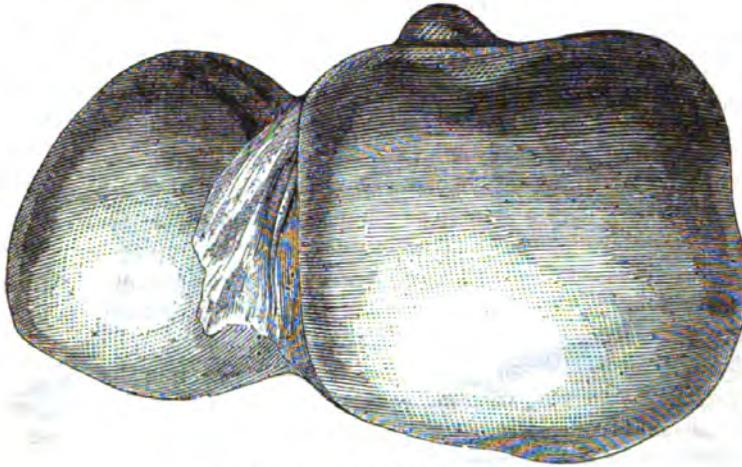


FIG. 1.—THE HEALTHY LIVER.

liver, and the spleen. These organs play a principal part in the sustenance of the vital flame. As long as we live, there is a continual combustion, although not accompanied by flame or fire, taking place in our body. But this process is not very different from that of a working steam-engine. Here, as well as there, heat is first generated, and the most varied manifestations of power take place ; here, as there, the active part of the machine gets worn out, and various products are formed ; in the machine, smoke, ashes, and soot ; in the human organism, organic waste, carbonic acid, etc. Here, as there, it is necessary to supply material for the repairing of the worn-out mechanism, as well as to keep up the fire—namely, fuel and oxygen. In the human body the blood, by its circulation through all the organs, supplies the fuel and the repairing material, as it also brings about the removal of the products of combustion (waste). To keep the blood in proper condition for this work, the lungs and the three above-named organs are necessary ; these functions are, in general, the renewal and purification of the

up the masticated albuminous substances (meat, milk, eggs, gluten, etc.) into the

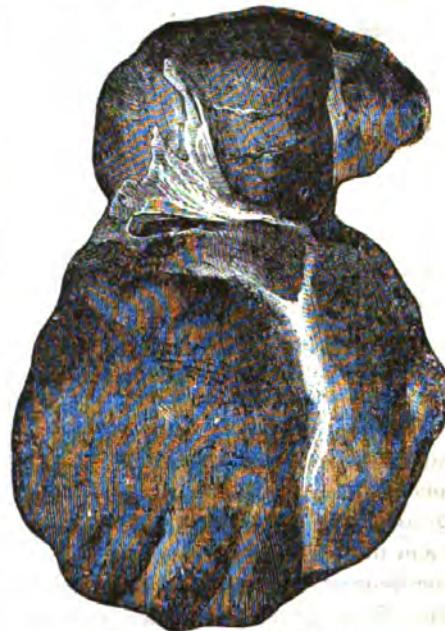


FIG. 2.—THE CRIPPLED LIVER.

principal building material of the working and worn-out organs.

The spleen, which takes its position at the extreme left of the upper part of the abdomen (in the left hypocardium), is one of the principal sources of origin of the corpuscles of blood, which enter the circulation and draw oxygen from the atmosphere inhaled by the lungs. These corpuscles laden with oxygen are carried by means of the circulation to all parts of the body, and sustain by the surrender of their oxygen the combustion, which is the main-spring of all physical manifestations.

The liver, in the right of the upper part of the abdomen, is the grave of old worn-

eating, when those suffering organs require more space than usually. It is mainly *tight clothing* which tortures these organs. Besides this, a bending position of the body, especially in writing, and pressing the upper abdomen against the table, can prove injurious.

Most conspicuous are the consequences of compression by tight bands on the liver of women; a very deep cross-streak in this organ is often produced by tight-laced corsets pressing the lower ribs deep into it. Such crippling often causes pleurisy, in consequence of liver inflammation. In the

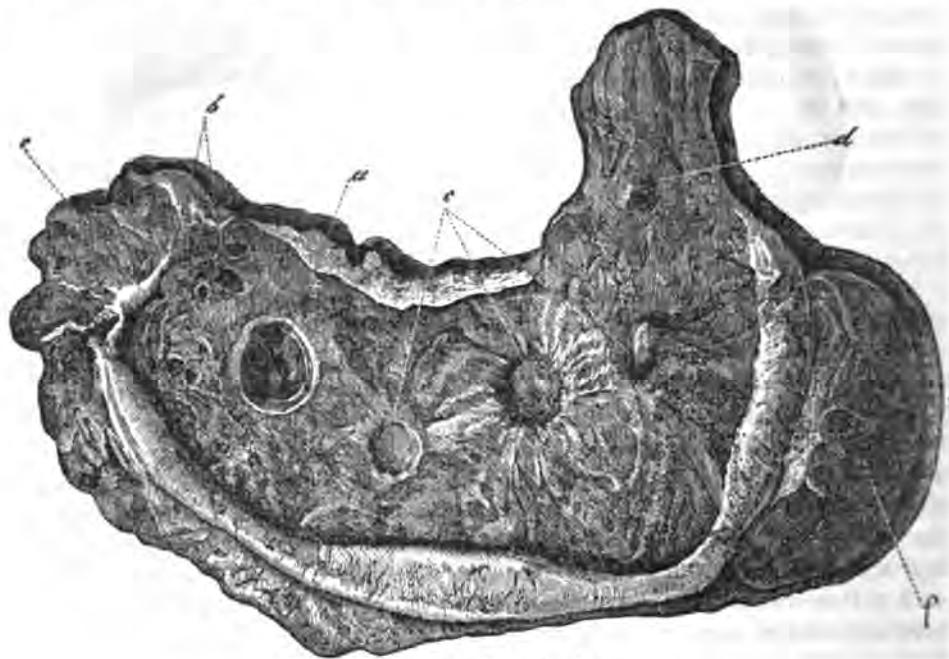


FIG. 3.—INTERIOR OF DISEASED STOMACH.

out blood particles, and there they separate into the ingredients which constitute bile.

Fig. 3.—Coating of stomach cut away so as to show the diseased interior. *a*, round stomach ulcer; *b*, bleeding cysts; *c*, scars; *d*, entrance, and, *e*, exit of stomach; *f*, the spleen.

Interruptions of the activity of the three organs designated, must influence the supply of the building material, the origin of new and the destruction of old corpuscles—or the regenerating and purifying of the blood. Such interruptions are especially caused by the narrowing of the upper part of the abdomen through pressure or lacing, more particularly when that is done after

stomach often, especially in young women, the round stomach ulcer is produced, which becomes through its burning pain and occasional spasms a most tormenting plague. The spleen, not so rarely as may be thought, is affected by similar improprieties of dress and becomes inflamed, its functions being impaired for the formation of blood globules; the spleen may be squeezed down and out of its natural position, when it is called the wandering spleen.

Nothing can be done to recover entirely a crippled liver and a misused spleen. The stomach ulceration, however, which may be causing frequent spasms and even blood-

vomiting, may, through a careful dietetic treatment, in most cases be cured without leaving the slightest complaint behind, provided, however, that the deranged organ has not been too ill-used with drug-medicines. When the cicatrization of a very deep stomach-ulcer leaves behind a grooved patelliformed scar (see illustration), at a later stage of life the stomach-spasms may return even with blood-vomiting. These may be occasioned by the entrance of foreign matter into the scar or hole. Many a physician has—misled through the continous spasms and vomiting of old, thin, and pale-looking patients—declared the evil to be stomach-cancer, and incurable. If under such circumstances a quack-doctor or patent-medicine swindler should get hold of the case, and the scar in the stomach of itself should get some rest, and the bad symptoms resultantly cease, the "doctor" would be likely to proclaim to the world the cure of a stomach-cancer, while a former and honest physician is ridiculed.

The only scientific and safe method of curing a stomach-ulcer in almost every case is dietetic, and this demands care that the sick stomach be not abused in any way, but is given time for rest and healing. Therefore, it is necessary to avoid any and all medicines, and likewise all kinds of hard and irritable stuffs which might lodge upon the ulcer; spirituous liquors or beverages, and spices, should be entirely rejected, and care exercised about eating peas, beans, and even rice, barley, sago, etc. All kinds of tobacco, milk—which coagulates into small cheese globules—and solid pieces of meat and bread should be avoided. The food must therefore be taken often and in small quan-

ties, and must be of a liquid or pappy consistency, so as not to irritate or incommode the ulcer through the improper action of the gastric juice and an unusual peristaltic motion of the stomach, which would disturb the cicatrization. The food may consist of a thick soup with beaten egg, a mild tea or chocolate, with biscuit or bread soaked therein, etc.; meat should be taken only when it is thoroughly comminuted like pap, and even then must be eaten with great care. Milk (which is usually one of the best of all foods for strengthening the sick and regenerating the blood) should not be used before

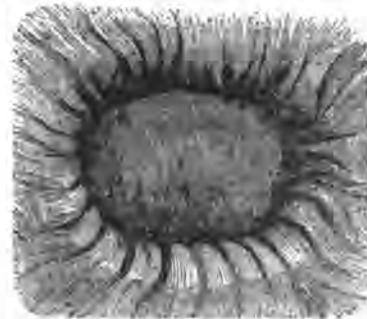


FIG. 4.—STOMACH SCAR.

the ulcer is entirely healed up, and should even then be taken only in very small quantities with biscuits soaked therein. In case of blood-vomiting, no warm beverage is to be taken, but ice in small pieces should be swallowed, or perhaps ice cream. Under such a dietetic treatment, and by avoiding all pressure against the stomach and keeping the body warm, the healing of the ulcer may, in a comparatively short time, be accomplished. All so-called family or patent medicines, especially pepper or other spices, brandy, whiskey, etc., are pernicious, and may cause speedy death.

THE COUNTY MEDICAL SOCIETY.

BY J. S. GALLOWAY, M.D.

DO not be inquisitive, dear reader, about what county it represents, or in which of these great sovereign States that county is situated, or even who were the men composing the Society. What they thought, said, and did is our theme.

Dr. A., a venerable old man, has been many years in the profession, and his repu-

tation is as wide-spread as his practice has been. He seems, too, to estimate himself as highly as his patrons estimate him. He expresses an opinion in a manner which implies that it is decisive, and that when he has yielded the floor no further discussion is necessary. Two years since he had much to say about the virtues of aconite, which he

was careful to pronounce with great precision—aconee', with the accent on the last syllable. He had made his fine reputation for the cure of miasmatic diseases by the use of this drug with some other simple agents. This year his hobby was electricity. "It has a wide range of applicability. In agues it is excellent. In nervous disorders it has no rival. It relieves the pain, and swelling soon subsides under its use in whitlow. Two or three applications of an hour each will do the work." He had a chance to try it at the meeting. He did not fail to do so, and for some hours the current passed through the obstinate thing, yet the pain was unabated.

Dr. B. has filled a professor's chair. He has traveled and seen the world. His patients come long distances to consult him. He is looked upon as an oracle in many diseases usually regarded as very difficult, if not absolutely incurable. He was catechised about the treatment of spinal meningitis and hydrophobia. "The free use of alcohol is the remedy. Make your patient thoroughly drunk, and when he has sobered off, the disease will be broken. Has never known it to fail."

The topic for the day was taken up and nearly all the members had their say about it—*The Medicinal and Poisonous Effects of Medicines*: How to obtain the one and avoid the other. Dr. C. saw no difficulty in the case. Had used the strongest poisons in the *Materia Medica*, and used them freely. Thought there is something in the nature of disease that renders properly administered drugs, however poisonous, harmless for the time being. He named particular drugs and the doses, as he had frequently used them.

Dr. D. did not agree with Dr. C. Considered full doses of poisonous drugs as dangerous in disease as in health. Should he administer the quantities named, his patients would die. Believed no physician justifiable in taking such risks. His faith in medicine is strong. He does not prescribe doubtfully. Has seen enough of it to know what it will do. But it must be used understandingly and cautiously. It has cost him years of careful study and close obser-

vation to gain his present confidence. This, he thinks, the only safe solution of the problem. "Those who are not willing to undergo the ordeal should never enter the profession. It is a dangerous thing to tamper with drugs while in doubt about what they may do."

Dr. E. is a close student and a systematic thinker. When others are satisfied he is cautious, and sometimes doubtful. He sifts and sifts again, lest there may be something else than pure wheat in the grist. If there are safe men to be found in the drug-practice, he is a safe man. He thought the question before the Society was one that involved difficulties. He had met them and grappled with them. He could not say he had conquered them. He knew quinine would break chills by its medicinal properties, but it must be admitted that it causes roaring in the ears, deafness, etc. These he considered its poisonous effects. It would be desirable to avoid them if possible. Making the dose small enough to do this, he failed to secure the medicinal effects of the remedy. He considered the problem yet unsolved, if not incapable of solution.

Dr. F. has so often met the same difficulty, and so often had drugs administered with the greatest care and discrimination he was capable of, failed to do what he wished them to do, that he is more and more inclined, from year to year, to abandon all such agents, and trust alone to the recuperative powers of nature. That drugs frequently answer a good purpose, he could not doubt. That they often fail to meet our expectations, he thought no careful observer could deny. That they sometimes do great and irreparable injury, even when prescribed by the most intelligent and cautious members of the profession, he thought too palpable to admit of a doubt. How far it is wise and commendable to risk the evil for the sake of the good resulting from the use of drugs, he considered a question of the greatest importance.

Dr. G. read a well-digested and well-written paper expressive of his views. He had been a faithful votary of the approved practice for many years. Had learned from ample experience that infinitesimal

doses were often followed by better results than the larger ones. His faith in large doses has steadily and greatly declined.

It may be well to add that Dr. D., with all his faith in drugs, admitted that he used medicines very sparingly now. At first he gave much larger, much more complicated, and much more frequent doses. Young practitioners are quite prone to err in this direction. An item or two from another source, which he deemed not amiss in the discussion, was that an old apothecary who had supplied many students with their outfit, and whose chief business was filling orders for physicians, had said some years since: "It is interesting to see how physicians fall off in quantity in the use of drugs as they ac-

quire experience. As business increases their orders fall off, both in quantity and variety. This rule has almost no exceptions."

A gentleman trained to the drug-business and largely engaged in the preparation and sale of patent medicines, made the remark: "If Americans do not learn to know better than to swallow drugs from the doctors and drugs from the patent medicine dealers, as they are now doing, the present stock will run out in a generation or two, and the country will have to be re-peopled by fresh importations from abroad."

To the hint that this remark could hardly have been expected from one in his business, he replied: "No one else has a better right to know."

THE PEAR; PYRUS COMMUNIS.

Name—History—Improvements—Hybridization—Culture—Our Pretensions—Varieties—Keeping—Uses—Drying.

RECIPES.—Pears, Sliced, Stewed with Lemon, with Grapes; Baked and Canned.

THE pear and the apple are closely allied. The pear gives the name to the genus, and is even called "common," although the apple is much the more common in all the regions where botanists thrive. Botanical names are usually given with better adaptation. In botanical characteristics the two are much alike, the leaves of the pear being smoother and more regular than those of the apple, the blossoms are more white and less fragrant, and the tree more regular and pyramidal in form. The variations and resemblances of flower, fruit, leaf, and branch in such nearly related species make fine studies for object lessons for young people, and teach them habits of close observation.

In tracing the "common" name of the pear we seek vainly in its

HISTORY

for any trace of affection which might have bestowed this epithet: "No graceful legend plants it in celestial gardens, gives it to guardianship of god or goddess, or links its name with the adventures of the daring heroes or loving nymphs of antiquity;" no maiden counts its seeds, nor throws its par-

ings over her head in divination of "the coming man." Neither was this the case because it was not well known, for it has a place in some of the most ancient writings. Homer mentions it as growing in the garden of Laertes, and Cato sent pears to Virgil. The Romans had some three dozen kinds, among which were the "Libralia," or pound-weight pears, and the "Proud Pear," so called because it ripened early and decayed soon—a pretty good hit at pride. The Greeks and Romans claimed it as indigenous to their countries, and its origin has also been ascribed to Palestine and to Egypt.

But none of the ancients speak of it in terms of praise. Pliny asserts that "all pears whatsoever are heavy meat, unless they be boiled or baked;" and an early English writer speaks of them in the same strain. It is fair to infer that the pears known to them were all "cooking pears," for they could not have passed such a verdict on the delicious fruits that now grace our tables at dessert. Some, indeed, were considered eatable, just as we now occasionally find a cooking pear into which we venture to set our teeth. In the accounts of Henry VIII. occurs the item, "2d. to an old woman who gaff the kyng peres;" and another of 3s. 4d. for "Wardens and Medlars," the Warden being a cooking pear, so

named on account of its long *keeping* qualities. This might be considered sarcastic if applied to some of the wardens we wot of at the present day.

In France they had some tolerable varieties as early as the 13th century. Among these was the "Jargonelle," a sweet pear



DWARF PEAR TREE.

still on the lists, and one of the Bergamot varieties. The "Bon Chretien" was named after a monk who brought it to France during the reign of Louis IX.

It is, however, mostly within a century that the greatest

IMPROVEMENTS

have been made in its qualities. These were started by one Van Mons, a native of Belgium. This man was a scientist who devoted his life to the study of pears. His theory was that cultivation should restrain the exuberance of the foliage, and divert the strength of the plant to the seed and the pulp surrounding it. His experiments were conducted mostly with the seeds. He found that the seeds of common plants, sown on good soil, and receiving good culture, produced improved varieties; and, their seeds replanted, improved another step, until a certain ultimate point of perfection was reached. This was a somewhat tedious method, especially as the pear naturally fruits late. The first fruited by Van Mons required fifteen years; but, as he invariably sowed the seed of the first crop, he found, when he arrived at the fifth generation, that they began to bear at the third year after planting. He had, in all, some eighty thousand trees from which he made his selections.

Such intelligent industry deserved reward, and he had it, not only in the introduction of many kinds far superior to anything before known, but also by inducing many other intelligent men to undertake similar experiments. To these experiments, collectively, we owe a large proportion of the rich, melting, and delicately-flavored pears which now delight the taste of the connoisseur, and rewards the labor of every careful cultivator.

Knight, an Englishman, subsequently experimented largely by

HYBRIDIZING,

which is still more scientific, and the results far more certain. The aim, in this method, is to mix desirable qualities in different kinds of fruit. Certain flowers of each are selected before they are fairly open, the stamens are cut from them, and, as soon as the pistils become viscous, they are fertilized with the pollen of the variety with which it is to be crossed. Great care is necessary to prevent fertilization from any other source, and sometimes a netting of gauze is secured around each to make certain the desired result. The seeds taken

from these fruits are carefully sown as soon as gathered, and kept by themselves until they bear, so that their quality can be tested.

There is a great tendency to deterioration, so that, out of thousands, perhaps no one will quite equal the original in all respects. Yet varieties are often thus produced which repay all the trouble. This is the method now mostly used by amateurs in this country and in France. The pear is a favorite fruit for this kind of experiment, and the most exquisite new varieties have been obtained by this process.

When a variety has once been obtained by whatever process, the only care necessary to its propagation is to graft it to any desired extent, and that is the only reliable method. For many years the pear has been grafted on the stock of the quince to obtain dwarfs. They are not so hardy as those on pear stocks, but they occupy only about one-fifth the space; they come much earlier into bearing, and some choice varieties produce much better fruit than on pear stocks. As a general rule, those on quince stocks are more used in gardening, and those on pear stocks in orcharding.

CULTURE.

The pear needs high and careful culture, especially the finer kinds. Still, it is far more hardy than the peach, and many varieties can be raised further North. A limy soil suits it best, provided it is rather porous, but varieties can be found adapted to almost any soil. Those intending to cultivate, if but a few trees, would do well to read up in some standard work. By doing so they will probably save the cost of several high-priced trees, besides having the satisfaction of knowing what they are about.

In these pages we can, at no time, do much more than hint at the things that are to be learned, and thus, perchance, excite in some minds a desire to know more. We also aim to give such information to women as shall lead them to study more closely the nature and qualities of the materials which come into their hands in preparation for the table, so that they may enjoy their work more, and perform it to better advantage. If it should also lead them to devote more

attention to horticulture, it would still further promote this end, besides proving of inestimable value to them and to their children as an invigorating pursuit, both mentally and physically.

VARIETIES.

There are so many varieties of the pear that we should be quite lost if we relied on the books alone to help us to a decision concerning the kinds suitable to our own locality. A better plan is to consult those who have already raised pears in the neighborhood, find out what have succeeded best, and, after a few years experience with these, we shall be able to add, now and then, some other variety with better certainty of success.

In purchasing the fruit in the market, we shall save ourselves much trouble if we become familiar with the names and qualities of the different kinds. When we have asked the grocer or the marketman the name of a strange variety, compare it with the description in the *Fruit Culturist*, observe closely its qualities, and make a note of how well or how poorly it serves your purpose for dessert or the stew-kettle, as the case may be. This note may be entered on the margin of your fruit-book, or in a separate little blank book, as you prefer. This will soon make you a good judge of pears, and save you much loss and annoyance in making your purchases. Do not buy largely of any strange variety until you have tried it. Choice varieties, like the Bartlett or the Bergamot, can sometimes be bought, green, at a low rate, and these become delicious when cooked, or when kept till they are ripe. The

KEEPING

and ripening of the different kinds of pears forms a study of no small interest and importance. Some varieties require to be ripened in the house, in order to develop their best qualities. Some say that the bureau drawer or the linen closet surpasses all other places for this purpose, while one of our German neighbors unhesitatingly recommends the use of a feather-bed. The good housekeeper will certainly prefer to keep her linen closets to their legitimate use, and though feather-beds would be

much better used thus than for packing away human beings, a cheaper, cleaner, and a more convenient substitute would be old linen, or old blankets, or even shallow drawers, in which the fruit should be placed quite separate from each other. Warmth, dryness, and darkness are the requisites for most pears which ripen in this way, and the skill of the housewife consists in ripening them, if possible, only as fast as they are wanted, and in discerning, to a day, when they are at their best. Some study and some experience is requisite to success, but success with the finer varieties of these delicious fruits is a rare pleasure to the true house-mother.

USES.

To attempt to cook the finer varieties after they are fully ripened, would be very much like trying to paint the rose. If, however, they are specially wanted for "tea," they may be served whole, or pared and sliced after the manner of peaches. There are many varieties which are raised purposely for cooking—more than I wish there were, for though some of them develop a fine flavor in the process, many of them remain almost tasteless. When there are poor ones which must be disposed of, we find it an admirable plan to cook them with rather tart fruits, the contrast being agreeable. Merely adding syrup to many of the cooking pears seems to us a poor attempt to drown insipidity with sweetness. Less sweetness, and a faint flavor of ginger root or cinnamon, is preferable, but good pears are better still. Many of those raised as cooking pears are not worth the seasoning required to bring them on the table, to say nothing of the expense and trouble they make. Some of our best authorities claim that it is no more trouble to raise a good variety than a poor one, and commend those who have poor pear trees to graft them thoroughly with better kinds.

DRYING.

A good pear is as much needed for drying as for any other purpose, though it should not be so ripe as for eating, since it must be exposed to the ripening processes of both drying and cooking. Pears are very easily dried whole, or sliced, pared, or with

the skins still on, and they can be had in all these shapes in the New York market. They are a very economical dried fruit, for, if well prepared of good material, they require little or no sugar when cooked, and they swell much more than many other kinds of fruit. We have been waiting rather impatiently for our California friends to "flood the market," as they have so long been threatening to do, with their Alden dried pears. We stand ready to take our share, and to dispose of them if they are equal in quality to those we have already used.

RECIPES.

SLICED PEARS, or, "pear salad," as the English cook-books would call it. The Yankees would call it "pear sauce." Select for this dish very ripe, melting, and juicy pears, tolerably sweet, and of a delicious flavor. The Bartlett is a fair specimen. If they are not juicy they are better cooked. It is, however, a very easy matter to try a few before venturing a dish full. Pare, slice, and sweeten, if necessary, very much as you would peaches. Wedge-shaped pieces are the best, and do not make them large, or they will break and mar the pleasant appearance of the dish. If they are lacking in flavor, try a dash of pine-apple or lemon juice. Very ripe tomatoes may also be cut with them. Each of these should stand an hour or two before serving.

STEWED PEARS.—Pears are usually cooked with both skins and cores. If they are very large, they may be halved or quartered. Porcelain-lined sauce-pans or granite ware is the best, but if the fruit is not acid, tin may be used. Cover with water and stew gently until tender; then skim out the pears, add what sweetening is necessary, boil up and pour over the cooked fruit, and serve cold. This is much better than sweetening while stewing, as it makes a pleasant contrast between the fruit and the juice. If the pears are quite flavorless, add a teaspoonful of sliced green ginger to two quarts of pears to the water in which they are stewed about twenty minutes before they are done. Remove the ginger after the pears are cold, or the flavor will become too strong. It should be but faint at the most, and the root should not be eaten. It can be made to serve a second time.

LEMON-PEARS.—For large and rather insipid pears. Pare and quarter, but do not core them. Cover with water, to which add rings of lemon, one large or two small lemons to a quart of pears. Stew, in porcelain, gently until tender; take out the pears into a platter, sweeten the juice to taste. Place the rings tastefully around

the edge of the platter, pour the juice over the fruit, and serve cold.

PEARS WITH GRAPES.—Green grapes and pears may be stewed together, and sweetened to the taste. Dates can be used for sweetening if preferred. Rich, ripe grapes, like the Concord or Isabella, can be stewed separately and strained through a colander to take out the seeds, and then scalded with the pears, and served cold.

Pears can also be stewed with huckleberries, or blackberries, or black currants.

BAKED PEARS.—If a moderate oven is at command for several hours in succession, a very nice method is to prepare the fruit the same as for lemon or ginger-pears, but without any seasoning, and, placing them in a jar, cover closely, and bake very gently five or six hours. Then the juice may be poured off, the seasoning added, all boiled up and poured over the fruit. Serve cold.

Very few have this kind of an oven at command, and they may not be able to have baked pears any better than stewed, while they are

usually much more trouble. If large and juicy, and tolerably tender, they may be baked slowly, in a moderate oven, on a pie-dish. If this makes them too dry, another pie-dish may be placed over them. They may then be served, without sauce, like baked apples, or be covered with a sweetened sauce flavored with ginger, lemon, or some other tart fruit.

CANNED PEARS.—Pare the fruit and leave it whole, or halve or quarter it as you prefer, though that which is whole is considered the nicest. Do not remove the stems. Put into cold water as soon as pared. Place it in the cans, more or less artistically as you please. Pack close. Fill up with a mild syrup, or with water, and cook in a kettle of water until sufficiently tender to be pierced with a straw. Take them out and seal the same as any other fruit. Any of the above stewed pears may be canned after they are cooked, though the ginger and the peel of the lemon should be removed before canning.

JULIA COLMAN.

UP AMONG THE TREE-TOPS.

AN IMPROMPTU.

SHOULD it happen—although it won't do to say so—

You can not afford in the country to go ;
Just cast off, at once, all your grandiose airs,
And climb to the top of the uppermost stairs :

Up among the tree-tops,
And among the spires ;
In among the birds-nests
And telegraphic wires.

You must leave down below you the weight of
each sigh,

Such ballast as that you'll not need near the sky ;
How pure is the air ! And the heavens, how
clear !

The din of the world is not sounding so near,
Up among the tree-tops.

How delicious it is near a spire to recline,
When comfort below you are forced to resign ;
While zephyrs trip over the telegraph wires,
Which bear to the absent your fondest desires—
From among the tree-tops.

It can not be supposed that rich aristocrats
Would leave their fine mansions to dwell on top
flats ;

But Fortune's step-children, who're gasping for
breath,

Can rise from the airs that are laden with death,
Up among the tree-tops.

'Tis a curious sensation at first, when you know
The life of the world is decidedly low ;
And perhaps, if you lived there for year after
year,
On quitting your eyrie you'd look rather queer
From among the tree-tops.

As the wires stretch around—and perhaps seas
and hills—

They send through the bosom some magnetic
thrills ;

Familiar you grow with each distant church-
spire,

"Excelsior!" you cry, and would fain go up
higher—

Up among the tree-tops.

* * * * *

Now, my friend, Mr. Critic, who may say some-
times,

"These verses are faulty ; how careless these
rhymes !"

Remember the mercury's now ninety-four
By Fahrenheit, sir, and we're threatened with
more,

E'en among the tree-tops,
And among the spires ;
In among the birds-nests
And telegraphic wires.

GRACE H. HOBBS.

FOOD ITEMS FROM THE CENTENNIAL EXPOSITION.

IOWA exhibits models of 300 varieties of apples, cast in wax directly from the fruit, and colored with great care. In spite of its being mid-summer, most of the visitors insist that these are natural fruit. There are also some pears and quinces.

OREGON has a remarkable display of dried fruits and vegetables. They are dried by the Alden process, and displayed under glass with fine taste. Besides many varieties of apples, which made the best show, there were peaches, pears, quinces, beets, cabbage, white potatoes, sweet potatoes, and bananas, though we are not certain that the latter were raised in the State.

THE CALIFORNIA FRUIT-DRYER is a new patent, which seems to be an improvement on the Alden Dryer. The largest sized machine will dry seventy-five bushels of apples per day, which, if put up properly, will not be infested with worms. Raisins and other fruit can be prepared in the same manner.

IOWA exhibits 400 varieties of grain, seventy-four of which are corn. One of these produced ears so large that nineteen of them filled a bushel basket.

SPAIN shows hundreds of specimens of seeds and grains, many of which are quite new to us. Among these are several kinds of pulse, the names of which we could give, but as they are the same as those applied to familiar varieties, they would afford no discrimination. There are varieties of pulse white and fair which are neither peas, beans, nor lentils. We hope seeds of all novelties will be secured, especially from Southern States.

WEEVILS.—The bean and pea weevils are rioting in many specimens of pulse in the glass cases. Foreign exhibitors should be chary of introducing noxious insects and native cultivators, still more careful about receiving them. They may be killed generally by a moderate scalding without destroying the vitality of the seed.

INDIA displays seventy-eight kinds of rice, some of it as dark as our Valentine and Mohawk beans, and similar in color. This is the food of the poorer classes. Some varieties are very large and handsome in size and appearance of kernels, but none of it so white and clear as our common Carolina, or head rice.

CANNED GOODS are in great abundance, and make a magnificent show. There are some great glass jars that hold at least half a bushel of white pared pears, arranged with exquisite symmetry; whole tomatoes with the skins almost unbroken; colossal asparagus standing full length in cans over a foot in height; peaches, plums, cherries, apricots, nectarines; in short, the display of true goods seems endless, only that they are ever and anon bounded by the false.

CALIFORNIA produces apricots in profusion, quinces in regular crops (some of the specimens weigh over two pounds), plums in abundance, with no curculio to trouble them, and oranges and limes along five hundred miles of coast. The smaller fruits common in the East bear abundantly, and the banana is beginning to be cultivated in the gardens.

FOOD EATERS.—Not exactly in the line of foods, but as the devourers of all kinds of food, we notice that New Hampshire sends two stuffed Chester white hogs, weighing in the neighborhood of 1,300 pounds each. What a deal of good food they must have spoiled before they attained that weight!

THE Florida orange crop for the present season is 25,000,000, worth on an average at the groves \$15 per thousand, making \$375,000. It is estimated that there are now not more than 3,000 acres of young trees from four to six years old from the bud, some bearing as many as 100 oranges the past fruit season. For the next five years it is believed the crop will gradually increase from the growth of trees to 150,000,000, yielding a product of \$5,250,000, or about one-seventh of the product of Palermo.

A MOVEMENT is being made by West India fruit-growers and importers of fruit here for a reduction of duty on imported green fruit. On some fruits, such as pineapples from the Bahamas, the duty is ruinous, owing to the large percentage of loss by decay while on the voyage. It is said that for this reason the product of the Bahamas is decreasing, and that other crops will have to be raised instead.

REPORTS from Georgia are very favorable in regard to the future of small grain. A large area was planted in wheat, oats, rye, and barley, and the crop of cereals will be larger this year, while of cotton it will be less.

RECORD OF SCIENTIFIC DISCOVERY.

EDITED BY FRANCIS GERRY FAIRFIELD.*

EXPERIMENTAL TRANSFORMATION OF ORGANISMS.—Experiments bearing very decidedly upon the Darwinian theory are just now exciting considerable attention in Germany. One series of these researches was conducted by Weissmann, a naturalist of high reputation, and respects the transformation of the Axolotl. This animal (known to naturalists as the Mexican siredon) and its allies retain in Mexico, during life, their natural state, the form and organization of the larvæ of our Tritons; but in artificially breeding them in Europe they are sometimes transformed into the Amblystoma, an animal of the form of the fully-developed Triton. With a view to produce this metamorphosis artificially, Weissmann entrusted the breeding of five eight-day larvæ to an assistant, and all five actually underwent the transformation from the Siredon into the Amblystoma, after having been placed for six or eight months in water so shallow that they were frequently compelled to leave it and accustom themselves to lung-breathing. Now, as besides the Mexican siredon species, which in the natural state are never transformed, there occur in the United States similar animals which represent the temporary larval stage; the former has been regarded as a form that has permanently remained at a lower stage of development, but is incited to physical progress by the better conditions consequent upon transplantation. This would be Darwin's view. Weissmann, however, is of the opinion that this sudden and remarkable metamorphosis cannot be explained in this way, that is, by the action of new conditions of life, and thinks that the hypothesis of a life-force is necessary to their explanation, unless some view differing from that of the Darwinists can be offered. He rejects such an hypothesis, however, and conceives that the result of the metamorphosis is not a real one, but only an apparent formation of a new species, namely, a reversion to a form that once existed among the ancestors of the Siredon. This view is supported by the fact that our Amblystomas all pass through a larval stage that resembles the Siredon, and by the fact that, under certain conditions, Triton larvæ are never transformed. If, as Humboldt concludes, the high tablelands of Mexico were once covered with

extensive lakes, the evaporation of the large water-surfaces of which was sufficient to produce the moist atmosphere necessary to naked amphibians living on land, it is easy to see that the full development of the native Amblystomas may have been stunted by the gradual change from a humid to a dry atmosphere; and from this cause the Siredon—as an Amblystoma not fully developed—may have come as a species. The reader is aware, of course, that in the larval stage the Amblystoma lives in water, and that the transformation takes place in consequence of the animal leaving the water and adopting land habits. The gradual loss of humidity in the atmosphere consequent upon the extinction of the numerous lakes supposed by Humboldt to have formerly existed in Mexico would prevent the ready-to-be-transformed larval Amblystoma from going on land, and thus it would forever remain a Siredon.

Some experiments just described by a Russian naturalist tend to throw discredit on the plausible theory advanced by Weissmann, and to establish the hypothesis of a special life-force. They were conducted near Odessa, on low crustaceans abounding in a salt lake in that neighborhood, and were suggested by an accident. This lake, with a view to salt production, was divided by a dam in such a manner that in the lower part salt was deposited in a solid form, while the less salt upper portion contained large numbers of *Artemia Salina*. In the year 1871 the dam gave way, and the very salt water in the lower lake was diluted to about 8 degrees of Baumé's areometer; but after the dam had been repaired the concentration rose to 14 degrees in 1872, 18 in 1873, and 25 in 1874. During this progressive change in the constitution of the water the *Artemia Salina* underwent a most remarkable transformation. In 1871 they still had their peculiar form of tail; but in 1874 two lobes of it had disappeared, the bristles were all gone, the gills had become enlarged, and the body was smaller. In other words, the new form corresponded almost exactly with the *Artemia Mühlausenii*, formerly supposed to be a distinct species. The fact was tested by artificial breeding of the *Artemia Salina* in salt water of increasing concentration, with the same result as before, and on reversing the experiment the *Artemia Mühlausenii* was gradually transformed into a large and peculiar species of the *Artemia Salina*. This led to extensive experiments, from which it appears that the direct influence of changed

* To give efficiency to this record, the investigators in all departments are invited to furnish short summaries of original experiments in the physical and physiological sciences, observations of the habits of animals and plants, and memoranda of discoveries. In all cases such matter will be accredited to the person sending it, if found to be new and available.

conditions may transform one species of *Artemia* into another, and this, too, in both directions.

Measurement of Blood Disks.—A recent trial for murder, turning upon the identification of specimens of the blood of different animals by means of the microscope, has provoked an animated discussion between Dr. Richardson, of Philadelphia, and Dr. Woodward, of Washington, both well known as microscopic experts; Dr. Richardson being of the opinion that the blood corpuscles in man are larger than in other mammalians; and Dr. Woodward taking decided ground to the contrary. Dr. Seiler, of Philadelphia, considers it perfectly feasible to demonstrate the distinctions maintained to exist by Richardson, and suggests the plan of making comparative photographs of the corpuscles by means of the familiar micrographic process. "In placing," says Seiler, "two kinds of blood—for instance, that of a man and of a sheep, a pig, or an ox—upon the same slide, near enough together to bring the disks of both into the field, the difference as seen in the photograph is very striking, the smallest of the human disks being always considerably larger than the largest in sheep, pigs, and oxen; so that, although an accurate mensuration is not possible, perhaps, on account of the thickness of outline, still the difference is sufficient without measurement to tell the one from the other." The corpuscles of birds, fishes, and reptiles are all oval in outline, and hence the discussion may be limited to the mammalia, in which the corpuscles are always circular. The writer inclines to dissent, qualifiedly, however, from the opinion of Dr. Woodward, although in a question of life and death it would be rather hazardous to convict on such testimony alone. In measuring blood corpuscles, and comparing those of men with those of the lower mammalia, he has found it sufficient for the purpose to employ the camera lucida—a little instrument that, fixed to the eye-piece of the microscope, projects the images formed by the object-lens on paper in such a manner that they can be drawn from life. By using a power of about 800 diameters, and employing a very delicately-pointed pencil, sharpened to extreme tenuity, outlines can be made that will admit of relative measurement. There is considerable variation in the diameter of the disks in different specimens of human blood. They are larger on the average in persons of glandular and vital temperament than they are in persons of delicate nervous organization. But, on the whole, human blood disks are larger than those of other mammalians. In ten specimens of human blood examined by the writer, the range

was found to be from 1-2900th to 1-10100th of an inch. In ten specimens from lower mammalians, the range was from 1-3200th to 1-12000th of an inch. The *Tragulidæ* possess the smallest disks, and they are certainly appreciably smaller than human, not averaging more than from 1-5000th to 1-16000th of an inch in diameter. It is now very well known that the test so long advanced as absolute by German scientists is not a sound one—at least, not an infallible one. This test consisted in the observation that the hæmaglobin of the blood of different animals differs materially in its manner of crystallizing, and may therefore be identified by its crystals. From recent developments it seems likely that the spectroscope will ultimately supersede the microscope in this field. Even after the clothing has been washed, it is competent to detect the minutest trace—so small a part, according to Mr. Sorby, as the one-thousandth part of a grain. The spectra of blood are eight in number, one-half of the spectrum from the violet end being wholly absorbed, and dark bands appearing in the green and red rays. Yet, of all the tests thus far developed, it must be said that, while they are of sufficient certainty for ordinary purposes, it would be very hazardous to convict a person of murder on their testimony. A microscopist or a spectroscopist who, knowing all the sources of uncertainty incident to his methods of investigation, should take it on his conscience to swear with such positiveness as to insure the execution of a suspected person, would certainly exceed the just limits of professional veracity.

Action of Rain-drops on Leaves.—In a recent elaborate paper on the curiosities of plant life, published in the *International Review*, Dr. Oscar Schmidt, the celebrated German botanist, illustrates how easily a professor may be mistaken. Alluding to the brown spots left on the leaves of plants by the action of rain-drops in the sunshine, the learned professor attributes the destruction of the tissue to the generation of nitric acid. The real explanation of this phenomenon is very simple. The drop being nearly globular, acts as a condensing lens, concentrating the received rays of the sun just beneath it, and thus destroying a section of the leaf. The same phenomenon may be produced experimentally with the object-glass of a microscope, by holding it against the leaf. The writer, who has often produced such spots with the microscope, has invariably found the tissue composing them to present all the peculiar appearances induced by carbonizing woody tissues at a moderate heat.

The Secondary Light of Venus.—The

cause of this phenomenon, familiar to astronomers, is made the subject of attention by a recent prediction of Zöllner that, under spectroscopic examination, the ash-colored secondary light of Venus will be found to present bright lines. He proposes to make observations on this point during the present summer. Those who are acquainted with the various explanations that have been offered by astronomers of this interesting phenomenon need not be told that all of them are of doubtful authenticity. Schröter, Harding, and many others hold the theory that the phenomenon is due to reflected earth-light, analogous to the *lumière cendrée* exhibited by the moon. Sir W. Herschel suggests that phosphorescence of the planet's atmosphere may account for the phenomenon, which, by the way, was first observed by Schröter, and which Herschel had often looked for without success. Tastorff propounds the hypothesis that the atmosphere of Venus is self-luminous. Others have referred it to auroral developments on the surface of the planet, to natural light developments such as our oceans may be conceived to present to an observer on another planet, to intense surface heat, and to various other causes. Gruithuisen proposes a *Künstliche Feuer* hypothesis, which is very ingenious, but not very probable. This secondary light is only visible occasionally—a fact which seems to militate against all of the explanations that have been enumerated, with the exception of the auroral one. The change in the color of the faintly-illuminated disk of the planet from reddish to ashen-gray, observed by Harding, seems also equally to favor the idea that the phenomenon is analogous to our *Aurora Borealis*, in which similarly rapid alternations of color are often observed. Mäslar has noticed a peculiarly beautiful radiating appearance of the secondary light, formed of seven or eight straight rays, sometimes very distinct in definition, and at other times very diffused. It is considered very probable that the method proposed by Zöllner will be successful in settling the question in favor of the auroral hypothesis.

Endowment of Scientific Research.—A strong movement has been set on foot in England, having for its purpose the appropriation of a portion of the revenues of Cambridge and Oxford Universities to the endowment of scientific research. As the same question must ultimately come up in this country, any data as to its successful solution are of interest to thoughtful Americans; and, as it is only in Germany that the problem has been successfully worked out, a brief note of the leading features of the German sys-

tem is admissible. Whatever may be our objections to German universities as educational institutions, it must be admitted on all hands that as centres of original scientific investigation they have proved so wonderfully efficient as to place Germany far in advance in the great scientific movement of the nineteenth century. The elements of this peculiar success are principally the following: In each university the appointments are held by twenty-one groups of men engaged in original investigation in their special fields. These corporations are prohibited from making money by engaging in commercial pursuits or by keeping boarding-schools. The appointments are graduated in value from \$400 to \$2,000 per year. New members are elected by co-optation, and the promotion of existing members of any corporation is effected by the same process—one corporation often inviting a member of another to leave his old associates in order to enjoy an increased salary or increased facilities for investigation. This co-optation is subject to the careful supervision, but not to the direction of the government; and since commercial operations, such as the acquirement of large revenues to the university from the fees of pupils or wards committed to its care are out of the question, the sole motive which affects its members in the selection of colleagues is the wish to secure men of eminence in the avocation assigned to the corporation, and to maintain a high reputation in this way for the institution. The result is, that the apparently insignificant stimulant offered by a step-by-step advance from \$400 to \$2,000 per year has been successful in rendering German science proverbial for patient exactness of detail and for brilliant original investigation. In our projected Institute of Phrenology it is our purpose to found an institution for original psychological investigation, in which the best features of the German university plan shall be adapted to the mental habits of American students, and the endowment of research in this important field practically and efficiently accomplished.

Mr. Edison's Supposed New Force.—Our readers have, through the medium of the daily newspapers, become at least vaguely acquainted with the pretensions of Mr. Edison, an American electrician of considerable reputation, to the discovery of a new force. This subject was recently made the topic of a paper by Mr. Thompson before the Physical Society of London, in which it appears to be demonstrated that the phenomena observed by Mr. Edison may be explained by the ordinary laws of induction. In Mr. Thompson's arrangement for obtaining the spark, according to an official re-

port of the proceedings for May 13, the secondary current of a Rhumkorff's coil is made to traverse a short coil of wire which is thoroughly insulated from the internal core, and into the circuit an arrangement is introduced by means of which the current may be made to traverse a variable thickness of air in its course round the short coil. It is found that if this spark is very short, the spark obtained from the internal core is also short; but as the thickness of air to be traversed is increased, the spark which may be drawn off increases proportionately; the greatest effect, however, is produced when one terminal of the coil is connected with the earth, the spark then obtained being about half an inch in diameter. Mr. Edison considered that the spark was retro-active; but Mr. Thompson showed, by an experiment, that deficient insulation might lead to such a conclusion. He then proceeded to show that just as the charge given to a gold-leaf electroscope is at times positive and at times negative without any apparent reason for the change, so if the core of the arrangement employed be connected with a Thompson galvanometer, the needle will be found to wander irregularly about the scale on both sides of the zero. In order to show that these experiments are identical with those conducted as originally described by the discoverer, the terminals of the induction coil were connected with the coil of an electro-magnet, the same means of including a layer of air in the circuit being introduced. The effect in this case was found to be precisely similar to that obtained with the special arrangement previously used; with a brush discharge a Geissler's tube could be illuminated, and when the layer of air was infinitesimal the spark produced was also infinitesimal. It was then shown that, if the spark at the point of contact in the key when a direct battery current traverses the coil be done away with by shunting the extra current which gives rise to it, no spark can be obtained from the core. It thus appears that no spark is obtained when there is no necessity for an inducing current to accumulate until it has sufficient tension to leap over a resisting medium, and that, as the thickness of this resisting medium increases, the spark obtained becomes greater. Evidently on these occasions the current has time to attract unlike and repel like electricity in the core, and if a conductor in connection with the earth be presented to this core the like electricity will escape; hence a spark will result. As soon, however, as the tension has become sufficient to leap over the layer of air, it will be necessary to restore equilibrium in the core. Hence there will be a

return spark in the opposite direction. From these experiments it will be seen, as before stated, that the phenomena observed may be explained by the ordinary laws of induction.

A New View of Glacial Action.—Dr. Joseph Worster, of this city, in a paper to be read at the August meeting of the American Society for the Advancement of Science, at Buffalo, N. Y., proposes a new and very simple theory to account for the ice-fields supposed by Professor Agassiz to have covered the whole area of Brazil during the glacial period. His view is that at a very remote date the whole surface of central South America was a high table-land elevated more than 10,000 feet above the sea level. As this would be within the ascertained region of perpetual frost, such an elevated plateau, receiving and condensing the evaporation of the two contiguous oceans, and converting it into ice, would, in the course of ages, become loaded to a tremendous depth. This vast deposit, by constant pressure, would finally cause a gradual sinking of the table upon which it rested, to restore the disturbed equilibrium of gravitation; and if it may be supposed that the wave of depression commenced on the east coast and terminated on the west, the Andes range would be upheaved at the final termination of the wave. This view is in harmony with the ascertained comparative recency of the Andes as a mountain range, and brings a problem that has resulted in many crude speculations—the problem of the ice period—within the scope of very simple and well-ascertained laws of meteorology. For example, the ice-traces of North America are susceptible of explanation on the same hypothesis.

American Nickel.—A correspondent of the *Hartford Post* states that the nickel deposit near the Gap, Lancaster County, Pa., is considered the largest yet discovered in the world, and the only deposit worked in America. The mine is on the high dividing line between Chester and Pequea Valley. The nickel was discovered here about the year 1856, though copper, which is taken from the same mine, was known in this locality seventy years ago. The ore has a gray color, is very heavy, and is so hard that it is mined entirely by blasting. After the ore has been broken into small fragments it is put into kilns holding eighty to ninety tons each, and subjected to heat produced at first by the burning of a small quantity of wood, and continued by the conversion of the expelled gas. It is then put into a smelting furnace, and undergoes treatment similar to that of iron ore.

THE LAW OF GIVE AND TAKE.

SOMETHING for something—not something for nothing—is the great truth upon which the universe hinges, and has hinged since ever the morning stars sang together in grand concourse, praising God who had made them. He gave them being; they gave Him praise. And for the man who does not acknowledge this law it would be better if he had never been born.

The rain falls upon the earth and it bursts into leafage. The sun shines upon it and it laughs back at him in all the beauty of a million flowers. The mountains tower up toward the blue sky, and the sky bends down to meet them. The shore slopes to the water and the water presses up to the shore. The moon and stars look upon the sea and it flashes back their radiance. Everywhere it is the old story of Steel and Flint. Throughout all nature there is this lesson so plainly written that he who runs may read—may read as he runs without ever stopping to spell out the words, or to puzzle over their meaning—something for something.

The exceptions to the general rule render the rule itself still more striking. In all the world of nature there is nothing so worthless as the parasite—nothing so forlorn as the blasted tree. The first feeds on the life of its supporter, its benefactor, its friend; takes all and gives back nothing. By common consent it has been made synonymous with the meanest specimens of living beings that have human existence.

What worse name can you call a man after you have called him a parasite?—since that very state of being breeds upon occasion in him all the other vices. And then, the blasted tree,—it is the type of a human being unresponsive to all influences for good. He might better be dead; for upon him do all the kindly agencies of mercy exhaust themselves in vain.

He stands as the blighted tree stands. On it the rain falls and the sun shines; it gives back nothing; it is good for nothing but to fall and rot and become as leaf-mould—an enricher of the soil. In this, its last state, it is better than when it stood upright, but **useless**.

The carcass of an idle, selfish preyer upon the substance of others can fill no better part if he remain obstinately shut up in himself. The sooner he falls and rots and his place knows him no more, the better for the world. He will then at least be the equivalent of the dead tree in usefulness—he will help to enrich the soil! It is better that such should not cumber the ground. Let others who are amenable to the great natural law of give and take step into their places.

The lack of an instinctive appreciation of this law causes many failures in life. There are people stupid enough to start out with the idea of getting all they can out of others and of giving nothing in return. Theirs is the sharpness of the half-fool. Cent-per-cent rules in the business world; courtesy for courtesy in the fashionable world; favor for favor with politicians; love for love in the kingdom of the heart. Everywhere, as in the world of nature, it is give and take—something for something. Even in the relative positions of benefactor and benefited, within reasonable limits, the pleasures of giving and receiving are reciprocal and pay each for the other.

But it becomes at last wearisome to do for a person who is always asking to be done for and who never does anything in return; is hardly thankful indeed, but takes your best efforts as a matter of course almost. The chief delight of generosity to the donor lies in its being involuntary. But chronic mendicancy of any sort weighs on the elasticity of this spring. The chief charm of a supplicant is gratitude; shorn of that, he is but a brazen beggar at best. Perhaps the most loathsome, but at the same time the most expressive, synonym for this parasitic tendency, is the Horseleech's daughter, with her cry of "Give! give!"

We all recognize instinctively the bitter discouragement that comes from showering gifts upon a barren, unresponsive soil—that is to say, upon a selfish, grasping person.

No matter how cleverly sharp such an one may be, the world finds him out in the end and leaves him to himself—gets tired of put-

ting its hands into its pockets for one who never put his near his own, excepting to deposit something therein and button them safely up immediately afterward, to remain so till he has something else to put into them!

The best business men always recognize fully the maxim of something for something. So do all great statesmen and society leaders—in fact, all successful people do. It is at the basis of their success and popularity. For if one have all the other good qualities and be utterly selfish, he will never really and truly succeed. His contemporaries find him out in the end and send him down to posterity with his character pinned to his back.

So, if you have a tendency to be greedy,

to get your cake as alms, rather than as the rightful return for the legal-tender of labor of some sort that shall benefit the world, and want to go into a corner to eat it all by yourself, try to get the better of that inclination. It will help you to do so to study for a little while the movements of the wheels within the wheels of the machinery of daily life—to note how one thing depends upon another—how no man, who is a whole man, really lives to himself—how life is not a game of grab, but of giving and taking; and bury your shallow philosophy of selfishness away forever, so deep that you will forget that it was ever yours.

HOWARD GLYNDON.

THE TRUE HOG.

UNDER this title a western writer gets off the following portraiture of the animal as he appears on two legs:

"I have a degree of respect for the native hog, one that is so because he can not help it, one true to his nature, grunting, rooting in the mire, and living on filth in accordance with his impulses; but when an immortal being, made in God's image, takes the materials intended for a human, an immortal being, possessed of a mind and soul, and prostitutes them to ignoble purpose, making an *artificial* hog instead of a *man* or a *woman*, there is a fraud and a guilt of an unpardonable nature. The true, honest and decent hog may well follow his impulses and live to eat, sleep, and live a life of mere sensuality, with no higher impulses, no nobler aspirations; but when a self-made hog, one who might have been a higher being, simply lives to eat and gratify his animal propensities, he does violence to a noble nature, sins against the Creator, degrades and sadly abuses what was 'fearfully and wonderfully made,' disgraces his race, and sinks far below the brutes that perish. The true hog may squeal and fret as he comes up to the trough, if it is not filled to overflowing, or if he can not drive his companion away, for that is his nature, just as he is made; but when a would-be hog systematically finds fault with everything intended by his good wife for his comfort, squeal-

ing because his tea is too hot, his coffee too cold, the biscuit too tough, the beef too rare, the cake not sweet enough, all wrong, he may be deserving of something akin to pity, but better expressed by the word contempt. He may be pitied because he has made his soul so small and prodigally wasted his manhood in 'riotous living,' and prostituted godlike powers to ignoble purposes, and yet despised, that he grovels so low and *aspires* to become more degraded than the brutes. The native hog may be allowed to wear bristles and conduct himself swinishly, and live only for himself, grow fat and then be slaughtered, and dwindle away to soap-grease; but when a biped labors hard to imitate him, 'following in the steps of his illustrious predecessor,' he not only disgraces his race, but fails even to honor the swine. Let hogs be hogs, and men and women aspire to be higher beings."

So much for the man-porkers. Perhaps some of them will grunt their dissatisfaction with the picture, and demand a view of the porcine woman. Who can do her justice?

SUNNY ROOMS AND CHEERFULNESS.—

Let us take the airiest, choicest, and sunniest room in the house for our living room—the work-shop where brain and body are built up and renewed. And let us there have a bay window, no matter how plain in structure, through which the good twin

angels of nature—sunlight and pure air—can freely enter. This window shall be the poem of the house. It shall give freedom and scope for eye and mind. We shall hang no pictures on our walls that can compare with the living and everlasting pictures which God shall paint for us through our ample window. Rosy dawns, golden-hearted sunsets, the tender green and changing tints of spring, the glow of summer, the pomp of autumn, the white of winter, storm and shine, glimmer and gloom—all these we can have and enjoy while we sit in our sheltered room as the changing years roll on.

Dark rooms bring depression of spirits, imparting a sense of confinement, of isolation, of powerlessness, which is chilling to energy and vigor; but in light is good cheer.

Even in a gloomy house, where walls and furniture are dingy and brown, you have but to take down the heavy curtains, open wide the window, hang brackets on either side, set flower-pots on the brackets and ivies in the pots, and let the warm sun stream freely in, to bring health to our bodies and joy to our souls.—*Selected.*

AGRICULTURAL HINTS.

[The mind is the man. Farming, in the highest sense, is not simply doing the hard work necessary. This can be done by muscle when directed by brains. The true farmer is he who can plan, direct, and control skillfully.]

Take Care of the Timber.—Mr. James Little, a Canadian authority in forestry, deploras the great waste which has been going on for many years in the timber districts of Canada and the United States. He predicts serious consequences of such imprudence, and a bitter repentance. He says:

"An article in a recent issue of the *London Timber Trades Journal* mentions a sale of 300 acres of timber, grown by the Earl of Cawdor on the mountains of Scotland, which brought 16,000 pounds sterling, about 80,000 dollars, and that after it had undergone repeated thinnings which realized large additional sums; and I will venture to say that there are not 300 acres of the timber which the lumbermen of New Brunswick are now recklessly throwing away but what would be worth as much in five years' time if left untouched.

"In five years neither pine timber nor pine or spruce deals, except it may be some of the best clear pine, which is indispensable for many purposes to the people of Great Britain, and for which they will have to pay excessive prices, will be shipped from the Port of Quebec.

"In five years lumber will be higher on this side the Atlantic, with the above exception, than it is now or will then be in Great Britain. In five years I look for lumber to be shipped from the Ottawa to supply Michigan and the Prairie States of the West, and in a dozen of years from now the commercial woods of the United States and Canada this side of the Pacific Slope will have totally vanished, and instead of our running abroad to find markets on which to force and sacri-

fice the products of our forest, we will be running abroad to see where we can purchase supplies for our home consumption, and the shipping which is now engaged in carrying away our timber and lumber will be required to freight supplies to us from wherever they can be found."

Do Birds Eat Bees?—A writer in the *Beekeeper's Magazine* seeing a pair of king birds apparently pouncing upon and destroying his bees, shot them for examination. Upon opening the gizzards were found filled with fragments of insects, evidently a hastily gathered breakfast of bees. But when the fragments were carefully examined by means of the microscope, not a trace of a honey bee was to be found; instead, however, the wings, head, legs, etc., were all referable to the winged black ant. This was in 1873. In July, 1875, a similar case occurred, but here the birds were feeding their young. The young birds were shot, and their crops and gizzards examined. The contents were berries, red ants, and small beetles, and one large wasp, but not the sign of a bee, though the parent birds were near a hive of bees, and continually flying back and forth among them. In connection with the foregoing statements may be mentioned the case of a crow shot a few days ago at North Bridgeton, Maine, whose crop was found to contain the eggs which produce caterpillars and army worms. Thus we see that some creatures which many farmers deem their worst enemies are, from another point of view, among their best friends.

The Best Chickens.—There are two productions for which fowls are always

in demand—laying eggs and for poultry; so it is well to keep the breed in the best condition possible for one or both these branches of business. And if you can at the same time have them please the fancy of the fancier, so much the better, as they make better customers usually for surplus stock than the butcher. In some localities eggs are worth more than poultry, and it is desirable to have them at a particular time of the year. For egg production the non-sitters should be chosen, and they will produce eggs when wanted, and in quantities to suit, if properly fed and otherwise cared for. If early poultry is wanted, the non-sitters of good size are the best to breed from, but if you want to raise poultry to ship in late fall or winter, choose the short-legged Asiatics.

I prefer a short, stout leg on any fowl. The bodies of such fowls may not be so stylish, but they mean business, and I keep fowls for profit. There are several biddies of my acquaintance well up to ten years of age—of various breeds, and cocks five years and more, vigorous as ever. Invariably such are low and broad, compared with what would be called fancy chickens of same breeds by fanciers.—*Poultry Argus*.

Remedy for Poison Ivy.—We are reminded by an item in the *Chronicle* of the old and good recipe for treating cases of poisoning by ivy. The writer says: "Take a piece of fresh lime as large as a walnut, unslaked; dissolve it in a saucer in a small quantity of water; wash the hands in it; apply to the parts affected; in fact, wash the face and neck, etc.—and I tell you there will be no inconvenience from that dose of ivy. I am very sensitive to the poison, so much so that if the wind should blow the dust from the ivy upon my person I am gone; but the lime always straightens me out."

Notes for the Laundry.—Always mend clothes before washing them. Alum or vinegar is good to set the colors of red, green, or yellow. A hot shovel held over varnished furniture will take out white spots. Ribbons of any kind should be washed in cold soap-suds and not rinsed. If your flat-irons are rough, rub them with fine salt and it will make them smooth. Scotch snuff put on the holes where crickets come out will destroy them.—*Ex*.

Stump-Removing with Dynamite.—Dynamite has been applied to this troublesome business in England with success. Not long since a number of experiments were made in the presence of a committee of farmers. Several stumps which had been dug up were split into stove wood with a few ounces of dynamite. The

experiments were concluded by blowing bodily out of the ground a large intact oak root; this was done by making a crowbar hole between the ties or main roots, and inserting a charge of dynamite under the center. On the shot being fired, the root was lifted completely from its bed.

How to Set Chestnut Posts.—A correspondent of the *Country Gentleman* writes: "I have had an experience of over sixty years on one farm, and have tested the matter. I have found that chestnut posts of young timber will last much longer than old, and that those set top down will stand nearly or twice as long as those set with butt end down, and that small posts, say 3 to 4 inches in diameter, outlast larger posts. All posts should be thoroughly seasoned before setting. Seasoned chestnut posts of young small timber will last if set top down from 15 to 25 years; with butts down from 8 to 15 years. The best size for lasting is from 4 to 8 and 10 inches in diameter; the larger sizes above 5 inches to be split, those over 7 inches into four pieces."

To Dispose of Curculios.—A correspondent of the *Ohio Farmer* states that he kept a plum tree from curculios by sprinkling the ground under the tree with corn meal. This induced the chickens to scratch and search. The meal was strewn every morning from the time the trees blossomed until the fruit was large enough to be out of danger. The consequence was, that the fowls picked up the curculios with the meal, and the tree being saved from the presence of the insects, was wonderfully fruitful.

Social Science.—The American Social Science Association held its annual meeting in September, beginning on the 5th, at Saratoga, N. Y. The proceedings were of unusual interest, as addresses were delivered by the President, David A. Wells, Horace White, F. B. Sanborn, Edward Atkinson, Charles Nordhoff, Professor Dwight, Dorman B. Eaton, and many other distinguished persons. Among the topics discussed were "Our Economic Possibilities," "The Industrial and Social Problems of Cotton Manufacturing in a New England City," "Wages," "The Industrial and Social Condition of the South," "Chinese Immigration to the Pacific States," "A National University," "The Civil Service Question," "Building Associations," "The Railroad Question in America," "Insanity," "Dependent and Delinquent Children," "Statistics and Legislation," etc.



MRS. C. FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate*

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THE INDIAN QUESTION.

THE war in the Black Hills—especially the terrible affair in which General Custer and so many brave soldiers gave up their lives, and thus testified by their blood to the ferocity and power of the Indian foe—has awakened public attention more earnestly than ever to the necessity of settling the question of the relation of the Indian to our Government and society. In cases almost without number, from the beginning of the settlement of America by European colonists, the aboriginal has shown himself able to fight with skill and intrepidity; in fact, with equal advantages on his side, the white man has found it no easy task to conquer him in battle. Some thinkers claim that a people indicates its superior intellectual endowment by its prowess in war; if this be true, then certainly the North American Indian is well organized, intellectually, and we believe him to be, so far as the perceptive faculties are concerned.

But we would have the ability he exhibits in war taken into account in considering what shall be done with him. If he can manœuvre in fight with so much adroitness, and anticipate the movements of his white foe with so much accuracy, as the reports of

United States army officers declare, there is material in him which may be made productive of useful results in the walks of peace.

The facts in the case of the Cherokee Nation show what can be done toward civilizing the Indian. The Cherokees have 71 public schools, employing 74 teachers and having an aggregate attendance of 2,286. There are 654 pupils speaking Cherokee and 1,631 English. There are 59 native teachers.

All this implies social elevation—villages, towns, regularly organized, and self-sustaining industry—which is the case. Within a month or two Bishop Whipple, of Minnesota, ordained two Chippewas to the ministry, after a careful examination in Biblical history and doctrine. In relation to this examination, the *Hartford Churchman* says:

“They answered well, so as to excite the admiration of the Bishop and visiting clergy. One of the clergy said the answers were as good as one would hear in Seabury Hall, whereupon another, the Rev. Dr. Knickerbocker, laughingly suggested to move Seabury Hall up to White Earth. We mention these facts to encourage the friends of the Indians, by letting them see that it is no small advance in knowledge of the Christian religion which these Indian young men are capable of making. When they began their studies a little over two years ago, they could barely read a little in English, and some of them not at all in Chippewa; they were almost totally ignorant of the Scriptures, and of any other useful knowledge, yet they passed an examination which the Bishop called wonderful.”

With such facts at our door, it is certainly a mistake on the part of the Government to regard the Indian as a subject of asylum. It is criminal on the part of the whites, in the sense of racial superiority and might, to ignore the moiety of right and privilege in certain localities accorded to him by solemn treaty, and to harass and persecute him, with the avowed purpose of driving him from his own, and then if he turn upon

them, and in savage rage, and in savage ways endeavor to punish them for their invasion and robbery, the cry is raised, "Exterminate the vile, malignant whelps!"

A while since the Secretary of the Interior ventured the assertion that the proportion of lawless violence resulting in danger to life and property is much greater in New York City than among the Indian tribes, and that a greater portion of criminals go unpunished there than among the Indians. He stated; further, that of 293,000 Indians within the limits of the United States, 130,000 now support themselves on their own lands, receiving nothing from the Government but the interest of their moneys, or their annuities; 113,000 are under the care of agents, over 80,000 of whom have been thus located within three years; leaving only 50,000 roaming at large.

Let justice be done to the small remnant of the poor Indian. If civilizing methods—the school-book, the agricultural implement, subservience to law—but help to reduce their number, so let it be. What a blotch upon our vaunted liberalism it is to treat the poor red man even worse than a stray dog.

The Indians should be settled in their reservations on farm tracts—one for a family—and helped to make a start as independent householders. Marshaled in townships they should be made subservient to the laws just as much as the Negro and the Chinamen are deemed subject to political ordinances, and the roving, nomadic, irresponsible state be no longer tolerated.

REFORM THE CRIMINAL.

IN this number of the PHRENOLOGICAL JOURNAL, etc., is a deeply interesting account of what has been accomplished in an obscure part of India by a man who not many years ago was a despised member of the criminal class in a European city, and

deemed by all but one or two noble men there as unworthy of other notice than that necessarily given him by those whose business it was to execute the mandates of the law with respect to criminals.

This extraordinary history brings into strong light the fact urged by the Phrenologist that in every man deemed by society responsible for his conduct there exist elements of good which although apparently weak and inoperative in the general manifestation of character may by proper methods be developed into active and influential qualities, and so modify his conduct as to render him who is regarded an enemy to the public peace and safety, a law-observing and useful citizen.

This is the hope, indeed, which phrenology has inspired in the breast of many poor, weak, illiterate persons, and stimulated them to exertions for self-improvement, and which has prompted many noble men and women like Dr. Wines and Linda Gilbert to labor for the redemption of the unfortunate subjects of civil punishment.

With such an example as this of the convict before us, who can but look forward with confidence to the time when our prisons shall become arenas of mental culture as well as of physical discipline, and society appreciative of the value of the service of each reformed man, shall permit only the intelligent and humane to act as wardens and keepers.

A COMMON PHASE OF SELFISHNESS.

ONE who mingles much with the world out-of-doors, and in-doors too, for that matter, must be struck with the differences among people with respect to consideration for the rights or comfort of others. Some—and their name is legion—appear to think and act as if the institutions of civilization generally were made for their particular conven-

ience, and wherever they may be, the sentiment, or rather the propensity of self-indulgence, is dominant. In a crowded car or steamboat they will appropriate more room than is rightfully theirs, with an utter disregard of the infirmities of the aged, who may be thus compelled to sit in a way which occasions much fatigue or actual distress, or to stand for a long time. With equal obliviousness to the courtesy which should be accorded to ladies, to say nothing of a regard for mere decency, men of this type will smoke horrid cigars or pipes, and expectorate vile tobacco-juice in public rooms and places.

We meet every day young people scarcely in their teens whose easy nonchalance in appropriating the best of everything in their way, is scarcely short of wonderful. It would seem as if the spirit of selfishness were born in them and nursed with their growth by parents, who now are always ready to complain bitterly on every manifestation of it, and, except in a few instances, are not willing to admit their part in developing the low and selfish feelings which characterize their children.

How different the conduct of that small class who defer to the needs of others, are ready to accommodate stranger as well as friend; who do not deem it an overpowering act of civility to yield their seat to a lady or elderly man, or to assist a poor woman with her heavy basket from the corner to a street-car; who are not found puffing cigars on the platform, in the street, or in the company of the feeble. If there be any positive evidence of noble birth and true culture which the world may accept without hesitation, it is the habit of kindly and courteously performing those offices of accommodation and duty which fall in our way as we mingle with the world: not only doing what is but one's duty in a cheerful way, but things

which sometimes occasion temporary inconvenience, and finding one's self abundantly recompensed by the pleasure or benefit thus given to others.

ORGANIC GROWTH AND MANIFESTATION.

AN interesting letter from "A Mechanic," just received, contains, among several noteworthy suggestions, an allusion to the development of certain organs in his own head which were erroneously estimated, as he believes, by a Phrenologist who examined him twenty years or more ago.

The article in this number on "Some apparent Inconsistencies," will probably throw some light upon the subject which our correspondent discusses, and perhaps incline him to think differently about Hope and Sublimity being but one organ, and that Hope. It is a fact in brain development that special organs are sometimes so large and dominant that they occupy a part of the space which, in an ordinary tracing of boundaries, would be allotted to adjoining organs. Thus the organ of Hope may be spread out so as to invade the territory of Spirituality, and the inexperienced examiner may mistake the development and ascribe a good measure to both organs, when the latter is but moderate or small. When the organs of a given region are large, there is a certain fullness and expansion which can not be misapprehended by the examiner who is learned in the matter of brain growth.

Organs are located in the convolutions, and according to the development of particular convolutions is the size of the organs in those convolutions. In some cases, especially of idiot or cretin brains, certain of the convolutions are developed and others quite lacking. Blind Tom, the pianist, offers an illustration of the predominant growth of the convolutions in the perceptive and an-

terior lateral regions of the brain—the organ of Tune being immensely developed and correlating with Time anteriorly, and with Ideality and Constructiveness posteriorly, while the reasoning and superior lateral organs are deficient, atrophied by the dominant ones.

A dominant organ of a group is, as it were, waited upon by its neighbors, so that its manifestation may appear to the superficial observer as single, whereas it is really composite—the qualities of surrounding organs imparting color and variety to its expression. Our “Mechanical” friend states his appreciation of beauty in the fact that he “can not bear a poor one.” His Ideality is evidently as strong as his intellectual power in Criticism, and it is quite probable that the examiner mistook or misnamed the larger organ—Ideality and Sublimity being side by side, and indeed constituting one general esthetic principle.

A SOCIAL EVIL.

IN the Women’s Pavilion at the Centennial Exposition there is an exquisite specimen of embroidery which elicits the admiration of every beholder. Sprays of vines and flowers wreathing and intertwining in a way that rivals nature, almost conceal a bit of wall which forms the background. But the pictured fabric is incomplete—the hands that so deftly and patiently traced the silken lines are mouldering in the tomb—they were not permitted to finish their beautiful task.

“How fine the stitches!” “How delicate the shading!” “How much time must have been spent over that piece!” are among the exclamations heard from lady visitors as they inspect this pathetic needle-work. Are there many among them who think of the thousands of toilers with the needle, who, like the author of that fabric, are weaving

in fragments of their lives with the minute stitches that necessity or fashionable caprice compels them to make?

All around us are the pallid faces and contracted shoulders of women who must or will make—

“Band, and gusset, and seam.

Seam, and gusset, and band,

Till the heart is sick, and the brain benumb’d,

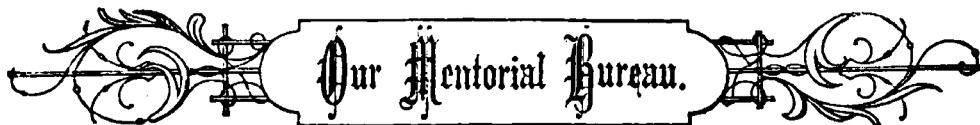
As well as the weary hand.”

For those poor unfortunates who are bound down to their exhausting routine by the iron chain of necessity our pity is most hearty, and we deprecate and reprehend the hollow, cruel conventionalism of society which afflicts and tortures those whose lot it is to sew. For those many women, however, who bend over the sewing-table day after day that their children or themselves may be braided, plaited, and flounced after the latest styles, and make as good an appearance as their neighbors, we have little pity, but a good deal of reproof for their imprudence and sin in neglecting the “weightier matters” of life, the health of body and mind. Stop, stop this folly—ye suborners and pliers of the needle.

“It is not linen you’re wearing out,

But human creatures’ lives.”

AN ERROR.—In our sketch of Governor Tilden in the September number we intended to say, as we should have said, that Mr. Tilden advised President Lincoln to call for *five hundred* thousand, and not “fifty thousand,” as the types have it. The remarks immediately preceding, however, show that we comprehended Mr. Tilden’s sagacity on the war policy; and his opinion, with regard to the size of the army required at the start, is too widely known to allow any candid reader of THE JOURNAL to derive the impression that we purposely intended to misstate the facts. We have no political capital to make.



[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we cannot undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

HARRIET MARTINEAU, "George Sand."—Shall probably publish one or both of these eminent authors in a short time.

KISSING.—What is there in kissing that makes it so desirable?

Ans. The lips have a direct nervous relationship to the faculties and organs which relate to love, and the contact of the lips imparts and acquires pleasure. The billing and cooing of doves is, doubtless, akin to kissing.

Kissing being an expression of love, there is nothing more tender and touching than that of the young mother when she caresses her babe. When a venerable father fondly kisses his only daughter at her wedding, while a tear sparkles in his eye, the kiss appears holy. Men sometimes complain when ladies indulge among themselves in kissing, and incline to regard it as a useless waste of things precious. It is, however, quite right for them thus to manifest affection. The conjugal kiss is the floral offering of love's tropical clime, and is, of course, the richest and sweetest of all. In short, kissing is a most excellent thing when rightly applied. May our friends keep their lips ready for the highest and best use undefiled by tobacco, alcoholic stimulants, or words of falsehood and deceit.

MENTAL ANTAGONISMS.—Can two emotions—for instance, love and hatred—co-exist in the mind?

Ans. Yes; we have faculties which stand over against each other like Benevolence and Acquisitiveness, Cautiousness and Combativeness. A hen will fear and hate the hawk and love her chickens at the same time. We can love good, and hate evil, and we can love a friend and hate him who would harm that friend.

LAZINESS.—Why are some people whose looks, form, features, and complexion indicate the Motive Temperament, so inactive, slow and lazy?

Ans. They may lack Combativeness, Destructiveness, Hope, Approbativeness, and Acquisitiveness; and they may have extra Alimentiveness, and over-eat, or they may live on fat pork, fine flour, etc., and thus induce sluggishness of mind and body.

SUFFERER.—L. H.—Unless your case is of very long standing, it may be treated in a simple manner, and with benefit to you. Let your diet be as near to the strict hygienic line as possible, avoiding all excitants, spices, and stimulants, so that your blood shall be rendered pure. Wear a wet bandage as much as possible, at night in particular; take frequent sitz-baths in tepid water. The complaint is not regarded incurable.

INDIAN SKULL.—C. H. M.—We should be glad to add a specimen from the mound you speak of to our Cabinet. We have a large number of Indian crania, but the variety of organization is sufficient to warrant further additions.

POETIC CRITICISM.—J. S. B.—The lines inclosed show a good deal of the true poetic vein, and some practice in writing verse. The quality of the verse varies somewhat, some lines being more fluent and better balanced than others. The fifth verse of the longer poem is excellent, much superior to the others. It is not an easy matter for a young thinker to treat of philosophy in verse. Your friend has a good basis for development; can become, we think, an excellent writer of poetry.

In this connection, the editor would remark that the readers of THE PHRENOLOGICAL JOURNAL can scarcely think that his time is so much unemployed that he can give attention to the many manuscripts offered for private criticism. Would it not be better for those who wish counsel on the subject of their literary merit to apply to some person of experience and pay him for the labor and time he must use? No one would

think of asking advice of one in any other profession without showing a readiness to pay for it.

SLEEP.—The inclination to sleep, if it be induced by fatigue, should, of course, be obeyed. Sleep or drowsiness which proceeds of congestion is injurious. Many people experience a strong inclination to doze who are troubled with a congested or torpid liver; the blood not being properly purified, moves sluggishly in their veins, and they experience a general sense of languor and depression.

MURDERERS' IMAGE.—H. A. S.—“Is there any truth in the idea that the image of the murderer can be seen in the eye of the victim?”

No. Late investigations by anatomists have disproved this old notion.

SPURZHEIM'S HEAD.—W. P.—The measurement given in “How to Read Character” is correct; the other statement is a misprint. Spurzheim had a very large brain. His skull was preserved in accordance with a request of his own.

ALCOHOLIC STIMULANTS.—G. A.—The influence of alcohol upon the brain is variable in different persons. In some it rouses or excites the intellectual faculties to abnormal action, but in far the greater number of persons it excites the physical powers, those organs which lie at the base of the brain. It is found that alcohol is very penetrating. Soon after being taken into the stomach it finds its way to all parts of the system, and appears in the secretions like other poisonous stimulants. It particularly affects the nervous system.

HAND-WRITING.—We do not profess to be expert in describing character from hand-writing. That may be deemed a branch of study by itself. We could only speak of a given specimen in very general terms. Of No. 1, that the person has a good degree of nervous excitability, and is careful and prudent in affairs, and frank and cordial in intercourse with friends. Of No. 2, the indication is of a good intellect with order and executive ability. The style shows a thorough-going, practical mind and disposition, perhaps, to lead.

We do not guarantee the return of photographs or other matter which we must send through the mails, any more than the P. O. department guarantees safe transmission. We guarantee written descriptions of character which we send to reach their owners, because, if they miscarry or are stolen from the mails, we can give a fresh copy. We use our best judgment in all business matters, deeming our interests dependent upon the efficient performance of the service required of us.

INCIPIENT CONSUMPTIVE.—We think that “telegraphic operator” would find it to his advantage to visit the region of Denver, Col., or the mountain regions of California; possibly, for him, Denver would be preferable. While there, a moderate foot-tour would have some remedial influence. His occupation is not at all favorable for recovery; in fact, directly the reverse.

EMBARRASSMENT—CONFUSION.—L. M. C.—Your case is by no means so rare as you may think. Persons with large Caution, moderate Self-esteem, and rather strong Approbateness suffer a good deal of embarrassment when brought into conspicuous relations. Young people so constituted may be driven almost to despair on account of the pain and mortification they sometimes experience because of odd and foolish mistakes which, in their confusion, they have committed. Our advice is that you associate with kind, good-natured people who know your weakness and will not annoy or reproach you for its exhibition; that you live in such a way as to diet, exercise, and sleep that your nervous system shall not be irritated or excited, and kept in an unbalanced condition. Moreover, strive to be cheerful, to look on the bright side of things, and remember that your first responsibility is to your Creator, and in seeking to do the right, you fulfill your obligations as a man, and can walk with head erect.

LAGER-BIER AND HEALTH.—We can not recommend this beverage which our Teutonic friends are so fond of to any one. The amount of nutrition in it is exceedingly small—a quart of the article not containing, by analysis, one-fifth the amount of substantial, life-giving nutriment that a ten-cent loaf of bread does. We find that those who are in the habit of drinking lager daily, increase in weight, but such increase is not of a healthful stamp. The glandular system becomes congested, the skin more or less bloated, so that increase of weight is due to infiltration of water—a kind of dropsical state.

A QUOTATION.—Inquirer writes: “Will you inform me who is referred to in the following, ‘In England, fifty years ago, a little limbless trunk was born into the world, the first sight of which wrung from its mother a cry of anguish. That limbless trunk now occupies a seat in the British Parliament.’”

“Is this, in the main, true?”

Ans.—It is true. Some years since an account of him was published in the PHRENOLOGICAL JOURNAL. He is a Scottish representative in Parliament.

NOTE.—Several answers stand over for next month on account of insufficient space in this number.



FATALISM IN A SCIENTIFIC SENSE.—

I was once crossing the bay of San Francisco, from the city to a neighboring town, when a stranger approached and engaged me in conversation. He expressed himself as a firm believer in fate, and introduced as illustration of his belief the good and ill-fortune which severally attended a couple of his friends.

"I have just parted from a friend," said he, "whose good fortune in every undertaking is so remarkable, that it seems impossible to account for it upon any other supposition than that he was born under a lucky star.

"He came down to the city a few days ago for the purpose of buying a stock of goods, and while looking around before purchasing, he took a notion to invest his money in mining stock; and, though he never had had any experience in stock speculations, the venture proved so fortunate that he was able to sell out the following day at a profit of one hundred per cent. This is only one instance among a hundred that I might mention of his remarkable luck; for that it is anything else but luck seems incredible, as he does not appear to be much superior to other men in the general management of his affairs.

"As a contrast to him, I have an acquaintance whose ill-fortune is equally proverbial. It seems impossible for him to dodge ill-luck. He is always either a day before or a day behind the fair. He never seems to strike anything at the proper time, unless it be misfortune. If he were going along the street of a windy day, and but a single brick were to fall in the whole town, he would be sure to reach the right spot just in time to receive that brick on the top of his head. That his ill-fortune is the result of unalterable fate is the more to be insisted on, as he is a man of more than ordinary soundness in his general judgment. Now unless one of these men was born lucky and the other unlucky, how are we to account for the good and ill-fortune which severally attend them?"

I replied that whether a man was well or ill-born was a matter of the greatest importance to his success in life, but I did not subscribe to the idea of luck as a special influence which a man brings with him into existence. A man's good or ill-fortune is the consequence of the natural operation of cause and effect, and there is no such thing as fate, except as the result of inexorable law. The person whom you describe as being so fortunate in his ventures is, doubtless, a man of an active temperament and an intuitive judgment, and who possesses, in combination with these qualities, courage and prudence happily

blended. He is, therefore, well adapted to take in all the conditions at a glance; the courage to take the tide at its flood, and the prudence not to overshoot the mark.

The other has, doubtless, the mental organs which give prudence much in excess of those which give courage; is perhaps wanting in self-reliance, and comes to his conclusions more by a process of reasoning than by intuition. Hence he decides to act when the time for action is past, and lacks the courage to strike when the iron is hot. The one may be considered fortunate and the other unfortunate in his mental endowment, because neither has had any voice in saying whether he should be born into the world at all or not, or what should be the quality of his organism. He has been obliged to accept, as the result of immutable law, the mental qualities which have been imposed upon him by his parents.

This, then, I take to be the proper idea of fatalism; the immutable operation of law, when the individual has no power of choice, and consequently no power of modifying the results. According to this view, the more intelligent an individual is, the more he knows of the laws which regulate his own constitution, and that of the beings and objects which exist around him, the greater will be his power of choosing the right in preference to the wrong, and the more inclined will he be to place his conduct in conformity with law, and thus reap the reward of obedience and avoid the disagreeable effects of disobedience.

Effects which to the ignorant appear inscrutable and unaccountable, and which are therefore invested with the haze of mystery and fate, are, by the thoroughly enlightened, regarded as only the natural results of causes which we may learn, and whose regular and unalterable operation being perceived, enable us to predicate the effects which they will produce under any given circumstances. We are enabled thus to foresee the results which certain courses of conduct will produce, and to modify our actions in accordance with what appears to be for our highest welfare and happiness.

J. McNEILL.

GAMBLING GAMES.—Young man, stay away from billiard rooms; you have no time to waste in them; you have too much else to do; your time and your progress in life are of too great importance to yourself, your parents, and your country, to be fooled away on such questionable accomplishments. The skill you acquire in playing fashionable games will be of little account to you in anything else. They may slowly, but surely, benumb your Cautionness and Conscientiousness and pander only to self-conceit and vanity. The temptations you will meet through them have ruined hundreds and hundreds of other young men, and many of the most

promising. They will cultivate in you an idle disposition, a distaste for work, and tendencies to general dissipation. Turn away from these things at once. Amuse yourself in industry and the acquirement of useful knowledge.

You are old enough to swing the ax, guide the plow, and perhaps you can superintend a mercantile or manufacturing establishment, or take a place in a rail-road company or a steam-ship. In time you may make your voice heard in Congress, and in the Senate of your country. Thus your progress may be the pride of your friends and your community, and your life and character be an example and a blessing. Stay away from billiard rooms and gay saloons, young man. Let all gambling games severely alone. S. W. M.

WESTERN PLAINS AND COMBATIVE-NESS.—E. G. L. writes us that he has crossed the plains over twenty times, and has noticed an apparent increase in the organ of Combativeness, but attributed it to other causes than the influence of the air. In olden times, before there was any railroad on the plains, the diet in common use was of a character tending to derange the digestive function, it being principally made up of bacon and coffee, and saleratus bread, the men doing their own cooking; the life which they led was a hard, tedious, wearing one, and well calculated to induce peevishness and excitability. Where he is, at Cheyenne, six thousand feet above the sea, there is very little quarrelling or fighting, less, he thinks, than in most of the States. Having lived there for seven years, he has seen enough of the life to be able to form some opinion upon it.

OWES HIS SUCCESS TO PHRENOLOGY.
—J. T. B., of Maysville, Ky., in a recent note alludes to an acquaintance who expressed his indebtedness to Phrenology for the success which he had achieved in life. This gentleman informed him that in early life he had attempted business several times, but failed; that on one occasion while in Cincinnati, he obtained a Phrenological examination, and was advised to try farming as a vocation. He did, and found his fortune in it.

HUMOR IN AMERICA.—

"Humor and fun, humor and fun,
There's nothing like them under the sun."

It seems true that there is nothing more appreciated than the humorous in the United States! If Young America can not laugh, he feels like one under a pressure, and longs for an opportunity to let off the effervescent feeling.

Nowhere is there more humorous expressions than in our blessed land, as Americans, although not always in a jovial temper, delight to view

objects from the funny side. They enjoy a jest more than any other race on the globe, as they understand better how to give and take one.

In the United States are probably more humorous writers and funny books than anywhere else; this is because the Americans can not exist without laughing. No sooner does a good volume of wit appear, than it is swallowed by the greedy masses.

Young America is bred and educated to laugh, and he would rather go without a meal than not indulge in a hearty giggle.

When I was young I could not always restrain myself from laughing at meals, and my father sometimes became angry and drove me from the table. In my opinion, it was wrong not to permit me to remain, as I think that the young should laugh and enjoy themselves as much as possible. European children seldom laugh, as they are held too rigorously to rules by parents. It seems to me that the more children laugh the better it is for them, as sorrow will, alas, come soon enough and dampen their jollity.

Let us endeavor to promote humor to a higher standard that is usually observed in society. Let our spice be a refreshing, invigorating sort, then we may "laugh and grow fat" mentally as well as physically. E. BARR.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

HEROISM is the divine relation which in all times unites a great man to other men.—CARLYLE

THE best days of a man's life are those in which he effects the most good.

NO MAN can long keep locked up in his heart a strong desire to do good; it will show itself in action.

WE must row with the oars we have, and as we can not order the wind, we are obliged to sail with the wind that God gives.—*Dutch Proverb.*

THE exercise of Approbativeness is specially blameable when a person aims at the esteem and affections of people by means in appearance honest, but in their end pernicious and destructive.

STERNE says in his Koran: "I never drink—I can not do it on equal terms with others. It costs them only one day, but me three: the first in sinning, the second in suffering, and the third in repenting.

A better looking-glass can not the wide
world round

Than an old friend's true-hearted face
be found. —SCHUFFERT.

THOUSANDS of men and women breathe, move, and live—pass off the stage of life, and are heard of no more. Why? None were blessed by them; none could point to them as their means of redemption: not a line they wrote, not a word they spoke, could be recalled, and so they perished; their light went out in darkness, and they were not remembered more than the insects of yesterday.—CHALMERS.

The soul's dark cottage, battered and decayed,
Lets in new light through chinks that time has made.

Stronger by weakness, wiser men become,
As they draw near to their eternal home;
Leaving the old, both worlds at once they view,
That stand upon the threshold of the new.

—WALLER.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

THE president of a cremation club in Iowa has named his baby "Cinderella." His next boy he intends to name after the great lawyer, Coke.

PAINTING THE LILY.—Generous shoe-black (to colored gentleman): "Better 'ave 'em done, sir; I'll touch up yer face, too, for the same, sir!"

"MIKE, and is it yerself that can be after tellin' me how they make ice-cream?" "In troth I can. Don't they bake them in cowld ovens, to be sure?"

"MY dear," said John Henry, to his scornful wife, "Providence has spared you the necessity of making any exertions of your own to turn up your nose."

A COUNTRY editor illustrates the prevailing extravagance of the people of the present day by calling attention to the costly baby carriages in use now, while, when he was a baby, they hauled him around by the hair of the head.

"BE them antiquities old?" asked a sharp-nosed dame when looking at the papyrus and other ancient things in the Egyptian department at the Centennial.

In a suburban school a teacher gave out the word "psalter" to a class in spelling. It was a "poser" to all till it reached the foot of the class, when a curly-headed little fellow spelled it correctly, and, on being asked to define it, shouted out, "More salt!"

"CLARENCE, you've got a real kind heart," gratefully observed a young lady on the cars to a sallow-faced youth as he dropped a prize package of pop-corn in her lap. "Yes, Mary, my heart's all right," he sadly replied; "what I want is a new liver."—*Brooklyn Argus*.

"WHAT is the matter, sir?" said a surgeon to his patient. "Well, I have eaten some oysters, and I suppose they have disagreed with me." "Have you eaten anything else?" "Well, no, —why, yes, I did, too. That is, I took for my tea, a mince pie, four bottles of ale, and two glasses of gin, and I have eaten the oysters since; and I really believe the oysters were not good for me."



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

LIVER COMPLAINT, NERVOUS DYSPEPSIA, AND HEADACHE.—Their Causes, Prevention, and Cure. By M. L. Holbrook, M.D., editor of the *Herald of Health*. New York: Wood & Holbrook. Price, \$1.00.

The extensive prevalence of the maladies named in the above title is warrant enough for the book which Dr. Holbrook has written. To the liver are traceable innumerable forms of derangement, both of body and mind. In fact, physicians of the drug school pretty generally administer medicines which shall "act upon" the liver, if there be symptoms of stomach or heart derangement. "Torpid liver," a very common form of abnormality, and the principal resultant a failure to convert the albumen and fibrin of the blood into urea, are discussed with much clearness, illustrations from the experience of eminent physicians and from the practice of the author being given.

As for the causes of liver diseases, they are assigned to miasma, impure water, bad air, nervous excitement, heredity, drugs, alcoholism, bad food. As for the prevention and cure, the avoidance of the deleterious substances and influences we have mentioned is enjoined. "Fruit used properly is an almost certain panacea for diseases of the liver," and other hygienic methods are suggestive. In the chapter "Miscellaneous Questions Answered," many practical hints are given.

In talking up the subject of dyspepsia the advice is, in general, wholesome, but one or two statements of big eaters stagger us. How could a man, doctor, "immediately after breakfast eat twenty-five pounds of boiled rice?" Do you

know the dimensions of such a quantity? Any good house-wife would tell you.

In the Notes on Headache, many curious customs of severity are very properly denounced as conducive to the disease.

FAMILIAR TALKS TO BOYS.—By the Rev. John Hall, D.D. New York: Dodd, Mead & Co. 8vo, cloth, \$1.00.

This volume is made up of four lectures or addresses, delivered by the reverend author to the pupils of Charlier Institute. They are "frank and familiar" in tone and language, as they should be, to obtain the ear of, and prevail as, moral instruction in the minds of young people. As a religious teacher of youth, Dr. Hall is able, knowing how to spice precept with example, and taking illustrations from every-day life.

ROPP'S COMMERCIAL CALCULATOR, Designed for the Use of Farmers, Mechanics, Business Men, and Laborers. By Christian Ropp, Jr., of Bloomington, Ill. Price, in cloth, 60 cents and \$1.00; morocco, \$1.50.

An examination of this very neatly prepared *vade-mecum* satisfies us that it is an exceedingly valuable work, comprising an arithmetic, ready-reckoner, memorandum and pocket-book, tables showing the value and weight of wheat, corn, rye, oats, cattle, coal, lumber, etc., from one pound to a car-load; the measurement of lumber, and areas in general; arithmetical calculations, such as are incident to commercial and legal transactions, etc., etc.

The author has introduced several new methods for the brief and simple calculation of questions which are generally deemed intricate and perplexing. For the use of farmers and of business men, this work is peculiarly applicable. Copies may be ordered from this office.

FOURTH ANNUAL REPORT of the Board of Health of the city of Boston: 1876.

This fresh document adds the quality of high value to its freshness, a not very usual attribute of annual reports from city officials. The mortality lists do not tally altogether with popular belief concerning the death rate among different classes of New England society; and, as much care has been taken to secure full returns, they may be accepted in their showing that more deaths occur among the children of the foreign born, in proportion to number, than among the children of natives.

The very full returns with regard to the causes of infant mortality include detailed statements respecting the care taken by physicians of the children of poor citizens. Boston is evidently awakening to a sense of the need of looking after the children—if the standard of the general health of the population is to be raised; a good diet, pure air, and intelligent treatment are urged as the true basis of juvenile vigor. To afford the poor some relief in summer a "sea shore home"

has been established at Beverly, and the results of the experiment thus far, in the treatment of one hundred and thirty-three sick children with pure air and proper nourishment, are very encouraging to those interested in it.

PUBLICATIONS AND PERIODICALS RECEIVED.

IN THE GOVERNMENT AGRICULTURAL REPORT for July, Mr. Dodge includes an interesting review of the Agricultural exhibits at the Centennial Exposition, also some official data on "Planting Forest Trees in Spain, and Destruction of Locusts." Many items of correspondence are added which have a practical value to the farmer and economist. Mr. Dodge should be enabled to distribute these monthly reports extensively among our husbandmen.

NO. 8 OF DR. SEILER'S MICRO-PHOTOGRAPHS IN HISTOLOGY have been received from the Publishers, Messrs. J. H. Coates & Son, of Philadelphia, Pa. It contains admirable representations of bone and cartilage. Plate IX, being a section of a Foetal Femur; X, Enchondroma from the thigh; XI, Hyaline Cartilage of the Larynx; XII, Transverse Section of Dry Bone. The character of the descriptions of these views is as full and clear as could be desired.

NO. 2 OF SERIAL SCIENCE PUBLICATIONS is entitled "Topics for Thought in Opposition to Materialistic, Philosophic Thought in All Ages." By Lawrence S. Benson. And so far as it goes, is an excellent epitome of the ancient philosophies and speculations. Price 15 cents. Serial Science Society, New York.

EVERY-DAY TOPICS is the title of a new book by J. G. Holland, editor of *Scribner's Monthly*, and compiled mainly from his brief sketches published in that magazine.

LIVING WITNESSES; OR, VOICES FROM THE INEBRIATES' HOME.

This pamphlet is a compilation of notes relating to the treatment of specific cases of inebriety, and of extracts from letters and reports of patients who have been discharged as cured. The record, as a whole, is creditable to the institution which is maintained for the comfort and cure of the unfortunate victims of dipsomania, and offers much substantial encouragement to those who are under the influence of the demon of drink, yet hope to extricate themselves from his toils.

An Appendix contains an abstract of the Annual Report of the President of the Kings County Inebriates' Home to the Legislature of the State of New York, from which it appears that the average time of a dipsomania patient under treatment is thirty-one weeks. Of those who were discharged in 1875, eighty-five per cent. are known to be doing well.

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THOMAS HENRY HUXLEY.

A FEW weeks ago the scientists of America, and all Americans who are interested in the progress of learning, were gratified by the presence among them of

this distinguished investigator in physiology and natural history. His visit was brief, chiefly for the purpose of attending the opening of the University founded by the liberality of Mr. John Hopkins, of Baltimore. On that occasion he delivered an address which was a clear and practical consideration of the objects of high training. Subsequently, in the city of New York, he lectured on Evolution, in response to the request of many literary and scientific residents of that city and its neighborhood, and immediately sailed for Europe, leaving a very favorable impression with regard to his merits as a savant, and as an exponent of the Development theory.

An opportunity for a brief personal scrutiny of his organization was afforded us, and upon it, together with the portrait, are based the following remarks :

Professor Huxley has a strongly - knit, well-proportioned frame ; from the broad and heavy shoulders to the feet, the lines taper in that symmetrical way which is indicative of excellent vital capacity and muscular vigor. His head is large, with a face whose contour shows a mind of great activity and energy. The fullness and breadth of the lower part of the face indicate a strong digestive apparatus, and the broad cheek bones, large lungs, which assist toward his ability to do and endure a vast amount of labor without fatigue. Nature's recuperative processes appear so active that living with his high mental powers in a state of freshness, and contributory to new and important results until old age, seems a matter of course. An organization so tough and hardy, so rapid, easy, and effective in action, continually doing, yet without fatigue or friction, or excessive waste of vital force, can resist disease, and secure from this life about all the enjoyment and fruition which may fall to the lot of one man. He has a broad

range of intellectual power. Being developed pre-eminently in the region of the perceptives, he is eager for knowledge, and disposed to investigate and inquire with respect to the facts and relations of subjects which engage his attention. He is earnest in pushing his inquiries to the bottom ; but not inclined to consider seriously anything which lacks a substantial basis, or can not sustain a critical scrutiny. He is more practical than theoretical ; reasons largely by comparison and analogy ; is clear and comprehensive in his deductions, and disinclined to speculative thought. He has Self-reliance and Individuality in a good degree ; desires to see and know things for himself, and is disposed to be rather arbitrary in the assertion of his own opinions. Few men have more perseverance and continuity of effort ; he seldom abandons an undertaking once set on foot. In expression he is clear, avoiding ambiguity ; not copious or fluent, but terse compact, and comprehensive. He has a large development of the group of social organs, and should be hearty in his friendship, whole-souled, genial, and companionable ; evidently likes humor, and is inclined to use it as a weapon in his criticism, or as an element in social intercourse. Had his field of activity been that of business, he would have made his mark, we think, in managing large operations and handling an extensive trade.

Thomas Henry Huxley was born at Ealing, Middlesex County, England, on the 4th of May, 1825. With the exception of two years at Ealing school, of which his father was one of the teachers, his education was chiefly conducted at home. At the age of seventeen he entered the medical school of Charing Cross, with the view to making medicine his profession, and three years later was graduated with the degree of Bachelor of Medicine, taking very high standing as a student in physiology. Accepting position as a surgeon in the Royal Navy, he obtained the opportunity to accompany Cap-

tain Stanley's expedition which sailed in 1846 to make surveys in the South Pacific and Oceanica. In the course of a long voyage Mr. Huxley made extensive observations of the natural history of the sea, particularly with reference to the anatomy and affinities of the mollusks and medusæ, and sent home several papers, one of which was read before the Royal Society in 1849, and several published after his return in 1850 in the "Philosophical Transactions" of the Society. He was elected a fellow of that important scientific body in 1851—a very rare compliment to so young a man.

In 1853, having resigned his navy appointment, he was chosen to succeed Prof. Edward Forbes in the chair of Natural History in the Government School of Mines, and still occupies that position. Besides this, he has been connected with other institutions in the capacity of an instructor or lecturer. From 1863 to 1869 he was Hunterian professor in the Royal College of Surgeons, and has served twice as Fullerian Professor of Physiology to the royal institution. His time has been devoted constantly to researches in science, particularly zoology, to advance which he has contributed as much as any other living investigator. His early labors were given chiefly to the lower marine animals, with which his acquaintance was made during his voyage in Oceanica, while his attention latterly has been given closely to the comparative anatomy of vertebrate animals. To him is due the vertebral theory of the skull, and he was the first to apply to man Mr. Darwin's theory of natural selection. As a writer for periodicals, he has been assiduous, his contributions usually embodying the results of his scientific labors. He has also published several volumes, which may be enumerated as follows: "The Ocean Hydrozoa," produced in 1857; "Evidence as to Man's Place in Nature," arranged from three lectures delivered in 1863; "Lectures on the Elements of Comparative Anatomy," 1864; "Lessons in Elementary Physiology," 1866; "An Introduction to the Classification of Animals," 1869; "Lay Sermons, Addresses, and Reviews," 1870; "Critiques and Addresses," 1873.

As a popular lecturer on scientific topics,

Professor Huxley is frequently before the British public, by whom he is esteemed above any other of the scientists, except, perhaps, Prof. Tyndal. His manner on the platform is simple and unpretending, his language clear, without any attempt at fine phraseology. An avowed believer in the theory of evolution, he is deemed by many, on this account, a leader among the materialists, who illustrate modern science. In several of his lectures, Prof. Huxley has alluded to this tendency of religious people to think that science leads necessarily to skepticism and infidelity, and shown, we think, its lack of real warrant. We extract the following from one of his lectures:

"In itself it is of little moment whether we express the phenomena of matter in terms of spirit, or the phenomena of spirit in terms of matter; matter may be regarded as a form of thought, thought may be regarded as a property of matter—each statement has a certain relative truth. But with a view to the progress of science, the materialistic terminology is in every way to be preferred. For it connects thought with the other phenomena of the universe, and suggests inquiry into the nature of those physical conditions, or concomitants of thought, which are more or less accessible to us, and a knowledge of which may, in future, help us to exercise the same kind of control over the world of thought as we already possess in respect of the material world; whereas, the alternative, or spiritualistic terminology is utterly barren, and leads to nothing but obscurity and confusion of ideas. * * * *

"But the man of science, who, forgetting the limits of philosophical inquiry, slides from these formulæ and symbols into what is commonly understood by materialism, seems to me to place himself on a level with the mathematician, who should mistake the x 's and y 's, with which he works his problems, for real entities—and with this further disadvantage, as compared with the mathematician, that the blunders of the latter are of no practical consequence, while the errors of systematic materialism may paralyze the energies and destroy the beauty of a life."

While in America, Prof. Huxley indicated a very cordial feeling for our scientific men, and

expressed, on two or three occasions, a surprise at finding so much interest and progress in departments of investigation with which he is familiar. In his brief address before the Science Association at Buffalo, he exhibited the frankness of a co-laborer and complimented the disposition which has lately become prevalent here for men of wealth to set aside a portion of their means for the establishment of an institution of learning or for public benevolence. He used language like this:

"The general notion of an Englishman, when he gets rich, is to found an estate and benefit his family; the general notion of an American, when fortunate, is to do something for the good of the people, and from which blessings shall continue to flow."

All his addresses and lectures which were delivered here related to matters of interest to Americans. At Buffalo he chatted pleasantly about the first impressions which he formed respecting Americans after his arrival. At Nashville he discoursed upon the rocks of Tennessee, and concerning the rate at which Niagara Falls are wearing away. At Baltimore he presented valuable suggestions concerning the plans of education in the John Hopkins University. Finally, in his New York lectures, he drew nearly the whole of the illustrations and data of his argument in favor of evolution from the fossils which have been collected and studied by Prof. Marsh, of New Haven.

PAUL AND PLATO,

THE APOSTLE AND THE PHILOSOPHER.

TWO names loom above the horizon from ancient time, and are perpetuated in all our modern forms of thought. Plato, the world's philosopher, is reproduced wherever men think and explore beneath phenomena and the mere surface of things. Paul, earnest, dogmatical even to egotism, in like manner gives a model for expression to positive minds, eager to achieve tangible results. Both have accordingly come to us through the intervening centuries, to aid us in forming our judgment and to apply it in its appropriate field in every-day life. Plato, as Emerson has well expressed it, has been "the Bible of the learned for twenty-two hundred years; and out of him came all things that are still written and debated among men of thought." Paul has, in like manner, been the oracle of those who arrayed themselves against the errors and abuses of their day. He is, as no other man has been, the Apostle of Gothic and Protestant Europe. Martin Luther, the German monk, crammed full of patristic lore and Aristotelian logic, was crawling wearily one day up Pilate's Stair-case at Rome, kissing each step as he ascended, when, like a voice of thunder, there came to his mind these words: "*The just shall live by faith.*" Smitten with horror at his infidelity, he fled from the

place; and ere long had cast away from him forever the whole priestly fabrication of servile penance. Calvin, in turn, reared the entire structure of his "Institutes" upon the same foundation; Paul, and Paul alone, being to him the minister and expositor of Christian doctrine.

Little occasion have we to enquire beyond the two for what men have done and thought. From Augustine to Goethé, Thomas More to Thomas Taylor, Plato has been the leader of the host. He has stamped himself upon them all. He made the old mythologies philosophical, gave meaning to the sacred orgies of Bacchus and Demeter, and transformed the gods of the Pantheon into sages. What had been infinity before, he now enclosed in boundaries. He brought Asia into Europe, and incorporated the Magian, Masdean, and Indian learning* into his *Dialogues*. Philo, and before him, Aristobulus, found there all that had been taught by Moses and the Hebrew prophets. Mys-

* I distinguish between Magian and Masdean; regarding the latter as pertaining to the old Persian and the former to the Chaldean and Assyrian religion. Zoroaster was the titular chief or president of the Magian college of Babylon; Zaratushtira Spitama, the supposed prophet or interpreter of Ormasd, according to the *Vendidad*, or sacred book of the Parsees and Fire-worshippers.

tics, who are indigenous alike in all religions and in all countries, have never failed to read their profoundest wisdom in his dialectics. From transcendental to practical, from spiritual to material, from divine to human, Plato has given everything a voice. He had learned from all who preceded him, from Herakleitus, Anaxagoras, and great Socrates himself; from the Pythagoreans of Italy and the hierophants of Egypt, and then uttered everything anew to those who followed him.

INDIVIDUALISM.

We have little sympathy for that criticism that would reject every great man who was not moulded after a former ideal. Socrates was put to death for not worshiping and teaching as was the custom. Jesus is said to have been impugned for not following Moses; and Paul for not keeping in line with James, Cephas, and John, who, though pillars in the congregation at Jerusalem, yet imparted nothing of value to him. It was not right nor possible to circumscribe Plato within the mould of former philosophical reasoners—not even of Socrates. Such men were not born to wear the grave-clothes of the dead, or to be clad in the swaddling-clothes of their own infancy. "I resorted not to them that were apostles before me," was the boast of Paul.

Hence, both Paul and Plato were very sharply criticised by their cotemporaries. Aristotle and Xenophon excepted to the doctrine of the *Dialogues*. Peter scrupled not to charge that the *Epistles* were full of "dysnoëtic learning"—incomprehensible discourses on spiritual topics, which were likely to mislead the unlearned and uninitiated. James went even farther, and denounced the Faith as dead, which comprised the essence of the Gospel of Paul.* Nor was the latter silent under their assaults. Writing to the Galatians of Asia Minor, near whom he had been brought up, he boldly declared that he had never subjected himself to the men at Jerusalem, but had withstood Peter himself to the face. He also designated the doctrines of James, "another Gospel," and added,

* Compare the second chapter of James with the eleventh chapter of the Epistle to the Hebrews, sometimes improperly ascribed to Paul.

that if he pleased these men he would not be the servant of Christ. When Peter was in mortal peril, it is recorded that "prayer was made without ceasing of the Church for him;" but Paul, when in like condition, was abandoned to his fate. "At my first answer," says he, "no man stood with me, but all forsook me."

PAUL AND PLATO CONTRASTED.

Wherein Paul is distinct from Plato, the difference seems to consist in greater definiteness of expression, and aptness in bringing his ideas within the range of the conceptions of common men. However exalted those may have been who acquired the culture and profound knowledge of the great philosopher, the many, the *oi polloi*, had been more or less overlooked. Even the Jews, professing to be God's peculiar people, regarded all as profane who were not of Israelitish blood. It had been given the disciples of Jesus to know the Mysteries; but the multitude could only be instructed by parables and symbols. Paul coming from Asia Minor, proficient in Ionian as well as Talmudic learning, wrenched their secrets from the temple, crypt, and synagogue, as well as from the Academy and Musæum, and translated them into the vernacular of "the plain people," who received from him the Gospel. "All are the sons of God," said he, "through faith in Christ Jesus."

ARCANE, OR MYSTIC LORE.

Paul, as has been already stated, was familiar with the Ionian learning. In his Epistles to the Corinthians he abounds with expressions suggested by the initiations of Sabazius and Eleusis, and the lectures of the philosophers. He designates himself an *idiotes*—a person unskillful in the Word, but not in the *gnosis*, or philosophical learning. "We speak wisdom among the perfect" or initiated, he writes; "not the wisdom of this world, nor of the archons of this world, but divine wisdom in a Mystery, secret—which none of the archons of this world knew."

Plato repeatedly asserts the continued existence of the soul after the termination of this present life. "When death attacks a man," says Socrates in the *Phædo*, "the mortal portion of him may be supposed to

die, but the immortal retires at the approach of death and is preserved safe and sound. Therefore, Cebes, beyond question, the soul is immortal and imperishable; it requires our care not only for the present time, which we call 'life,' but for all time." Paul, in like manner, taught the *anastasis*, or continuing life of those who had died; setting forth that there was a *psychical* body which was "sown" in the corruptible, and a spiritual body that was raised in incorruptible substance: "the first man is of the earth, earthy; the second man, from heaven."

REPENTANCE AND CONVERSION.

"Repentance and conversion" enter so much into the structure of modern religious thought, as to impart additional weight to the teachings of both the apostle and philosopher. Paul is more reticent on the subject than may have been supposed; indeed, Plato seems to us the more explicit and satisfactory. In the seventh book of the *Republic*, he depicts men as existing from infancy in a cave underground, and chained so fast as to be unable to turn their heads toward the light which shines above and behind them from the entrance. Everything which they see is a shadow; everything which they hear, an echo. From this condition of captivity, the soul has the power to recover itself. But first it must learn to see aright. The teachers are mistaken in the proposition that there is no knowledge in the soul, and that it can be implanted there, like sight in blind eyes. "Our present argument shows this power to reside in the soul of every person, and to be the organ by which every one learns. As the eye can not turn otherwise than with the whole body from darkness to light, so when the eye of the soul is turned round, the whole soul must be turned and so become able to endure the sight of reality—in other words, of the good. This is *conversion*; and the art to accomplish it as easily and completely as possible, is not by implanting sight, but by regarding the person as already possessing it, and turning it in the right direction."

"Beauty—the good and lovable perfect in use—ought to be loved for its own sake, for it is the source and center of all beauty and goodness,—the Creator, Ruler, and Pre-

server of all things. It has no similitude in the earth or in the heavens. Whatever is beautiful and good is so merely by participation of the Supreme goodness"—[*kalon*, goodness, beauty, fitness for use.] "All other beauty may increase, decay, change, or perish; but this is the same through all time and everywhere. By raising our thoughts above all inferior good, we at length reach that which is Supreme, which is simple, pure, and unchangeable, without form, color, or human qualities. It is the Deity Himself. Love of this Supreme goodness renders man divine. When the soul rises above herself and becomes at one with this, she brings forth, not the mere images and shadows of virtues and spiritual excellence, but those very things themselves, she becomes immortal and the beloved of God. There is no one so bad but that love can make him holy and divine by goodness; so that his soul becomes like the Supreme One."

Paul also treats several times of a change of spiritual character, a *metanoia*, or, as it is bunglingly translated, "repentance," Indeed we have no English word adequate to express it, and are compelled to resort to circumlocution.

In the juvenile period of life, man is emotive, psychical, involved in the external and phenomenal life. As a child this is eminently proper and becoming; but when he becomes a man, it is time to put away childish things. He should turn from the phenomenal to the real, from the selfish and sensual to the good and spiritual, from the outside world to the divine. The spiritual nature is thus evolved from the external. What Plato denominates the *nous*,* and Paul "the spirit," now leads the individual.

* *Nous* or *nous*, rendered by Prof. Cocker, "the intuitive Reason," is the designation applied by Plato to the spirit or interior soul, the diviner part of man. Thomas Taylor and others translate this term, *mind*, *reason*, *intellect*; but neither of these words, as we employ them nowadays, expresses the precise meaning.

By understanding correctly the meaning of *nous* we may apprehend more accurately its compounds. Thus, *metanoia* is a bringing of the *nous* or spiritual nature from its half-lethargic condition; *dianoia*, or understanding, is the outgoing of the interior mind; *hypnoia*, the under-meaning, *noetic*, spiritual, interior, arcane, esoteric; *dynamata* (a *Peter* ii 16), interior knowledge not easily understood, *i. e.*, by persons who have not an acute or developed spiritual sensibility.

This evolution is what the writers of the New Testament denominated *metanoia*, the developing of the spiritual life.

It is thus explained by Paul—2 Corinthians vii. 10, "Sorrow, which is from (or according to) God, accomplisheth the evolution of the new life, even to a salvation never to be discarded; but the sorrow of the world worketh death." It is not so certain that the writers of the Four Gospels were as clear-sighted. Certainly the Greek text of the passage is not expressed by the common English translation. It is not a mere incidental excitation that is meant, but a turning-round from the apparent and illusive to the real, from the external to the spiritual, from the worldly to the divine.

THE PERSON OF GOD.

Plato taught the person and nature of God: "Look at the Sun, the Stars, the Moon! at the earth with its changing seasons, and all its beauties! Are they not in themselves a power beyond you?—a power more grand, more permanent, more lovely, than anything you can create? Is not the very essence of goodness and worship the acknowledgement of such a power? The external world may be but a shadow of the Deity—a symbol of a far higher power beyond it, a veil to shade his Presence, a school to lead you to him. But in itself it is divine; therefore there is a Deity, and all mankind

The *Gospel according to Luke* (xxiv. 45), treats of opening the *nous*, or spiritual faculty. Paul evidently attaches a similar meaning to the term; styling the *anoia* of Plato (*Laws*, x. 8) "a reprobate mind" (*Romans* 28) or suppressed spiritual nature. Speaking of the Soul (*psuchè*) as a goddess, Plato remarks that "when she allies herself to the *nous* (which he terms a god or divine substance), she does everything aright and felicitously; but the case is otherwise when she attaches herself to the *Anoia*."

Paul also agrees with this. See *Romans* vii.; and *Galatians* v. 16-26.

I more than half suspect that the word *Nous* is not originally Greek, but was borrowed from a foreign language. *Noof* or *Nout* is a Coptic or Egyptian term, signifying the Deity, and *nous* is possibly a Grecian form of the term. Anaxagoras called the Infinite Spirit by that designation. "All things were in chaos," he declared; "then came *Nous* and established order." "The self-subsisting *Nous* is the Author and beginning of motion." This *Nous* is infinite, self-subsisting, omnipresent, knowing all, and always the same. Hence the *nous*, mind or spirit in man is his divine part; and he who lives according to it, who "walks in the spirit" or interior life, is divine—at one with God.

believe it." "The Divine word established the movements of the heavenly orbs." "God is the governor of all things that are and that are to come; and the Lord is the father of the governor." This last expression is mystic and arcane.

Socrates also is recorded by Xenophon as saying: "There is a Being whose eye passes through all nature, and whose ear is open to every sound; extended to all places, extending through all time; and whose bounty and care can know no other bounds than those fixed by His own creation." Paul further adds to this: "The invisible things of him from the creation of the world are clearly seen, being rendered manifest to the interior mind by the things that are made—even His eternal power and divinity." The "*Nous*," or Divine Spirit, Anaxagoras declared, was the cause of all things; and, as Plato inferred, "disposes each in the way that is best." "To find the Maker and Father of this All is hard; and having found Him, it is impossible to utter Him to the many." "We may say, therefore, as to things cognizable by the intellect, that they become cognizable not only from *the Good*, by whom they are made known, but likewise that their being and essence are thence derived; while the Good itself is not essence, but beyond essence, and superior to both in dignity and power."

"He is the original life and force of all things in the æthereal regions, upon the earth and under the earth." "He is Truth and light is His shadow." "What light and sight are in this visible world, truth and intuitive perception are in the real, unchangeable world." "As light and vision resemble the sun, but are not the sun, so knowledge and truth resemble The Good, but are not the Good; which is, indeed, in itself something more venerable."

Prof. Cocker accordingly sums up the argument: "God is therefore, with Plato, the *First Principle of all Principles*; the Divine energy or power is the *efficient cause*, the Divine beauty the *formal cause*, and the Divine goodness the *primal cause* of all existence."

Paul himself uttered the same idea in the terse sentence: "All things are of [or, out

from] God.' "He is before all things, and by him all things consist."

PRAYER.

Paul exhorts to prayer—but not the exhibition in public places which Jesus mentions with so much disdain, declaring that they who practice it inhibit themselves from any reward or benefit. "Pray without ceasing," is his precept. This, it is plain, is an attitude of mind, not a bead-telling like the Buddhists, nor the turning of a wheel—much less the lip-service of the church, mosque, or synagogue. In this respect Plato himself is very explicit, and his words, as will be seen, "touch the spot:"

"The light and spirit of Deity are as wings to the soul, raising it into communion with himself, and above the earth, with which the mind of man is prone to bemire itself."

"Prayer is the ardent turning of the soul toward God, not to ask any particular good, but good itself—the universal supreme good. We often mistake what is pernicious and dangerous for what is useful and desirable. Therefore remain silent before God, till he removes the clouds from thy eyes, and enables thee to see, by the divine light, not what appears good to thyself, but what is really good."

THE RESTITUTION OF ALL THINGS.

Curiously enough Paul and Plato treated of an appearing of the Divine One to restore all things. This seems to have been the fundamental idea in every philosophical system, modern and ancient, Grecian and Oriental. Creation, it was taught, was followed by dissolution; then God came (generally by *avatar*) and restored all. "When he that is our life shall appear," said Paul, "then shall ye appear with him in glory." He more than hints—he evidently believed that this appearing would take place in a very short time. It is possible, however, that there has been some mistaking of the sense—that the apostolic allusion was not properly to be understood to relate to a worldly or cosmical event; the "day of the Lord" being eternity itself, always *present* to every human spirit as well as to the Deity himself, but apparently *future* to those who live on the earth.

"In the end," says Plato, "lest the Universe shall be plunged into an endless abyss of confusion, the Author of Primitive Order will appear again, and resume the reins of empire. He will change, amend, embellish, and restore the whole frame of nature, and put an end to decay, disease, and death."

PSYCHOLOGY.

In their psychology, the two appear to be in very perfect agreement. Rejecting the hypothesis of Protagoras, the philosopher declares the idea of God, as the beginning and end, the One Good, to be "the measure of all things"—the reality of all that is actual. Man is constituted of the *soul* as a twofold entity—the immortal part, and the faculty of sensation—and the body which contains this composite existence and is made by it the receptacle of life. "God gave the *nous* or interior spirit to the soul, and the soul to the body." "The soul is perceived only by the interior mind." In like manner, Paul enumerates the "whole spirit and soul and body."

If in common speech these distinctions were more carefully maintained, the sense of the old writers would be better comprehended.

THE STANDARD OF RIGHT.

Both the apostle and philosopher were at one in regard to goodness as the life essential to man upon earth. Regarding the Eternal good as the sole entity and source of all things, the true career is toward it, as the centre and home of the spirit. Justice, truth, and right are not arbitrarily constituted such by the Divine decree and legislation, but are founded in the nature of God. Morality is not prescribed by statute or social code, nor created, but flows out from the divine nature. Hence the criterion must not be sought in the external world. That is changeable; the standard of truth and virtue is not the same in different ages and countries. "To do as the Romans do when one is at Rome," is the world's rule. We must learn our standard from God. His motive, as made manifest in the universe, is that all rational beings shall be like Himself, true and good. He could have no other. As every conceivable form, every possible

relation, every principle of right, always exist in the Deity, the perception and consciousness of them in the human soul must have been inseminated and inspired there from Him. What was denominated *wisdom*, was not mere knowledge of things to be learned, but everything good; philosophy was therefore the love of inherent goodness as well as truth.

Speaking of Solon and others, Socrates is therefore represented as saying: "*Wise*, I may not call them; for that is a great name which belongs to God only. Lovers of wisdom, or philosophers, is their modest and befitting title."

DISCIPLINE AND CONFLICT.

Thus, philosophy according to Plato was a mental and moral discipline for the purification and exaltation of the soul. In its ultimate essence, the soul is formed in the image of the divine—after the pattern of the just, the true, and the good. The passions and affections are merely phenomenal. They belong to the external life; in the expressive words of the Hindu sage—"they are illusion." Yet they are not without a cause and basis; and these must be traced to the instinctive longing which we all have for the good and the true. Even when engaged in the misdirected pursuit of pleasure, wealth, fame, or honor, we are really striving for these; only we do not then perceive what the *good* really is. The interior and rational part of the soul is clouded by passion and ignorance. All the restlessness of human life is prompted by this longing for the good. It can never be assuaged till it is satisfied.

While Plato taught that all souls have the faculty of knowing, it was only by this philosophical discipline that any were raised to the vision and perception of eternal truth, goodness, and beauty. There are ideas in every soul, inborn and not derived from without; and it was his aim to bring them into full consciousness and activity. Regarding these innate ideas as of divine origin—as the most vital, precious, and certain of all truths—this development of them is the bringing of man to the knowledge of God. As wisdom has been already defined, knowledge must now be perceived and comprehended, not as a mere intellectual ac-

quirement and deduction, but an interior conjunction and joining of the mind or spirit to its divine source, an at-one-ment, *enosis*, or uniting of man to God.

These are the words of the philosopher: "Evil of necessity moves round this mortal nature; for which reason we ought to fly hence as quickly as possible. This flight consists in becoming like God as much as is possible; and this becoming like God is becoming just and holy with wisdom. Nothing is more like God than the man who has become just, as is possible."*

Paul in his forcible delineation of the conflict between the flesh and spirit, has also indicated the same experience and discipline with their culmination in the highest good. In the seventh chapter of the *Epistle to the Romans*, he depicts the emotive or *epithumetic* tendency drawing him toward evil, and the law of the higher mind impelling him upward; and then declares: "There is no condemnation to them who walk not according to the flesh, but according to the spirit." In the *Epistle to the Galatians* he describes in analogous terms, the flesh or external nature as contrary to the spirit, setting forth the points and tendencies of each, and closes the argument with the proposition: "If we live in the spirit we also walk in the spirit." Thus casting utterly aside the sophisms of James, he based the doctrine of *faith*, which included in it his entire Gospel, upon the broad foundation of the spiritual nature—the union of man with the Deity.

COINCIDENCES.

It was appropriate that the two men who accomplished so much for the subsequent generations, should have many coincidences in their personal history. Plato in early manhood was the pupil of Socrates, and Paul of the great catholic Rabbi Gamaliel. Both appear to have been thoroughly conversant with the learning of their time; the doctrine of Pythagoras is perceptible in the *Dialogues*, and that of the Alexandrian

* How apposite to this is the prayer of Socrates, as given in *Phædrus*: "Beloved Pan and all ye divine ones who abide round this place, grant me to be beautiful in the interior soul; and let the outward nature be at one with that which is within. Let me count the wise to be the truly rich man; and may I obtain only that amount of gold which a sensible man can possess and employ."

school in the *Epistles*, especially in those to Timothy and the Ephesians. Plato traveled to Italy, Sicily, Egypt, and Ionia; Paul journeyed over Asia Minor, Macedonia, Greece, and to Italy and Spain. The apostle went to preach; the philosopher to learn.

Distinct as were the Platonists and Pauline Christians of the earlier centuries, many of the more distinguished teachers of the new faith were deeply tinctured with the philosophical leaven. Synesius, the bishop of Cyrené, was the disciple of Hypatia. St. Antony reiterated the theurgy of Iamblichus. The *Logos*, or Word of the *Gospel according to John*, was a Gnostic personification. Clement of Alexandria, Origen, and others of the Fathers drank deeply from the fountains of philosophy. The ascetic idea which carried away the Church was like that which was practiced by Plotinus. It came not from Plato, however (although the great sage lived unmarried), but from the remoter countries of Upper Asia. But all through the Middle Ages there rose up men who accepted the interior doctrines which were promulgated by the renowned Teacher of the Academy.

THE APOSTLE LIKE THE SAGE.

In the end all tends to unity. Paul is not in conflict with Plato. Even the "philosophy and vain deceit" against which he warned

his disciples of Colossæ, related to the sophisms of the various Ionian and Epicurean schools. He nowhere uses an expression that is in contravention of the dialectics. His gospel was not an isolated affair, having no relation to the anterior times; but rather the endeavor to make whatever was valuable from the ancient periods accessible to all. If he could find a text or an altar at Athens from which to set forth his doctrine, and could cite from Cleanthes to show that we are all the offspring of God, it is no deduction to attribute to him concurrence of sentiment with the great philosopher—that perfection of the moral nature, assimilation to God, was the supreme goal of life.

Read both with carefulness and candor, having as little reference as possible to extraneous notions, and this unity will appear vividly through their pages. Paul is acute, direct, and easier to comprehend; for he speaks to the common understanding. Plato is more refined, more speculative, more scholastic. We find abundant use for both. They aim toward the same end. Every path leads to the highway, every river to the ocean; so these illustrious teachers, each incomparable in his way, direct us alike to the great central truth—that the end of human life is assimilation to the good; and the Good is one, and always God.

ALEXANDER WILDER.

FURTHER VIEWS OF THE EXPOSITION.

IN our last consideration of the Centennial Exposition, a brief notice was given of the more prominent features of the great feast spread for appreciative perceptrives in the Main Building. In this paper it is proposed to make a tour through the other principal buildings and bestow a passing glance upon the, to us, more striking objects which crowd the allotted spaces.

After the Main Building and its rich products, gathered from every clime, Machinery Hall claims the visitor's attention. To the utilitarian it is a repository of the noblest evidences of human conception and skill. There are grouped machines for seemingly every use which it is possible that man could need, or for which he could imagine a need.

Conspicuous enough is the great Corliss Engine, which furnishes the power to move all the machinery not self-propelling. This grand work is the contribution of Rhode Island, the smallest State in the Union; and when it is considered that the building is 1,400 feet long and 360 feet wide, with large additions and lines of shafting with their hundreds of pulleys, gearing, and belts, extending in every direction over that large area to afford connections with machines great and small, wherever they may be set, some notion of the immense power of the driving wheel may be grasped. The gear fly-wheel is 30 feet in diameter and has 216 teeth, which are adjusted with such nicety, that although this great wheel weighs 56 tons

and makes 36 revolutions per minute, it runs almost noiselessly. The entire weight of this magnificent engine is 700 tons, and its capacity 2,500 horse-power, or 1,000 more than the need of the Hall, as calculated by the Commissioners.

All the manufacturing industries, from the making of a pin or carpet tack to the weaving of the finest silks, are represented. Here is the wonderful Jacquard attachment to looms, by which patterns may be woven in carpet or in the richest satin. We find it applied to great advantage in the ribbon weaving exhibit by Mr. Stevens, of Coventry, England, who has been turning out a great

the Hall, performs several functions, resulting in the printing the brand and the name of the manufacturers upon the ends of the spool, in two colors, at the rate of 120 per minute. France, from whom we expected more, sends but one silk loom, and that a very ordinary-looking one, for weaving plain black silk.

Claiming consideration as a feature scarcely inferior in practical value to the great inventions of Whitney and Jacquard, is a recent improvement on the old-fashioned shuttle by Mr. James Lyall, of New York. This improvement renders the motion of the shuttle positive, or steady and sure instead of pro-

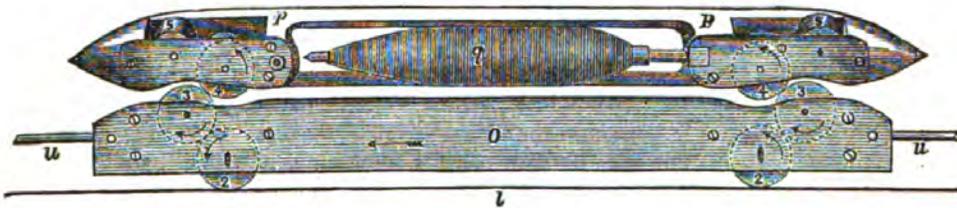


Fig. 3.

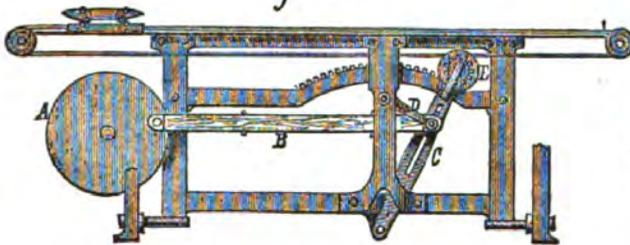


Fig. 4.

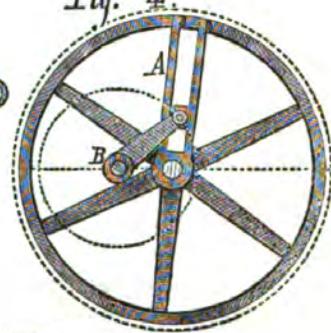


FIG. 1.—LYALL'S POSITIVE MOTION SHUTTLE.

number of Centennial devices, most of which are exceedingly delicate in shading and finish.

Silk-making machinery in operation is displayed by two American companies, the Danforth, of New Jersey, and the Nonotuck, of Massachusetts; and thus some evidences are given of the progress made during the few years which American manufacturers have been prosecuting this branch of textile industry. A spooling machine shown by the Nonotuck company will wind 110 dozen spools of silk a day; and a stamping machine in the same section, considered one of the most exquisite pieces of mechanism in

jected and variable. By it, the shuttle becomes subject to control like other parts of the loom, and no longer a loose, flying implement, with all the incidental mishaps, breakages, delays which have been a necessary accompaniment of what is but a projectile. There are five great looms from Messrs. J. & W. Lyall's factory in which the new shuttle is exhibited; one of these is the largest loom in the world, weaving a fabric eight yards wide and forty long in a single day, and requiring the attention of but a girl. The great shuttle in this loom travels 31 feet at every throw, and makes the journey 35 times a minute.

India-rubber manufacture is well represented; one company of Rhode Island having a full set of machinery in operation, showing the different processes of applying the useful gum from the washing of the crude stock to the finishing of an overshoe. Vulcanization by the Goodyear method is illustrated in the course, and is a very interesting detail in itself, as by it, the gum is made available for the thousand purposes of civilization. A set of machinery is capable of turning out 500 pairs of shoes in a day.

The "art preservative of all arts" fills, as would be reasonably expected, a very large space. The old press used by Dr. Franklin, for printing those sage utterances which have exerted no little influence in the formulation of the American mind, is shown in juxtaposition with the later accomplishments of the inventor and machinist in the way of hand-presses, but one does not see a very great difference between them except in the toggle joint of the Stanhope, and the elaborate finish of modern workmanship. But the steam presses command our admiration, and indeed they are marvelous! The intelligent and instructed visitor can not look upon the working of a Hoe, a Bullock, or a Walter, without mentally or audibly paying a devout tribute to the genius of the men who have developed such prodigies of automatic skill that will take paper from a continuous roll, dampen it, print, divide the sheets, and deliver them upon tables perfect copies of the latest news from all parts of the world at the rate of 15,000 copies an hour. In connection with the presses, folding machines are to be seen, by which the printed sheets can be folded and made ready for the book-binder. One of these folders has a capacity of 30,000 per hour, each sheet having two folds.

Here, too, in the Russian department is a type-writing machine, which is superior in working and result to the much-prized American type-writer, but can not be made to run so rapidly as the latter. The Russian invention writes in both Russian and English type; makes capitals large and small, puts in the punctuation marks, etc.

In the rear of the Hall are the glass works, where some of the mysteries of glass making may be studied. All day long the workmen

swing their long iron tubes, and blow and mould the plastic mass into a variety of shapes for use and ornament. An hour may be profitably spent in the works.

In the British section are seen some admirable knitting-machines from Leicester, several sewing-machines of beautiful designs from London and Glasgow, and engines, steam hammers, and other bits of iron of great size and power; locomotives for road and farm use; boiler and armor plates, and mining apparatus, also invite the notice of the inquisitive and the examination of those well endowed in Constructiveness.

In the German department, the harsher side of one's Destructiveness and Combative-ness finds gratification in a survey of the immense cannon from the works of Mr. Krupp. The fact that six weeks were occupied in removing this gun from the vessel to its position in Machinery Hall, should convey to the reader who has not seen it some notion of its vast weight. Then, too, the immense plates of iron which were constructed for experiments with the great guns, and which show the latter's destructive effect, evince the zeal of Prussia toward attaining the first position as a warlike power.

Belgium has sent many specimens of her iron industry, particularly as related to railway operations; a large machine for boring and tubing mine shafts and deep wells, deserves mention, as do the specimens of bridge construction and of sugar-making apparatus.

Brazil figures well in the Hall, considering her recent elevation, and everything she has to show seems a kind of compliment or reflection of the energy and progressiveness of her liberal ruler.

Every one visits the Hydraulic Annex, where are shown a great variety of pumps, rams, fire and blowing apparatus, many of them in operation. The general effect of the large and small streams pouring into the main tank from so many mouths is pleasing, and attracts general attention. One company, the Douglas, exhibits 700 styles of pumps. England, Switzerland, Germany, and other countries are represented in this department.

AGRICULTURAL HALL.

Turning now to this department of the

broad display, we find, as would be expected, that the productions of the soil and the many mechanical devices which active brains and trained hands have perfected to render the sowing and harvesting of crops easier and more rapid, are mainly American; to be precise, 800 foreign and 1,450 American exhibitors are gathered here. From a simple hand-

fruits, seeds, coffee, tea, spices; bread in different stages of production, with the right and wrong methods illustrated, are shown in so rich a profusion, that the devout may well exclaim, "Verily ours is 'a land flowing with milk and honey,' and all manner of good things!"

There is much in this department to en-

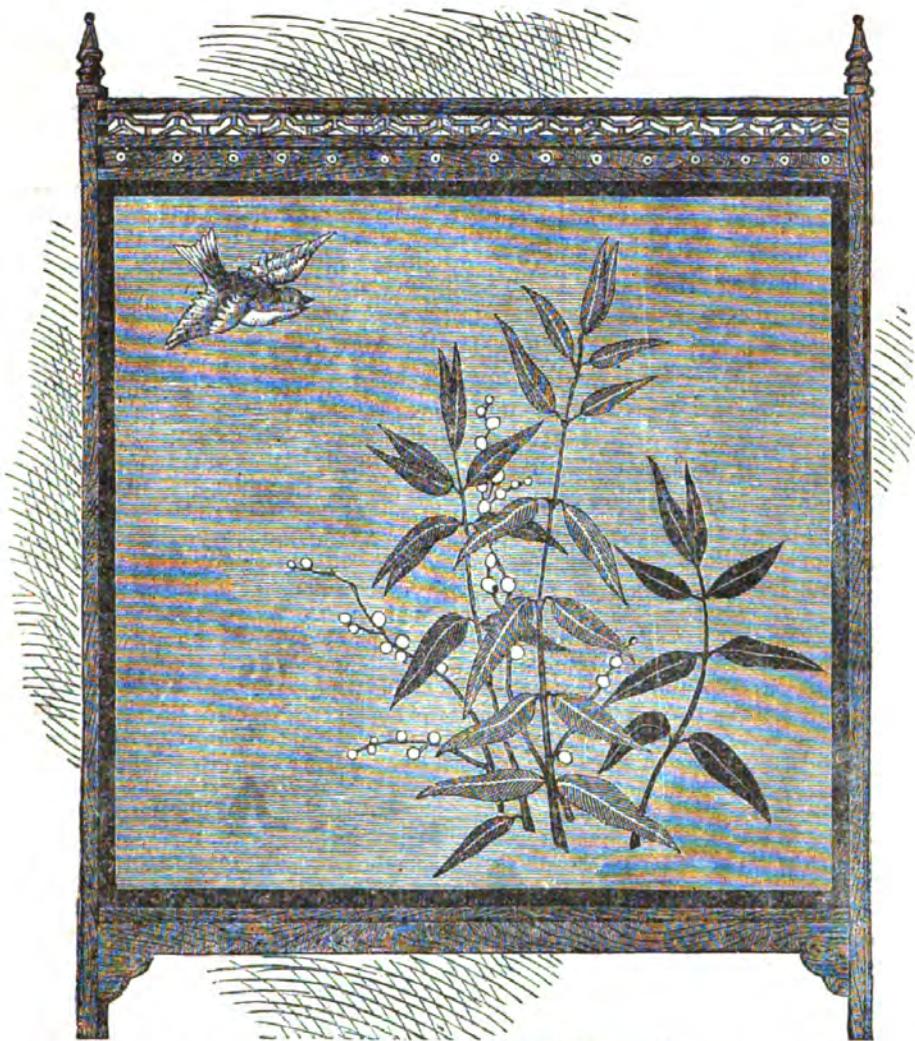


FIG. 2.—EMEROIDERY BY PRINCESS CHRISTINE.

rake or hoe, to the large reapers, threshers, steam plows; the number of machines to be seen by the lover of husbandry is legion, and the variety astonishing. Common implements gleam with gold and silver plating, and the finish of watch movements. Food materials in the raw and manufactured state; tobacco in all sorts of forms and packages; liquor ditto; sugars raw and confectioned;

gauge the close attention of the antiquary and naturalist, such as models and skeletons of pre-historic animals, the gigantic saurian and mastodon, immense turtles and shell-fish, etc. Fish culture has its exemplification by means of 35 large tanks and aquaria, in which is a considerable variety of the finny tribe, besides shell-fish.

Brazil looms up conspicuously among the

foreign contributors to Agricultural Hall, its wide range of production in the factory, mine, and forest, and on the farm and garden, constituting one of the most attractive groups in the building. The collection of rich woods and the work of the Brazilian silk-worm may well command the attention and remark of throngs of people. Other South American States are present here, while of more distant nations, Japan, Italy, and Spain deserve a mention for many special articles. Japan illustrates her silk-worm culture and the treatment of raw silk; so, too, does she exhibit the production of tea. Wines, oils, soap, farming implements, leather goods, and dried and preserved fruits and meats furnish some idea of the solid wealth of the land of sunny skies and classical associations.

HORTICULTURAL HALL.

This beautiful structure, with its grounds, occupies 40 acres of the finest portion of Fairmount Park, and was erected by the city of Philadelphia, as was Memorial Hall, for a permanent feature of the Park. The vestibule leading to the main entrance contains a goodly array of garden implements, with fancy wood and wire hanging-baskets, vases, etc. The main hall has an elegant marble basin, in which a fountain plays from a centre piece of charming design; and distributed around, are choice tropical plants, all having their names attached for the information of visitors. Here are the banana plant, pineapple, fig, and other fruit trees from equatorial regions, with odd and thorny cacti, graceful ferns, and drooping palms, the fan and sago palm, and a hundred others. The weeping tree fern is a very choice variety, its long symmetrical leaves hanging gracefully from the tall stalks. One noteworthy plant of historic interest is labelled *cycus revolulata*, and we are informed that it was "owned by Robert Morris (the eminent and patriotic banker) before and during the Revolution." Its leaves are similar in many respects to those of tree ferns, but its thick, rough trunk is not at all pleasing to the eye.

The grounds around the building are planted and ornamented with a great variety of floral tributes from different parts of the world, and of the United States. The gardener of Europe here vies with our own florists in designing and laying out beds and parterres. The effect to the observer, especially if he be standing on the westward front of the Hall, being indescribably charming. Dotting the velvety lawns, rich mounds, circles, stars, etc., are elegant vines, vases, statu-

ary, and a multitude of other garden ornaments of varied design, the whole presenting a scene which suggests the artist's dream of Arcadian perfection.

THE ART GALLERY.

This, take it all in all, is the most imposing of the erections on the ground. Built of granite at the cost of \$1,500,000 by the State of Pennsylvania, it is intended as a permanent memorial of the Centennial, and to be used as a repository of art and industry at the close of the Exposition. The galleries and corridors are crowded with paintings from Europe, Mexico, South America, and Canada. The contributions of American artists are numerous, yet do not represent the true condition of home art, for the reason that most of the best works of our painters are in the hands of persons who have not thought it expedient to loan them to the Centennial Commission. The foreigner who would obtain a fair idea of the ability of American painters, should visit the "loan collections" now at the National Academy of Design, and at the Metropolitan Museum of Art, in New York City, where will be seen many canvases from the hands of our most eminent artists.

It must be confessed that the bulk of the Centennial art collection is made up of inferior works, yet there are enough of great excellence in the departments of oil and water-color, engraving, and sculpture, to reward the visitor who shall devote a day or more to their study. The Castellani collection of ancient marbles, pottery, jewelry, and bronze ware, the marble Medea, Connelly's "Thetis," Bergonzoli's "Angelic Love," Calvi's "Lucifer," the pictures loaned by Queen Victoria, among them two of Benjamin West's, Makart's "Catharine Cornaro," an immense piece; Wagner's "Chariot Race," Riviere's "Companion of Ulysses," Cooke's "Lighthouse," "The Banquet Scene" in Macbeth, Moran's "Mountain of the Holy Cross," Gifford's "Tivoli," with its inimitable light; Bierstadt's celebrated "Yosemite Valley," De Haas' Sea Coast, with its wonderful marine tint; Clement's "Assassination of Cæsar," Gisbert's "Landing of the Pilgrims," Gilbert Stuart's portrait of Washington, are among the gems upon which the visitor will bestow more than a momentary glance. This last is a loan from England, like most of the finer pictures from Europe. The display of photographs is excellent, and places American operators in the front race for finish and pose. The pictures from Norway and Sweden do credit to the Norsemen. Spain also shows remarkable strength; but Italy is disappointing. In the art annex, where one is at first bewildered by the maze of statuary, she takes, as would be expected, the first rank.

EDITOR.

WILD FLOWERS AND WILD MEN.

FROM general accounts I had believed the Digger Indians to be the lowest of the race. The overland journey and travel in California considerably altered my opinion of them for the better. They are sometimes said to be called Diggers from living in holes dug in the ground. I can not say I canvassed for them below the surface, but only that all I saw lived in wigwams and huts, in some instances hung around with peltry in true hunter's style—though as to any enterprise which can be perceived, I

on horseback or on foot, my uncommon talent at losing my party brought me quite often into situations with Indians, the recollection of which after the lights are out is not conducive to sleep. At the time, if I knew myself, so far from fear, there was an inclination to go in search of adventure of a mild type. A few times I imagined myself on the very borders of it; however, it mostly escaped me. The savages appeared pleased to receive and return a salutation, and then went about their business, which was



FIG. 1.—GROUP OF DIGGER INDIANS.

should suppose the "critters" would have to come round and wait to be skinned. If, according to others, they take the name from digging their food, all we who masticate potatoes, turnips, and the rest, would seem equally entitled thereto. A chief article of diet is acorn paste, each squaw having her stone mortar, and sitting by it most of her waking hours grinding nuts into flour for the sustenance of her husband and children.

In our excursions among the mountains,

nothing that interfered with the right of the pale-faces to their own scalps; although at this very time the eastern papers were full of exciting reports that the savages were upon the eve of a general uprising to join Captain Jack and his followers intrenched in the lava beds.

I will merely remark that one does not need to have been born heroic in order to be brave here, but only not to have been born without sublimity or enthusiasm, and if not, amid scenery such as the Sierra region

affords, one is lifted out of self almost beyond a sense of danger or fatigue, anxiety about the future or painful remembrance of the past. The tourist finds the climate in most inspiring league with the surroundings. Throughout the term of travel from May to October the cloudless heavens, serene, beaming, brilliant yet most benignant, spread over in continual benediction, while every breath of the pure atmosphere imparts the liveliest invigoration. In this new world without and new life within I have seen the old become young, grief forget itself in wonder and thanksgiving, timid children and invalids borne as on swallows' wings, or—guessing how that would be—on wings of angels. Precipices, Indians, grizzlies even—they were what we had come to see, and glory in seeing. My experience is, that in a party of ten or a dozen there is commonly one, and no more, who can not or will not join in the refrain, "My glad soul mounted higher, and the world it was under my feet." If you lose patience with that one—and we are all human—it will be of use to you to exercise thankfulness that you are not that disastrously constituted being yourself.

Of course, as a great reader you know a digression when you meet it; likewise, as a good Christian, know how to pardon; I will not, therefore, confess and supplicate, only to make matters worse.

It was a Sabbath afternoon at Yosemite, where indeed valleys and rocks never heard the sound of the church-going bell. I strolled out from Hutchings' to visit an Eden of azalea situated on the trail to the Nevada Fall. We had ambled through the heart of it the day before intent on what was above and beyond, returning at night-fall, when the darkness prevented our seeing more than a snowy wall close upon either hand, the white wreaths and dainty morsels half burying horses and riders and starring our narrow pathway, withal filling the air with the most delicious fragrance imaginable. If it were not sacrilege to Nature I would say the atmosphere on that twenty-first of June might be bottled up to the glory of Lubin.

As I could never hope to see its like

again, I had then resolved to come by myself, making it the end of a pilgrimage. Behold me then as Entranced Solitude, mounted on a prodigious boulder which may have been a portion of the missing half of North Dome, or a part of the Royal Arches, or Cathedral Rocks, in the midst of that oasis, just beyond which on every side towers the pine forest at the base of perpendicular mountains from four to six thousand feet in height. After what has been said, I hardly need add that the best specimen in any Eastern conservatory is a mere hint of this magnificent flowering shrub growing wild by the acre along foothills and on the sides of canons in this vast region. The azaleas of my Sunday paradise stood ten good feet high, and in solid phalanx around my grand pedestal upon which they laid their branches heavy with bloom like white lambs on the altar. A few there sacrificed for my omnium gatherum have still, though yellow and shapeless, the fragrance of their distant valley in proportion as the shell encloses the music of the sea.

Suddenly, without a footfall or the warning of a rustling leaf, an Indian with fishing tackle glided past, his eyes directly meeting mine. I proffered bow and smile, he popped his head at me with grin and grunt and was gone. Half an hour after a counter ripple of the Merced, flowing at the left, attracted my ear; I turned and saw my aborigine fishing so quietly one almost felt that it was out of respect to the day. I sketched the peaceful angler, wishing from my heart that he could sketch for me some memories of the years before an Indian told a white of the existence of the Valley, and guided the first of the race to view Nature's casket of mighty wonders.

As he gradually moved on with the current and disappeared, the murmur of the water, blending with the faint breath of the wind, seemed to say: Behold the nations he represents passing noiselessly down the river of time, to be known no more.

How many hours after I can not tell, the silence was broken by the rapid tinkling of a cowbell, and presently came in sight down the mountain path a rather rebellious herd, driven by two young Indians on horseback.

These also returned a cheerful salutation, and hastened on into the face of the setting sun, leaving grotesque and far-stretching shadows executing a war-dance behind them.

On my way back to the hotel, I fell in communication with an Indian girl, dropped at the river's brink, dressing fish. Her costume, as limited as a ballroom belle's, became her and her surroundings beyond question. There was such a ludicrous mingling

was enough of the woman in her to seek to please by professing to admire the flowers with which in my covetousness I was well laden. By signs she asked for a spray, and planted that I gave in the moist sands to preserve its freshness till she should be ready for home; though had she wished, she could have made her night's couch of the same without trouble.

Close following on this little episode, my flower worship received a severe shock.



FIG. 2.—AGNES PARK.

of her picturesqueness with the dreadfully practical gyrations of her sharp knife in the pan of trout, as made me laugh; and the daughter of the forest, glancing up at me with twinkling eyes, laughed too, without interrupting her occupation. How perplexing it was!—our two good tongues aching for interchange of speech and utterly incapable—mill-gear in perfect running order, but of no earthly benefit because lacking the water-power of a common language. There

Judge of our sensations, when a youth appeared in the piazza where a person sat all unsuspecting over her treasure, and taking in the situation at once hastened toward her with the extreme sentence—"Madam, those flowers are rank poison!" The condemned raised both hands from her lapful of deceitful beauty, and had power to gasp forth—"I am a dead man!" Do not ask me to unravel the mystery. Children often laugh while declaring their sorrow over a

playmate's stubbed toe or involuntary mud-bath; we, however, were not children, and hers not a minor calamity, yet the sounds arising on every hand were unmistakably sounds of mirth. The benevolent youth essayed again, but in a more subdued manner: "They are poisonous to sheep." "Young man!"—the respondent's feelings were under control, if barely so—"do you take me for a sheep?" The young man's face confessed to his having found that animal nearer home; more especially because the fresh burst of merriment, which demonstrated at how little a thing people will laugh when their minds are made up to it, was led by a pretty girl on whom the warning youth had cast visual organs of the quadruped dumb before her shearers.

While thus occasionally in traveling some one will warn you against making free with the vegetation on account of poisoning, others will give *carte blanche* from their experience. Foss, the renowned stage driver on the Geyser route—though I hate his wickedness to his horses, in which, I say thankfully, I did not see his match in California—with a thorough knowledge of the country, protests there is nothing poisonous growing in it. For one entire summer I illustrated the proverb that they who know nothing fear nothing, and at the end knew of nothing to fear.

One of the most extraordinary specimens in all the floral kingdom is the snow-flower, which I first saw at Yosemite, in the hands of a gentleman whose day's excursion had taken him to the top of the mountains; and next saw at Clark and Moore's hotel, where pitchers filled with them adorned the parlor nooks. Their season was then nearly over, but by Mr. Clark's direction we found an abundance in a gulch near Big Tree Grove, where the snow had been late in melting. Each one was always a separate astonishment to my mind, a *lusus natura*.

I have seen several attempts and failures at description of this wonderful flower. My best endeavor to present it here will be read by some one fortunate enough to make its acquaintance hereafter in a heavenly June on its native Sierras; who in turn will most probably repeat my remark about feeble at-

tempt with a more personal application, finding that an easier thing to do than describing what is so nearly indescribable. The flower rises in a shaft or much elongated cone to the height usually of eight or ten inches, with an average diameter of two. Its color is a fine, solid, brilliant red, shading off beneath its decorations to exquisite pink and pure white. Small protuberant scales compose the surface, and from the base of each grow a pair of narrow, fibrous, clinging leaves, which divide right and left, keeping to the depressions; and by their points meeting others, diamonds are formed; each diamond hangs out upon a thread-like stem a perfect, tiny rose. And this is the snowflower of the Sierras. It commonly grows singly, but is occasionally seen in clusters of two, three, or four. Seen among the forest trees, its brightness attracts the eye at a distance, like flame. It rests directly on the brown surface of the soil, without the semblance of a green leaf. Not knowing its characteristics—botanists say it is a parasite of the old roots of the pine—I made several careful attempts to take one up by the roots. The root running straight downward, tapers gradually, and is extremely succulent, brittle and tender. It would require a St. Paul who discourses of the mortal body sown in dishonor and raised an incorruptible and most glorious body to explain what subtle forces of a decaying tree-root could project so incomparable a flower.

How Nature and her God love flowers! To think, as your horse plunges through groves of azalea, lilac, lubin, buckeye, and the long list of elegant flowering shrubs, or, entering the open spaces, makes paths through gay, ragged robin and variegated larkspur and all the lilies known and unknown—to think of the ages in which this wilderness blossomed as the rose ere there was a human eye to behold with admiration! One questions, indeed, whether the savage in paint and feathers never felt a certain affinity with these as decorations of his war-path; but he who could know of the golden treasure lying beneath the surface of the soil and leave it untouched, would seem to have few ideas in common with the sons of civilization.

The average western man has small sympathy with the Indians. Contact soon strips off the romance which attaches to the aborigines; and these hitting madly in their retaliations, have often made frontier life a terror, until by frontiersmen they have come to be regarded only as an evil to be abated.

Such a man is Galen Clark, State Agent of California for the Mariposa Mammoth Tree Grove, the well-known hotel keeper at that point, who during a residence of nearly thirty years among the Indians has maintained with them the most unbroken friendly relations. The interested traveler never

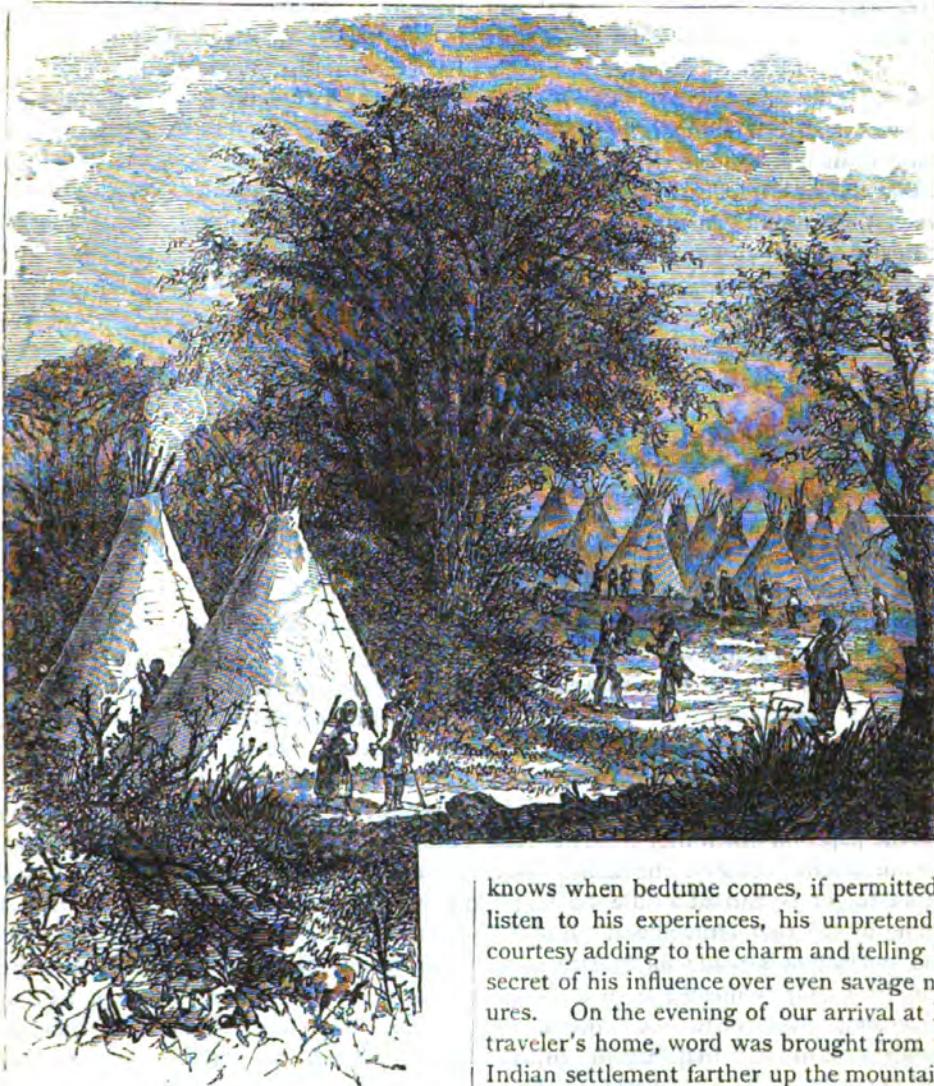


FIG. 3.—INDIAN TENT SCENE.

Now and then a grand nature, sweeping free of the meshes of human prejudice, and rising into an atmosphere which is the very breath of God, recognizes in the red man a brother, condones his offences, commiserates his wrongs, praises his virtues as of the dead already passed beyond the pale of criticism.

knows when bedtime comes, if permitted to listen to his experiences, his unpretending courtesy adding to the charm and telling the secret of his influence over even savage natures. On the evening of our arrival at his traveler's home, word was brought from the Indian settlement farther up the mountains, that one of their number who had been in Mr. Clark's employ, and to whom he had paid some money the day previous, was arrested for the murder of his mother-in-law, over seventy years of age, having, in a fit of intoxication, come upon her while stooping in the act of gathering sticks for fuel, and struck the poor, defenceless old woman a deadly blow. The news had evidently sad-

dened our host. In the conversation which ensued I remarked that it was the conclusion of a lady missionary of my acquaintance among some Northern tribes, that if they would not receive the Gospel of the Son of God, there was one only alternative, that of divine judgment sweeping them utterly from the face of the earth.

Mr. Clark looked tenderly thoughtful, and after a little pause replied—"I don't know; they are very religious, according to their ideas." He thought, or so I inferred, that there was next to a moral impossibility in the way of their adopting a civilized religion, and that the All-Merciful Father would require of them nothing above their capacity. Our host proceeded to describe the sacrifices they make to their religious convictions. When one dies, the relatives bury with the body the most valuable of their possessions; "in this way," said our host, "keeping themselves poor."

All the inroads of civilization lead through

their means of subsistence. There is a shrub, *manzeneta*, formerly abundant throughout the region; it has a bright brown bark, an oval, glossy, dark leaf, and bears a small apple—Indian *mansen*, with *eta* their common suffix for little.

This fruit gathered and dried formed a goodly item of their winter stores; but it is becoming scarcer year by year, and much of that which grows is plucked by those who have superseded the natives in everything.

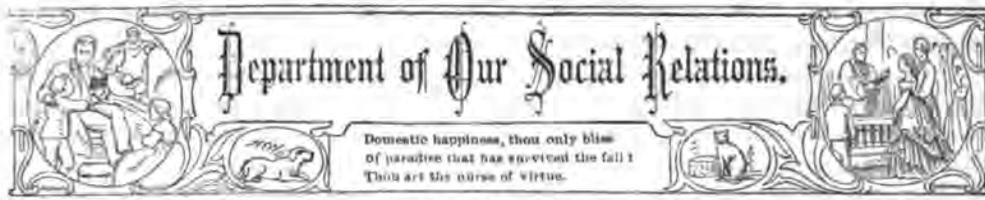
Speaking of funeral rites, the widows of Digger Indians manifest their grief by saturating their hair with tar till it runs down like the holy anointing oil of Aaron's time. It ought to be a reasonably good sort of a sanap for whom his relict should put on so costly a veil. There is room for suspicion that it is a fashion originated by the husbands, and cunningly devised to prevent their disconsolates from "hurrying up" a second marriage.

LAVINIA STELLA GOODWIN.

VALUE OF AGRICULTURAL STATISTICS.

THE difficulty of producing full and accurate agricultural statistics throughout the United Kingdom was the subject of serious complaint at the recent meeting of the British Association at Glasgow. Sir George Campbell, the chairman, indeed went so far as to assert that at present the returns were so incomplete they were not worth the paper on which they were printed. "We are in a free country," he added, "but freedom might be carried a little too far;" meaning by this that farmers and others, to whom application is made for information, should be legally compelled to respond to the questions put to them. Another member undertook to show that, had the British record of statistics been as perfect as they ought to be, with their present appliances, the Bengal famines of 1873 and 1874 might have been prevented, thus saving an expenditure of six million and a half pounds sterling, besides no inconsiderable number of lives. There was another fact vouched for by the same speaker, which is probably new to most readers, and that is, Peru to-

day has the most perfect system of agricultural statistics of any country in the civilized world; and, in that republic, we are told, "the happiness and material comforts of the people were more completely secured than in any other country. There agricultural statistics formed the basis of all the measures of the government, and famines were rendered impossible. A knowledge of the crops and all other products was obtained by means of the village system entailing exact measurement." It is certainly a severe reflection upon the economic methods and the intelligence even of older and more pretentious governments that an admission of this kind should have to be made. We are accustomed to speak very patronizingly occasionally of these little South American republics, but here at least is one from which the Agricultural Bureau at Washington, although it has shown a good degree of efficiency within the past two or three years of its existence, and has contributed not a little to the promotion of our farming interests, might possibly condescend to learn something.



A ROYAL FUNERAL IN EGYPT.

THE Khedive of Egypt recently buried his favorite daughter, Princess Hanem Zeinub, who was but fifteen years old, and the wife of Ibrahim Pasha. She died of typhus fever—a likely cause considering the malarial character of the Nile regions in the warmer seasons of the year. The ceremonies attending the burial were certainly imposing, if a large concourse of Moslem priests and people, the scattering of money from a treasury which a few months since was declared bankrupt and deeply in debt, and the butchery of oxen, followed by a big exhibition of gormandizing, suffice for the creation of an impression. The *Cologne Gazette* thus describes the demonstrations:

“The Khedive and his family, as well as his guest, the Sultan of Zanzibar, and the whole city of Alexandria, were much disturbed by the sad event, and the theatre was closed for three days. The body was taken to Cairo the same day, and placed in the Kasrel-Nile palace. An immense concourse followed the body to the depot in Alexandria, and hundreds of thousands of *lire* were distributed among the poor people. The interment took place in the Rilah mosque on the following morning. Twenty-four bullocks, thirty camels, and twenty wagons were in the funeral procession. These animals were laden with bread, dates, cooked

meats, and vegetables; the wagons carried casks of water and syrup, and all along the route distribution of the provisions was made to the poor. Eunuchs, meantime, threw 450,000 pieces of silver coin to the people who thronged the street. Three thousand priests, some clad in rich vestments of gold and silk, others half naked, followed the wagons, repeating prayers as they marched, and clapping their hands. After them came the family of the poor young Princess and the high officials of State, and then the coffin, borne by officers of rank. Behind this walked three eunuchs, bearing on golden shovels copies of the Koran, to be buried with the deceased. The coffin was of simple rough-hewn wood, and the corpse was sewn up in linen cloth. Upon the coffin were placed the jewels of the Princess, worth a million and a half of dollars. After the burial the priests slaughtered the twenty-four bullocks before the mosque, roasted them, and ate them up. The priests remained in the neighborhood of the grave to pray for the soul of the departed. The Khedive was so overcome with grief that he could not receive any visits of condolence.”

Contrast this with a funeral of Christian civilization, and even the expensiveness of its furnishing by the fashionable undertaker seems chaste and far more appropriate.

MARTHA A. MAXWELL,

THE COLORADO HUNTRESS AND NATURALIST.

THERE is a great deal of discussion at present about the ideal woman. “Can she be a public character? Can she pursue literature?” Indeed, can she exist outside of the strict seclusion of home, or ever be occupied with other than purely domestic duties? It seems to have been long ago decided that the ideal man can do anything

that is useful—be anything that he has capacity for becoming, whether it be a dress-maker, architect, or king; and if in his calling he is noble, strong, self-reliant, in one word, manly, he is to be admired as realizing all demanded of his sex.

When asked why not apply the standard of womanhood to woman in the same way,

the reply is that it can not be done, as circumstances affect her more, and, by her very susceptibility, make a radical change in her nature. Place her before the public; let her pursue the same professions and arts that have been held to be only appropriate for men, and she becomes coarse and masculine, and loses those sweet, tender graces that are distinctively feminine.

There is no logic so irresistible as that of facts; and the life of every womanly woman, who achieves a success in fields new to her sex, is worth volumes of theories upon the subject.

As an argument of this kind we give this sketch of Mrs. M. A. Maxwell, whose success as an artist-taxidermist and naturalist is calling forth so much admiration at the Centennial Exposition. She was born near Wellesboro, Pennsylvania. When she was but little more than two years old, her father died, leaving her to the sole charge of her mother, who, from the time of her birth, for nearly seven years, was an invalid, helpless child, but developed into a woman of remarkable character. In religious faith—in unswerving devotion to her ideas of right, whether popular or otherwise, Amy Sanford, her maiden name, indicated the independence, energy, and native refinement of her Puritan, Connecticut ancestors.

Though confined to her bed and a great sufferer, she found strength to do more for her little daughter than many a mother in perfect health has done. She amused and instructed her; teaching her at the bedside to read, knit, and sew, and do various kinds of work. Mrs. Maxwell has still specimens of sewing which she did when only four years old; the little stitches set with a regularity and nicety she could hardly rival to-day.

A few years later, her maternal grandparents came to live with her parents, and the little girl found in her grandmother a delightful companion. She was an eccentric old lady, intensely fond of nature, and the two spent days together rambling among the rocks and woods until the child, who was frail and unable to endure confinement in the school-room, became far more familiar with, and fond of, the birds and squir-

rels and all the little wild folk of the forest, than with children of her own age.

When Martha was about ten years of age her mother married Josiah Dartt, her former husband's cousin. He was a man who cared little for business, but was devoted to books and study in preparation for the ministry, with the design of becoming a missionary to the Indians in Oregon. He recognized the independence and originality of his step-daughter, speaking of her as a "diamond in the rough," and many were the hours spent by them in the discussion of themes connected with science and metaphysics—topics usually avoided by children, because dry and uninteresting to them.

It was with this missionary work in view that the family left Pennsylvania two years later; but, upon reaching Illinois, a long sickness caused the project to be given up, and they settled near Madison, Wisconsin, where Mr. Dartt pursued civil-engineering and surveying. It was in making their home in this place, then so wild, that Mrs. Maxwell fired her first shot and killed her first game—a huge rattlesnake. Her father's profession called him often from home, and, one day, in his absence, she and her mother were alarmed by a peculiar noise coming apparently from the unfinished corner of the building. Going to look they discovered a large rattlesnake in one corner, his rattles in rapid motion, and his body coiled as if about to spring upon her little sister, who was unconsciously playing a few feet from him. Quick as thought she caught the child away, seized her father's ever-ready rifle, and, steadying it across some rails, fired—the ball sending the snake mortally wounded into the cellar. After this adventure, shooting seemed an art which it was necessary for her to practice.

From the time of their removal to Wisconsin, for some years, her parents were her only teachers—her two little step-sisters, to whom she was largely mother as well as companion, and sundry pets chosen from the woods, her only playmates. Owing to her mother's frail health, after she was twelve years old, the dressmaking of the family devolved upon her. She used no patterns, but fitted garments nicely—cutting

simply by her eye. At eighteen she was sent to Oberlin, Ohio, that she might see life in different surroundings, and have better opportunities to pursue her studies. Then her unvarying kindness and thoughtfulness for every one, her pleasant face and modest ways, won multitudes of friends among the students and teachers.

Her love of study was a passion, and it was with keen regret that, in her junior year, she left school and gave up the hope of completing her course of study. A little later, however, she had the opportunity of attending Lawrence University, Appleton, Wisconsin, for a year, at the end of which time she married Mr. James A. Maxwell. After seven years of the unceasing domestic care and labor which necessarily devolves upon a woman at the head of a large family (for Mr. Maxwell was a widower with several children when Miss Dartt married him), her husband's finances became involved and they left their only child, then two years old, with Mrs. Maxwell's mother, and went to "Pike's Peak." That was the name by which all the gold-bearing region east of the Rocky Mountains was then known, and was the El Dorado of everybody's dreams.

They located at Mountain City, and Mrs. Maxwell was one of the first half dozen white women known at the mines. Without a murmur she exchanged her beautiful home in Wisconsin for, first a tent, then a log-house, with dirt roof and floor, and, after she had helped to earn the money, and lumber became obtainable, a more comfortable house. Here she kept boarders, sewed, and did any kind of work needful to accomplish the end for which she came. But vigorous manhood or womanhood finds material for growth and happiness wherever it is placed. So, in the midst of these surroundings, she found abundant material to feed her artistic tastes. The mountains were an unfailing source of delight to her, and when, after three years of hard work, privation, and adventure, she was recalled to Wisconsin by the serious illness of her mother, she brought back a yearning love for the cloud-capped summits and grand solitudes of the mountains, and some oil-

sketches by which, without instruction, she had attempted to preserve some of the scenery she admired. She returned a developed woman. The incidents of her frontier life had taught her the real value of external surroundings and conventional society. She had looked life and her own real soul in the face, and could never again be satisfied with a routine lived in only for the sake of living.

Her sisters were now young ladies at



Mrs. MAXWELL IN HUNTING COSTUME.

school. She entered into their pursuit of knowledge with full sympathy. The institution where they were was new. The principal was anxious to collect a cabinet for the study of natural history and she volunteered to assist him, and with him, and for this purpose, she stuffed her first birds. They had very little instruction from any one. What they lacked in knowledge she supplied by invention.

At length she returned with her sisters to the old home at Madison. Its rooms were low and bare, but her genius made them beautiful. Her mother, with a passion for flowers, had a profusion of roses, fuchsias, and geraniums, and a magnificent English ivy. This she trained over book-shelves and cabinets, windows and doors, perched among its dark-green leaves scarlet tannius, golden orioles, and many other less brilliant, but not less graceful birds. A large engraving of Stuart's Washington was framed in leather-work by her skillful fingers, while bits of landscape-engraving and of distinguished faces cut from magazines, were framed in mu ein stalks, which had upon them the dried seed-capsules. The invention was her own, but when finished with stain and varnish, the oval frames suspended in groups with red cord and acorn tassels, were as beautiful as the design was unique. Dainty squirrels and humming-birds perched upon, or slyly peeped from behind them, the flowers seemed growing from a pyramid of moss, while underneath her father's pet cabinet of geological specimens, on mossy rocks, a group of young, downy, wildwood ducks sat in lazy contentment or stretched their wings in happy delight, all but one—one had caught sight of a cunning white weasel just stealing around the corner of their ledge, and was the very picture of fright. Her little May was inconsolable over the accidental death of her pet rabbits, but had them restored to her so perfect in form and attitude that she thought they ought to eat as before.

In less than a year the house was the admiration of all who entered it—the very ideal home of an artist and naturalist. From the first, her success in giving a life-like attitude and expression to her specimens was wonderful. The family remember, with no little amusement, the usual remarks of strangers about those rabbits. "How tame your rabbits are." "Yes" would be, of course, replied. After noticing a few other things, they would say again: "I never saw such rabbits—do they never move?" and, coming nearer, they would discover how the artist's skill made the dead live again. Her sister, who had often helped her, found one

day a dog lying curled up so naturally in an easy chair that she cuffed it with an order to get down, only to find herself deceived by Mrs. Maxwell's skill. Rosa Bonheur never studied horses and cattle more faithfully and lovingly than Mrs. Maxwell studied animated nature. So far it was mere recreation, however, and a means of satisfying the artist-longing of her soul.

Mr. Maxwell was still struggling with adverse fortune in Colorado. She had the care and education of her little daughter, and her share of the household work upon her hands. In that household even hours of work were also hours of study and thought. When the sisters were together one would read aloud while the others were occupied, and, in this way, many authors were read and discussed. At length it was deemed best for her to return to Colorado, and, accompanied by her eldest sister and daughter, she and her husband once more found themselves a home on the frontier—this time at Boulder. It was there, in the spring of 1866, that she conceived the idea of making a collection of the fauna of that region for scientific purposes.

At first she depended upon her husband and the boys of the neighborhood for specimens, but as she saw many that were rare when there was no one near to shoot them, she revived her long-ago acquired knowledge of firearms. Once having taken the resolution, nothing daunted or discouraged her. She accompanied her husband on his business trips, camping out and sharing every hardship, that she might secure new specimens and the better study their habits and attitudes. Many of her adventures were amusing—some nearly tragic. Once, in driving across the country, they discovered an eagle soaring over its nest in the upper branches of a cotton-wood tree. She felt sure from the bird's movement that the nest contained eaglets, and was very anxious to get them, but the tree was large and its lower branches a considerable distance from the ground. Mr. Maxwell declared his willingness to climb it, and made the attempt, but failed. What should be done? Eaglets were rare. "Could you only put me up on your shoulders, I believe I could reach the

lowest limb, and then I know I could get them," she said. Mr. Maxwell is six feet high and broad in proportion; she hardly five and by no means heavy. He laughingly declared that no great feat for him, if it would be any advantage to her. The nest was reached and she returned to his arms in triumph, with one downy eagle in her bosom and an unhatched egg. That night, a hen, upon maternity intent, completed the incubation of another king of birds. Unless destroyed, they are still in a nest in the collection sold in St. Louis, for she was compelled for pecuniary reasons to sell the most of her first collection when she had prepared about twelve hundred specimens.

The collection now on exhibition in the Kansas and Colorado building was commenced about ten years ago—the one sold being made in the meantime. No one not intimately acquainted with her can form any idea of the labor and self-denial it has cost her. The work of preparing and arranging so many specimens would in itself be considered a great undertaking, including as it does the whole fauna of Colorado, from baby humming-birds to buffaloes and grizzly bears. The Centennial was not in her thoughts when making the collection. In addition to the mounting of all these, she has spent months in the mountains, hunting and studying the habits of her specimens, also six months or more in California for the purposes of her collection.

It is a fact deserving of mention that Mrs. Maxwell's activity, robust health, and elastic vigor are not in any way due to the use of stimulating food or beverages. Although she has endured all conceivable exposures and hardships in her long life in the mountain wilds, she has subsisted entirely upon vegetable food, and drank no coffee, tea, or wine of any kind. The fact that she was of delicate constitution in early life helps to sustain the illustration which she now presents of the physiological virtue of hygienic habits. In physical activity, as well as in the availability of her mental culture, she is the admiration of her acquaintances.

Thus far hers has been, indeed, a busy life; yet, in the midst of great obstacles,

she has come to the Centennial Exposition of industry and genius, into which are gathered the products of the world, and won there a name of which she may be proud. Distinguished foreigners, appreciating her work, have delighted to notice her with honor. She illustrates what a woman can do who is devoted to something, having a capacity for it, and a purpose to achieve it—can do and still be womanly.

RUM'S DOINGS IN ENGLAND.—A correspondent of the *New York World* thus alludes to the liquor-drinking which prevails among the English masses as it has come within the sphere of his own observation:

"There is a great deal of drunkenness—I never saw so much in any other country during all my wanderings, and they have been many. I know very well that strong drink is consumed pretty freely in the United States; but, in ten years there, I did not see so many drunken men and *women* about the streets as I have seen in three months here. In some towns every other shop appears to be a public house. It is so at Liverpool, and I was much surprised to notice the same circumstance the other day at Hereford, which is a cathedral city, and presumably a very virtuous and well-conducted place. In London the gin-palaces would afford a brilliant light at night without the street lamps. The poorer the neighborhood the more numerous they are. What a sight is a gin-shop in or around Drury Lane on Saturday night! In all Dante's visions there was nothing more horrible. Half-naked women, entirely naked children, men of a type never seen anywhere else, are all scrambling together after gin, amid a deafening uproar of curses and obscenity. Hogarth's picture of 'Gin Lane' is scarcely any exaggeration of a hundred different localities to be found this day in the very heart of London."

Evidently there is great need of another revival there, with a special reference to temperance reform. We know that many most excellent people are earnestly contending with the "spirits" of evil, but it is evident that their number is altogether inadequate.

THE WAY IT ENDED.

CHAPTER VI.

PARTED STREAMS MEET AGAIN.

“A GENTLEMAN wishes to see Mrs. Campello,” was the announcement made to Nora Darley as she stood with some of her girls that quiet morning, clustering the floral treasures of their little garden on an order just received.

She could not have told clearly why she didn't return by the messenger the answer that the lady was abroad for the day, but obeying mechanically the impulse which prompted her, she walked, absently twining the trailing ivy and clematis sprays in her hand, to the room where the stranger sat in waiting. “Mrs. Campello rode out into the country with Dr. Lacrosse this morning to visit a friend and patient, with whom they proposed to spend the day,” she said, without lifting her eyes from the garland she was fashioning.

“Ah, my sister must be much improved in health, then,” responded the gentleman, who had risen at her approach and stood in the full splendor of his evil beauty before her.

She looked up with a swift tremor of heart at the sound of his voice, her hands falling limp at her side, her face blanching to the whiteness of the pallid rose on her bosom.

But in an instant she had recovered her composure sufficiently to reply to his remark. “Yes, I am happy to say there is a decided improvement in the condition of Mrs. Campello, who will, I have no doubt, be pleased to receive you another day, when you may make it convenient to call. Allow me to wish you good morning.”

“Stay!” Archibald Staunton said, with a rapid stride forward, laying a restraining hand on her arm as she was passing from the door. “In God's name, Nora Darley, how could I know that I should find you here?”

She turned with a gesture that caused a quick relaxing of his hold upon her person, her eyes meeting his in a look that pierced to his inmost life, and drove the darkening flush of his cheek into a ghastly pallor.

In that swift, intense moment the thought of each flashed back like lightning to their last interview on the night of Jarl Darley's arrest for the murder of Ralph Staunton, and to Nora's sharpened sense that hour's strain of agony returned, bringing with it the cold, mocking moonlight; the cruel, cutting, pitiless scorn of her faithless lover; the deathly sinking of heart, through which ran the sickening odor of the locust blooms; the dropping scent of the pines; the long, shuddering wail of the night-bird that seemed the funeral dirge of her hopes; the low, seductive murmur of the river that lured her to oblivion and rest. Unconsciously her hands wrung together in the anguish of the prayer that had fallen then on unheeding ears, and Archie Staunton, chastened by the experiences of later time, saw himself revealed in a character most unflattering to his present views of gentlemanly honor and good faith.

“I acted like a brute that night,” he said, dropping his head in real shame and humility. “Heaven knows whether you will ever be able to forgive the wrong I did you.”

But the woman to whom he lifted his eyes after this contrite confession was not the anguished suppliant who had confronted him a moment before like a vision of memory with reproach and pleading in every line of face and attitude. The look of unutterable woe and desolation which had darkened and distorted her features, had passed away; the hands locked together in passionate appeal and helpless despair, had fallen in the ease of perfect composure at her side, and she stood quietly surveying him as from a height against which all the storms and tides of penitence and passion might vainly beat.

He regarded her in awe—this pale, beautiful, self-poised woman, who it was hard to realize had once leaned absolutely on his love, and lain utterly in his power—and a feeling of strange reverence mingled with the instant desire that seized him to regain possession of his lost sovereignty.

"I don't know that I have anything to forgive," she said at last, in answer to his self-accusation. "You did greater wrong to yourself than to me."

The man gazed at her, astonished by the coolness of her manner, the quietness of her speech. "I am glad to hear you say that, Nora," he answered with true feeling. "I have, at times, suffered terrible remorse in the thought of you, and felt that no punishment could be too severe for the injury I recklessly did you."

"And you are bearing a penalty heavy enough in your dwarfed and fettered life, which should be large, and glorious, and free," she responded, with more pity than reproach in her even tones.

Archie Staunton straightened himself up as though taking the measure of his freedom. Ordinarily, he would have smiled disdainfully at the suggestion of anything cramped and fettered in his life, but at this moment he had a suffocating sensation of shackled power, of grand possibilities of character smothered and overborne by evils to which he had given unbridled rein; and for the first time he comprehended, in part, the slavery of sin, and conceived the divine liberty that comes of obedience to heavenly law.

"I don't know that I have ever thought of it in that light," he said, with a humility that seemed scarcely reconcilable with his proud, imperious spirit. "But, seeing how you have triumphed over the perils of a fate which I fiendishly thrust upon you, I feel within me the stirring of a force that must have lain bound and dormant through all these years, or it would have brought me nearer to the light on which you stand, a serene, gracious conqueror, to whom all my latent manhood bows in reverent homage. Good heaven! I blush with shame when I remember that I have thought guiltily of you as plunging in hopeless abandon down the abyss of sin to the verge of which I led you, selfishly excusing and defending myself with the plea that it was the impulses of your own nature and not my evil persuasions that gave you your first impetus in the direction of wrong."

"Archibald Staunton, I have taken no

steps in evil ways," Nora affirmed with quiet solemnity. "The adoring trust which made me your victim had in it no element of guilt. I gave my heart utterly to you, whom I believed good and true as the angels of God, and the measure of my sin lay in my misapprehension of the quality of your love which I reckoned pure and faithful and an everlasting rock of defence. If, when I was rudely awakened from this ensnaring faith to the real character of your affection for me, I did not fulfill your expectations by plunging recklessly down the chasm of infamy, on the brink of which you left me helplessly tottering, you may give the credit to the blessed friends who stretched forth guiding and supporting hands to me in my perilous need, rather than to any saving grace that was in me. Feeling to the profoundest depths of my being the divine power of help that there is in the royal gift of friendship at such desperate straits in life, I have sought to return ten-fold the blessing I have received in love and care of other hapless creatures whom fate has pushed to the verge of ruin, and who, without such love and care, would be borne downward to perdition, not, as you would argue, by the impulsion of their own natures, but by the cruel force of circumstances, against which they, singly, have not strength to stand."

The man had not time to answer other than by a wondering, admiring look, before there came a tiny rap and a childish call at the door, against which, at the beginning of this interview, he had planted himself as a barrier to cut off retreat. He could not have told why, with his impatience at any interruption, he should himself have turned to admit the intruder, but by such act he met face to face the small boy of the house, who was pressing eagerly forward to exhibit to his most sympathetic and appreciative friend some floral curiosity of his discovery. Surprised by the unexpected presence of a stranger, the child shrank shyly back, yet with strangely fascinated eye, returned the intent, searching, startled gaze of the gentleman.

Nora Darley watched the pair in breathless silence for a space; then with a sudden glow of inspiration lighting up her pure,

transparent face, she stepped forward and taking the boy by the hand, drew him gently into the room. "Mr. Staunton, I have the honor to present to you your son," she said, with the quiet which had pervaded her speech throughout the conference. "Victor, my child, you have often asked me to tell you of your father; this is he."

The boy came forward, his cheek flushing, his eyes blazing like stars with the excitement of joy and wonder in this new revelation, but, with a swift revulsion of feeling, he evaded the arms outstretched to receive him, and turning, buried his face in his mother's dress and burst into passionate sobs.

Archie Staunton, biting his lips to repress an exclamation of real pain, wheeled and walked two or three times about the room, clinching his hands in nervous agitation; then with a heavy groan, he sank down beside the table, near which mother and child stood, and dropped his head in a troubled tumult of thought upon his folded arms.

Nora looked at him sadly. "Victor," she whispered, stroking the child's soft curls, "love him."

The boy started up, wiped the tears from his face, and with quick instinct of sympathy, obeyed the attraction which drew him toward the stranger, laying his small hand caressingly on the man's bowed head and leaning confidently against his strong shoulder.

In an instant the father's arms were about his son, holding him in close embrace, the unsealed fountain of parental affection, smitten by that childish touch, heaving his heart with convulsive throes, and forcing to his eyes the first tears that they had wept for years.

"Ah, my God," he said at last, "what have I lost through all this blank of time in which I have been pursuing my own guilty pleasures when I might have been crowned with the divine blessing of this moment, unmingled with the torturing pain, the harrowing agony of self-reproach, contempt, and shame that crucify me now. Nora," he added, holding the little Victor's hand, and dropping upon his knees before her as reverently as one might bow at the shrine of a saint; "I have been touched since I came

here to-day with a sense of the beauty, honor, power, and glory of womanhood, such as I never before conceived, and my whole soul is moved to reverent and adoring homage. Your grand, noble life shames utterly the poor, worthless, sensual, selfish character of mine, which stands forth black and monstrous against the pure, white light of yours."

Nora Darley withdrew slightly from the hand that would have carried her own to lips not always so reverential, her manner repelling firmly the faintest approach to familiarity or tenderness, while it expressed no shadow of reproach or scorn.

"I have to remind you again," she answered, "that whatever good there may be in my life is the outcome purely of the gracious and ennobling influences which have been cast about me by the truest, bravest, grandest friends that God ever brought to the sustenance of any weak, wandering castaway."

"And in reminding me of this you press home to my conscience the bitter truth of my own infamous treachery," Staunton said, with a humility in painful contrast to his usual haughty imperiousness. "Nora, Nora, if it be possible for you to forgive my baseness, I pray you lay on me any penance which you think commensurate with the enormity of my sin and I will cheerfully bear it."

He did not remember then, that in some moments of compunction he had thought of seeking this woman out and offering, in a sublime spirit of self-sacrifice, the restitution of marriage, for with the clearer vision to which he had risen in her pure presence, he saw that he held no gift in his hand worthy of her acceptance, that marriage was no favor which he might magnanimously bestow, but an honor which he would need to religiously prepare himself to seek as the devotee prepares himself for the kingdom of Heaven.

"I don't know," she said again, in response to his appeal, "that I have anything to forgive. I try not to think whether I have or not, for life is too short to spend in reckoning up our wrongs and measuring out our retributions. As I said, I think you did

yourself the greater injury, the reaction of all our sins telling most fearfully on our own lives and characters. I lay no penance upon you, for if your regret for the past is genuine your atonement will be as sincere and complete as I could desire. For myself, I ask nothing; but for your boy, I demand such action as shall inspire him with the respect and reverence which it is his right to render to you, and of which you have no business to deprive him. You will find his mind free from any taint of rancor and bitterness toward you. The shadow of his birth fastened inevitably upon him a gravity and sadness quite unchildlike, but it is sweetened by a tenderness and charity which the gracious influences cast about me by protecting friends tended to foster and develop. I leave you to win his friendship. Again, good morning."

CHAPTER VII.

CONTENDING FOR A PRINCIPLE.

"You will excuse me, Ariel," Madam Lacrosse remarked to her son some weeks after the installation of Mrs. Campello in their motley household, "but I do not clearly see the wisdom of your continued interdiction regarding the communication to Grace of the fact of her husband's death. It seemed right enough in the beginning, for she was weak, nervous, depressed, and unable to bear the sudden shock; but since she has so far recovered her strength as to think, though with a shudder, of a return to wifely duty, it is time, I am sure, to make her acquainted with the truth."

"Mother, mine, trust to my discretion in this matter a little longer," Lacrosse said with gentle deference. "But do you tell me that Grace talks of a return to the condition from which you have rescued her?"

"You understand, Ariel, that the poor child does not connect her miserable state of body and mind with the inharmonies of her wedded life; and if she did, she would still esteem it a solemn duty to sacrifice herself to the fulfillment of her marriage obligations, which she regards as sacred as her vows to the Church. Such is her nature."

"And have you made no attempt to in-

struct her in the true spirit of her obligations?" the young man asked with the faintest shadow of reproof. "Have you suggested to her no thought of the false and horrible relations she has sustained with this man, under the sacred, but awfully desecrated, name of marriage?"

"Ariel," Madam Lacrosse answered earnestly, "I feel these things perhaps even more keenly than you possibly can, since so often, in the practice of my profession, I fall upon cases which are pitiful illustrations of the evils flowing from mismatched and mutually miserable lives. And very likely you have no clearer sense of the wrong involved in this Campello contract than I, who have had to deal with its baleful effects; yet, since death has kindly dissolved this compact, I see no sufficient reason for forcing upon an already sorely tried and hard-driven soul a struggle which it has no present strength to bear. This is not all. I have, in spite of my convictions upon the subject, a strong aversion to meddling with a relation which, however profaned, has an essential sacredness that I honor and revere, and it is only the certainty of permanent injury resulting to one or both in an association which has the sanction of the law that could ever move me to the spirit of interference. In the present instance I had either to leave my patient to her sad, ill-chosen fate, or assume the responsibility of advising, when she had gained strength to contemplate it, a final separation from the man whose influence seemed fatal to every power of use and happiness of which she is capable. But since, as I said, death has kindly intervened to adjust and dispose of the matter, I can see no propriety in subjecting the poor child to the pain of a new consideration and choice of duty, nor can I understand your purpose in wishing to withhold from her an intelligence which it is becoming of the utmost importance that she should receive."

"I will tell you, mother heart," Lacrosse answered with suddenly glowing countenance. "Years ago when we were both but children, I conceived for Grace an attachment which I believed was reciprocated, and which has not wavered through all the changeable time that I have been separated from her, though

strangely enough I have made no sign, but have dumbly waited for fate or chance to bring us again together. That waiting should have wrought such evil to her I loved I could not have imagined, or I might never have rested and trusted so serenely in the power of a pure and positive attraction to draw us to each other when the time for perfect and indissoluble union should arrive. This, of course, was a romantic dream of youth which the actual experiences of life have not verified. But do you not see that my man's nature will not be satisfied without a clear and open acknowledgment on the woman's part of the wrong committed against herself, against me, and against the whole world by the false and abominable relations she assumed under the cover and sanction of a law that does not know how to distinguish between evil and good?"

"Ariel, you let your feeling in this matter carry you into expression which is unjust to the spirit of your dear friend's action in the case," Madam Lacrosse said, with gentle rebuke. "It is true that she committed a great wrong, but you must consider that she did it in the faith of great good. With her strong religious nature she could only feel in the sublime pretensions of Campello a power which promised a sure realization of her deeply cherished schemes of usefulness, and in uniting herself with him she manifested a spirit of self-sacrifice rather than of self-indulgence in dreams of exceptional happiness, such as attend most maidens in their bridal days. Thinking what she had undergone during the slow revelations of that man's true character, and the consequent downfall of all her high hopes and plans of active benevolence, you can but see that she has suffered sufficiently without the added infliction of the pain, the agitation and perplexity of mind that would come with the contemplation of a divorce in which death has already forestalled the law."

"But," objected the son with true masculine insistence of his own rights and feelings in the case; "I can not offer nor will I accept of any woman, however dear, a love that has been desecrated by false and unholy relations until she has the courage and honesty to repudiate them openly and utterly. When,

within an hour after my recognition of Grace and of the abiding power of my affection for her, there was passed to me the telegram announcing the startling fact that the man who called her wife had been killed in stumbling from the car which had just brought us to our destination, I swore that I would never suffer the intelligence to be broken to her until she had voluntarily confessed and renounced the sin of such a connection, and I still maintain that resolution. For it is the principle involved in the matter which is significant to me. To creep out of a wrong by the mere accident of death is a species of cowardice that I scorn, since there are multitudes to whom this low loophole of escape is not opened and who need the inspiration and exaltation of a brave, heroic example, to lead them to a clear perception and open honorable acceptance of the truth. I tell you, I will never lend myself to the perpetuation of a pious sham and subterfuge by any 'second' marriage which would virtually recognize the validity of a previous condition of wifehood in the woman of my choice; she must repudiate the first claim or renounce mine."

"Ariel," Madame Lacrosse answered, intercepting the sweep of his protesting arm by a quiet inclination of her hand toward the slight, fragile figure just returning from a slow, languid, invalid saunter about the grounds. "There is the woman of your heart. Look at her and consider how much or how little more than is necessary she is able to endure in this matter. I commend her to your tender sympathies, and shall abstain from any interference with plans that do not promise to be detrimental to her good. But, as my patient, I shall protect her from any measure likely to result in harm."

The man's face flushed with tenderness as he turned to gaze at the little friend so intimately associated with the profoundest experiences of his boyhood, and, lifting his hat in parting salute to his mother, he descended the steps of the veranda, where he had been standing during this brief discussion, and, walking quietly down to the weakly, faltering lady, gravely offered her the support of his arm. Nothing in coun-

tenance or manner when he came into her presence, however, indicated the faithfulness of love he had just professed. He would not have vouchsafed a look beyond the merest friendship, nor so much as have touched her hand with affection, while she tacitly acknowledged an allegiance to the man whom, even in his grave, he detested for the rights he had usurped.

"You have made some improvement in strength since you came to our country quarters," he said, with commonplace manifestation of interest, recollecting that this was the first time he had met with her since the night of her arrival.

"Yes; oh, yes! I am well; comparatively. At least, so nearly so, that I think soon of withdrawing from the invalid-list and taking up the cares of life again," was the swift, breathless answer. "I find the atmosphere here, too—too dangerously sweet."

"Why should you leave it until you feel fully restored in health and strength?" Lacrosse asked, with simple straightforwardness.

"I—It is time that I returned to my—"

The trembling lady stopped short, checked in the utterance of the word "husband" by the swift lightening of the eye that suddenly fastened hers.

"I have duties, you know, which must not be forgotten," she resumed, with increasing agitation and pallor.

"Your first duty, I should say, is to yourself," was the gentle, but firm rejoinder. "You can not even perceive what are your true obligations to others, so long as you continue unfaithful to the highest charge committed to you—the development of your own individual resources of use and happiness. You may talk of duty, strive after the accomplishment of great good, crucify yourself to some standard of virtue and morality outwardly fair, but inwardly black with decay and rotteness—it will be as vain as the tortures and death-agonies of those who have sacrificed strength and life to a cause founded in injustice and despotism. You will have secured, it is true, the grace of submission that comes of a spirit of martyrdom, but you will have strength-

ened by so much the chains of servitude and bonds of oppression under which thousands of hapless and helpless captives groan, sickly victims to the delusion that their pains and sacrificings will redound to the glory of God and the growth of the human soul, which, indeed, they may, but to a false, distorted, and abnormal growth."

Grace had withdrawn herself from the support of the gentleman's arm, and stood leaning against a friendly tree, her hands thrown out, as though to ward off the words that fell like pelting hail-stones on her heart.

"I pray you cease," she cried; "I can not endure the strife of these conflicting principles of duty. I am perplexed and bewildered by this confusion and confounding of terms. I can not distinguish between honor and dishonor—between truth and falsehood—right and wrong. The lines are all broken up—everything that seemed to me fixed and immutable is tumbling into chaos and uncertainty. That which I have esteemed holy has become profane. What I have regarded as the essence of diabolism, draws me by the strong attraction of a purer, more exalted good. I am torn in pieces by these conflictive forces of thought and feeling. Oh, my God! what *is* duty—what is right?"

Lacrosse involuntarily put out his arms in the spirit of guidance and protection, but the swift grip of his clearly-formed resolution in the case checked the impulse of the movement ere the tearful eyes that had marked it could assure the trembling-souled woman that it was more than the illusion of an excited imagination.

"Heaven forbid that I should assume the authority to decide for you what is right," he said, with a quietness that calmed somewhat his listener's feverish agitation. "Let no man or woman presume to tell you what is the just and true course for you to pursue. Rest assured you will not be left without some clear and positive answer to your soul's troubled cry, 'What *is* duty?' And, when this answer comes, perhaps after much sad questioning, earnest praying, and long waiting, do not be afraid to trust it because it may not accord with any precon-

ceived idea of duty which you may have cherished, or because the judgment of society is against it. Be true to yourself, and not too hasty in your action, whatever that may be. It is for eternity, and not for the flitting moment."

He had placed her hand again upon his arm, and was conducting her slowly toward the house, when, with sudden impressiveness, he paused and looked steadily in the serious eyes lifted to meet his own.

"I should scorn a woman," he said, with measured emphasis, "who would swerve in her allegiance to her legal lord at the persuasions or for the love of any other man. I would reject, as unworthy of respect or trust, a woman who did not from her own clear consciousness of right, and not at the instigation of friend or lover, sever a con-

nection which had proved the blight and bane of her life, choosing bravely to walk alone rather than endure the bitter mockery of a union that existed in appearance only."

Grace Staunton did not answer at once, but walked silently by his side until she gained the door leading to her room. Then, with her hand upon the latch, she turned with rallying strength to say:

"I think I understand what the action of a true woman would be in my position. Whatever my conclusions are, I should wish to arrive at them unassisted, and, so far as possible, uninfluenced by the feelings and opinions of others. Unless I ask it, never seek me again."

She touched his hand in mute farewell. "God bless you, Grace! good-by."

(*To be continued.*)

THE FAMILY.

"**G**OD setteth the solitary in families." It was a work of Infinite wisdom. Nor was the sovereignty of this organization vested in a single individual. A state must have its executive, judicial, and legislative powers. Thus in the family are two heads seldom endowed with similar qualities. One may be too stern and cold, the other too yielding and sympathetic. This principle of opposites has become a standard law of natural selection. How beautiful the arrangement of Infinite wisdom which gives to each family its duplicate head, one in interest, two in distinct endowments, the overplus of one continually supplying the deficiencies of the other.

By families would not be understood those unfortunate ones composed of two heads with one or two petted, spoiled nurslings, but a genuine old-fashioned family, always just a little too large to sit around the table without treading on each other's toes or jostling each other's elbows.

The family is the best school of all the virtues. It is a community of interest and sacrifice! Nor does this endure for a limited time, but moment after moment, day after day, and year after year, till the last nursling is fully fledged and plumes its wings

for its flight to a new home circle. There are daily damages to be repaired, lessons to be explained, puzzling questions to be solved, and a loving sympathy always in demand for joy or sorrow. So intimate do these family ties become, that for every cloud on the brow of one, a shadow follows on the face of another. Tears answer tears and smiles reply to smiles. Seldom does a family reach maturity without standing by the open grave of one or more of its members, and thenceforward the beloved dead becomes to the imagination of each a common guardian angel. So the chain which seemed ruptured is only welded anew and made more enduring than before.

The honor of each is the honor of all. How carefully are misdeeds concealed from outside eyes! Many families have silently denied themselves the necessities of life to pay the thoughtless or vicious debts of one of its members. This care for others' honor is, next to the love of God, the purest motive to rectitude.

Here worship finds its first natural outburst; for, to the infantile idea a father is the embodiment of power, wisdom, and providence; a mother, of tenderness, sympathy, self-sacrifice, and love. By his par-

ents the child delights to be guided; from them he expects the supply of all his wants. What a fearful responsibility is theirs! Said a teacher of large experience, "Give me the co-operation of the parents and there is no child who can not be led aright. They often succeed where my best efforts fail." Yet this teacher was faithful, energetic, and probably superior in intellect and judgment to those whose aid he sought, but he lacked the subtle family influence which nothing else can supply. By no violent revolution, but a perfectly natural transition, the worship of the parent is transferred with advancing years to the Deity. Heaven is but another home. God embodies power and

providence; the Son, love and tenderness; the saints and angels, social life.

This is no ideal picture. Such families as are here portrayed have existed and can still be found. For this lofty aim, this most perfect of earthly organizations was instituted.

It is scarcely worth while to speak to those who would overthrow it. Their pretexts are flimsy; the morality they preach, rotten. They call for happiness as if it co-existed with vice, as if a better road to bliss could be found than God has made. But these apostles of error are few and rapidly diminishing, and we may trust that their evil will result in good, if only in exposing the morality of pretended virtue. LODOLA.



True philosophy is a revelation of the Divine will manifested in creation; it harmonizes with all truth, and can not with impunity be neglected.

PORTRAITS AND HISTORY IN COINS.

THERE is nothing more gratifying to the intelligence of an antiquary, nothing that more forcibly reveals the sense of the long-vanished years, than a genuine *numisma*, or coin, a piece of the money that served to represent values fifteen or twenty centuries gone. It has the air, the color, the memory of the soil that has so long concealed it. It whispers some of the secrets of the ruins that have so long sheltered it from rude eye and hand. "To draw it forth from its hiding-place," says an experienced traveller, "to take it from the earth which, by long possession, has a good title to it, seems almost as near sacrilege as to draw a bone from the *dibris* of the confined dead."

A piece of antique money is even more redolent of the past than tower, pillar, statue, or foundation-wall; because the latter are always seen *in ruins*, defaced, mutilated, scarred by foes, and that worst foe—*time*, suggesting chiefly the imbecility of man, who labors to build for eternity. But

the coin, after the kind, rusty crust with which mother earth enveloped it, is softly removed, looks us right in the face, entire, *in columnis*, a perfect piece of human workmanship, portrait, epigraph, attributions, legend, allegory, mint-marks—all executed (frequently) in a style that modern art vainly strives to reach. But the very dust and rust



that adhere to a coin are the remains of dead races fighting through fire and steel for liberty and life, and lying crushed under the ruins of all they loved. The cement of blood is upon the coins; the ashes of domestic happiness encrust them; they speak trumpet-tongued of the iniquities of the

race of man whose necessities they so long subserved.

How far the portraits upon coins will suggest to the reader phrenological and physiognomical characters, he must constitute himself the judge. In giving exact reproductions of the originals, the writer enables every one to study the lessons of the coins as accurately as though the coin itself was in hand. And so, specimens of coinage, so rare that often but a single copy is extant, are brought to the knowledge of the tens of thousands who will turn this page, and be attracted, possibly, by the engraving on the preceding page.

The specimen of the Roman coinage (with a Greek inscription) illustrated in the cut gives, in one group, the half faces of Octavius Augustus, afterward Emperor of Rome; Marcus Antony and Marcus Æmilius Lepidus, that triumvirate who rose to power upon the assassination of Cæsar, B. C. 44. This event, instead of restoring the republican form of government to Rome, as Brutus and some of his co-conspirators vainly hoped, destroyed forever the possibility of such an event. For the entire control of Rome fell, as a ripe apple, into the hands of the three men upon whose faces the reader may look with an assurance that the artist has conscientiously transferred them to paper. Three unscrupulous men they were, as ever waded knee-deep in blood, though the title they assumed was simply *triumviri republicæ constituendæ*. Look at them and recall a scene which occurred one evening at a retired chamber in Rome, when each of the parties pulling out a parchment list of names upon which he had written, "The men I proscribe," spoke the doom of the best citizens of the state.

Augustus, who wears the nearest face in the trio, was the youngest. In Shakespeare's "Julius Cæsar," Cassius scornfully styles him "young Octavius." He is, in fact, about 22 years of age, as the picture suggests, and gives scanty promise of the maturity of executive power, zeal, and patriotism evinced in his long reign of 45 years (B.C. 31 to A.D. 14). Look at him, I say, while we read some of the eulogies made upon him by the court-poet Horace, not more

fulsome, perhaps, than those which Tennyson is constantly writing to earn *his* pipe of claret. "Late may you return to the skies, and long may you be joyously present to the Roman people." "Your age has brought back plenteous crops to the field, and has shut up the temple of Janus and has imposed a due discipline upon headstrong licentiousness, and has extirpated crimes and recalled the ancient arts." Much of this praise was justly due to Augustus, who, however, as we look at his face, only 22 years of age, is calling out name after name "doomed to death!" Lepidus named his own brother Paullus for slaughter. Should there be any hesitation, then, or shrinking, when Augustus and Antony opened the budgets? Two thousand knights and three hundred senators were put to death under this horrible accord. Among these Cicero stands conspicuous.

Now, examine the second face in the group, that of "Mark Antony," as Shakespeare calls him. Who does not know by heart his oration over the dead body of Cæsar? Look at him. He is 42 years of age, and has about 12 years of life before him, which he will divide between soldierly strife, cruel proscriptions, and the grossest licentiousness. Then comes the battle of Actium, and then the self-murder in Egypt. Farewell, Antony! His energy and intrepidity; his fidelity to Julius Cæsar, both in life and death, can not efface the memory of his share in that horrid col leagueship so terrible to all good men.

The elderly person in the rear, as already remarked, is Lepidus. The one good feature in his life is, that he seems actually to have become weary of bloodshed. He resigned his place as triumvir, and ended his days quietly in the important, but peaceable, avocation of *Pontifex Maximus*, or High Priest. He lived until B.C. 13, when Augustus had been 18 years Emperor.

The account given of Lepidus by historians may be profitably read, with his face before us. "He had no decided character. He was incapable of committing great crimes just as he was incapable of performing highly meritorious deeds. He possessed large riches, and like his contempo-

raries, was little scrupulous as to the means of acquiring them. He had no distinguished abilities either in war or peace. Was fond of ease and repose."

The wife of Lepidus was the sister of Brutus, who slew Cæsar; and, her son was so far from entertaining his father's sentiments towards the successor of Cæsar, that he entered into a conspiracy to assassinate Octavius after the battle of Actium. For this he suffered death.

The reader will inquire what the other side of this coin represents? It is the municipal seal, so to speak, or *arms* of the city in which the coin was struck. The figure is that "great goddess Diana" named in the Book of Acts (xix. 27), worshiped at Ephesus and other Greek cities under Roman rule. Diana, or Artemis, the goddess of Nature, and her symbolical figure as seen in our picture, denotes by its multitude of breasts, and the heads of animals hung round it, the fecundity of Nature. She is generally represented as a healthy, strong, active maiden, handsome, but with little gentleness of expression. The Greek letters (*archier*) signify "priest" or "sacred." A pleasant French work before me, *Mythologie des Demoiselles*, calls Diana "goddess of the chase, daughter of Jupiter and Latona, and sister of Apollo." She is entitled in the heavens Luna, on the earth Diana, in the infernal regions Hecate and Proserpine. But under all these cognomens, she is a *single divinity*, and so the poets entitle her "the deified lady under three forms, and the triple Hecate."

Turning now to the second coin, behold the face of the soldier whose name is associated with the destruction of the Jewish nation, and of Jerusalem, their city and hope. This is the very celebrated coin, so interesting to Biblical historians, entitled *Judea capta*, from the attributions and legends upon its reverse.

In some respects, Vespasian was one of the most remarkable of all the line of Roman rulers. Born A.D. 9, in the reign of Augustus, early left an orphan, his mother, who was a soldier's daughter, urged him, against his will, to enter the army. This he did, as

soon as he laid aside the *toga virilis*, the garment worn by young men. For nearly 40 years he was engaged in the stern, hard campaigning peculiar to the Roman service. He rose steadily through every grade of the army, tribunus militum, questor, aedile, prætor, legatus legionis (look at your classical dictionary, and when found, make a note on't), and about the 20th year, consul. He fought from the frozen regions of Britain to the torrid fields of Africa. In Thrace, in Germany, in Crete, in Cyrene, the armies of the empire learned to estimate him as the very best soldier of the age. He was greatly beloved by the soldiers; they petted him; and they called him rude nick-names. At the report of his wound, at Jotapata, the army was infuriated with the spirit of revenge upon the Jews. After the death of Nero, whose four contestants solicited the aid of the army to become his successor, the prize was



awarded to Vespasian as the strongest arm, clearest head, and most experienced of all the claimants.

Look again at that rugged face. Vespasian is more than sixty years of age. The blasts of the Borean have puckered up those broad cheeks; the heat of Lybia has bronzed those hard, dry features. That eye has seen death in all forms. By his command towns have been burnt up, with all their inhabitants. All nations have heard his voice. He has seen the eagles of Rome fly across the then known world. Those thin hairs, bound now with laurel, cover a brain that has known nothing since childhood but war and its circumstances. When sent to quell the outbreak in Judea, A.D. 65, he began in the north about 100 miles from Jerusalem, and destroyed all living things in his march southward. He burnt every town and village; cut down the groves; cut down the fruit-trees; sold into slavery what few of

the inhabitants escaped his sword, and turned a most fruitful land into a desert—the jackal, the wolf, the eagle, and the owl followed this march. When the unfortunate people of Tarichea, for instance, drew off in their boats upon the Lake of Galilee in hope to escape him, he built a fleet of boats and rafts in a few days—for a Roman legion had within itself all trades, all professions, all supplies for warfare by land or sea—followed the wretched people into the Lake and slew them until Jordan ran blood and corpses in all its course to the Dead Sea—until the nightingales ceased their songs and fled their oleander resorts, driven by the intolerable stench. Oh, the career of a Roman warrior!

Here then you see the soldier, no more cruel than any other soldier of his allegiance. The artilleryman who to-day opens by word of command upon the ranks of the enemy, feels as little compunction, as little moral responsibility for the deaths and wounds inflicted by his missiles as Vespasian did when he broke the defences of a rebellious city with his battering rams, and gave the people to the license of his soldiers. His theory was that “to Rome belongs all the world, and every arm raised to weaken Rome, is fore-doomed by the eternal gods to destruction!”

Look at him. Is there any gentleness in that stern, yet not ill-natured face, any likelihood of its softening into humanity when the engines are set, the besiegers in their places, the trumpeter at his post, the eagles of the legions fluttering with impatience for the assault, and all waiting only the word of command from himself—will he hesitate at the thought of the death, the outrage, the plunder, the burning, the shrieks that will presently pierce the blue sky of Palestine? Will any vision of the desolation to come over this prosperous, happy city, delay his signal for a moment? Not for a moment! The general speaks; the army who hear, know well that Vespasian times his orders to the moment. The trumpeter blows the well-known blast; the eagles fly; the advance-guard, strong in the hope of plunder, lust, and revenge, mount the breaches; the whole army moves as one man, A few hours more, and that

placid face is conning over his maps preparatory to the next movement while the lately joyous city lies—“heaps upon heaps—heaps upon heaps!”

Some reader may ask me to read the inscription. It is this (abbreviated) IMP. CAES. VESPASIAN AVG. COS. III. Supplying omissions, it reads; Emperor Cæsar Vespasianus Augustus Consul 3; (translated), “The Emperor Cæsar Vespasian, Augustus, Consul the 3d time.” This gives the exact date, A.D. 71, for this is one of the methods by which we date ancient coins, as they never have figures upon them like those of modern mintage.

The attributions on the other side of the coin (called the *reverse*) are the palm tree, emblem of the fruitfulness of Judea before the destroying armies of Rome had made it a desert. Observe the luxuriance of its foliage and the fruit (dates) which it produces. Beneath and at the base of the tree, is a pile of Roman shields, a helmet and other military pieces, upon which is sitting “the daughter of Zion,” the emblematic mourner of Judea, most appropriately fixed in a *pose* of grief. Could anything be more expressive? Observe the right hand supporting the heavy, aching head. Can anything be more natural? See the left hand in an abandon of helplessness. What thoughts may be supposed to possess the soul of that wretched mourner whose misery, struck upon Roman coins by millions of millions, for 26 years, gave zest to the licentious wit of the camp and added pride to the haughty Roman who had but one article of faith stronger than all others, viz., that “Rome must subdue and possess the whole world!”

The legend, IVDEA CAPTA, signifies: “Judea Vanquished.” S. C. stand for *Senatus Consulto*, “by decree of the Senate.” The coin itself, of which there are specimens in all good collections in Europe and America, is of bronze, the size of the engraving.—ROBERT MORRIS, LL.D., *Secretary Am. Assoc. of Numismatists.*

AN AMERICAN BOTANIST is to be sent to the Philippine Islands to report on the flora of the interior, and the nature and extent of the forests.

CRITICISM AND THE CRITIC.

TRUTH may be promulgated in at least two ways. It may be stated definitely and distinctly, or what is advanced as truth may be controverted and proved to be erroneous. This method, however, would not in all cases establish the truth, but in many instances it would be quite sufficient, even without explanation, to indicate true ideas, or the direction in which they might be found. It is self-evident, that if either the sun or the earth moves, and one revolves round the other, that other must necessarily be stationary if either be stationary. In this instance, therefore, when the ancients maintained that the earth did not move, those who asserted that it did, advanced the truth. It is, then, in some cases, sufficient to deny a proposition in order to proclaim a fact, or to tell the truth. But if it be said that a certain color is blue, and the statement is incorrect, to simply deny it would not apply the right name. So that the denial of an erroneous statement does not always establish its opposite, even with respect to physical objects. But when we pass from the region of natural things and qualities to contemplate moral questions, feelings, sentiments, and ideas, the task of declaring what is truth, and what is not, becomes much more difficult and perplexing. It is to these departments we shall endeavor to concentrate our attention, and speak of the nature of criticism, and the qualifications of a good, reliable critic, regarding those aspects of learning particularly which fall under the denomination of literature, with which all persons of good education and attainments are supposed to have more or less acquaintance.

It will be generally admitted that criticism is by no means of small utility to any class of readers, whether they read for simple amusement or for information. Its value, however, is more obvious to those who are studying to increase their knowledge and improve their minds. But it is especially useful to those who, to a love of learning for its own sake, unite the desire of arriving at sound conclusions upon those questions of a moral nature and speculative character, which have for ages been stimulating the

most thoughtful minds to lofty exertion. The value of criticism will be quickly acknowledged by all who can take a retrospect of their lives, and recall in how many ways they have had to cast aside and reject much of what was read and believed in their younger days; and it is no very easy accomplishment when once the mind has been reposing in fancied security, to find, upon further acquaintance with a subject, that we have been mistaken and imbibed ideas which must be laid in the grave of the past, and buried out of sight. The pruning knife of criticism, if we had been so fortunate as to have come in contact with it, might have saved us from the labor of cultivating many intellectual weeds which have only been encumbering valuable territory.

The fact appears to be, that there is far too little of honest criticism at the present day; and if there were more, probably a great deal that now passes current for sound sense and genuine mental nourishment would be collected as refuse, and burned as stubble.

Criticism is useful, because it exhibits, or should exhibit, both sides of a question; and this is one of the methods we all ought to adopt in order to arrive at a comprehensive understanding of a subject; for is it not true that the person who only studies one side of a case, and knows that side, really knows less of it than if he studied the opposite as well as his own? Criticism is useful and essential when its object is, as it should be, to point out defects, and at the same time to unfold the subjects presented, so as to give the reader every opportunity of seeing the supposed errors on one side and the corrections on the other. Lord Macaulay says, "If we can not set up truth, it is something to pull down error." Even presuming that a criticism is worse than the subject-matter criticised, it will benefit the mind to be able to see the subject analyzed, so that a person can choose whichever view seems most consonant with his own tastes, wishes, and ideas. But where only one side is displayed, although that view may contain much truth, it may also be interspersed with much error. Criticism has

the tendency to produce care in composition, style, and matter. But it is with the materials more than the disposition of them that we are now concerned—the publishing of sentiments and ideas that are calculated and intended to enlighten the will, develop and train the understanding, and educate the feelings. This seems to us of a higher character than the diction, and of as much more importance as the individual is superior to his clothing, or a statue than the stone out of which the effigy is sculptured.

If such be the nature, value, and tendencies of criticism, what are its duties; and the qualifications necessary to be possessed by the critic? The first and paramount consideration is, that the faculties need to be equably distributed in every region of the brain—the intellectual, moral, and basilar having even proportions—none deficient and none preponderating, so as to produce a bias unfavorable to the exercise of any of the faculties.

If we could convey this simple proposition so as it would be received and practiced in every sphere of mental speculation, where positive and exact knowledge is unattainable, the science of mind would be the means of conveying one of the most momentous and enduring benefits to the human race, which we humbly venture to think have been revealed for ages. There are very few individuals indeed who do not think themselves competent to pronounce judgment upon the actions and ideas of their associates, and upon almost all matters and subjects within the circumference of their several intellectual range. The obvious fact is, that every one of any pretensions, whether eminent or obscure, considers himself a critic as far as he thinks he understands and knows. To any enlightened phrenologist this presumption is highly unreasonable, for how can a person expect to criticise intelligently those questions, the accomplishment of which demands the exercise of powers, knowledge, and training, far surpassing the scope of his natural endowments to comprehend?

I have already said that a good critic needs to possess a harmonious development, but this, although the greatest qualification, the foundation, is not the only one, for his

innate capacities can not perform their functions wisely without being enlightened and trained to those particular modes of activity which are an essential condition in the fulfilment of their destined existence and progression. Want of harmony or diversity of mental gifts is the potent cause of dissent and difference of opinions, and this variety is the cause of the varied institutions throughout the world.

Most men are unjust—although not wilfully—in their animadversions and criticisms from the simple fact that in their own brains some of the organs are prominent and others deficient, and because they have neglected to study those matters which they presume to question. Had William Cobbett been aware of the principle insisted upon, that it is needful, in order to criticise the substance of a composition, to have those organs in an available degree which were used to produce the composition itself, and had he practiced the principle, he could not conscientiously have called Milton's *Paradise Lost* trash and nonsense, for in Milton's head the organ of Ideality is large, while in Cobbett's it is small.

Had John Stuart Mill been as well endowed in the region of the spiritual faculties as he was in the perceptive and reflective, he could not conscientiously have doubted the fundamental doctrines of the Bible. For if the great principle of harmony among the faculties be well sustained, it is not sufficient, nor is it necessary that one should possess logical acumen, however penetrating, to feel convinced of the existence of the Deity as the moral Governor of the world, and of a state of existence transcending this in beauty and sublimity.

Besides an even development of the organs, the critic needs to be specially educated in those departments of literature upon which he would express an intelligent opinion, because no matter how vivacious the natural forces may be, they are not endowed with innate knowledge, and require directing to their proper objects by legitimate means.

The first and ultimate object of the critic should be to arrive at, and overtake, the truth, and to make it manifest, for its own intrinsic virtue, independently of every sordid consideration. To be conscientious in his criti-

cisms, and honest in his judgment, affected neither by the favor nor the frowns of his readers, will at least insure him against the stigma of being prejudiced.

In addition to integrity in his aims, another powerful element in criticism is generosity toward an opponent, for though the critic may be a master of wit, sarcasm, and ridicule, these weapons, unless tempered with courtesy, modesty, and a kind spirit, will ultimately repel the better class of minds, and defeat the critic's own intentions; at all events, his prospect of success will sustain the shock of feelings, whose exhibition might have been more usefully employed.

Criticism, however, should avoid personality as much as possible. But in all cases the sentiment of Benevolence should play a conspicuous part in the opposition, for it is impossible to separate ideas from some authors. By the exercise of charity toward those from whom we differ, even the most ardent opposition may receive candid consideration, and perhaps a welcome, whereas severity and discourtesy, although in company with truth, often repel many who would have been inclined to attend to the other side of the question, if the same arguments had been advocated judiciously and in the spirit of gentleness. History supplies many examples of the fact, that where the critic endeavored to perform his duties faithfully, with the desire uppermost in his mind to elicit truth from error, without intending to wound the feelings of rivals, he correspondingly won the estimation of well-disposed people, even while they differed from him. The character and writings of Addison and Macaulay furnish striking corroborations of this assertion.

Armed with the qualities and attributes we have enumerated, the critic may, and should, freely express his dissent without the fear of incurring the hostility of any one, at the same time inviting others to that liberty which he assumes. Notwithstanding so much has been said in favor of criticism, every enlightened phrenologist will understand that it requires a less endowment of talent to form a good critic, than it does to originate or discover subjects upon which to expend criticism and thought. A greater

endowment was essential to find out the elements of Euclid than is now requisite to comprehend them. In like manner the genius of Raphael was alone sufficient to produce the splendid creations of his intellect, while a moderate endowment of the faculties that devise works of art, are adequate to compare those masterpieces with later productions, and a person who could not imitate Raphael in any successful degree, might, by studying the productions of his brush, eventually become a very good and reliable critic of painting. There are many musical critics who can not compose. And not a few talented stage critics who never wrote a play.

THOMAS TURNER.

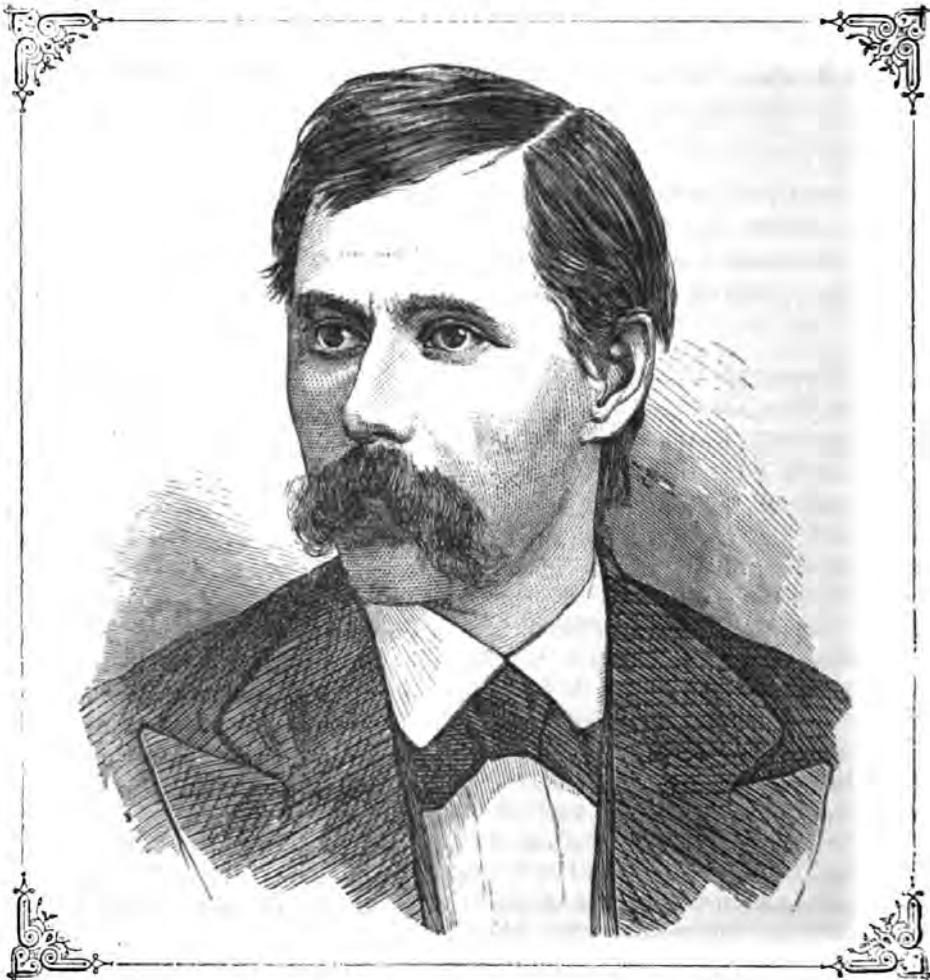
SAVE AND HAVE; or, WASTE AND WANT.—Either man must be content with poverty all his life, or else be willing to deny himself some luxuries, and save, to lay the base of independence in the future. But if a man defies the future, and spends all he earns (whether his earnings be one dollar or ten dollars every day), let him look for lean and hungry want at some future time—for it will surely come, no matter what he thinks. To save is absolutely the only way to get a solid fortune; there is no other certain mode. Those who shut their eyes and ears to these plain facts will be forever poor, and for their obstinate rejection of truth, mayhap will die in rags and filth. Let them so die, and thank themselves. But no! They take a sort of recompense in cursing fortune. Great waste of breath. They might as well curse the mountains and eternal hills. For I can tell them fortune does not give away real and substantial goods. She sells them to the highest bidder, to the hardest and wisest worker for the boon. Men never make so fatal a mistake as when they think themselves creatures of fate; 'tis the sheerest folly in the world. Every man may make or mar his life, whichever he may choose. Fortune is for those who by diligence, honesty, frugality, place themselves in a position to grasp hold of fortune when it appears in view. The best evidence of frugality is the five hundred dollars or more standing in your name at the savings bank. The best evidence of honesty consists in diligence and frugality.

H. B. BROWN,

PRINCIPAL OF NORTHERN INDIANA NORMAL SCHOOL.

BASING our impressions upon the portrait before us, we would attribute to him of whom it is said to be a good representation, three or four prominent characteristics, viz. : a quick and keen perception, a ready intuitive judgment, a strong, self-

a subject, his knowledge of it is readily available. He is not voluminous in the use of language, but definite, precise, and clear, with little lack, however, of grace and finish in phraseology. He believes in the authority and potency of facts, and expects them to



reliant confidence in himself, an earnest, incisive energy.

The quality of his organization is excellent, the temperaments being sufficiently harmonious to render the action of his faculties easy and effective. His memory is retentive, and in speaking of or discussing

be received with due respect for their importance.

He appreciates refinement and culture in a high degree, and that appreciation generally, expresses itself in whatever he undertakes. So, too, he appreciates greatness and nobility in motive, achievement, and

character, and has high personal aims. He is inclined to take the lead or control of operations; his strong will and self-reliant disposition prompt him to go forward and conquer success in the line which he has chosen.

He has a good degree of organizing ability, and his judgment of men rarely errs. He has that discernment which every good general has, with regard to the adaptation of circumstances to the object of a campaign; and where circumstances do not appear to be favorable, he would endeavor to bend them to his will.

In manner, he is naturally refined and dignified; discreet in the choice of his friends; affectionate and kind in his home relations, and genial in his bearing toward strangers.

H. B. Brown was born at Mt. Vernon, Knox Co., Ohio, Oct. 6th, 1847. His parentage combines Scotch and English elements. Living on a farm in boyhood, he was engaged in agricultural employment while out of school, until fifteen years of age. But nearly all his spare time was given to the reading and study of books. At fifteen, he went to the High School, at Fremont, Ohio. Attended also one year at the University at Delaware, Ohio. By teaching in winter and working during vacation, he succeeded in acquiring a fair education, and was graduated at the Normal School, Lebanon, Ohio, in 1870. Taking a position in the North-Western Normal School, at Republic, Ohio, he taught there for two years.

In 1873, he conceived the idea of establishing a school, principally his own, which should be furnished with every facility and convenience necessary for the acquirement of a first-class education, and yet offer terms so low to students as to bring its advantages within the reach of all classes.

With this idea in view, his attention was directed toward Valparaiso, Indiana, a city containing the building formerly used and known as the "Valparaiso Male and Female College." This city he visited on the 20th of June, 1873; the buildings were secured; a

circular stating the objects of the undertaking issued, and the school opened September 16th following, with 35 students on the roll.

Although, at the start, the Fates seemed unfavorable, yet there was no remission in the effort and energy which were given to the undertaking.

The second term opened with 95 in attendance. Here was encouragement, and with renewed energy, preparations for the third term were made. An attendance of 172 students was secured, and from that time the numbers constantly increased until the enrollment during the last term of the third year is 1,320 students, and constituting it the largest Normal School in the United States.

To show how the expenses of tuition are brought within the reach of all applicants, it may not be out of place here to state that the price is but \$8 per term, which includes admission to all the departments, Preparatory, Business, Teachers, Engineering, and Collegiate. Prof. Brown, as Principal, has charge of each department. He, together with his teachers, room in the same building and dine at the same table with the students.

Buildings have been erected and furnished at a cost exceeding \$50,000, and as much more will be expended during the coming year. Aside from the new buildings, the old college building which was in readiness when the school opened, is a fine structure and valued at \$45,000. No expense is spared in supplying everything that will in any way promote the interest of the students, and of the institution, and each one in attendance feels that the Principal will do all he can to enhance their interests, and has entire confidence in his ability as a teacher and manager.

LITTLE THINGS.

Shadows o'er the valley straying,
Serve the passing clouds to show;
Ripples o'er the surface playing,
May reflect the depths below.

Little acts show deeper feeling,
Careless words the mind betray;
Thus are we ourselves revealing
In the things we do and say.

E. T. BUSH.

EVERY MAN IS A VOLUME IF WE BUT KNOW HOW TO READ HIM.

MANY view men simply as moving objects, things of earth that afford but little scope to an inquiring mind. To the ignorant every man is a blank page, for they know not how to read him. There can be nothing in a subject to the mind that has never investigated it. The uncultivated mind, failing to see the beauties of a subject, turns scornfully from the ocean of truth that lies concealed beneath the veil that may be easily lifted by the thoughtful. What is a man? As we gaze with steady eye over past ages and nations, what is it that gives beauty and interest to the scene? Though the rivers for thousands of years have borne their waters to the deep, and the ocean has rolled her crested waves from shore to shore, yet, how dull would be the picture could we not see man playing the many parts that the historian has recorded. We read of a Hannibal whose dauntless spirit and military skill brought him almost to the walls of Rome; of a Scipio who destroyed Carthage; of a Cæsar before whose armies nations fell, and of a Napoleon at whose power all Europe trembled. Not alone on the battle-field do we find illustrious characters, but countless are the men who have appeared in the literary field. Burke shook the House of Commons and Webster the United States Senate by the power of eloquence. Cicero and Regulus centuries before them made their voices to be heard to the remotest bounds of the Roman empire.

Leaving the men who have moved nations by their power of eloquence, we find ourselves in company with those men who waft us into the airy land of thought with their beautiful song. The lofty strains of Virgil carry us through the ethereal regions; or the poet at his will points us to the lower realms where Pluto dwells, and the mind wanders among gloomy shades. Sweet are the odes of Horace. Who does not like to pass leisure hours with Spenser, Cowper, or Tennyson? The historian and the essayist have greatly enriched their field. The name of Tacitus will never die. The writings of

Bancroft will ever be inviting to the lovers of history.

Of all the characters we have here mentioned, each was but a man; yet who can say that such men were not volumes? The mind is overjoyed as it reads the inscriptions that have been carved on the monuments of Greece by the hand of man. The Egyptian sculptor has chiseled thoughts in the marble that men of to-day are busily deciphering. Four statues mark the types of mankind with which the Egyptian was acquainted. The skill of the Grecian sculptor has made statues which show by their appearance alone that they were modeled from great men. If you would find a hero, select a man whose appearance will compare with a bust of ancient heroes. Would you find a man of high, literary talents, select a man whose head and physical appearance will compare with the bust of a Cicero or an Aristotle.

Dismissing from our minds the realms of the past in which the soul is enraptured with the lives of men that no eye of to-day has ever seen, let us give our attention to the men that now give life and bustle to the busy world around us. A great fault of many men of to-day is that they peruse too much the written page and give too little attention to the moving objects upon which the great pen of nature has written so much knowledge. If it be said that there are "tongues in the trees, sermons in stone, and books in the running brooks," what may be said of man? At first we are struck by the different races of man. Black skin, woolly hair, compressed, elongated skull, are the marks by which we read of a race that long dwelt under Africa's burning sun. We read in him the reign of ignorance and barbarism. An olive complexion, broad, and all but beardless face, and square skull, tell of a race that inhabited eastern Asia, and of the savage of North America. A tribe of men springs up in Western Asia; from them a wave spreads to the remotest bounds of Europe—it even reaches America's inviting shores. Borne along as it were

by the mighty wind, it now sways the sceptre over the known world. Observe the man with fair skin, oval face, full brow, and rounded skull, and you have an example of the type called the Caucasian. Though we, whose lives are but a span, may not be able to visit every nation and clime to mark the peculiarity of races, yet every variety of character is presented to us in our daily walks, and he who carefully studies those around him will know more about men than he who carelessly travels over the known world.

The close eye of observation traces the motives and interests that prompt men constantly forward, and notices the different manifestations displayed in each man's intentions and acts.

The end for which man was created now suggests itself to the mind; life becomes a problem; and, as we penetrate into each man's affairs, we discover on every hand the new complications and new solutions of the problem. No man is a blank; Time hurls him into the battle of life, and he must fight or perish. According to the great plan of civilization, a thousand vocations are opened up and each man flies to the post he is to fill. So great is the variety of men, that the benevolent Creator has left open to the inquiring mind a field for constant research. One man we find proud, another humble. The generous man has strangers sitting at his table; the house of the selfish appears barren and desolate. The cunning are seen baffling the artless; the reasoner swaying the weak-minded. The idealist displays his love for the beautiful; he soars to unknown worlds on the wings of poetry and fiction; or, with the painter's brush, paints the scenes that dance before his mind's eye. We see the practical meeting the stern realities of life; men who view things as they are, not as they seem. Jokes and laughter make the world a paradise for the humorous and witty, who are courted by many; but, in solitude, such persons murmur. The sedate finds beauty and sublimity in silent thought. The worlds above, rolling in silent grandeur, have a language that excites the noblest emotions of his soul. All nature, silent in

her workings, possesses for him untold pleasures. The gentle voice of the mild-tempered may be heard calming the harsh voice of the passionate.

But, after we have learned the ruling passions and dispositions of our associates, have we then completed each volume? By no means. Has not the anatomist written volumes on the complicated structure of the human body? Add to this the pages that the mental philosopher has written in reference to the human mind. Combining mind and body, we have man. What a voluminous work is here! While the Creator has given to some men the ability to plan, he has given to others the power to execute. So men are wisely adapted to all the vocations of life. That we may act most successfully among men, we must know them. We may use some as the instruments for accomplishing our purposes; others may treacherously baffle our designs. The question now arises, How shall we acquaint ourselves with men? It may be said, by our actual dealings with them. But, fortunately, there is that in the man's very person by which we may not only determine his strength of mind or body, but, to a great extent, may determine his character and disposition. That mind and body influence each other, and that there is thus a close connection between them, can not be denied. The body, as a whole system, has within it several subordinate systems, viz.: the nervous, the muscular, and digestive organizations. The vitality and energy that give special control to any one of these systems will mark its effect in the whole organization. By this means we are enabled to divide men into general classes, each class being determined by what we term a temperament. Where the nervous system is made pre-eminently vigorous, we have the mental temperament. With a vigorous digestive organization, we have the vital temperament. A strong muscular system gives the motive. Each temperament casts its influence on the mind and greatly determines traits and habits of life.

Though temperaments have their influence, the countenance and general shape of

the head has much to do with the man. Does the brutal murderer have a head formed like a man of high moral qualities? Some laugh at the idea of determining a man's character or mental power by the size and shape of the head combined with the prevailing temperament of the man. But where is the man that can look at the head of an idiot and judge him to be a man of intellectual powers? I ask not others to believe what I say in regard to this matter, but I urge them to study the disposition and mental powers of those around them, determine the temperament of the person, note the size and shape of the head, and see if there is not an index for reading a man. Much may be judged from a man's countenance. Certain habits of mind make their impressions on the countenance. In each man's countenance are characters that indicate the spirit that rules within. We may learn something of a man even in his walk and the carriage of his body. It is said that if you would think as some other man, en-

deavor to give a like expression to your countenance.

The eye is full of meaning. Some eyes repel, others are oppressive; some give no admission, others appear as deep, liquid wells. Look some men directly in the eye and you can almost see the word thief in it. Napoleon is said to have selected his officers with reference to their noses. "I choose a man," he says, "provided his education has been suitable, with a long nose; and, in my observations, I have almost invariably found a long nose and a long head together." That each man is a volume has been proven, and that we may read each volume, the student of human nature can not deny. In every man's actions the clear eye of the wise will perceive important lessons. And, while the personal appearance may aid us in detecting character, let us rather know men by their deeds. — *Oration of M. T. Shiel at the Commencement of the North Indiana Normal School, 1876.*

HOW TO TEACH;

OR,

PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.

EDUCATION COMPLICATED.

THE errors in the method of education, and the impediments which stand in the way of properly calling out the faculties, being understood and removed, we shall then be ready for the proper method of bringing each mind forward according to its best capacities.

To **EDUCATE** is to draw out, to call forth, or lead the faculties of the mind toward proper subjects and objects according to the normal qualities and peculiarities. To **TRAIN** a faculty is to guide, control, and regulate its action, until that action becomes habitual. As no two minds are alike in organic constitution, and in the relative strength of the different faculties and propensities, the subject of education is really very

complicated, and the more there is to a character, the more high-toned and intense are the faculties; and the more complicated is the being of the individual, the more refined and nice the process of education must be to do justice to that mental constitution.

As we have before intimated, mental philosophers, previous to the discovery of phrenology, admitted a few general powers, trying to derive from them, in their method of thinking, all the particular manifestations. Many of them considered the intellect as the cause of the feelings. They accordingly confined their efforts in the way of education, to the intellect or understanding, and did not think of cultivating or educating the feelings.

CORRECT PHILOSOPHY OF MIND ESSENTIAL.

Of course the first thing to be done in the direction of a correct system of education is to ascertain the primitive powers of the mind, and, as these powers exist independently of each other, even as eye-sight and hearing are distinct from each other, each mental faculty must be exercised for itself. A man does not obtain strength of muscle by witnessing the exercises of athletes, or by reading treatises on muscular motion, but every muscle must be exercised for itself. Every mental faculty is under a similar law; each mental organ grows by proper exercise, and becomes strong by use, and its motion, or power, or function, becomes facile and easy in proportion as it is trained under the right rules of action. Dancing, fencing, military drill, mechanical or artistic effort, have to be learned or acquired by practice, and music is subject to the same law. So the faculty for geography, for figures, or for drawing, must be exercised for itself respectively; but the best way to exercise the faculty of number, or calculation, for example, is to show the real objects; and he who planned the calculating board, with balls to slip on wires, so that the child could see three in one row and four in another, was a benefactor. To say three and four are seven is very abstract, but let the child see three in one row and four in another row, and count them, and he soon learns to estimate them by quantity of numbers, or quantity of things.

OLD WAY OF STUDYING GEOGRAPHY.

Within the present century there was a time when no school atlases existed, and long descriptive paragraphs had to be committed to memory. We remember one, the question being: "How is the Ohio River formed?" The answer was quite lengthy, but this is its substance: "The Ohio River is formed by

the junction of the Alleghany and Monongahela Rivers. The first rises in the mountainous districts of New York and Pennsylvania, and runs two hundred miles in a south-westerly direction to Pittsburgh. The Monongahela River rises in the mountainous districts of Western Virginia, and runs north-westerly nearly two hundred miles, forming a junction with the Alleghany." Teachers and pupils will laugh at such a clumsy method of studying geography, when they have only to look at the map and see the branched river called Alleghany, rising in the Alleghany Mountains, and the Monongahela rising in another portion of the same mountain range, and flowing together to constitute the Ohio River, at Pittsburgh; and in order to know where the Ohio goes to, he is not obliged to learn out of a book with no map to give him the fact, that "the Ohio River thus formed flows in a south-westerly direction many hundred miles, and empties into the Mississippi River." Suppose a man were to write such descriptions of the rivers of Africa, would we not hunger to have him state the latitude and longitude where such a river was flowing? Would we not take our atlases, which represent the unexplored regions, and trace out the river with a pencil on the blank field of the map, and have something we could look at, and thus exercise our faculties of Individuality, Form, and Size, as well as Language?

PICTORIAL INSTRUCTION.

Pupils are now permitted or required to draw maps. This brings into use, besides the faculties named, that of Constructiveness. If geography can be studied better by having a picture of the thing described, in the nature of a map, why should we not, in like manner, contrive artificial signs for other ideas, or perceptions? Children learn to read

words and repeat them like mere parrots, without understanding their meaning. We desire, first, to excite perception, then sensation, if we can, and then indicate them by particular signs. With what delight does a child look at a picture book! He has seen a cat, and we have seen a picture of a cat in the book; we show him the three letters which form the word cat and he looks at it and sees the difference between *c-a-t* and *m-a-t*. He knows the difference between "cat" and "mat" in reality. If he can be shown the mat and the word that represents it, he will quickly learn to associate the word in its form as well as sound, with the thing, even before he has learned the names of the letters. The whole system of object-teaching is based on an exercise of the perceptive faculties by showing the picture of the thing talked about. For instance, give a child, say six years old, the word Hexagon, and what idea does it communicate to him? He learns the letters and how to pronounce them, but the word and the sound have no meaning to him. But if we put a hexagon before him—a form with its six sides—and an octagon with its eight sides, or the pentagon with its five sides, he can be taught by their shape alone the difference; and if the names hexagon, octagon, and pentagon are explained to him, that one means a six-sided, another an eight-sided object, and the other a five-sided one, he never will forget that, and it becomes to him a technicality for life, as distinct, and as clear and fixed as the name "chair" or "horse."

EFFORTS IN THE RIGHT DIRECTION.

Efforts have been made in the right direction often, but not always with the right philosophy; consequently, the actors, or inventors, have mixed a great deal of chaff with the wheat. We say there have been efforts for the construc-

tion of books in harmony with this philosophical and progressive system of education, to depict an article which is the subject of study, if it is not otherwise easily understood by the pupil. But a child will learn to spell *e-g-g* a great deal quicker if the picture of an egg be above the word, for then the one will suggest the other by some subtle alchemy of the mind, by their association and impression. The old peripatetic philosophers who used to travel with their disciples through fields and forests, by streams and seas, were following nature more wisely, perhaps, than many an educator who is quartered with his pupils in a majestic pile of architecture called an academy. How many people complain of the expense of museums of geology, chemistry, mineralogy, entomology, natural history, or anatomy! There is many a farmer who intends to educate his son, who will look through these great museums and wonder what on earth can be learned from so many bits of stone, so many shells, and fish-bones, and stuffed birds, so many bugs and insects, so many skeletons and anatomical preparations of the human system!

Of course objects in respect to which pupils are to be educated, must more or less depend upon what is to be their future career of life; but since all persons ought to be educated in reference to that which necessarily comes in immediate contact with them, there are a multiplicity of objects which have form, weight, color, measure, quality, that may be studied, and in their study the pupil learns the name, something of the history, origin, and uses of the thing, and he also learns the quality, that is to say, the thing itself. We learn to spell thousands of words and the words are as abstract and meaningless as the names of the Chinese people are to us. We

remember when the word *ichthyology* was a poser for spelling, and the one who having the most of the rhythmic faculty that remembers mere sounds, and, perhaps, the most of Individuality and Form to remember the queer combination of letters, would "spell the rest down." I do not know how many years elapsed after I mastered the spelling of the word with certainty before I learned the meaning of the word *ichthyology*. The word *phthisic* and a few more of those meaningful words without any meaning, were test words, but the meaning of them was never vouchsafed. We had in Webster's Spelling-Book a few pages of words which had a definition of their meaning, commencing, "Ail, to be troubled; Ale, malt liquor;" and it was to the pupils the most interesting lesson in the book. Thus pupils spend the best part of their life in learning to spell words, in great part, without learning their meaning, and though our method of spelling in English is crooked and difficult to the last degree, and unfortunately without any law or analogy, even the English language could be mastered if all the words that could be represented by a symbol could have such symbol related to the word itself. If there could be a little fish, and the crooked word *ichthyology* was understood to mean the science of fishes, there would be some sense in trying to learn to spell it; but take the great number of words that could be represented to the child's eye, such as cat, dog, fence, house, horse, ox, well, river, rock, key, as well as articles with specific form, like parallelogram, triangle, right-angled triangle, equilateral triangle, and pupils would learn about them very easily. These are abstract ideas which require a string of hard words to explain them; but if the teacher who can draw on the black-board rapidly, or can have printed charts, to be handled as a lecturer handles his illustrations, which could be made and afforded

cheaply if demanded in large amounts, for all schools, we would like to see the effect of educating the perceptive faculties by means of these things, and the training of Language, Tune, and Eventuality, to remember the names before the children had learned to spell even one of the words expressive of the things exhibited.

We think a system of education could be established, embracing suggestions from all methods that have been felt after and found, by means of which the observing faculties could be called out in a manner that would astonish teachers. We would like to see a class of pupils trained to spell the names of articles when presented, the name being pronounced, and then let the pupil spell it, without ever having learned the letters, spelling by sound only.

SPELLING A DRUDGERY.

There is, doubtless, to-day more time spent in trying to learn to read and spell, than there is devoted to all other branches in the common schools; or, we may say, to learn to read and spell well would require as much study as is bestowed upon all the other branches. Unfortunately for the English-speaking world, our language is defective, because it lacks the phonetic element. But few words are spelled as they are pronounced. Some languages, the German, for instance, require the pupil only to learn the letters and the sounds of the letters, and then he can spell any word in the language, and pronounce any word he sees, with three or four exceptions. But when we look at our English language, which is made up of the odds and ends of many languages, we find that the sounds of the letters have very little to do with the spelling or with the pronunciation. If we take the words *through*, *though*, *cough*, *tough*, *plough*, *hiccough*, we see what a variety of sounds come from the letters *o u g h*. These four letters are seen to spell *oo*, *o*, *awe*, *u*, *ou*, *uf*.

PHONETIC SPELLING.

We ought to have a character that shall represent each sound in the language, and it should not represent any other sound. Then learning the alphabet would be learning to spell, and

learning to spell would be learning to pronounce, and that would be learning to read. Some people never learn to spell. It does not belong to their mental constitutions to remember how to spell, and they may be good scholars in all other respects. Some will take to spelling and be very skillful in it, but they will not be sound or strong in any other department—these differences, of course, depending upon the peculiar mental development. If we could have a phonetic system of language, and then object-teaching in connection with words and names, we could simplify education wonderfully. Then pupils could understand the meaning of the words they use, and words would then become to them ideas. Words should be considered simply as signs of ideas, and ideas should be had first, and the words afterwards. Then pupils could comprehend the word, and the idea suggesting it. The familiar object—clock or horse, boot or hat—does not require special thought to suggest the name. The thing imparts the idea, and the name then comes easily.

MIXED IDEAS.

When we have progressed with pupils through a series of simple things, objects, with their forms and characteristics, and they get the name of each, and the way to spell it, we may rise above tangible things and proceed to the realm of feeling, or emotion, recalling the sensation which they have experienced, such as hunger, thirst, warmth, cold, fear, anger, kindness, and other emotions. Let these sentiments or conditions be fully understood, and the word which expresses that condition be presented and pronounced; and let the pupils scan the letters which constitute the word *cold*, and think of the sensation, and the whole lesson as respects that sensation, and the word which expresses it is before him.

SENTIMENTS SUPERIOR TO SENSATIONS.

We may rise higher than that. We may speak to pupils not merely of bodily feelings, but of mental conditions, such as pride, ambition, respect, affection, hatred; and the teacher should know what the natural language of these

emotions are, and he will not speak of gentleness or peacefulness with an abrupt and harsh tone of voice, or frowning features, because that would instantly excite in his observing pupil a feeling of anger and repulsiveness, which would be educating his pupils contrary to the text of the lesson. Mutes, who never hear the tones of voice, watch the gesture and expression, and thus get the idea from the teacher very clearly.

ALL FACULTIES BROUGHT UNDER CULTURE.

Since a great portion of the time of each year is devoted to receiving instruction, and as an education, so called, requires many, many years to compass it, every facility which mental science furnishes should be adopted in order to cultivate the perceptive or knowing faculties, and awaken and train all the emotional elements in such a manner that the child is all-alive to the just impressions which it is the design of the teacher to make. It is easy to understand that if the teacher wishes to excite his pupils to laughter and mirth, he puts on a pleasant, smiling countenance, before he commences to tell a mirthful story, and a hundred smiling eyes are on him. Attention, intense and pleasurable, is shown in every face, and he does not then have to say things that are very funny in order to excite the emotion he wishes. The same is true in regard to justice, mercy, fear, love, and hatred. In this way the moral, social, executive, and intellectual faculties may all be called into action harmoniously, or consecutively, as may be desired, and an impression, pleasurable, but vivid and lasting, may be made.

Every faculty is possessed by each individual who has a sane mind, in greater or less degree, and each faculty may be combined in connection with other faculties. If children are trained by an appeal to the different intellectual faculties, and then in such a way that two or more faculties are called into harmonious action, the mind is trained to become automatic or suggestive. One emotion awakens another—one fact excites a train of facts.

NELSON SIZER.

(To be continued.)



DARIUS H. PINGREY.

THIS gentleman possesses a large head and an active brain. The mental temperament predominates, thereby indicating a tendency to literature and art rather than to the realm of a more physical life, like navigation, railroading, farming, or lumbering. He has a theoretical cast of intellect combined with imagination. He would make a good critic in most of the depart-

ments of art criticism. His Language is amply developed, furnishing the basis for freedom and copiousness of expression. If a speaker, he would show a great deal of fullness and volubility. As a writer the same trait would appear, but probably in a less degree.

He appears to have large Mirthfulness, which gives to his thought a racy, spicy

turn, a relish for wit and humor, a tendency to show up things in a facetious light, and to recognize all the shades of humor. He has large Imitation, and would have taken a good place in the histrionic profession.

He has an amiable spirit, Benevolence being decidedly large, and giving great height from the line of the eyes to the front part of the top-head which is covered by the hair. He is generous, liberal, kindly disposed, and, though he seems to possess rather large Acquisitiveness, and a desire, therefore, to preside over his financial interests with wisdom and prudence, he would show generous impulses in a thousand ways where gifts of money are not expected.

He has strong Faith, trusts in the future, believes in great possibilities, and likes to contemplate and mentally shape the ultimate of a nation like ours or of a realm of improvement as it advances toward perfection. Hence, he is inclined to magnify and illuminate that which he treats. He has a special tendency to be agreeable and gracious, and usually finds a ready entrance to the confidence and regard of people. If he were a salesman, people would like to trade with him because he is inclined to mingle a mellow kindness of manner with business transactions.

His Cautiousness appears to be large—the head being wide, according to our portrait, upward and backward over the ear. We judge that he is ambitious, fond of praise, anxious to rank well, sensitive about his reputation and honor; but his Self-esteem and Firmness do not appear to be remarkably large. He has more Combativeness than dignity; more power to work his way in life by using his forces in enterprises than to command respect by a calm, self-poised bearing.

He is strongly social, genial, friendly, and well calculated to be popular. His Con-

structiveness is sufficient to make him at ease in mechanical matters, and to give him a tendency toward invention.

His Self-esteem and Firmness, we think, might be increased, and thus add strength to his character; or, his Approbativeness and Cautiousness might be modified, which would lessen the need for more Self-esteem and Firmness. The first course seems to us the better, as we prefer to level up rather than to level down, to develop weak or moderate-sized organs rather than to reduce those of leading influence.

Darius Harlan Pingrey was born in Andover, New York, April 23, 1841. He is the sixth of a family of seven children. His parents have a long-descended ancestry, and are now living in Andover on a farm. His father was thrown upon his own resources at the early age of thirteen, and is regarded as a man of great energy and uprightness.

The subject of this sketch was brought up on the farm and knows what the agriculturist has to do. His parents, appreciative of mental culture, gave all their children a good English education. Darius, however, was thought worthy of a more extended training and for college, which he entered at seventeen. Though his father assisted him financially to prosecute his studies, yet he was obliged to do something toward completing the course, and so he taught school in the winter and worked on the farm during the summer vacations. While working on the farm he learned phonography at night, and, when teaching, he found time to pursue some of the studies in the course and to keep up with his class. He was graduated in 1863, and soon after was invited to take charge of an academy in Pennsylvania, a position he filled to the satisfaction of all concerned. As no opening or field for advancement was presented by this position, he resigned it at the end of a year and went to a business college in Binghamton, New York. While in that city he became acquainted with the late Daniel S. Dickinson, who took a very warm interest in him and gave him the

benefit of his powerful influence in various ways. On leaving the commercial institute, young Pingrey was called to the position of head teacher in a business college at Reading, Pennsylvania, and remained therein until appointed an official reporter to the Pennsylvania Senate in 1866. This place he held but a short time, as Messrs. Bryant & Stratton offered him the place of principal to their Harrisburg College under a local proprietor. While here he issued a book entitled "The Practical Calculator, designed for Business Men." This volume met with a ready sale and was much valued.

The finances of this college becoming somewhat deranged, the proprietor was obliged to sell his interest, and Mr. Pingrey then went to Washington, D. C., taking with him a testimonial signed by such men as Governor Curtin, Eli Slifer, then Secretary of State, and others. In Washington he found employment as a reporter to the Senate. He went to work at the close of a Congressional term when the reporters had to labor sixteen hours a day, Sunday not excepted, to complete their transcripts of the proceedings. This strain soon told on his physical strength. The alternative was set before him by advisers: "Stimulate, or give up your situation." The teachings of his youth, the dictates of his conscience, and the promptings of Reason said "Resign," and he did so at the sacrifice of a part of his salary. Then he traveled to the West, and reached Illinois in the early summer of 1867, where he was engaged as principal of Farmington City schools. He taught in Illinois until last May. His reputation as a teacher stands high, and he is known also by his writings on educational subjects. His tact and talent in conducting a school is considered first-class. His rule is gentle, aiming to treat his pupils as ladies and gentlemen, and avoiding favoritism.

While teaching, he found much time to write for the press, and has written for some of the leading periodicals of the country, his subjects chiefly pertaining to departments of political economy. Some of his articles published in the *Rural New-Yorker* and *Prairie Farmer* have attracted more than local attention. He

has been a paid contributor to papers published in Salem, Oregon, Omaha, Minneapolis, Chicago, St. Louis, Philadelphia, and New York. An article of his appeared in the *Chicago Inter-Ocean* last winter, in which he stated that the public schools of the country were not in danger so much from the Roman Catholics as from the politicians who try to make political capital in their relations to them.

In 1874, the late editor of the PHRENOLOGICAL JOURNAL, to which he has been a contributor, in a note to Mr. Pingrey encouraged him to enter the field as a lecturer or public speaker. This suggestion gave him a fresh inspiration, and he prepared a lecture on "American Institutions," and made his *debut* in 1875. His success has been much beyond the expectations of his friends. Some newspapers have characterized his lecture as a fine production, evincing much research "and scholarly ability rarely equaled." Last winter he organized a "Centennial Bureau of Correspondence" for the purpose of furnishing country papers letters from the Exposition. This undertaking was indorsed by the *Chicago Times*, *Inter-Ocean*, Springfield (Mass.) *Republican*, and many other papers. He went to Philadelphia at the opening of the Exposition with a list numbering nearly fifty papers, representing ten States. His patrons generally speak in favorable terms of his letters, which are florid in style, and evince a good degree of graphic ability.

Mr. Pingrey was married in 1868 to Marion L. Harrington, daughter of the late M. G. Harrington, of New York, formerly law-partner with Mr. E. W. Stoughton, of this city. She died in 1873 of consumption, leaving one child of four years. She was a faithful and loving wife, a tender mother and Christian lady, ever earnest in benevolent works according to her opportunity.

POETS know, and statesmen ought to know, it is by sentiment when well directed—as by sorrow when well used—great nations live. When sentiment dies out, and mere prosaic calculation of loss and profit takes its place, then comes a Byzantine epoch, a Chinese epoch, decrepitude and slow decay.—*Kingsley*.

PEACEMAKER GRANGE.

CHAPTER XII.

A LOVE FEAST.

WHEN the hundreds of spectators were duly seated, the young couple advanced from the "vestry" accompanied by their most intimate friends and several of the chief persons of the society, including the pastor. The ceremony was short, and embodied some of the most interesting features of those used by different denominations. There was some of the Episcopal service; there was something of Quaker simplicity. That most touching part of the liturgy used by many Swedenborgian churches, which includes the passage, "With the pure He will show Himself pure: with the froward He will show Himself froward," or words to that effect, was sweetly chanted by the bridesmaids.

After the two were pronounced one, there was a triumphal progress through the grounds to the wing wherein was the suite destined for the young couple. There was music by the way and children scattered flowers.

Before the party left the chapel, the pastor announced that he would discourse that evening upon "The Relations of the Sexes," to the adult members of the Society.

Accordingly a large audience assembled in the chapel after supper. The pastor, after some preliminaries, said: "My dear Friends. You know that we have never attempted to disguise the fact that the subject of my discourse to-night is about the most important one that any people have to consider. You know, too, how anxiously and carefully we who take the lead have studied the matter, and legislated concerning it. To those who have raised an outcry for 'perfect freedom' in this relation, we have answered that there is no such thing as that free-

dom they demand anywhere in civilization. Only the Indian has it. Human societies gather upon a plane of mutual concessions as to absolute freedom of action. Each community of people makes up its mind as to what acts are so hurtful as to call for legislative and police suppression. Individuals may question the correctness of these conclusions; but their only remedy after trying in vain to alter the public opinion is to get away to some more congenial people. We can certainly congratulate ourselves so far upon the general success of the plans we have adopted. As I look around upon this assemblage, I see everywhere evidence that we have done wise in this matter. I see elderly couples who were used to quarrels and bickerings in younger days. Now the aged wife can sing heartily, 'John Anderson, my Joe, John.' Coming here, the sphere of the place, the harmonies found among us, the fact that other couples congenial by nature were living happily, led them to renew their youthful vows.

"I see here middle-aged couples, who, if they had continued in ordinary life, would now be souring toward each other. The cases of the barbarous house-keeping of the civilized, harassments of business, the impossibility of rearing their children in other than heathenish ways—would have made life an irksome failure, and connubial bliss 'a barren ideality.' Now, as they see themselves enjoying all that temperate human creatures can ask, they look fondly upon each other.

"I see young couples just married. No big clouds are in their sky. They see before them a sure subsistence during good behavior. The young man does not look back, with a sigh, to the freedom

and the recreations of his bachelor days, for he has lost neither. The young woman does not have to mourn separation from relatives and early associates, for the same loving arms still embrace her daily, and her routine of work and recreation is nearly unchanged. The young people do not dread the advent of children, as likely to straiten their purses, narrow their life down to a dull repetition of household cares for the woman and money-grubbing and grabbing for the man. They see that there will be ample provision for the welcome strangers during their infancy, and that they will soon be self-supporting. They know that there will always be plenty of cheerful help in time of sickness, and that the best and kindest nurses in the country stand always ready to help in all the care-taking as a labor of love; while the nurseries stand ever open, and their watchful attendants are only too eager to take temporary charge of the little ones, when business or recreation calls the parents away."

The pastor now, with his customary lack of ceremony, strode down the middle aisle; clapping his hand on the back of a middle-aged man, he said: "Albert, we are all at or near the age of discretion. Tell us, are your fears realized? Do you find men and women here coveting each other's spouses, who in the outside world would not feel themselves so tempted?"

To this Albert replied, rising: "As the pastor inclines to make this something of an experience meeting, I will say, friends, that I find myself agreeably disappointed in this respect. I must acknowledge that after listening so many years to the outcry of the conservative opponents of association, I invited my wife and daughters to follow me hither with some trepidation. But that has all passed. I feel that I have brought them into a true ark of safety. With what

calm confidence the members here gathered can look into each other's clear, honest eyes, and thank Heaven each has the assurance that his or her conjugal fidelity is a matter of heartfelt solicitude on the part of all the others. Brethren and sisters, what happiness comes of purity of life in this relation!"

Many a bright, tearful eye of happy husband and wife was turned toward this member, as he sat down.

"It is not so difficult as some have proposed," continued the pastor, "for us to obey our consciences in this regard. There is so much here to make goodness easy. Friends, ye are not come unto Sinai, the mount that might not be touched, and that burned with fire, and unto blackness of darkness and tempest; but ye are come unto Mount Zion, the city of the living God, the New Jerusalem, and I trust to an innumerable company of angels.

"Many of the successful associations have been afraid to allow any natural play of social life. One of our best triumphs lies in the fact that we have maintained order without resorting to austerity. As I walk here now I do not see the sexes sitting apart in solemn rows: but many husbands and wives and the betrothed ones clasping hands. Here, too, are many young people of adult age, but not yet betrothed, listening to us with that calmness which the youth of both sexes will ever experience on such occasions, if they have been wisely taught and have freely mingled with each other in social life, and in work and study.

"And now I ask my young friend here of the fearless speech, sitting beside his blooming and happy young wife, how has it been with you, Oscar? How has your struggle been to lead a pure life compared with that of the adolescent period before you came here four years ago?"

Oscar rose to reply, resting one hand upon the wife's shoulder, while she looked up proudly and fondly into his face. He said: "Before I came here, when I was in factory life in Philadelphia, surrounded during working hours by young men only, I heard much ribald conversation; many evil influences encompassed me—my evenings were often wasted, or worse. No one cared for my soul. Here I have found all the tendencies more or less elevating. All the avenues by which evil might reach us are carefully watched. I was surprised when I first came here as a mere free-thinker, to be invited into a class such as they have in Methodist churches, and then to a monthly confession to our worthy class-leader. I was disposed at first to object, but acquiesced through curiosity. I found the confessional particularly useful: as my young heart was burdened with the many errors of my past life; and as with so many youth, I longed to confide my griefs and regrets to a wise, sympathizing friend. The free mutual criticism of the class I found also useful. Everywhere I saw the groups composed of both sexes and guided by both. The varied and healthful occupations and amusements, the purity of the men about me, the meeting in every department sweet, unaffected women and girls, has kept my mind so full of healthy, elevating thoughts that there has been small room for those that were debasing. I can say thankfully that though warned that it would be more difficult to avoid sexual irregularity in such a community than in Philadelphia, I find the contrary the case. And now in the blessedness of a congenial marriage, my soul has indeed found a new sheltering haven." He sat down beside his bride, and she gave him *such a look*.

"Small need for me to lecture you," said the pastor, "when such testimonies can be had. Who else now, while we

are in the mood, can 'witness a good confession' on this score?"

Then arose one who had never spoken before in the public meetings—a woman of thirty, with the look of one who had gone through many sorrows. There was something of the fiery force of a Lola Montez. Beside her at once arose a strong, bronzed man of a determined aspect. He was chief of the Fishing Series. She placed one hand upon his arm as she said: "My voice has never been heard here: as it should not have been hitherto, being maddened with grief and resentment. When in early, confiding womanhood I found myself betrayed and abandoned, I rushed into dissipation, resolved to be an avenging Nemesis upon the other sex, and dragged not a few to my level before the voice of Jehovah came clearly to me saying, 'Vengeance is mine.' Then I heard of this place, where, I was told, there was healing for all human ills and where no souls of men or women, in or out of the body, were considered totally lost. Forasmuch as my going in and out among you for five years has not been without approval, I feel constrained to add my testimony to that already given as to the elevating effect of the life here. I came resolved to cling to you in never so menial a capacity. You soon gave me positions of trust and emolument. I am even found mating with a noble man, but I feel it peculiarly my duty as having been so blessed to bear testimony to the Lord Jesus Christ as my Saviour.

'Other refuge have I none:

Simply to this cross I cling.'

I should be the last to complain or criticize; but really I am troubled by the fact that there is so little testimony here of the old-fashioned sort to the saving efficacy of simple faith in the Lord Jesus."

As she sat down, several of the older members uttered loud "amens."

The pastor stood a moment in a

thoughtful attitude, and then said: "The sister alludes to a subject that is often in my mind. Great is the mystery of the divine manifestation in the flesh. In our eclecticism and liberality, we Christians perhaps concede too much to other religions. Out of politeness, we who believe in the absolute divinity of Christ (and there are many such in this assemblage) often fail to testify to this belief. But there seems to be a mysterious blessing for those who boldly avow that Jesus Christ is their God and that they pray to Him as very God and Jehovah. While cordially acknowledging religious fraternity with good people all over the world, and in all ages, who have trusted and worshiped the Divine Creator by whatever name, I have an abiding conviction that it will yet be demonstrated to us beyond a doubt, that the 'orthodox' doctrine concerning Jesus is essentially correct; and that His advent to the earth-life was that absolute and perfect incarnation of Deity of which all previous avatars were but types. Through the inspiration of St. John, Jesus said to us: 'Behold I stand at the door and knock. If any man hear my voice and open the door, I will come in to him and sup with him and he with Me?' Many of us who have had a sense of this intimate association, can not but believe that even if 'mighty skyey portents' and other old-time miracles may be needed to that end, Christ will yet take means to justify His most devout followers in their doctrine concerning His status in this universe. Meanwhile, however, we must acknowledge that we have no sufficient ground for obtruding this doctrine as an essential article of religious faith upon those who can not receive it.

"And now to return to our subject. I can not better express what is 'borne in upon me,' as the Quakers say, than by reading and commenting on some exquisite narratives presented by Swedeborg

concerning what he claims to have seen and heard in the invisible world in reference to the relations of the sexes. No matter whether he really saw and heard all these things or only imagined them. They exhibit such evidence of being in accordance with the laws of nature, that they are most efficient in spurring on the soul toward self-purification. Some of his stories as to how purity is maintained in heaven are more powerful incentives to purity in the earth-life than whole cart-loads of 'Sabbath Evening Lectures to Young Persons.'"

The pastor then picked up a book from his desk and read, condensing the narration at times, and commenting. He premised thus: "As to the equality of the sexes, no one, in one day, even so staunchly upholds the doctrine, and so exquisitely defines woman's side of the equation, as does this seer, when he takes us to heaven and shows us conjugal (he spells it conjugal) scenes there. When he undertakes to make rules for the earth-life, he often sadly contradicts the angelic teachings.

"Here, on page fifty-six, I find him visiting an angelic couple. He saw at first only the man, who proposed to talk about wisdom, as soon as his wife should be present. The seer, to test him, said: 'I know that you are wise, but what has a wise man or wisdom to do with a woman?' Hereupon, as the story runs, the host, from a certain indignation, changed countenance, and beckoned with his hand, and instantly other wise persons were present, to whom he said jestingly, 'Our stranger here asks, What has a wise man or wisdom to do with a woman?' At this they smiled and said, 'What is a wise man or wisdom without a woman, or without love—a wife being the love of (or corresponding to) a man's wisdom?' After further discourse, an important question arose, and then the wife sud-

denly appeared and said to her husband, 'Speak, if you please.' And when he spoke, 'the life of wisdom from the wife was perceived in his discourse, for the love of it was in the tone of his speech.' So you see, in a heavenly marriage, the life or essence of a man's wisdom is derived from his wife. That was strong woman's rights doctrine for one hundred years ago.

"Let it be plainly understood that my general object in quoting these writings is to set forth the 'beauty of holiness' as manifested in the marriage life of the angels; to present evidence that there is felicity for the good and woe for the wicked in the after-life; and that a large part of the woe is an inevitable result of the infringement of that great law of nature, a law which Swedenborg says is operative in the invisible as well as the visible world, which demands that everybody be joined to one only of the other sex (and that one such a person as he or she can love with a pure heart fervently), or suffer evil consequences. We are striving, not so much to loosen the old restraints, though we believe in considerable freedom of divorce, as to bring new and more rational restraints to bear upon the marriage relation. Who can not see that this relation is rapidly deteriorating throughout civilization! As old theories, beliefs, and veneration are passing away, very few show a readiness to accept the new ones that science, reason, and I may say revelation, have prepared for our use, and for the prevention of the further disorganization of Christendom. Who can not see everywhere men and women who were brought up in the churches, often breaking away from religious restraint, or drifting carelessly upon the rising tides of philosophical licentiousness, only restrained by external causes from running into reckless dissipation.

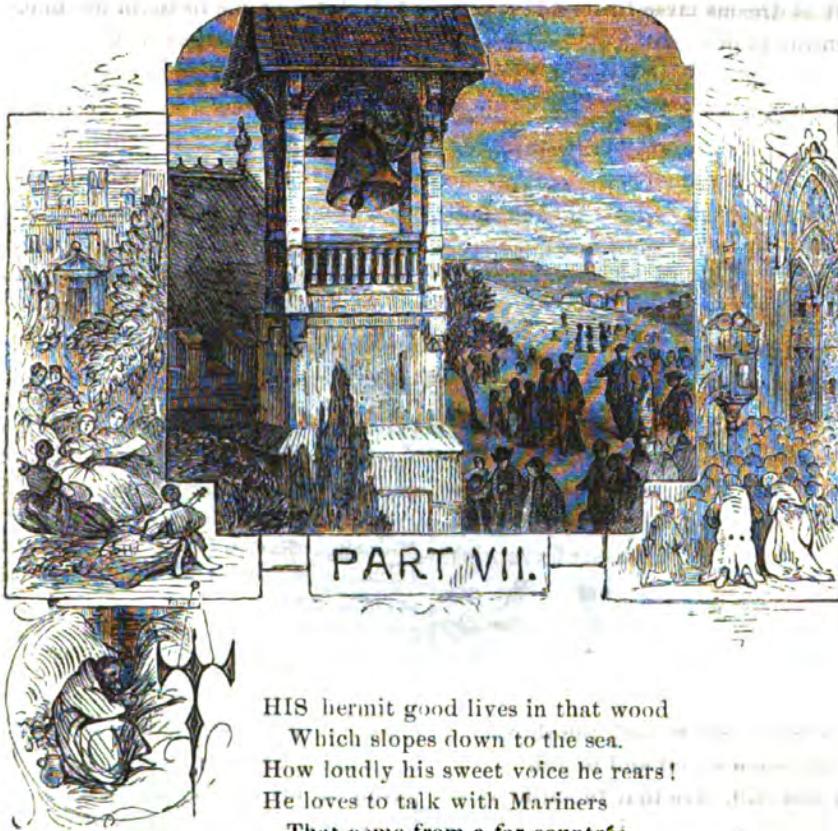
"People have been, until recently, in thousands of cases maintaining external propriety of conduct simply because they were taught certain rules of good behavior. Now, on all sides, we have a stern demand for stronger promptings to a pure life than that offered by tradition and authority. Strong, forcible men, eager for the apparent good of life, and impulsive, ill-balanced women, are more and more inclined each day to say, 'Show us better reasons for self-restraint than any yet produced, or we will make the best of life as we find it. Warningly to all such comes the clear, sonorous voice of the Swedish seer. Let the butterflies of humanity walk with him awhile, as he treads awe-struck the dismal paths of the penal spheres of the invisible world, and they will find themselves more permanently checked in their reckless career than they ever were by the illogical sermons of the old theologians. He is no Dante, passing through an Inferno and a Paradise, got up from Homer and Virgil, and suggested by stray passages in the Bible. The most of his statements concerning good and bad spirits are strongly responded to by human consciousness, as being true to nature and to all the facts of which we are cognizant.

"As I have often said, we have been under the law—under the frown of Sinai all these centuries, and truly the laws and public opinions of the Christian Era have been fitting schoolmasters to bring us to the Christ-likeness in our marriages. The constraints, the suppression, the fear of punishments and other evil consequences that have had so much to do with producing the purest marriages of modern times, will now, in a measure, pass away, and we will enjoy the perfect liberty of the sons of God—of the angels of God; at least if we show ourselves worthy of it. And when we have this liberty, the true-hearted among us will never be satisfied if our marriages come short, in any respect, of the best of those which orthodoxy has produced. Indeed, if we do not show ourselves worthy of freedom, we will drift back into slavery—as happens to nations.

(To be continued.)

THE RIME OF THE ANCIENT MARINER.

BY S. T. COLERIDGE.



HIS hermit good lives in that wood
 Which slopes down to the sea.
 How loudly his sweet voice he rears!
 He loves to talk with Mariners
 That come from a far countrée.

He kneels at morn, and noon, and eve—
 He hath a cushion plump:
 It is the moss that wholly hides
 The rotted old oak-stump.

The skiff-boat near'd; I heard them talk,
 "Why, this is strange, I trow!
 Where are those lights so many and fair
 That signal made but now?"

"Strange, by my faith!" the hermit said—
 "And they answered not our cheer.
 The planks look warped, and see those sails
 How thin they are and sere!
 I never saw aught like to them
 Unless perchance it were

The skeletons of leaves that lag
 My forest brook along:
 When the ivy-top is heavy with snow,
 And the owlet whoops to the wolf
 below
 That eats the she-wolf's young."

"Dear Lord! it has a fiendish look—
 (The pilot made reply)
 I am a-feared"—"Push on, push on!"
 Said the hermit cheerily.

The boat came closer to the ship,
 But I nor spake nor stirred;
 The boat came close beneath the ship,
 And straight a sound was heard.

Under the water it rumbled on,
 Still louder and more dread :
 It reached the ship, it split the bay ;
 The ship went down like lead.

Stunned by that loud and dreadful sound,
 Which sky and ocean smote,
 Like one that hath been seven days drowned
 My body lay afloat :
 But swift as dreams myself I found
 Within the pilot's boat.

"O shrieve me, shrieve me, holy man!"
 The hermit crossed his brow.
 "Say quick," quoth he, "I bid thee
 say
 What manner of man art thou?"
 Forthwith this frame of mind was
 wrenched
 With a woeful agony,
 Which forced me to begin my tale,
 And then it left me free.



Upon the whirl, where sank the ship,
 The boat spun round and round.
 And all was still, save that the hill
 Was telling of the sound.

I moved my lips: the pilot shrieked,
 And fell down in a fit.
 The holy hermit raised his eyes,
 And prayed where he did sit.

I took the oars; the pilot's boy,
 Who now doth crazy go,
 Laughed loud and long, and all the
 while

His eyes went to and fro.
 "Ha! ha!" quoth he—"full plain I see,
 The devil knows how to row."

And now all in the old countrée
 I stood on the firm land!
 The hermit stepped forth from the boat,
 And scarcely he could stand.

Since then at an uncertain hour
 That agony returns;
 And till my ghastly tale is told
 This heart within me burns.

I pass, like night, from land to land;
 I have strange power of speech;
 The moment that his face I see,
 I know the man that must hear me;
 To him my tale I teach.

What loud uproar bursts from that door;
 The wedding-guests are there;
 But in the garden-bower the bride
 And bride-maids singing are;
 And hark the little vesper-bell
 Which biddeth me to prayer.

O wedding-guest! this soul hath been
 Alone on a wide, wide sea:
 So lonely 'twas, that God himself
 Scarce seem'd there to be.

O sweeter than the marriage-feast,
'Tis sweeter far to me
To walk together to the kirk,
With a goodly company:—

To walk together to the kirk,
And all together pray,
While each to his Great Father bends—
Old men, and babes, and loving friends,
And youths, and maidens gay.

Farewell, farewell! But this I tell
To thee, thou wedding-guest!
He prayeth well who loveth well
Both man, and bird, and beast.

He prayeth best who loveth best,
All things both great and small:
For the dear God, who loveth us,
He made and loveth all."

The Mariner whose eye is bright,
Whose beard with age is hoar,
Is gone; and now the wedding-guest
Turned from the bridegroom's door.

He went like one that hath been stunned,
And is of sense forlorn:
A sadder and a wiser man
He rose the morrow morn.



THE END.

FLOWERS.— Amongst all the pleasant things of life—and the all-bountiful hand of Providence has scattered the path of our days with innumerable pleasant things, if man would but enjoy them—amongst all the pleasant things of life, there are few more pleasant than a walk in the flower-garden before breakfast on a sunshiny morning. To see those mute and still, though not motionless, creatures—we mean the blossoms—opening their painted bosoms to the beneficent rays which give them their color and their loveliness, welcoming

the calm blessing of the light, as if with gratitude, and seeking, in their tranquil state of being, for nothing but the good gifts of God, might well afford a monitory lesson; for everything in nature has its homily, to us, the eager hunters after fictitious enjoyment. How calm do they stand in their loveliness! how placid in their limited fruition of the elements that nourish them! how, in their splendid raiment, do they sparkle in the sun, how do they drink up the cup of dew, and gratefully give back honey and perfume in return!—*Eliza Cook.*



It is only by training all together—the physical, intellectual, and spiritual elements—that the complete man can be formed.

AN OPIUM EATER REFORMED.

IT is a matter for rejoicing when one has been found so strong as to overcome the influence of a habit which was destroying his moral and physical life slowly, but surely. Of all habits which one may contract, none is so severe and imperious in its exactions upon the strength and time of the victim as the use of opium, and extrication from its toils seems next to the miraculous. Some persons have been known to recover their manhood after years of subjection to the opium tyrant, but their number is painfully small, and when a case of "recovery" is reported, we think that the good have reason to feel deep gratification. If the results of Messrs. Moody and Sankey's public meetings include the reform of a few men and women heretofore bound by habits of intemperance, or of drug-eating, and the following case indicates some efficiency in this way, we put in a most cordial vote for the continuance of such redeeming work. The utility of it is beyond question. The *Church Union* is authority for what is hereafter related.

"Mr. Peter Banta, a ship-joiner, fifty-one years of age, living at No. 100 Ninth street, Brooklyn, E. D., received a compound fracture of the left leg July 3d, 1860. The leg is an inch and a quarter short. The day of the injury, he took one ounce of Munn's elixir of opium to stop the intense pain. He gradually increased the dose until he took three ounces a day. After the leg was well he continued it for about three years and a half, when he commenced taking sulphate of morphine, twenty-six grains a day, one hundred and eighty grains a week, or six hundred grains a month. Has taken twenty grains at a dose, and frequently thirty grains a day. Eight years ago he attempted to re-

form, and stopped its use, which made him so delirious that his physicians and friends feared he would die if he continued to do without it. He then renewed the habit, with occasional seasons of partial reformation, which were uniformly followed by great distress, delirium, and such dangerous indications that he soon relapsed into his old habit. When the special religious services were held at the Hippodrome last March, he attended, and went into the inquiry-room, where he was urged to discontinue the habit and become a Christian; was made the subject of prayer, and great solicitude was manifested in his behalf by Mr. Moody and others. On the 13th of March he took the last dose, and was taken to a place in this city, away from his family, where he could be properly cared for, and seen by those who had become so deeply interested in his welfare. From Monday, the 13th, till Wednesday, he was comfortable; the following three days he was delirious, more or less, and felt faint at times, then chilly, and had other symptoms indicating nervous prostration. After that he improved, and went home in three weeks. Since then he has gained in flesh and strength, and has improved in every respect. During sixteen years he has spent \$2,800 for opium. He has now lived without it nearly six months, and has no desire to take it again; and wishes it to be known that he believes he has been saved through the agency of divine grace."

THE medical examiner of a prominent English life insurance company says he turns away three-fourths of his applicants who excel in athletic exercises, because they have dangerously strained the organs of the heart.

TYPHUS FEVER CURED, AND HOW—NO DRUGS, NO BRANDY.

THOUGH educated for the medical profession, I never "practiced medicine." Early in my study of the text-books on *Materia Medica* and *Therapeutics*, I became skeptical as to medical science through the strange contradictions and "confusion worse confounded" of different authors of highest repute in the profession. This was more than confirmed by the candid confessions of some of the ablest and wisest men who were either in the practice or had retired from it because of its fearful uncertainties. These uncertainties I never dared to meet, and, therefore, could not actively enter upon professional practice.

My treatment for the "ills that flesh is heir to," or not "heir to," has been confined to my family and myself. Seven sons and daughters—all but one grown to maturity—though inheriting tendencies to organic derangements from both father and mother, have, with rare exceptions, had excellent health for city life. Eight years ago, four of my younger children had scarlet fever. It was then prevailing in its most malignant form in our city. The children of our neighbors died under the most skillful drug-treatment. Two of my daughters had grown to youth, and, with these, the fever assumed the very worst type. One particularly could not, I think, have survived any poisoning. Within ten days the sickest one had fully recovered—the others in one week. Frequent changes, perfect cleanliness, bathing in tepid or cool water, and plenty of cool water, clear or acidulated with lemon-juice for drink and gargling, were the sole *medicamenta* in their so rapid recovery. I prepared a statement of these cases more fully which was given to the public in another magazine at the time.

But I intended to refer only to a recent case of typhus fever, but lo! a long introduction. Now as to that case. On the 9th of August last, my youngest son, in his sixteenth year, was taken down with the typhus. He was frail and had been quite feeble for years—indeed, since a very severe illness of eleven years before. At the time of the attack he had been troubled with di-

arrhoea for a week, of which I had not known. This soon became dysenteric, involving especially the kidneys and bladder in acute inflammation.

Exposure to the miasma of a drained pond—the *debris* of the bottom decaying and festering in the hot sun—hastened the general febrile condition into the typhoid form. The case was complicated and serious, and the danger greatly enhanced because of the strain always incident to the pubescent change recently begun in his system.

I felt sure that the usual allopathic drug-ging would have shrouded the dear boy for the grave within five days.

HOW WAS HE TREATED?

In brief, as follows :

1. As complete *rest* as possible, lying on his back.
2. Cool-water injections to allay internal inflammation and check the dysentery.
3. Wet-sheet packs to equalize circulation and diminish heat.
4. Cool, wet compresses over the abdomen.
5. Frequent sponging over the whole surface of the body with tepid water—face, hands, arm-pits, and other confined portions, especially during the fever paroxysms.
6. Much friction with bare hand of the hands, feet, and entire limbs, also the spinal column, at intervals of fever.
7. No solid food while fever was on, but abundance of pure spring water at all times—clear, or acidulated with lemon or black-berry juice.

The fever yielded on the ninth day.

I gladly acknowledge a kindly-favoring Providence in the use of the simplest elements in Nature's grand laboratory. The youth's recovery has been very rapid. So low had he been reduced that he could scarcely raise a hand, and had to be lifted like a skeleton child. But, within five days from breaking the fever, he was propped up in sitting posture. Next day he stood on his feet. Four days from this he walked around his room. In less than two weeks from the time when all who saw him said "he *could* not live,"

especially those who insisted that my "horrid cold water" would kill or had killed him, I removed him three hundred miles to his home. The changes from carriage to car, steamer, etc., were frequent and trying. I feared reaction from fatigue and excitement. None occurred, but improvement all the way. It is less than five weeks since the attack, and my dear son is now convalescent, with good appetite, and promises to have better health than for many years past.

Absence from home and all good and ready facilities for treatment, and an utter lack of sympathy, help, or encouragement, greatly enhanced my difficulties and delayed

recovery. The fever, indeed the dysentery should have been *prevented*—would have been had I known the condition of my boy (as having diarrhoea so long) and the miasmatic state of the air.

Some may wish to know what was the diet.

Boiled milk in small quantities in diarrhoea or dysentery—only drinks in fever. Farinaceous food—such as corn-starch, farina, fine meal, wheat, or corn, or rice cooked in milk, with cooked fruit, grapes, and *ripe* peaches, in quantities adapted to progress in convalescence, are the best nutriment of which I know, and such as I employ. S.

HYGIENE ESSENTIAL AT THE CENTENNIAL.

THE time for the close of the great Exhibition at Philadelphia is near at hand, but the increase of visitors is a sufficient excuse for one to say a few words of admonition with regard to the habits of people while attending it. Hotel life and travel are hazardous to the health of those who are entirely unacquainted with them—never having gone more than a few miles from the limited sphere of family relationships. On the other hand, people of experience as travelers, and accustomed to the lights and shadows of caravansary life, are inclined on festival occasions to step over the bounds of prudence, and to indulge their likings to an extent which proves harmful.

It is not strange that in Philadelphia, where so many people of different habits, *penchants*, diatheses have been congregated, and, under circumstances especially conducive of nervous excitement and fatigue, that a good deal of sickness should have appeared of the diarrhoeal, dysenteric, and typhus characters, the full development of which is experienced after the visit. The great majority of the visitors is composed of people of industrious, productive relations, who snatch a few days from their routine of duty for the purpose of seeing what will be deemed ever afterward an important event in their lives. A hasty and more or less anxious preparation for the journey, which, in the case of many, is

more than a thousand miles, the arrival in the crowded city, the forced adaptation to lodgings and food very different from what they have been accustomed to regard as essential to personal comfort, and the hasty attempt to see all that is worth seeing in the tremendous spread of attractions—an attempt disastrous to the endurance of eye and brain even of the most robust—must be followed by great fatigue, at least, and some accompanying functional derangement.

The "department of public health" in connection with the Exposition was an admirable thought, but very few of the visitors are aware of its existence before arriving on the ground. Yet, through its activity, many precautions have been taken for the safety of patrons from malarial influences. The water supply, however, in that part of Philadelphia where the Exposition stands is defective, and certain faults in the drainage it has been very difficult to modify. Our friends, all of whom we would have seen the splendid collection of art and mechanical skill, are advised to exercise a good deal of care while attending it with regard to drinking, eating, and dress. They should drink very little of the water, should occupy rooms well-lighted by sunny windows, and avoid beds which appear to be ill-furnished with clean, fresh linen and covers. They should dress warmly, especially with respect to the

feet, avoid the night and early morning air, and eat moderately at regular hours. Another point of importance is the avoidance,

if possible, of great fatigue; for, when the system is depleted by exhaustion, then disease-breeding influences exert their power.

HOW TO DO HOUSEWORK AND BE BEAUTIFUL STILL.

OUR rural friends who bewail their hard condition as farmers' wives and helps, and our city friends who deplore the "circumstances" which compel them to do duty as kitchen maids while that of parlor companion would fit more becomingly their education and accomplishments, may take courage from the following practical hints administered, with much spice of manner, by Matilda Fletcher: "The most beautiful woman I have ever known was a farmer's wife, who attended to the household duties for a family of four, and also assisted in gardening and the light farm-work; and yet I never saw her hands rough and red; I never saw even a freckle on her nose. Impossible! you say; how did she manage? I never asked her, but she had some envious neighbors who went slouching around with red, scaly hands, sunburnt faces, and their hair matted with dust and oil, who let me into the dreadful secret. They informed me with an ominous shake of the head that she was the proudest minx that ever lived; that she actually wore india rubber gloves when she used the broom and scrubbing-brush, and always when she worked outdoors; that she had a bonnet made of oil-silk, completely

covering the head, face, and neck, leaving only apertures for seeing and breathing, thus securing perfect freedom from sun, wind, and dust. Did you ever hear of such depravity? She also fastened her dish-cloth to a stick so that she need not put her hands in hot water. For the same reason she accomplished her laundry-work with machine and wringer. And then to see her in the afternoon tricked out in a fashionable white dress, with a bright-colored ribbon at her throat, and a rose in her hair, entertaining in the parlor, as though she was the greatest lady in the land, was more than their patience could endure. And her husband? He had such a satisfied expression that it was a perfect aggravation to ordinary people to look at him. He deserved to be happy because he encouraged and helped her to cultivate beauty in herself, her family, and her home; and I don't know but her success principally belonged to him, because he brought all the new inventions that could lighten her labors, and all the delicate and pretty things she needed to adorn her home, and when she was sick he wouldn't let her touch work until she was well and strong."

MILK VS. ALCOHOL IN HEMORRHAGE.

DR. BENJAMIN W. RICHARDSON, the eminent English physician, and author of two or three valuable works, gives an incident from his practice which illustrates the virtue of hygienic applications in what are termed critical cases. To use his own language as furnished by the London *Lancet*:

"I was asked to visit a lady who for many hours had been suffering from hemorrhage after the extraction of a tooth. I found that the cavity of the tooth from which the blood flowed had been several times firmly plugged with cotton saturated in a solution of per-

chloride of iron. By this means the bleeding had for a period been stanch'd, but it as constantly recurred, forcing out the plug. During the time brandy had been frequently administered, in order, as it was assumed, to keep going a heart which flagged speedily when the stimulant was long withheld. I found the patient scared, prostrate, and restless, the action of her heart rapid and feeble, and the bleeding from the cavity free. When I attempted to examine the mouth she vomited, throwing up some blood that she had swallowed, with fluid matter—a part of the last drink she had taken. After

this she became faint, and I then succeeded in filling the cavity with styptic colloid on cotton-wool, plugging firmly from the bottom of the cavity, particle on particle, as a dentist stops a tooth with gold. The hemorrhage once more stopped. I insisted on the withdrawal of all stimulant. I placed the patient recumbent, got her to swallow slowly a good draught of warm milk containing a little lime-water, and allowed her to recover from the faintness without any en-

forced reaction. The result was all that could be desired. The hemorrhage did not return, and when the plug came away, a few days later, there was a firm healing surface beneath. The strength of the patient was rapidly restored.

"From this time onward I have substituted warm milk for alcohol in every case of hemorrhage I have been called on to treat, and I am satisfied that the new treatment is safest and soundest."

THE QUINCE.

BY JULIA COLMAN.

Romance—Origin—Varieties—Culture—Uses—The Value of Variety.

RECIPES.—Quinces, Stewed, with Pears, with Apples; Marmalade Quince Pudding—Sauces; Trifle; Tarts; Jonathan Pie; Baked Quinces; Quince and Citron-Melon; Grape and Citron-Melon; Apple Breakfast Cake.

HERE at last we have *Romance!* Who would suspect it? Consigned by us to the kitchen-garden, given over to the cook, never admitted either by accident or design to the fruit-baskets on our dessert-table or our side-boards, destined irrevocably to pass through the fires of the kitchen before it is ready for the table, it is almost as vulgar in the popular notion as a turnip or a cauliflower. Who, under this plain garb, would expect to find a descendant of one of the first families—nay, a princess of royal lineage?

But, if we go back to classic times, we find that this fruit occupied the place of honor in all respects. It was dedicated to Venus, and made the emblem of happiness and love, while it was appropriately used as the special ornament of the statues of Hymen. The temples of Cyprus and Paphos were decorated with it, and the statue of Hercules, now in the garden of the Tuilleries, holds this fruit in his hand; above all, the wise Solon made a law that it should invariably form the nuptial supper of every wedded pair.

It is supposed not only to have been the golden fruit of the garden of Hesperus carried away by Hercules, but to have been also the "Golden Apple" of many of the Greek

legends—for the quince was a well-known and a favorite fruit, and no other then in use answers so well to the description. Pliny says that the varieties were numerous, and names four sorts. He adds that all these "are kept shut up in the ante-chambers of great men where they receive the visits of their courtiers; they are hung, too, upon the statues that pass the nights with us in our chambers." Besides all this, they stood high in medicinal reputation—"first as an aliment, and next as a counter-poison"—and, as they tasted good, no one doubted their marvelous virtues.

What, then, shall we say of its present fortunes, when a French writer derives its name, *coignassier*, from the circumstance that its disagreeable odor usually causes it to be banished to the corner (*coin*) of the garden? Among us, too, it has lately been accused of causing serious illness to some who have slept in the same room where considerable quantities of it were stored; the alleged reason being the exhalation of carbonic acid. All very philosophical, no doubt; but how has the glory departed from the once glorious fruit?

There are people, however, who still appreciate its really delicious fragrance. The peasantry of southern Europe continue their favor to this fallen princess, and use it for perfuming their stores of linen; while, in Persia, it is yearly forwarded as presents to Bagdad; and so strong is its odor, that if there be but one quince in the caravan, all are said to be conscious of its presence.

It is possible, however, that this is partly due to its really superior qualities; for a recent traveler states that "the quince of Persia ripens on the tree or after gathering, and, losing all its austerity and becoming like a soft ripe pear, it is eaten at dessert as a much-prized delicacy." If this were also true of the quinces of classic times, their reputation is not surprising.

ITS ORIGIN

It is not fully known, though it is supposed to be a native of Greece. It grew very abundantly in the neighborhood of Cydon, in the island now known as Candia, whence it was called by the Greeks *Cydonia*, and whence also its present botanical appellation. The Romans called it *Cotonea*, though it was not so much prized by them as by the Greeks. Perhaps the climate was not so well adapted to produce it in perfection. From here it has spread throughout Europe, though in none of its countries has it reached a perfection which admits of its being eaten without being cooked. The French are experimenting on it very perseveringly, but, thus far, with indifferent success. In England it was common at one time as a hedge-bush, but its culture is so far neglected now that the tree is rarely seen. In this country little special attention seems to have been given it; in many places neglected bushes may be seen. Yet the fruit is in good demand; and, we doubt not, that if some Van Mons should devote his attention to its improvement, we should have a fruit which would much better repay culture, and it might in time even gain a place upon the dessert-table.

VARIETIES.

The varieties of the quince are not numerous, but they are distinctly marked, and can be reproduced from their seeds—a proof of the lack of culture. The pear-quince, which is pear-shaped, is decidedly preferred by the French. The neck or upper part forms one-half or one-third of the length of the whole. The flesh is firm, tough, and dry, but it has a higher flavor than the apple-quince, and, for this reason, it is preferred by the French cooks; indeed, they say that they prefer it in all respects. They

also use it very much as a stock upon which to graft other trees. The pear-quince ripens late in the fall, and is, therefore, very suitable for transportation to a distance.

The English also rather favor this quince for a common use, since they complain of the apple-quince as being too small, and the Portugal as being a very shy bearer. The latter, which is a free grower and forms a handsome tree, they use for stocks. The fruit of the Portugal quince is oblong, pear-form—that is, large in the middle and tapering toward both ends. Its flesh is more juicy and less harsh than the other varieties. It also stews well—turning to a fine purple or dark crimson in cooking. It grows to a large size, and is quite a favorite in California, where it sometimes attains to a weight of two pounds.

In other parts of the United States the apple or orange-quince is the favorite, and the most generally cultivated. It is apple-shaped, with a small or rather short neck. It is very firm when ripe, but cooks tender more readily than the pear-shaped quince, which brings it into general favor. It ripens earlier and does not keep so well; so that, indeed, there is abundant room for the cultivation of both varieties. If to these may be added the Portugal and Rae's seedling, there is good material and a fine field for hybridizing. If we could produce a fruit that, eaten raw, would have a flavor similar to the odor of the best quinces, it would certainly be worth trying for.

These are the principal quinces in cultivation for their fruit. The Angers and the Fontenay quinces are largely cultivated as stocks upon which to graft the pear, and there is also the Chinese quince, bearing a red and highly-perfumed fruit, and the Japan quince (miscalled *Pyrus Japonica*), cultivated for its handsome flowers.

CULTURE.

The Middle States are considered the most favorable to the growth of the quince in this country, but its excellence in California, as well as the more southern location of its native place, would lead to the inquiry whether it has been very faithfully tried in the more southern States.

The soil for the quince should be deep

and rich and kept well cultivated. It is a mistake to suppose that a moist locality is indispensable to success in the cultivation of this fruit. A sprinkling of salt on the surface of the soil is advantageous.

The trees grow but about ten or twelve feet high, and should be set about the same distance apart. They may be trained in either the tree or bush-shape. As they are somewhat subject to the borer, there is an advantage in the bush-shape, since then another shoot can be made to replace any that may be destroyed. They require careful trimming, however, or the fruit will be inferior to that grown on the tree-shape. They are usually propagated by layers or cuttings. If the ground is well-prepared and well-cultivated, they will come into bearing in about three years, and continue in bearing forty years or more. When in full fruit they make quite an ornamental tree, and success in their cultivation would be no small gratification to the amateur.

USES.

It must be acknowledged that this fruit must have no small amount of improvement before it will be considered very hygienic. As it now stands, it requires not only cooking, but no small amount of sweetening. To some extent this may be provided for by cooking it with sweet apples, dates, or other sweet fruits, and its flavor may also be utilized in pudding-sauces and with pears and all kinds of apples. We also find its fragrance too delicious to be slighted, and whenever we have opportunity, we smuggle it into our dishes of fruit, not hesitating to let it show its handsome face as well, especially when we have any fine purple grapes to serve as a foil. We are not in favor of eating every handsome thing we see in the fruit dishes, and if we put in a quince, a tomato, and a large green pear or two, we are sure of having something handsome left, which enables our guests at least to enjoy all that is to be eaten, without leaving anything better than these handsome, fragrant things for "manners." If, however, fruit is plenty, or my dishes small for the party, and especially if I can get yellow apples or pears, or even yellow tomatoes to off-set my purple grapes,

of course I take that which is good to eat as well as to look at; but the main idea I keep in view is, that my fruit-dishes should please the eye, and if possible the smell too, as well as the taste.

As there is much flavor in the skin, it should always be saved; being careful before paring to have the fruit clean, and, in trimming, to reject any wormy or decayed portions, so that the skins that are left may be as really clean as any part. These may be stewed gently half an hour or more, either by themselves or with the cores and seeds; the latter are peculiar for being bedded in abundant mucilaginous matter, which is much used in making quince jelly, baneline for stiffening the hair, and for some other purposes. To these we would add its use for pudding-sauces, and as a cooling, gelatinous drink for the sick. It is very abundant—half a dozen medium-sized quinces affording enough for a quart of pudding-sauce—but, as usually prepared by the housewife, much of it is wasted; the seeds needing to be separated, and the mucilage soaked for some time, in order that it may be fully dissolved. The pudding-sauce, however, would not be sufficiently flavored with these alone. Some of the juice of the fruit should be put with it, and the pear-quince would be the best to use for this on account of its higher flavor.

Marmalade seems to have been first made from this fruit, at least the Portuguese name for the fruit, *Marmelo*, has given name to the confection. In the south of France and on the borders of the Garonne, quinces are much raised for this purpose.

In our own country this fruit is much in demand for making quince-butter, which, as well as apple-butter and peach-butter, have become standard articles in the market. It is usually put up in pails, and quoted at fourteen cents a pound, the peach-butter being twelve and the apple-butter seven at wholesale in the New York market.

This is said to be made with cider, somewhat after the following fashion: The cider, when freshly-drawn from the press, is put into a large cauldron, at the bottom of which straw is placed to prevent the fruit burning fast to the kettle. This is filled up

with quinces, and boiled and stirred, and when the fruit is tender and reduced in consistency, more is added until the right consistency is obtained. Sugar is added, though not in sufficient proportions to preserve it. The preservation is secured by the reduction of the juices—in fact, by a sort of drying as well as by the sugar. No fermentation whatever is allowed in the good article. This is a perfectly allowable method of preserving fruits, or at least it would be if we could get fruits sufficiently sweet not to require any sugar.

The largest use for which quinces are available is to put them with dried apples for winter use. For this purpose they are best canned. They are easily put up, and when wanted for use, they may be cooked with sweet apples, or with sweet and sour mixed, or with sour apples sweetened. There are few other flavors that harmonize so well with apples—few that do not sooner pall upon the taste—though they should not be used constantly. The arrangement of a judicious variety is one of the higher and more delicate duties of the housewife that for every-day use is too commonly neglected. Our most common, or rather our most easily-prepared, dishes are repeated until they are fairly worn out; that which ought to be sweet and palatable and refreshing becomes simply a nuisance. Not that much variety is desirable at the same meal, and not necessarily on the same day; but that in the course of a week or more, according to the season and the materials at hand, the

VARIETY

should go on, and so keep everything sweet and fresh, and the appetite pleased with the change.

This method seems to be in accordance with the demands of nature and of good taste. We know that there are people who can eat the same things, not only meal after meal, but day after day and week after week, but these are usually people of a low grade of intellectual culture—often those whose tastes are blunted with stimulants, or very hard-working people, whose appetites are too keen and themselves too tired to care what they have only so that it will appease

hunger, while they are not infrequently too much worn out to enjoy anything.

Others again of dyspeptic tendencies have been confined to one dish because it was the only healthful dish with which they were acquainted, until they can enjoy no other. But, naturally, it should not be so; and we do not intend to make our rule the habits of dyspeptics in this matter more than in any other.

A moderate variety of wholesome food we believe to be an essential part of the higher culture of man. The preparation of food, in its variety—to which the ancient Greeks and Romans sacrificed much time and vast amounts of wealth—is a high art, which, when properly performed, will greatly conduce to the highest civilization. It is to this end that we propose to secure the best materials and a good variety; so that every one can have such as his locality and soil may permit and his tastes may dictate. No one will be likely to have them all, but if we can bring to the notice of some a few things which they do not already possess, and help them to their enjoyment, we shall have added something to the sum-total of human happiness.

RECIPES.

STEWED QUINCES.—Pare and place the skins over the fire in a porcelain-lined stew-pan, and let them cook half an hour; then separate the clusters of seeds, cover them with eight or ten times their bulk of warm water, and let them steep on the stove, but not cook. Cut the fruit into quarters, or, if large, into half quarters; cover them with water in a porcelain-lined kettle, and stew gently until you can thrust a straw through them; then strain off the liquid from the skins, and as much as will readily flow from the seeds. Dissolve in this sufficient sugar to sweeten the whole, and pour it over the stewed quinces; boil up once and set away to cool. If pear quinces are treated in this way they will not be so likely to harden as when the sugar is cooked with them.

PEARS AND QUINCES.—Prepare the quinces as above, and add to them, soon as they commence cooking, an equal quantity of pears, more or less, according to the flavor of each. The pears should be pared, cored, and cut to harmonize with the quinces. If the pears are sweet, and in large proportion, less sugar will be required. Add the juices of the skins and seeds, as above, and serve cold.

APPLES AND QUINCES.—In stewing these together the quinces will usually require to stew the longer. The proportions may be guided entirely by taste. A small proportion of quince will often flavor several times its quantity of apple, and if the apples are sweet, no sugar at all may be needed. If it be desired that the pieces of apple remain whole, they must be stewed very gently, and removed from the fire as soon as done.

MARMALADE.—This may be made with the quinces alone, or with quince and apple. Equal parts of the latter will be sufficiently highly flavored for ordinary use. Prepare the quinces first, and while the apples are in preparation, stew the quince-skins and steep the seeds according to directions already given. When this juice is ready, put the quinces to stew in it, and when they are half done, add the apples, and water enough to prevent their burning. Cover close and stew gently, and when very well done, remove from the fire, and stir with a wooden spoon, or mash with a pestle, and strain through a colander. The softer portions clinging to the skins may also be rubbed through the colander, and added to it. If the apples are not sufficiently sweet, sugar should be added just before the fruit is removed from the fire, and scalded in. A smaller proportion of quinces will add a very agreeable flavor to an apple marmalade.

QUINCE PUDDING SAUCE.—Stew the skins of quinces, and steep the seeds in the same water. Drain off the water until the muclage appears to be all dissolved. This will require six or eight hours, unless much time is spent in rubbing and working them. Make a little thicker than is required for the sauce; then add the juice of stewed quinces sufficient to flavor to the taste; add sugar also to the taste. Boil up once and serve. This may be canned for future use, and so may all the preceding preparations.

QUINCE TRIFLE.—Take thin slices of Graham bread, or new (not warm) gems; soak them in the pudding sauce, as prepared above, until soft; spread each piece with the marmalade, and then pile them up in a glass dish. Smooth this over with the marmalade, and just before serving, strew it over with strips of blanched almonds, or, better still, frost it with finely-ground desiccated cocoanut, evenly or in fancy figures.

QUINCE TARTS.—Make a crust with "A" oatmeal, wet with one part water to three oatmeal, and bake in patty-pans; fill with marmalade, and sprinkle over or ornament with ground desiccated cocoanut. Another mode is to split open fresh gems, take out a little of the inside if desired, fill them or heap them up with marmalade, and sprinkle over with the desiccated cocoanut.

JONATHAN PIE.—Fill a nappy with tender cut

and cored sub-acid apples, mixing in quince marmalade to the taste, and adding a small proportion of quince-juice. Make a crust by wetting-up fine Graham flour with hot boiled rice, making it as soft as can be conveniently handled, and kneading it as little as possible. Roll out half an inch thick and spread it over the apples in the nappy; bake in a good oven until it appears done, which will generally be when the apples are tender; take out, reverse the crust on a plate, mash up the fruit in the nappy, sweeten to the taste, and spread it over the crust. This may be served warm, or covered up and kept until the next day. In the latter case the crust will be the more tender.

BAKED QUINCES.—Stew them as for quinces alone. When they are tender, place them in a nappy, cover them with the juice, season them to the taste, cover them with a plate, and let them stand in a moderate oven and bake gently two hours.

QUINCE AND CITRON-MELOX.—The citron-melon is mostly esteemed for its capacity to hold foreign flavors. It can then very readily be cooked with anything that has some flavor to spare, and the quince answers that requisition. The citron should be pared and cut into pieces to correspond with the size, and somewhat with the quarters or half quarters of the quince with which it is to be cooked; but it should be cooked first by itself, until it can be pierced with a straw, and finished with very little juice. Then the quince may be cooked, say an equal quantity, and when it is tender, the citron may be put in with it, and the required sugar, and all boiled up together a few minutes, and then put away to cool.

THE carbolic paper, now much used for packing any substance which is to be preserved against atmospheric or other influences, is made in the following manner: Melt two parts stearin by gentle heat, stir in thoroughly two parts carbolic acid, and then add five parts paraffine in a melted form; stir well until it cools, and then apply with a brush to the paper.

THE seeds of the stone pine-tree are considered preferable to almonds, in consequence of their more delicate and aromatic taste. They are chiefly consumed on steam-boats during long voyages, and for desserts at the large hotels.

CANNED FRUITS.—The Western people will soon be able to supply themselves with canned and dried fruits of all kinds, and perhaps, a little later, they will have some to spare for us.

RECORD OF SCIENTIFIC DISCOVERY.

BY FRANCIS GERRY FAIRFIELD.

THE MISSING LINK.—The topic in scientific circles in Germany just now, is a pamphlet of a few dozen pages, by Dr. Anton Doun, issued by Engelmann of Leipsic, which explains at some length Dr. Doun's views as to the origin of the vertebrate animals from an ancestry not unlike the existing annelids. Dr. Doun first directs attention to the correspondences that exist between insect and vertebrate embryos, which, he thinks, have been too lightly regarded, in consequence of the nervous side of the former being designated as neutral, while that of the latter is styled dorsal. In other words, the nervous centres of insects are distributed in a connected series from the throat downward along the belly; while those of the vertebrates occupy a bony canal along the back, the two nervous cords corresponding in function, although antipodal in position, the main motor and sensory cord of the former being analogous in distribution to the sympathetic nerve of the latter. Dr. Doun thinks that the fact that in both the nervous system is developed on the convex side of the embryo and acquires a strong convex flexure anteriorly, and that the body-cavity finally closes up on the side opposite to the nervous system, points to a common origin at a comparatively high level. In his view the question, Which is the neutral side of an animal? is determined by the presence of a mouth on that surface; so that if any of the vertebrates had mouths opening behind between the brain and the spinal cord, the dorsal surface would become neutral, so far as such a vertebrate is concerned. Since, again, the ancestors of the existing vertebrates must have had a nervous ring surrounding the gullet, it appears more natural to Dr. Doun to suppose that the position of the mouth has been shifted in the vertebrates in the course of their development than to suppose that the position of the nervous system has been shifted. He is thus led to look for traces of a former mouth opening on the dorsal surface of the primitive vertebrates, and to seek for reasons for regarding the present mouth-opening as a comparatively modern affair; and he believes that the primitive mouth passed through the nervous centres between the crura cerebelli, or, to speak more accurately, in the fossa rhomboidea (fourth ventricle of the brain), which, as anatomists are aware, is remarkably large at an early stage of foetal development, and subsequently diminishes very rapidly. At an early stage, says Dr. Doun, it is only necessary to conceive a slit to be made in the nervous tube at the bottom of the fourth ventricle, in order to furnish a suitable passage into the alimentary canal. This would make a mouth near the nape of the neck. His first reason for regarding the vertebrate mouth as a comparatively recent development, is that it arises at

a period extraordinarily late. The embryonic body is almost completely formed, all the great systems are established, and the circulation is in active operation, while there is as yet no mouth. Moreover, in the great majority of the vertebrates, the mouth is shifted considerably forward in the course of their development, from the point where it first arises. Its primitive situation in foetal development is well represented by its permanent situation in the ganoids. Dr. Doun holds, in accordance with this view, that the vertebrate mouth is homodynamous with the gill-clefts, it being, like them, limited by a pair of arcs, and its position being just in front of the first pair of gill-clefts. It also arises simultaneously with them in the embryo. The doctor adduces the mouth of the Ray (fish), which strikingly resembles a pair of coalesced gill-clefts, as an illustration of his hypothesis that the existing vertebrate mouth had formerly the form and function of a pair of gill-clefts, and that there must originally have been another mouth, situated behind as respects the anatomy of the existing vertebrates, which was gradually obliterated. As to the origin of the gill-clefts, after reviewing in a very elaborate manner the process by which the external gills and segmental organs of the annelids are supposed to have been transformed into the gills and gill-clefts of the vertebrates, Dr. Doun confesses that the connection of the inner extremities of the segmental organs with the walls of the alimentary canal, is an almost insuperable difficulty. If, however, this can be fairly explained, it is very easy to understand how a shortening and widening of the segmental organs might give rise to gill-cavities. The method by which our Darwinist develops the vertebrate limbs from two pairs of annelid gills is ingenious, but will seem to most comparative anatomists to border on the absurd. The key-note of this theory is to be found in the principle of the transformation of functions, for a lucid statement of which the reader may consult Darwin's "Origin of Species," fifth edition, page 251. The leading objections to this view have been gone over so thoroughly by Mr. Mivart and others, that they need not be enumerated here. One new one, which seems conclusive to the writer, may be worth consideration. In the vertebrates the mouth is only one of a group of organs pertaining to the neutral surface, the accessory senses, sight and smell, being similarly situated. Now, the evidence that they are primitive to that surface appears in the fact that the forward portion of the optic nerve has acquired a sheath, while the posterior has not. Indeed, a careful examination of the encephalic nerves, the fifth pair among the rest, furnishes convincing evidence that their anterior portions are more primitive than their posterior, that they were

once uniquely connected with the primitive ganglia from which the anterior lobes were developed, and hence that the anterior portions of the encephalon are more primitive than the posterior. These facts alone, when patiently investigated in all their bearings, are destructive to Dr. Doun's hypothesis that the primitive vertebrate mouth was situated on the dorsal surface. Besides, the insect mouth, as the writer happens to know, is a very late development during the embryonic stage; while, again, it is due to the fact, that the vertebrate brain starts from four centres of development (represented respectively by the terminations of four nutritive currents in the embryo, that appear in adult life as the two internal carotid and the two vertebral arteries), and that the intervening tissue is subsequently built up by the multiplication of subordinate nutritive centres, that the fourth ventricle is at first very large and gradually diminishes, as pointed out by Dr. Doun.

Velocity of Inflammation in Fire-Damp.—A very full account of the recent experiments of M. Mallard, as respects the velocity of inflammation in fire-damp, appears in *Der Naturforscher* for February. The gas was mixed with atmospheric air in various quantities, or proportions, and the mixtures thus produced were set in motion at different velocities, so as to pass and be ignited by an established stationary zone of combustion. Under this method when the zone remained perfectly stationary, the mixture being in motion at a given velocity, that velocity represented the rate at which combustion would naturally travel in each mixture under experiment. The highest velocity was $\frac{550}{1000}$ of a metre per second, the mixture being 108 volumes of fire-damp to 892 volumes of air. On increasing or diminishing the proportion of the gas, the velocity diminished very rapidly, and ceased altogether with 77 volumes of gas to 923 of air, and with 145 gas to 855 air. An addition of a single volume of gas to the mixture represented by 77 to 923 was, however, sufficient to convert an absolutely indifferent compound into a highly dangerous explosive; while, on the other hand, the withdrawal of a single volume of gas from 145 to 855 mixture had the same effect. It thus appears that, unless the ventilation of coal mines is very thorough, it is inconceivably more dangerous than no ventilation at all would be, so far as respects the liability to explosion.

Movements of Water in Freezing.—Mr. Wilmot H. T. Power writes to *Nature*, London, relative to certain observed movements in water during the freezing, or rather certain observed data tending to demonstrate their existence. Having, last winter, placed a basin of water in an out-house where dust fell upon its surface, he noticed that, while a thin lamina of ice had formed on the top, the dust had fallen to the bottom and was there arranged in patterns exactly similar to those commonly observed on window-panes, but

familiar on a larger scale to the *habitués* of green-houses. This phenomenon seems to show that, in freezing, water passes through a series of fantastic movements. Most readers have observed similar phenomena of autumn mornings in small puddles of water by the road-side, in which very frequently the sheet of ice appears to have formed on the surface and to have absorbed the whole contents of the puddle beneath, with the exception of a few fantastically wrought descending columns. An explanation of these movements may be found in the process of crystallization, and in the peculiar movements associated with it, which may be observed on a small scale under the microscope. No more startling spectacle can be conceived of by such as have associated no optical phenomena with crystallization, than that which is offered by so simple a thing as a drop of tincture of iodine, spread out on a glass slide in such a manner as to transmit light, and observed for the whole period during which the process of drying is in progress. A polariscope and a small spectro-scope add materially to the interest of such investigations. It would be feasible, indeed, as an experiment, to freeze a drop of water artificially on a glass slide, under a considerable power, and thus describe Mr. Power's observed movements in detail.

Star-Ghosts.—Those who are familiar with the use of optical instruments will not be astonished to learn that one of the indirect results of the recent transit of Venus has been the revival of the old question whether that planet really has a moon, or whether the something occasionally observed near that planet is simply a star-ghost of the type so familiar to telescopic adepts—that is to say, one of those reflected images formed, under certain circumstances, in the eye-piece of the telescope. At the last transit nothing resembling a moon was observed, but the planet's path was so far from central on that occasion that such a body might readily have passed outside of the solar disk. The evidence of the observations, therefore, as respects this point, is too negative to be regarded as a conclusive settlement of the question, which is re-opened by the celebrated Dr. Schorr in a little work, *Der Venusmond*, recently issued in Brunswick, Germany. Dr. Schorr decidedly dissents from Father Hell's explanation of the supposed moon, first observed by Cassini in 1672, and again seen by the same eminent astronomer in 1686. The Abbot Hell's paper on star-ghosts was published in 1766. The observatory at Vienna had two English telescopes at that time, a 2-foot Gregorian and a 4-foot Newtonian. Late in the year 1757, examining Venus with the Gregorian at a power of 70 or 80, he perceived a feebly-defined star near it, but as it was not visible in the Newtonian, he concluded it to be a reflection from the interior of the tube. In the spring of 1758, the illusion returned, Venus being at her greatest elongation. Father Hell blackened the tube

and did not see it again for several days. An observation made on its next appearance, namely, that on moving his eye gently toward the eye-piece it gradually expanded into the perfect image of the planet in its primary aspect, led to the experiments from which came the dissertation. If he advanced his eye a little more toward the eye-piece the illusion vanished, and if he withdrew it slowly, the same result quickly followed. When the planet was in the middle of the field the ghost was near the edge, and followed the eye when the latter was moved up or down, or in a circular manner, usually vanishing very near the planet. A full series of experiments satisfied the prelate that this image was formed by rays reflected from the convexity of the corner of the eye against the concave lens of the eye-glass. The Abbot subsequently found that he could always produce these ghosts for himself or others, by using a power of from 50 to 80 (less made the image so minute as to resemble a star), placing the eye at a given distance from the eye-glass, and moving his head cautiously backward and forward.

What Schorr has done has been to collate all the observations as to the supposed Venus-moon, and test the question whether they are explainable on Hell's hypothesis, which, he concludes, is not the case. He further concludes, however, that the supposed moon of Venus must be an illusion of some sort, although, perhaps, not an instrumental deception, and thus turns the attention of experimentalists to possible new problems, the resolution of which may result in exposing other sources of uncertainty in telescopic observations and in enabling astronomers to avoid them.

An Overlooked Consequence of Tyndall's Experiments.—While the recent brilliant experiments as to spontaneous generation performed by Professor Tyndall have attracted the attention due to the celebrity of the lecturer, one consequence of the most brilliant of them has escaped the notice of scientific men. If perfectly pure air, all the organic matter floating in it having been precipitated, will not transmit light, what becomes of his long-defended hypothesis that light is only another name for the vibrations of the luminiferous ether supposed to pervade the universe? For it can scarcely be supposed that a medium such as the Professor makes the basis of his theory, can be excluded from the air under experiment by any process employed to clear it of floating organisms; and while the bearing of his recent experiments is very decided against Dr. Bastian's theory of the formation of bacilli—little, rod-like organisms—in infusions, without the intervention of spores, Professor Tyndall owes it to the scientific public to explain how it happens under his theory that perfectly pure air will not transmit luminous vibrations. More important, as against Bastian, are Professor Ferdinand Cohn's recent observations, made in studying the ferment organisms in the rennet employed by manufacturers of

Schweitzer Käse, in Switzerland, that the resting-spores of bacilli resist boiling heat for a long time, and may, in a suitable nutritive liquid, develop into rods, after having been subjected to it.

New View of Volcanic Action.—The recent observations of an Italian scientist, that the number of earth-tremors per year in Southern Europe ranges as high as 5,500, and that the occurrence of such tremors may always be foretold by the barometer, seem likely to lead to important consequences as concerns the existing theory of volcanic action, and particularly as respects the intermittent activity of volcanoes. It has been demonstrated long since, in so far as anything not observationally verifiable can be, that the degree of internal heat, augmenting foot by foot according to the calculated rate, that must obtain at the earth's centre, would, under the existing doctrines of geology, be sufficient to convert all known solids in bodies so explosive that a crust one thousand miles in thickness would present little more obstacle to their violent expansion than a sheet of paper; and yet volcanoes have been dwelt upon as in some vague manner evidencing a molten state of the earth's interior. The possibility of accounting for volcanic action on the principle of atmospheric pressure had not, previous to the important discovery of a definite relation between earth-tremors (comparatively imperceptible earthquake waves) and the barometer, occurred to scientific men. The leading points of such a view, as it seems likely to supersede the existing one in the immediate future, may be briefly mapped out. By making a topographical outline of the surface of any one of the existing continents transverse to its mountain ranges, the reader will readily see that the pressure of the atmosphere is exercised at an angle from the lowest point in the slope to the top of the range, in such a manner as to press the two ribs of the slope, not uniformly toward the earth's centre, but inward toward each other; while, as one ascends toward the top, the density of the atmosphere and its pressure rapidly diminish. For example, the angle of pressure as respects the Andes range is a constantly shifting one from the Atlantic coast of Brazil on the one hand, and from the Pacific coast on the other. This angle may be ascertained at any point by drawing a line (or supposing one to be drawn) perpendicular to the plane of pressure at that point. The actual force with which the sloping sides of the Andes range are thus pressed downward and inward toward each other for hundreds of miles, while, owing to diminished density of the air, the pressure at the top is comparatively small, may be readily calculated. A heavy mass of snow on the sloping sides of the roof of a New England farm-house in winter, furnishes, on a small scale, no inapt illustration of the nature of the problem under consideration; and the yearly sag of such a roof, if the rafters happen to be weak, with its inward inclination on each side, tells exactly at what point the pressure is strong-

est. Now, as all these lines of atmospheric pressure, drawn perpendicular to the planes of the two mountain sides, meet beneath the mountain itself, the reader will be able to see very readily that, whether volcanic or not, every mountain is the seat of an almost inconceivable heat-generating force. This force, however, is not incalculable, but may be readily ascertained with mathematical exactness. An idea of its vastness may be obtained by simply considering that the atmospheric pressure of the whole continent of South America is practically concentrated along the line of the Andes range. These considerations explain why it is that earthquakes usually travel toward, not from, mountain ranges.

Photometric Experiments on the Light of the Planets.—At the June 9th meeting of the Royal Astronomical Society of London, Mr. Plumber read a valuable paper, detailing some photometric experiments of his own upon the light of Venus and Jupiter. By comparing the shadow of a wire cast by the planet with the shadow of a similar wire cast by a candle at an ascertained distance, and then comparing the light of the candle with that of the full moon, Mr. Plumber concludes that the light of Venus at its greatest brilliancy is equal to about $\frac{1}{80}$ of the brightness of the moon at its full, and that the light of Jupiter at mean opposition is equal to $\frac{1}{438}$ of full moonlight.

AGRICULTURAL HINTS.

[The mind is the man. Farming, in the highest sense, is not simply doing the hard work necessary. This can be done by muscle when directed by brains. The true farmer is he who can plan, direct, and control skillfully.]

To Make Good Soap.—Take five pounds of soda-ash and dissolve it in three gallons of water by boiling, two and a half pounds of white lime, slack it with boiling water; when the soda-ash comes to a boil, pour it over the lime, stir it well, and let it settle, and pour off the clear water. Take ten pounds of grease, add the water to it, and let it boil. Pour more boiling water over the lime, take the clear water, add it to the grease in your boiling until you have ten gallons. Boil four hours. Put it into tubs until cold, then cut into bars according to convenience. To make soft-soap, double the quantity of water. A person who has experimented in soaps says, that in her opinion, from actual trial, the addition of three-quarters of a pound of borax to one pound of soap, melted without boiling, makes a saving of one-half in the cost of soap and of three-fourths the labor of washing. It also improves the whiteness of the fabric, and takes away or prevents the usual stiff and rough feeling which the use of common soap imparts to the hands.

Dogs or Poultry.—How frequently we see from one to three worthless dogs about a poor man's door, and it takes more to feed them than twenty hens. For the benefit of your readers I will give my experience with poultry in small coops for three months—March, April, and May. No. 1, one cock and five Dominique Leghorn pullets laid two hundred and fifty eggs—average, fifty to each hen. No. 2, one cock and two black Hamburg pullets laid one hundred and thirty-five eggs—average, sixty-seven and one-half. No. 3, one cock and four golden S. Hamburg pullets laid two hundred and twenty-nine eggs—average,

fifty-seven and one-quarter. No. 4, one cock and five silver S. Hamburg hens, four years old, laid two hundred and fifty-five eggs—average, fifty-one. My fowls, for the past five months, have been kept in coops made of laths thirteen feet long, four feet wide, and two feet high. They commenced to lay about February 1st. My fowls are in good health, free from vermin, and the eggs hatch well.—*Poultry World.*

Trees from the Pit or Seed.—If one has plum or peach stones, or dry apple or pear seeds, he may crush the stones and take out the pits free of bruise; then, by burying the apple and pear seeds in a bedding of fine pulverized charcoal and sand, half and half, being careful to lay them so that one seed does not touch another, make the layers with half-inch deep of the sand and charcoal intermixed; then wet thoroughly with warm water, and keep in a warm room, the whole always warm and damp. In from ten to twenty days the seed will be found swelled, and many of them will show the germ of growth. They should then be taken and laid carefully in tiers of one inch below the layer of sand and charcoal mixture; then the seeds be set germ end upward, one inch apart, and covered with one inch deep of the sand and charcoal mixture, and kept in shallow boxes, shelves, or pans, constantly just moist and warm, not wet, until they have grown to two or three leaves, when they should be potted into small two-inch pots, in sand and soil, and given gradually light and air. Almost any seed, even the raspberry, strawberry, etc., can in this way be grown and saved. It, however, requires too much of care and thought to make it profitable as a rule; yet

the lamented Dr. Brinkle, of Philadelphia, grew seeds of raspberries and also propagated from feeble first shoots in his office.—*Prairie Farmer.*

Take Care of the Shade Trees.

—It is a great mistake to cut down trees in large and crowded cities. Their value, aside from shade and ornament, is incalculable. It is estimated that a good-sized elm, plane, or lime tree has 7,000,000 leaves, covering an area of 200,000 square feet. This large surface absorbs deleterious gases and exhalations of oxygen. Streets are kept cool in summer and warm in winter by the influence of trees in regulating temperature; and their roots, by absorption, purify the soil below as their leaves do the atmosphere above. Hence the injunction, "Woodman, spare that tree." is not merely a sentimental reflection, but a sanitary requirement.

Crows.—A crow was killed recently in the orchard of Mr. Barbric, of Plymouth, Me., and, on opening his crop, more than twenty nests of caterpillar eggs were found, showing that this much-abused bird had dined on about 4,000 or 5,000 caterpillar eggs. The crow is not only a scavenger, but very useful also in destroying insects and worms that prey upon crops. The damage it sometimes does to young corn is more than counterbalanced by the service it renders on the farm.—*Prairie Farmer.*

The Use of Bad Well-Water.—

The State Geologist of New Jersey, in his recent report, calls attention to the habit still in use in some of the older cities of New Jersey of people drawing their supplies of water from old wells. In an analysis of the water coming from some nine wells in Princeton, five of them were found to contain free ammonia, albuminous matter, and chlorides in excess. In tracing the effects of these waters it was found, in almost all cases, that diarrhœa and typhoid fevers accompanied their use. It is almost impossible to be sure of the good quality of any well which is surrounded by houses where drains and sinks empty into the surrounding soil. It would be well, if not only the proprietors of large country hotels or summer resorts would look more closely to their sources of water, but should eschew well-water entirely. For the health of their guests it is better, in all cases, where running water does not exist, to seek their source of water from cisterns which are fed from the rain-fall on the roof. Wherever such rain-water is used, it may be safely stated that there is an entire exemption from the diseases which always attend the use of water contaminated with putrefying organic matter.

Plea for Cats.—A correspondent of the *Tribune* thus discourses on the virtues of cats:

"Those persons who call for the annihilation of all cats because they are destructive of birds, might on the same ground cry for the general massacre of birds as being destructive to fruit. They want the birds preserved to save their growing fruit from insects. I want cats preserved to save our stored fruit, grain, and vegetables; yes, our very clothes and dwellings, from the depredation of rats and mice. Some years since my out-buildings were overrun with rats. Corn was stripped from the cob, potatoes and turnips were chewed into pomace, when from some quarter a yellow 'Thomas' appeared upon the scene, and soon the buildings were cleared of these rodents. That cat would sit and watch a hole for hours until he had caught the inmate. He kept the house cleared until some rascals killed him. Three years ago my house was infested with mice. They left their cards in bureau drawers, and even began to eat our clothes. I obtained a half-grown kitten. From the day she entered the house the mice made themselves scarce. I think the mere smell of a cat is obnoxious to rats and mice. Still, I have seen her have many a mouse and bring many a rat from the cellar. Both of these cats were inveterate snoops, and did not love to be petted. I believe half the cats are spoiled by too much petting and feeding. Certainly a good mouser will sometimes kill a bird; but one loafer with a gun will kill and frighten away more birds than forty cats. Hence cry 'Kill the loafer.' Still I believe it is sometimes necessary to kill birds. I have had a flock of robins and cat-birds keep a two-acre patch of raspberries picked clean. Likewise I believe in destroying cats. I drown all the kittens but one, and this I give away as soon as weaned. I am opposed to the wholesale destruction of any of our useful birds or animals, but believe in keeping them within bounds; keep them for servants, not permit them to become masters."

Has Mrs. Swisshelm looked at this side of the cat question?

Providence in Farming.—My father in his best days owned a tract of about three hundred acres—an excellent New England homestead, only it was too large. Providence had it sold off in small parcels to pay debts which could not be paid by the regular farm-returns. About fifty acres of the three hundred were meadow—we called it "mowing." This was too large a proportion. It yielded, on an average, only about a ton to the acre, and would winter only fifteen to twenty head of neat cattle, twenty-five to thirty sheep, and four or

five horses and colts; even this stock falling off by degrees as the capacity of the soil diminished. Providence understood this case very well, and kept pushing in ferns, lycopodiums, sumac, briars of every variety, and trees along the fences, so as to shade and protect the exhausted acreage. The moment the exhaustion became so great as to allow the mower scarcely enough to wipe his scythe with, you would see one or another of the agents mentioned slyly creeping in and bravely, but quietly, at its work. The scythe had to yield to Providence. My father thought little, if at all, of sheltering great stretches of open country, but Providence did, you see; and now (it is only a few

years) much of the pasture as well as of the mowing has become woodland. It is covered with pines at this point, with birches at that, with maples on this slope, and with lean-looking chestnuts along yonder ridge. Just now I suppose the same farm would not keep a third of the stock it used to feed; but Providence is giving it the very best chance for recuperation; and some day, perhaps, the now sleeping acres will show how much they have gained from such indulgence. I honor my father's memory profoundly, as a son should; but I can see there were points which he did not at all comprehend. Who, in his day, did comprehend them?—*Tribune.*



MRS. C. FOWLER WELLS, *Proprietor.*

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MEDIOCRITY AND ITS SUCCESSES.

A READER of the PHRENOLOGICAL comments on certain views advanced in the article on "Mental Heredity" in the September number, and appears to think that we make too much of the average man as concerns his accomplishments in the arena of life's labors. He is of opinion that "men who succeed in their undertakings in a way that commands the respect of society do so because they possess special qualities, or certain important faculties in larger development than ordinary men." He probably knows that Sir William Hamilton has said that the world-famed thinker, Des Cartes, and the equally renowned scientist,

Newton, disclaimed the possession of any extraordinary mental gifts—the former declaring that he owed his results to earnest industry, in which the only marked difference from the labor of other men consisted in the methods and the objects; the latter insisted that his successes were obtained only by persevering application in the line of study he had chosen to pursue.

In the examples of these two men we find encouragement for the man of moderate capacity, and admonition that he entertain not soaring aspirations, and that he be not despondent because the genius of Plato or Paul, of Kepler or Chatham has not been vouchsafed him. But he can lean upon the fact that the world's work is done—as it has ever been done—by men of little intellect, and not by the men of great capacities. It is intellectual activity and the persevering use of other powers we possess in lines direct and with objects kept clearly in view, that prove effectual. People wonder at the large results achieved by some man who has passed unremarked in the mass of the community year after year—no one perceiving in him qualities of superiority, because his natural endowments were really no better than those of his associates; but steady effort adds its minims of information, of progress in whatever may be the work un-

dertaken, until the day comes and the public is awakened to give him praise and honor for the accomplishment of some great benefit in science or mechanical industry. Who of the dancers at Bath recognized in their humble and accommodating oboe-player one likely to become a renowned astronomer? And yet, while supporting himself by his moderate knowledge of music, Herschel discovered the Georgium Sidus and found himself famous. There was a man employed as a translator for several years in the New York Custom House—he is probably there still—who, prior to his appointment, was but a cartman. Availing himself of leisure for the study of languages, in the course of a few years he became sufficiently conversant with three or four to warrant his taking a position under the Government, whose pecuniary rewards and social amenities are much above his old vocation. Who among his fellow-cartmen imagined that his studious habits would be followed by such an elevation?

One needs for shining success no shining talents of organization. Average intellectual abilities, ordinary physical stamina, a purpose in life, decision of character, industry, and persevering energy will reach the mark. But the success will be the more certain and ameliorating if the man's moral sentiment preside in his work, impressing it with the stamp of duty, and establishing the belief in his soul that he should strive to do all that he can for society, for his family, and for himself.

Now some reader may offer a comment like this: "It appears to me that in what you have just said you imply the existence of the faculties of Self-esteem and Firmness as cardinal elements in the character of successful men whose intellectual attributes are but ordinary, for that self-reliance and persevering energy of which you speak are de-

rived from the strength and activity of Self-esteem and Firmness."

The possession of these two organs in a good state of development is essential, we will grant, to him who would perform the part of a leader, or enter a new and untrodden path of investigation wherein are many obstacles and difficulties; but the great majority of men are not largely endowed with self-reliance. You will perceive through a little examination that the useful men and women in a community, particularly the steady, thorough-going teachers, mechanics, shop-keepers, lawyers, physicians, etc., are not remarkable for Self-esteem, but rather for characteristics of organization, which are common enough, like breadth of brain, fullness of head in the lateral regions, and for that quality which conduces to subservience rather than to dominance—a desire of approval. A large measure of Self-esteem in the character—unless there be high moral qualities and a strong intellect to confer mental balance—inclines a man to be domineering and arrogant, and awakens feelings of dislike and perhaps of disgust in those who would otherwise be friendly. Such a man may accomplish important results, but his overbearing demeanor will greatly reduce the measure of credit and respect which his accomplishments in themselves would procure for him.

REVIVAL OF BUSINESS.—It would seem as if a change for the better had begun in the business world, and that we may confidently expect an improving state of affairs generally. Merchants in New York and Boston are more cheerful than they have been for a year or two past. Mill-wheels in different parts of New England, which had been at rest so long that the rust was thick upon them, begin to show a new activity. Certainly New York exhibits an activity

which is encouraging to all who have any part in the movements of trade.

ANOTHER TRIUMPH OF SCIENCE.

ON Sunday, the 24th of September, was made the final stroke in the consummation of a great national undertaking. We refer to the explosion of the mine at Hallett's Reef in the East river. Seven years of patient toil, amid difficulties which required the best engineering skill to overcome, were in a great measure dependent upon that final effort, human ingenuity, and, at this writing, the explosion is pronounced entirely successful, and "Hell Gate," in the common parlance of New York seamen, no longer bristles with its rocky terrors and obstructions to the navigator. The immensely-concentrated power of dynamite, set at liberty by the electric current, rent asunder in an instant tens of thousands of tons of rock, but science had so nicely adjusted the Titanic material that its energy was exerted almost entirely upon the reef which was to be destroyed, and, save a slight tremor, the explosion had no effect at the distance of a few hundred yards.

Next comes the work of clearing out the *débris* from the new bottom which the miners have excavated, and then the East river channel will be available for the first time in American history to the world's shipping.

The gentleman to whom this triumph of engineering is largely due, Gen. John Newton, has been the superintendent of the work from the first. He is a Virginian by birth, and a graduate of West Point. He served with credit in the army South and West during the late war and subsequently. His engineering skill had been tested in the construction of military works previous to his appointment to his present responsible position.

PHRENOLOGY IN POLITICS.

WE notice that Phrenology is playing a part not altogether unimportant in the doings of the politicians this fall. The views which have appeared in the PHRENOLOGICAL relating to the mental characteristics of the different candidates for the Presidency have been scrutinized and criticised and quoted by leading newspapers.

According to their partisan leaning has been the treatment accorded our opinions; and, by the severity of the language which is sometimes applied to us in an exchange now and then, we are inclined to believe that what we say concerning Messrs. Hayes, Tilden, Cooper, and Smith has an important bearing upon the issue of the present struggle.

A while since the *Chicago Tribune* published the following as a "phrenological prediction," deriving it from page 86 of the March number of the PHRENOLOGICAL JOURNAL for 1867:

"This gentleman is comparatively young in years and younger in spirit. Though he has already accomplished much, he has by no means reached the climax of his fame. He is a rising young statesman, and if spared, will, in the course of a few years, be found in the front ranks of the best minds of the nation. We base our prediction on the following points: first, he has a capital constitution—both inherited and acquired—with temperate habits; secondly, a large and well-formed brain, with a cultivated mind; with strong integrity, honor, generosity, hopefulness, sociability, and ambition, and all well-guided by practical good sense. At present he may seem to lack fire and enthusiasm, but age and experience will give him point and emphasis. Mark us! this gentleman will not disappoint the best expectations of the most hopeful."

We do not give the whole of the quotation, and if the reader will take the trouble to look back in the file he will find that the

person thus spoken of is Mr. Rutherford B. Hayes, at that time a member of Congress of about three years' standing. He made one of a party of distinguished gentlemen—the late editor of this JOURNAL, Samuel R. Wells, being among them—who were invited to celebrate the opening of the Union Pacific Railway to the hundredth parallel of latitude—a very important occasion—and it was that which led us to publish a long sketch embracing Mr. Hayes and nine others.

ANCIENT COINS.—The article in the present issue from the pen of the venerable Dr. Morris, editor of the *Numismatic Pilot*, is the first of a series which may extend through several issues. They are prepared in a pleasant, flowing style, which will interest doubtless all classes of our readers.

Dr. Morris is at the head of a movement for introducing numismatics into the literary institutions of this country as an adjunct to history, and is sustained by many of our most learned teachers in it.

THE SERVIAN STRUGGLE.

AFFAIRS in Europe are in the same muddled state that they were months ago; and, with its continuance, the contest between Turkey and Servia is developing fresh complications in diplomacy. The atrocities committed by the Turks in Bulgaria were of that extreme character which usually marks a religious conflict, but their wholesale extent, one would think, should arouse the Christian nations to emphatic action with regard to instituting such a change in the relations of the Mohammedan government to its Christian subjects and neighbors as shall prevent effectually a recurrence of such barbarities upon soil commonly regarded as having some claim

to civilization. There being no warrant in the Koran for the horrid deeds which vengeful soldiers of the Sultan committed on the weak and defenceless, they can not plead religion as an excuse—even if they could, common humanity would condemn such conduct.

As Turkish Servia has a population of between two and three millions, and Bulgaria as much more, and as these States are allied in language, and, to a large extent, in religion, it can scarcely be expected that they will give up the contest until some positive assurance shall have been given by the Turk that his treatment thereafter will be more in accordance with justice and humanity.

National jealousies may contribute once more to the safety and triumph of Turkey, but just now the sympathy of the more powerful States of Europe appears to be with the Servians, and is likely to contribute to their independence. At all events we hope for their success, and a sharp chastisement of Turkish intolerance and savagery.

DR. GEORGE B. WINSHIP, the "strong man" of Boston, died on the 11th of September last, at the age of only forty-two years. He, as is pretty generally known, advocated a system of physical development, which consisted in the lifting of heavy weights, and, as a representative of the efficiency of his teaching, became able at one time to raise 3,000 pounds.

But the unnaturalness of his system seems to have been shown by his early death. His muscular training was not harmonious in its results, as it gave him enormous shoulders and arms, while the lower part of his body was somewhat diminutive. We have not learned the exact character of the cause of death, but are inclined to impute it to that derangement of the heart which is usu-

ally an accompaniment of over-training. It is a notorious fact that athletes, champion oarsmen, prize-fighters, acrobats, and all who seek reputation for great muscular strength, activity, and endurance, as a class are short-lived. The man of health and longevity is not an extremist, but exercises moderation in most, if not all things, relating to his daily life.

OTHER FEATURES.

A LACK of space compelled the excision of the following paragraph, which closed our general article on the Exposition :

A sweeping glance at noteworthy features, which give attraction to the minor buildings, must suffice. The Government collection demands foremost mention. In it is a vast number of objects interesting to the historian, the naturalist, the mechanic, the economist, the sailor, and the soldier. The ethnological and archæological relics sent by the Smithsonian Institute are wonderful in themselves, and the representations of the different animals, birds, fish, and insects, found in our country, constitute an extensive field for those who are given to scientific researches. So, too, the botanical series would occupy much of one's time if he could give it an appreciative examination. Thousands of models from the Patent Office intimate to the passing observer how much of thought, toil, and time our people have devoted to new or improving devices in mechanism.

Of the Women's Pavilion, mention has been made in a former article, and some particulars given of the specimens of wood carving, embroidery, painting, and sculpture which enrich the platforms and walls. Seventy-four models of inventions by American women indicate some recent phases of development in Constructiveness. The Vision of St. Christopher, and the statue of Eve, merit the attention they receive, for they are choice productions. So, too, passing allusion should be made to the "Reliance Cooking Stove," of Mrs. Evard, and to "Dreaming Iolanthe," a medallion bust modeled in butter by Mrs.

Brooks. In a former number of the JOURNAL we published a sketch of Mrs. Brooks, with an engraving of her sculptured butter.

The French display of Public Works in a special building constructed of iron and colored bricks, is very creditable to the friendly power which contributed it. How the French engineers build bridges, light-houses, aqueducts, canals, railways, and the instruments they used are finely illustrated. The Japanese bazaar, with its little garden, is a curiosity which repays close inspection. In the garden is a sixty years old cedar tree growing in a flower-pot, a lotus, and certain devices of arrangement which can not fail to excite surprise.

PETROLEUM UNDERGROUND TRANSPORTATION.—A new phase in the marketing of the oil-product of Pennsylvania, which has occasioned much excitement and opposition among the railway companies, is the proposed laying of an iron pipe from the oil-regions to the seaboard, with the view to forcing the mineral extract through it and supplying shipping with cargoes direct.

A company exists already authorized by charter to carry the plan into effect, and it is stated that the scene of the first pipe-laying is Brady's Bend, Butler County. The oil operators and farmers are generally in favor of the undertaking, but, as a matter of course, the railway companies are positively hostile, and will do all in their power to hinder and embarrass the practical working of the project. The real ground of opposition, according to the *Bulletin*, "to the project, is not that the pipe will take 6,000 barrels of oil a day from the railroad freights, but the knowledge possessed by every manager of the different trunk lines of railroad that the true method of transporting this great staple is through pipes, and the fear that the entire product of the oil-regions will eventually be carried in this way."



[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we cannot undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

INQUIRER.—Virginia D. R. Covington resides at Hernando, Mississippi.

HEADACHE AND AMUSEMENT.—G. A. —It may be that your distress is the result of an overworked organization. After a hard day's toil to take part in evening amusements with a hearty earnestness, tells too much on the flagging forces of one's nature. You may have a very excitable nervous system, so that the blood rushes too vigorously into the parts of the brain where reside the organs which are excited by amusements or the pleasures of the social circle, and so pain is experienced.

CATARRH.—J. L. L.—This affection is a derangement of the mucous vessels, the result of which is a filling up of the membrane with more or less effete matter, which should be allowed to escape from the system. To prescribe for your case would require a personal examination. In the February number of *The Science of Health* for 1875, you will find an article on the subject, which may be of value to you. The ulcer you speak of, should be examined by a physician or surgeon.

VENTRILOQUISM.—E. T. W.—While some persons are endowed with such an arrangement of the organs of articulation, that they are better able to exhibit this art than others, nearly everybody can acquire some skill in it by practice. There are small books which treat of it.

GRAY HAIR.—S. M. B.—As we have mentioned before, the early turning gray of the hair is due either to constitutional weakness or to some hereditary influence. We know of nothing which will entirely prevent it, in the latter case especially. The toning up and strengthening of the health may do some good.

SKIN DISEASE.—M. J. W., England.—Can you do anything for my sister? Her skin is hot and full of pimples, especially over the face and back, and is, of course, very uncomfortable?

Ans. The trouble is due to an abnormal condition of the blood and circulatory system. Have you tried the effect of a thoroughly hygienic diet, the avoidance of food which is stimulating, like fat meat, butter, sugar, coffee, also the eschewing severely of all spices and spiced preparations? She should eat fruit, because it is cooling and refreshing; she should be out of doors a good deal in the course of the day, so that the venation and circulation of the blood shall be maintained healthfully, and the excretory organs be stimulated to perform their functions thoroughly.

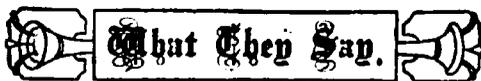
CONTRIBUTOR.—Your "Contentual Request" came just too late for a place in this number, and so too late to be a seasonable insertion. We would counsel our literary friends who send us poems and prose having reference to days and seasons, to be considerate with regard to their early arrival in our hands. It often happens that we receive a neat little poem on May, after the completion of our May number; or an apostrophe to Summer when we are at work upon the October edition. Did we publish a daily or weekly, we could use many good things which we are compelled to decline because of their unseasonableness.

NIGHT SWEATS.—P.—These exceedingly unpleasant and debilitating experiences are indicative of a very low condition of the system in general. With their continuance, there is a decline in strength necessarily. He or she who suffers from night sweats should avoid labor, physical or mental, particularly of the sort which compels much in-door life. Over-fatigue should be carefully avoided. An occasional sponge bath in the course of the day, with tepid water, followed by a vigorous hand rubbing, may, unless the patient is too far gone, promote recovery. Drugs are totally inoperative in such cases; rather hasten the sad ultimate.

AQUARIUM CEMENT.—Will you give a subscriber some directions about the making of a cement which will prevent leakage from my aquarium?

We have lately met with the following recipe, which will probably meet your want:

Mix equal parts of flowers of sulphur, pulverized sal ammoniac and iron filings with good linseed oil varnish, and then add enough pure white lead to form a firm, easily working paste.



THE BENEFIT PHRENOLOGY HAS BEEN TO ME.—The following "confession" of a correspondent is very comprehensive in its catalogue of good experienced. He says: "It taught me to love the study of human nature, or the science of mind, better than before. It showed me that the manifestations of mind could be reduced to a true science. It taught me to read character in the faces of men, and has thereby saved me many times from becoming the victim of deceit and knavery. It taught me to know my own faults, and how to correct them, better than I ever could have known without it. It taught me, in contradiction to my step-mother, that it *was possible* for me to do some good in the world. It has encouraged me to try to do good; has furnished me with means of doing it; helped me in the choice of a wife, to do business, and to behave properly in society. It has developed a higher sense of right, truth, and justice; has *proved* to me that a change of character is accompanied by some change in the shape of the head; has filled me with higher and better aspirations; has shown me that there are chances and possibilities of indefinite improvement to the human faculties. It has been the source of greater happiness to me than anything else except religion."

EDITOR PHRENOLOGICAL JOURNAL.—Professor Sizer's article in the September number of *THE PHRENOLOGICAL AND SCIENCE OF HEALTH*, interested me exceedingly. I wish to refer briefly to that part of his paper which relates to college life and the laws of health.

The statement with reference to the habits prevalent among college students to-day, accords with my recollection of what they were several years ago. I shudder to think of those days. I should be recreant to my trust as a parent if I should subject my sons to such influences.

But I hope the Professor is mistaken. Indeed, I have been recently assured on the highest authority, that as to one college, at least, there has

been a great improvement; that "the waste of life and power under the old system, when neglect of health was esteemed almost a virtue, would no longer be permitted to pass without censure." Still, even in this case, it is admitted that there is great need of further improvement.

Possibly this may be an exceptional instance of improvement. Other institutions, it may be, have scarcely advanced beyond the barbaric "old system." If so, it seems to me that to assure a speedy reform, it would only be necessary to uncover them to the gaze of the world. Bring them to the light; then the institution which should soonest put itself in a line with the sentiment of the age, in its hygienic culture, administration, and discipline, other things being equal, would receive the highest token of popular favor.

The laws of health are coming to be considered the laws of God. If this is correct, then a knowledge and observance of the Decalogue is no more binding than the obligation to know and observe the laws of health in eating, drinking, sleeping, and in *all* our personal habits.

Suppose some competent person should be commissioned by you to make the tour of our colleges, and should make a careful inspection of each from a hygienic standpoint, furnishing the public, through your *JOURNAL*, with the result.

W. MOL.

CASUAL OPINIONS.—A stranger looking through our cabinet lately took occasion to state to us that when a young man he had his head examined, and the remarks written out by Mr. Fowler. That was in 1836, forty years ago. His life had been varied, active, and in large business enterprises, yet the record of that examination, as compared with the developments of his talents and characteristics, exhibited a wonderfully prophetic accuracy; and though a firm believer in the science, he could hardly realize the possibility of a human being, in one short interview, reading so definitely the life and record of another who has yet his book of practical experiences to make up.

A friend of the late *Science of Health* called upon us to renew his subscription to our combined magazine, and expressed his regret that it had not been sustained as an independent journal; that it had done good work and was still, in its new form, the best work of the kind published.

EXCELLENT ADVICE.—In reply to a correspondent, the *Tribune* gives some excellent advice on the subject of treating a case of over-study. A phrase or two almost diverts us from a recollection of the fact that the owners of that paper deem it expedient to lease a part of their building for the sale of alcoholic beverages. The advice is: "Nothing could be more injudicious than for J. H. C. to go back to college until he

is entirely well. He should exercise much in the open air, eat nourishing, but simple food, go to bed early, and sleep all he can, and read only so long as his attention can be easily fixed on the printed page. Tobacco, whisky, beer, must be religiously avoided, and all other 'stimulants.' Riding on horseback is an excellent exercise for J. H. C., but he must have an easy-pacing horse, so that no jar shall affect the brain. Three years ago this subject of overstudy was freely discussed in this column, with the hope that ambitious young men and women would learn wisdom from the suffering of their fellow-students from overwork, and undertake only so much intellectual labor as was consistent with their physical strength. The warning is in season now, and if heeded will save a great deal of pain and disappointment."

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

As we are, so we view the world.

No gifts, however divine, profit those who neglect to cultivate them.

We all have sufficient strength of mind to endure the misfortunes of other people.

There is no one else who has the power to be so much your friend or so much your enemy as yourself.

He who is false to present duty breaks a thread in the loom and will see the defect when the weaving of lifetime is unrolled.

In seeking a situation, remember that the right kind of men are always in demand and that industry and capacity rarely go empty-handed.

Severity may be useful to some tempers: it somewhat resembles a file, disagreeable in its operation, but hard metal may be brighter for it.

Where diligence opens the door of the understanding, and impartiality keeps it open, truth is sure to find an entrance and a welcome too.—
SOUTH.

Think what an accomplished man he would be who could read well, write a clear hand-writing, talk well, speak well, and who should have good manners.

The best rules for a young man, are to talk little, to hear much, to reflect alone upon what passes in company, to distrust one's own opinion, and value others that deserve it.

The bad man, diffusing the hue of his own spirit over the world, sees it full of treachery, selfishness, and deceit. The good man is continually looking for and sees noble-qualities.

A dewdrop, falling in the wild sea wave
Exclaimed in fear, "I perish in this grave!"
But, in a shell received, that drop of dew
Unto a pearl of marvelous beauty grew,
And happy now, the grace did magnify
Which thrust it forth, as it had feared, to die:
Until again, "I perish quite," it said,
Torn by rude diver from its ocean bed,
Unbelieving!—so it came to gleam
Chief jewel in a monarch's diadem.

The man who lives right, and is right, has more power in his silence than another has by his words. Character is like bells which ring out sweet music, and which, when touched accidentally even, resound with sweet music.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

A GOOD place to send refractory children—
Whip-pany, N. J.

A YOUNG lady went to the photograph artist recently, and wished him to take her picture with an expression as if composing a poem.

"MADAM, a good many persons were very much disturbed at the concert last night by the crying of your baby." "Well, I do wonder such people will go to concerts!"

"My dear," said John Henry to his scornful wife, "Providence has spared you the necessity of making any exertions of your own to turn up your nose!"

As a schoolmaster in Scotland was teaching an urchin to cipher on the slate, the precocious pupil put the following question to his instructor: "Whaur dix a' the figures gang till when they're rubbit out?"

A YOUNG man, searching for his father's pig, accosted an Irishman as follows: "Have you seen a stray pig about here?" To which Pat responded, "Faix, and how could I tell a stray pig from any other?"

A FAST youth asked at a San Francisco restaurant, "What have you got?" "Almost everything," was the reply. "Almost everything? Well, give me a plate of that." "Certainly. One plate of hash!" yelled the waiter.

A NEW clothier in Danbury, Conn., has excited public curiosity by having a large apple painted on his sign. When asked for an explanation he quietly inquired: "If it hadn't been for an apple, where would the ready-made clothing stores be to-day?"



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

THE ULTIMATE GENERALIZATION: AN Effort in the Philosophy of Science. New York: Charles P. Somers. 12mo, pp. 56. Cloth, 75 cents.

The thought of the author is based upon the assumption of Evolution, and its aim appears to be an illustration of the progress of ideas from the indefinite to the definite. If italics and capitals can do much to impress a reader, the author should succeed well. On page 54 occurs a passage which we think furnishes a good view of the writer's line of reasoning and of the character of the book, viz.: "The disposition to see truth in opposed conceptions has enabled me to discover an actual or possible harmony between many of them, and their necessity to each other as counterparts in a complete theory. An immense development, not of eclecticism solely, but of eclecticism and originality combined, is apparently possible and necessary. The present holders of opposite opinions see no way of reconciliation because their minds are fettered by the prevailing assumption that antagonism is natural and unavoidable. But in any case an ultimate harmony will be brought about by a complete knowledge of the whole subject of all that lies between the two extremes. And if the action of one mind is any indication of what will be done by others, then a belief that there is an agreement and the disposition to discover it added, will lead to many harmonies not now known or supposed to exist."

HINTS AND HELPS TO WOMAN'S TEMPERANCE WORK. By Frances E. Willard, Corresponding Secretary of The Women's National Temperance Union. Second Edition. 12mo, pp. 120. Paper. Price, 25 cents. New York: The National Temperance Society.

In this book we find some startling figures regarding the present and prospective condition of our population, or rather their moral status. If it be a fact that each year one hundred thousand of our citizens reel into eternity through the awful doorway of a drunkard's death, is it not time for women to arouse and make all endeavor to save their sons and brothers, and sisters, too, from such a fate? And in order that they may work intelligibly, they can gain many hints and helps from these pages. The volume is prepared

with the view to promote organized, systematic action in the work of temperance reform.

A SONG OF AMERICA AND MINOR LYRICS. By V. Voldo. New York: Hanescom & Co.

This little volume contains over two hundred pages of verse on a variety of subjects, but all indicating much passional warmth. Some of the brief sonnets, like that on Lincoln and Sappho, have much vigor; and some of the odes, like "To Wed or not to Wed," exhibit a good deal of ingenuity. The movement of "Aphroditis" and certain passages elsewhere, remind us of Swinburne. Very frequently the phraseology is inflated, and the metre scarcely confluent with the thought. This, for instance, from the "Song of America:"

"Nethless how long shall this dead world be dead,
Her keen sepulchral chill palsy the air,
And shudder skyward in the name of Dread?
When shall intelligence succeed yon stare
Color or perfume heavenize the hair
Of you bowed willow's head?"

This, from the same, is excellent.

"HESPERIA.

No just ambition woke his low desire
To thoughts of virtue or to deeds of fire,
But like a charred half-statured crumbling trunk,
Apart—as if all beauty from it shrunk—
He stood and died and hid him with no tear
To mark one value of his life's career."

Poetry nowadays is such a "drug in the market" that we wonder at the courage of young authors in printing their volumes of verse—mainly to ornament the booksellers case.

"THE AMERICAN CENTENNIAL" is the title of a large and very elaborate pen-picture by Joel H. Barlow. It comprehends over one hundred portraits of characters distinguished in our national history, besides allegorical and mythological sketches and designs, all bearing some relation to the progress of the country during the past century. A copy of this picture is to be seen at this office, and it will pay an inspection. Price \$5 or \$8, according to size.

THE CENTENNIAL SUPPLEMENT OF "Barnes' Centennial History" is an appropriate appendix to that valuable work. It contains an account of the great Exposition, with beautiful engravings of the chief buildings, and of many principal features in the grand array of exhibits. The closing chapter is devoted to the celebration of July 4th, 1876, and includes the addresses given and poems read on that occasion. Published by A. S. Barnes & Co., New York. Price, 50 cents.

CURRENT NUMBERS of the *Atlantic Monthly*, *Scribner's*, *Ladies' Repository*, *Brown's Phonographic Monthly*—which should be sustained by the profession—*St. Nicholas*, *New York Eclectic*, with an admirable portrait on steel of Dr. Philip Schaff, and other monthlies are at hand.

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[WHOLE No. 456.



HARRIET MARTINEAU.

ON the 27th of June, 1876, this eminent English woman died peacefully at her home, Ambleside, in Westmoreland, after a somewhat lingering illness. She was of an

old Huguenot family that fled from France when the Edict of Nantes was revoked, and settled in Norwich, England.

At this place her ancestors carried on the business of silk manufacture for several generations; and here Harriet, the youngest of eight children, was born in 1802. From infancy she was afflicted with deafness, which, instead of making her stupid, threw her on her own resources for amusement. She became a thoughtful, studious girl, fond of reading and picking up all sorts of knowledge. In consequence of her father's failure it became necessary for the family to earn their daily bread, and Harriet determined to win hers by the pen.

She made her *debut* as an author in 1823, in a little volume entitled "Devotional Exercises for Young People." In 1824, appeared "Christmas Day," and in 1825 a sequel to it, entitled "The Friend." In 1826 "Principles and Practice," and "The Rioters," were published. In 1827, "The Turnout," and "Mary Campbell," and in 1828, "My Servant Rachel." All these works exhibited the warm sympathy Miss Martineau felt with the working classes to whom they were mainly addressed.

In 1830 she won three prizes offered by the Committee of the British and Foreign Unitarian Association. This great success marked a new epoch in her literary career. "Traditions of Palestine," a series of faithful and picturesque sketches of that country at the advent of Jesus Christ, was produced in the same year, and indicated that the author had entered a loftier field of labor. In 1831 appeared "Five Years of my Youth," and a series of monthly tales, illustrative of political economy, which were widely read and translated into several languages. These established her reputation as a woman of first-class intellect and great culture.

In 1835 she visited America, and on her return two years later, published her impressions of this country in two volumes, under the title of "Society in America." The work partook more of the peculiar opinions of the author than of true criticism, and did much injustice to the people who had extended to her their best hospitality. She fell into the error of other English writers on America.

She came hither with preconceived and unwarranted opinions, and saw everything through the mist of her prejudices. The work was severely criticised by English reviewers, and had an early death.

While Miss Martineau was in this country, the present proprietor of the PHRENOLOGICAL had an interview with her on a North River steamboat, in October, 1837, in which mental science was a chief conversational topic.

In 1839 and 1840 appeared two novels from her pen, "Dearbrook," and "The Man and the Hour," which did not receive the acceptance of the reading public. Her labors were now interrupted by a long and severe illness, which she subsequently described in her charming volume, "Life in a Sick-Room." In 1848 Miss Martineau, in company with her brother, the Rev. James Martineau, made an expedition to Syria and the Holy Land, and on her return published "Eastern Life, Past and Present." This work is well known, and contains some of the author's best writing, but is somewhat marred by digressions and speculations touching parts of the Bible. Had it not been for this feature, the volume would have found a very wide circulation.

Her next serious effort was the continuation of Charles Knight's "History of England During the Thirty Years' Peace," in which her able work is manifest, and was universally acknowledged on its publication.

"The Laws of Man's Nature and Development," on its appearance, was at once condemned as openly advocating atheistical opinions. She defended it as best she could, but could not win the popular favor for it.

Besides these and other volumes, she did much literary work, as contributor to periodical literature and the daily press, and earned a place among the first writers of the day in English literature. So far as industry and the results of industry are concerned, Harriet Martineau is not surpassed by any of them, for in the course of fifty-two years, more than one hundred volumes appeared from her pen, not one of which bears the impress of careless preparation.

She exhibited a deep interest in the progress of science; was liberal in considering

new developments in biology, and accepted that which was true and useful. In her Autobiography, allusion is made to the agitation in English circles, which was produced by an announcement of her recovery from a dangerous illness by means of mesmerism, in 1844. So fierce was the conflict that Miss Martineau came forward and stated what really happened, with the views derived from her own experience of mesmerism as a curative agent. Her "Letters on Mesmerism" drew upon her an amount of insult and ridicule which would have been a somewhat unreasonable penalty on any sin or folly which she could have committed. To friends who pressed her not to publish, foreseeing what it was likely to bring on her, she simply replied that it was hard to see how the world could be ripened if experimenters in new departments of natural philosophy concealed their experience.

About that time she added to her metaphysical offences, in the opinion of some prejudiced admirers, by favoring the doctrines of Phrenology. Her interest in this science was influential enough to cause her to insert a bequest in a will made some years before her death, to the effect that her head should be given to the London Phrenological Society. We can readily understand how this provision was revoked through the urgency of friends who naturally revolted at the idea of consigning a headless body to the grave.

She claimed to possess strong religious impressions; tells us, in fact, that the cast of her mind was "more decidedly of the religious order than any other during her whole life." And with a view of her face, in its prime, before us, we can not interpret its mild and trustful expression in the light of that positive infidelity with which she has been charged.

CONSCIENCE—MORBID AND EXCESSIVE.

SOME say—Always follow conscience. This is quite good as an exhortation for a practical rule of life; but, in our inquiries, we should not assume that the moral faculty we are considering has no need of enlightenment. Paul felt before his conversion that he must oppose Christianity. He thought the Christian religion was a delusion. It was ordained that we should be constantly exercising our intellect to increase our knowledge and correct our feelings. Nor is it to be taken for granted and correct, that conscience or Conscientiousness, as the phrenologist terms the element or organ itself, is sovereign. Our mental realm can not be correctly represented by a kingdom—the faculties constitute a republic, rather. Each section is to be heard from, and the best decision is to be expected when the whole mind acts upon the whole subject.

It is sometimes inculcated by a fervent preacher that we can not be too conscientious. It would be just as philosophical to teach that we can not eat too much, can not study too hard, can not, for instance, love property too well.

My sincere opinion is, that the majority

of people of Puritan stock are over-conscientious. Not a few of them have morbid consciences. Some of them may have strange impressions about duty. A parishioner of mine—a very worthy woman—had a feeling that it was her duty to go out and pray in the street in front of a carpenter's shop full of workmen. The more she dreaded to kneel in the street and pray aloud, the more it seemed to her salvation depended upon so doing. Another excellent woman recently told me that she dreaded to go into company because, all the time, she would be painfully reviewing what she had said, fearing it was not quite right. She fears that one of her sons—an intelligent and spiritual young man—will never succeed in life on account of excessive moral sensibility.

We may smile over such suggestions as these, and remark that the majority are not so tender. There is more tenderness in the majority than any one knows who has not made them a "study" and encouraged individuals here and there to detail their innermost experiences. No amount of conscientiousness will secure a perfect life.

Perfection is something to be ever sought, yet never attained. The best, the most useful life will be lived, as a rule, where the person is brave and hopeful—with a healthy, a somewhat hardy conscience. Such an one, of course, is far away from despair or desperation. He will take his share of responsibility. He dare decide, if need be, delicate questions. This energy will not be consumed by useless and harassing regrets.

Accident will not be as likely to occur to him or to those under his care as if he were wrenched by protracted introspections, and his eyes and ears will be open to guard against being duped, and to take full advantage of the "tide in the affairs of men."

These few points, the reader may see, might lead to the writing of a volume. Let each enlarge as thought may respectively unfold.

REV. L. HOLMES.

THE MAN OF ONE IDEA.

IT is not necessary for us to wander elsewhere than in the rich fields of history to gather materials for the composition of so unique a specimen as the man of one idea. He is by no means a fanciful creation, possessing the varied coloring of light and shade which a too vivid imagination would be likely to picture. He is, indeed, a sad reality; and has descended from a long line of illustrious ancestors, distinguished alike for the obscurity of their origin and the very questionable good they have accomplished. And the fact that the race shows a disposition to increase rather than to become extinct, is patent to all those who can claim possession of more ideas than one. This is emphatically the age of "hobby-riding." But the man of one idea is not simply an historical character, for, if we pass through "the ivory gate of dreams," and wander forth into the enchanted land of fiction, we shall find that there, too, he has taken up his abode.

Mrs. Shelley in her "Frankenstein, or the Modern Prometheus," has most graphically illustrated this class of one-sided men. She represents her hero taking up his residence in the laboratory, engaging in secret communings at the shrine of nature, probing with deep insight into the intricacies of the human frame, until the question presents itself to him: "Whence comes the principle of life?" He follows the train of thought, which so great a question would naturally suggest, until his mind conceives a fearful and horrible design. He determines, by means of certain chemical appliances, to create a being similar to himself in form, but

invested with tremendous powers. He toils night after night for the achievement of his design. At last, upon a wild and dreary night his work is finished; and the ghastly, hideous monster which he has formed springs, Minerva-like from the brain of Jove, into life and action and the full exercise of all its damning faculties. Frankenstein flies in horror and dismay from the presence of so frightful a fiend. He becomes an exile and a wanderer upon the earth, everywhere pursued and haunted by the creature of his hand—seeking that rest which could nowhere be found, searching for that happiness which was forever lost—his peace destroyed, his every hope a wreck, and the ties which bound him to humanity sundered, till at last, death comes with swift destruction and ends his miserable existence amid the wide desolation of the Polar Sea.

One can not rise from the perusal of such a book with other than feelings of relief to know that it is simply a fancy sketch, and yet, when we look around us, we almost see it verified in the daily experiences of human life. It is quite probable that men visit upon themselves and others just as terrible consequences by their mad pursuit of some unholy purpose. Napoleon may have had many plans, but, unquestionably, he made them all subservient to his one, fixed, determined object. The possession of power, the sway of millions was the one central idea around which all his thoughts revolved. For this he schemed by night and fought by day. He stopped at nothing, was discouraged by nothing, and overcame every obstacle in his pathway. Noble perseverance!

you say. Yes, if properly directed. But for this man to catch up the flaming torch of war and wave it over every peaceful, happy home of Europe, simply to gratify his personal pride and selfish ambition, was scarcely the conduct of the truest nobility.

Many a sad tragedy has been enacted in the world's history by reason of one-ideaed men. They are usually blind to every one's interests but their own. The most arbitrary of dogmatists, they shut eyes and ears to reason, and bear everything down before what they call their "indomitable wills." Frequently this one idea is nothing more than personal spite toward a neighbor, which finds expression upon a hundred different occasions, and may continue through many bitter years. Churches are rent asunder, societies of every kind are torn into fragments, communities are divided, families estranged, and friends rendered hostile by the mischievous influence of these narrow-minded men. For, surely, it is not a slander to call them "narrow-minded" when their one idea is supposed to be a true index of their mental capacity!

Not by any means the worst phase of the subject is the fact that these men are their own most bitter enemies. They somehow fail to realize that the possession of but one idea to the exclusion of all others is sure to contract their powers, warp their energies, and paralyze their efforts.

There is a great deal of educational cant indulged in at the present day concerning "specific culture," "fixedness of aim," "definiteness of purpose," *ad infinitum*, which, no doubt, is quite in harmony with the spirit of the times. Of course, an aimless life is a sorrowful spectacle; so also is the merchant who can talk nothing else but "shop;" or the mechanic, who has no idea above tools and their use.

Professional men are by no means exempt from these evils. The ignorance of plain, practical questions—such as are incident everywhere to human life—is exhibited to an astonishing degree by the average minister. He lives in a world separate and apart, if anything, above the hard realities of life; and, frequently, when he is brought face to face with these emergencies, exhibits

a pitiable weakness and woeful ignorance. You say his business is to preach the Gospel. Yes—but to whom? The stars? the moon? the lilies of the field? He may use these as illustrations, but his mission is to men—plain, practical, hard-headed, and frequently hard-hearted men. Let the preacher neglect nothing that will aid him in this work. His preaching will partake largely of his own character. If he is a man of one idea, he will most likely feed the people with husks instead of bread. In this event the wisest policy would be to politely escort him down and out from his pulpit, and close the doors of the church till he gathered up an additional idea. Men ought not to forget that every public man is a public teacher, either by precept or example. None are more so than the so-called "clergymen." They stand in a peculiarly responsible position, and exert an inexpressible influence upon the community. Whether this influence is for good or evil depends solely upon their individual characters. If they are bigoted and take a narrow view of life, and are willing to live on the lifeless husks of some contracted theology, their parishioners will very readily imitate an example so easily followed. There are hundreds of earnest, conscientious preachers to-day who are very largely neutralizing their power for good because of their woeful lack of liberal culture. The science of Phrenology should at least suggest to them the possibility of learning more than one thing during a lifetime, and might teach them, if they would but listen, that the human mind is not a theological bushel, beneath which their one "brief candle" was to blink out its days like a sanctified owl or bat.

When we look toward other professions we see the same lack of general information. It is possible that physicians have other purposes besides administering doses of medicine, setting fractured limbs, and feeling feeble or feverish pulses. Yet, the ability to talk eloquently of bones and sinews, and tissues and nerves, and muscles, is *prima facie* (?) evidence of medical learning and curative skill.

Indeed, there is no department of human effort that is not filled with its comedians,

who ride the gaunt hobbies of their "one idea" like the chivalric Don Quixote as he furiously dashed through clouds of dust and charged upon some imaginary foe, while Sancho Panza brought up the rear. We need not look beyond the narrow confines of our own limited experience to catch glimpses of these men. Are they not around us and about us and on every hand? Do they not throng our halls and mount our rostrums and bear away their diplomas from our colleges every year? Do we not find them digging *inter sylvas Academicas* for those half-decayed specimens of Greek roots which have lain for centuries beneath the crumbling soil? Does Brown not "trespass on Jones' family vault" for the express purpose of comparing the specimens he may there discover with those from the illustrious house of Mein Herr Von Chimpanzee? And last, but not least, does he of the pale cheek, the hollow eye, and the saintly face not turn away with deep disgust from the loathsome odor of the laboratory, and regard even the spectroscope with a lofty, Pecksniffian eye?

The curse of this utilitarian age is our so-called "practical education." The watchword of a much-abused common sense, is "advancement in life." "Forgetting," says

Ruskin, "that there may be an education, which, in itself, is advancement in Life—that any other than that may perhaps be advancement in Death."

When shall men learn to recognize this most significant truth: that there is no department of science—using the term in its broadest and most liberal sense—no branch of knowledge that the true and faithful student can possibly afford to ignore? Consider the two classes of men—those who know everything of a little, and those who know a little of everything—then "choose ye this day whom ye will serve." True, we may become at best but amateurs; for it is wisely ordained that no branch of science can ever be wholly mastered, yet this would be infinitely better with a soul that is free, than a cringing submission to the blind idol of one idea. And he alone can be truly good and great and wise who builds the temple of his life upon the broad foundations of liberal thought, and who rears and adorns each graceful column with the polished hand of refining culture, till at last he climbs to the pinnacle itself and beholds, not only the kingdoms of this perishing world, but that which glows in the radiance of the infinite and eternal.

HENRY S. LOBINGIER.

THE LESSON OF THE EXPOSITION.

NOW that the Exposition at Philadelphia is drawing to its close, it becomes us to inquire, Of what value has it been to us as a people, socially, morally, æsthetically, financially, and intellectually? Has it only been a national amusement, or has it been a great source of improvement? Perhaps I shall not answer my own questions satisfactorily, but if others are roused to answer them for themselves and the nation, it were well to suggest them. That it is well to bring the people of different sections together, to keep them in mind of their common brotherhood and fatherhood, no one will question. And by means of reduced railway fares and the moderate board-rates at Philadelphia, thousands have visited that city and the National Capital who could not

otherwise have done so. The kindest feeling has been shown by strangers from every part of our land to each other. I know of but one exception to this. The *Capital*, published at Washington, D. C., indulged in the rudest criticism of their Northern and Western visitors. People at the "Centennial" remark how civilly and kindly they were met, and how generally complete were all arrangements for their comfort and pleasure.

Socially, then, we may feel that the "Great Show" has been a success. Friendship between different States has been increased and cemented; and every individual is conscious of greater friendliness and interest in those nations who have participated in our national festival.

Whether the morals of the country have been helped, is a subject which presents difficulties. The Commission very wisely persisted in closing on Sunday. All people have thus seen that one great law, which gives the seventh day to rest and thought, has not been broken by the clamor of those who would have kept the exhibitors at their posts uninterruptedly during six months; giving them no time for rest, for worship. Had liquor been entirely excluded, another great moral stand would have been taken, whose influence for good would have been incalculable. Still the sale was restricted so that public feeling was not continually shocked by its effects.

Æsthetically the value of the Exposition must be very great. Thousands saw there, for the first time, statuary and pictures of any merit. Our country towns and villages possess few oil paintings and less statuary. It is of little account to the masses that the works of art shown at Philadelphia are not of the highest excellence. They are sufficiently good and great to serve as instructors to nearly all who visited Memorial Hall. Artists and highly-cultivated amateurs might feel dissatisfaction, but the most of us could learn much from the pictures sent us. And we could scarcely expect that foreign lands would subject their rare gems of art to the perils of the sea, and the canes and parasols of John and Jane.

Again, the fine pottery, the Sevres vases, and Bohemian glasses, the Mosaic work, the wrought silver-ware and ornaments, the carved furniture, and the flower-wrought laces, are all and each of great æsthetic value to those who study them sufficiently to impress the designs and coloring upon their memory. A mere hurried glance here and there, which left in the mind only confused images, is certainly of no value. Every one who wishes to be advantaged should study each fine object until its image is photographed upon the mind.

A knowledge of tapestry, velvet, pearls, vases, engraved gems, and any and all fine work that is done in the world, is an advantage and a pleasure to the most remote dweller in the farthest Western prairie.

Upon this continent nearly all are work-

ers, and that person is best fitted for his sphere in life whose thoughts are rich and well-disciplined, whose mind and memory are full of beautiful images and well-arranged facts. We all need to have labor dignified and glorified in our thoughts. We ought not to look upon labor as punishment, but as blessing. And that it should be a blessing, it should give us pleasure and be such as all wise men will pronounce good.

The artificer in gold and silver, the carver of wood, the skilled machinist, should all be able to take the same rank in society that is accorded the artist, the poet, the divine. The day will come when these workers will hold their true place in social esteem.

The man who makes the crown can be, often is, the peer, yea, the superior of him who wears it.

"The rank is but the guinea stamp,
The man's the man for a' that."

Not having the far-reaching judgment of the true financier, I can not pronounce upon the financial value to the nation of the Exposition. It must stimulate the workers in all departments to make themselves and their work equal where it was inferior, and superior where it was equal, to that of our competitors. Happily for the national self-satisfaction, we have had no need to blush before our visitors because of inferiority. And those writers who predicted that we should feel chagrined before the world, can recover themselves from their premature mortification.

Artists and art-workers will be stimulated by what they have seen and learned. Many articles of beauty and value will be retained by our country and be permanent accessions to its riches. The value of the pleasure, the new ideas, the æsthetic culture, and the intellectual stimulus, can not be computed in dollars and cents. The financier is not yet born who can estimate the true worth to a people of its culture.

The intellectual value of the Exposition to any individual depends upon the previous culture of the person, and the way in which he viewed it. One of good natural abilities, who was devoid of any geological knowledge, would not receive a tithe of the benefit from the marbles, fossils, and mineral

specimens, though he studied them quite carefully, that his neighbor would obtain who had only an elementary mineralogical knowledge. So of machinery, of carvings, of ceramics, of art. Even a slight knowledge of the arts and sciences helps one to understand and learn, where he who is entirely uninformed would receive no definite information. A little knowledge is a nucleus around which facts and ideas can gather and cling. Ignorance is a great barren desert, whereon no green thing can root and grow till irrigation and sub-soiling have been done. Go glance here and look there, mingling together pianos and pottery, tapestry and tin-ware, rocks and ribbons, is of trifling value to any person. One who would see for any profit must look systematically.

For instance, to obtain an accurate estimate of the ceramic art, one should commence with the ancient pottery from Peru, Gold Coast, and the work of the American Indians, and follow the art through the Castellani collection, through the different departments in the Main Building to the finest specimens in Memorial Hall. Carving in wood, stone, ivory, and marble should be studied in a similar manner. Engraved glass and work in gold and silver could be taken together. Fossils and geological specimens, etc., etc.

Desultory sight-seeing is of less value as a means of culture than even desultory reading. System is the key to success in almost everything; and the great lesson of the Exposition is, finally, "Learn to do well."

AMELIA V. PETIT.

THE GREATEST BOOK.

FROM THE SWEDISH.

I know a splendid book to which
All books are nothing found,
Whose like hath written never pen
In all the earthly round.

Its letters beautiful and clear,
Engravings choice and fine,
With new edition every year,
A gem in every line.

'Tis teeming with exhaustless lore
Unfolding in each page
Gathered from every sea and shore,
From every clime and age.

In grandest themes it is most grand,
And grand in trifles too,
Each star, and flower, and sky, and land,
Delineating true.

To me its pages, every hour
So fresh, delightful, new,
Have given a cheering strength and power
Through all, to bear and do.

This book is bound in blue and gold.
Its leaves are gold-edged, too;
The book is Nature fair, behold!
Its cover, Heaven's own blue.

LYDIA M. MILLARD.

W. W. HALL, M.D.,

LATE EDITOR HALL'S JOURNAL OF HEALTH.

IN the July number of the PHRENOLOGICAL we took occasion to mention the death of this earnest laborer in the field of health reform, and to specify the chief reasons for his sudden "taking off." He was somewhat advanced in life, being sixty-five years of age, but for thirty years previously had scarcely been sick a day. The portrait indicates a predominance of the mental temperament, and a very sensitive organiza-

tion. We would not call such a man tough and strong naturally, but would consider him one of those who must exercise a good deal of care to keep his physical functions in sound condition, and his nervous system calm. His intellect was of the apprehensive order, strongly practical and clear in judgment. His broad head shows a degree of energy and executive talent much above the average. His acquisitive intellect and his

active temperament inclined him to study and investigation, while his large Language compelled expression through either tongue or pen. He was evidently one of those intense natures that throw their whole force into their employment and thought, and are restless and discontented unless at work; and therefore enjoy occupation. This mental disposition lay at the basis of his capability

thirty, exclusive of the twenty volumes of the *Journal*, which he edited without assistance. He was an able counsellor in matters pertaining to health, but failed to live according to the precepts which he uttered. Like other guide-boards, he pointed the way through pleasant paths in which he never walked. The writings of Dr. Hall have attained great popularity. His books have sold to the ex-



Truly Yours
W. W. Hall

as a writer and author, and its excessive indulgence hastened his death. It was by no means unusual for him to labor in his office upward of eighteen hours out of the twenty-four. To quote from the *Journal of Health*: "He took little exercise because he had, or thought he had, no time to indulge in it. He achieved results because he labored untiringly. His published volumes number about

tent of hundreds of thousands, but he regarded the *Journal of Health* as his great life-work. His last book bore the title 'How to Live Long,' and was a series of maxims, the observance of which on his part would probably have tended to prolong his life for many years. The constant violation of the very laws which he so nobly expounded unquestionably accounts for his sudden death.

"Any impressions in regard to the personal appearance of Dr. Hall, based upon his strong and vigorous style as a writer, are likely to be erroneous. In stature he did not exceed five feet and a half, and he was quite slender. In manners he was modest and unobtrusive, of pleasing address, and musical, earnest voice, which added force to his reasoning."

OBSERVATIONS AND EXPERIMENTS

AS TO THE FUNCTION OF THE CEREBELLUM IN VERTEBRATE ANIMALS.

IT is not my intention, in the following memoranda, to discuss at length the theory that the cerebellum is a center of motion, or of muscular co-ordination. The best exhibit of the facts, both pathological and experimental, that has, as yet, been compiled by the opponents of the view of Gall and Spurzheim, will be found under its proper caption in Dr. Austin Flint's voluminous work on the "Nervous System," employed, I believe, as a text-book at the Bellevue Hospital Medical College. The experimental data consist in the often-quoted disordered movements of animals after extirpation or mutilation of the cerebellum; the pathological consists of cases in which progressive degeneration of the cerebellum has been accompanied by similar symptoms. In some of these cases it appears that vertigo was distinctly present in sufficient intensity to account for the symptoms. In several of them, the symptom of staggering or uncertainty of locomotion was either not present at all, or, if present at the onset of the attack, subsequently disappeared during the late stages of the disorder. Dr. H. C. Bastian, in his recent lectures on "Brain Diseases," notices, on the other hand, the fact that a special and protracted inhibiting influence is exercised on the urino-genital organs by inflammation or other lesion of the central portion of the cerebellum. I have notes of one case in which a very slight blow on this fundamental (or central) portion of the organ, although accompanied by no other symptoms, was followed for several years by morbid function of the urino-genital organs. Details need not be given, because the observations and experiments, a description of which will follow, are conclusive as respects the question at issue, and because I shall, in the course of such description, show how

it is that disordered movements are often consequent upon cerebellar lesion.

Some accidental observations, partly pathological, led to the special form of experiment that enabled to put demonstration in place of the speculative theorizing, that has been in fashion since the days of Majendie and Flourens, and finally to offer to psychological science a view of cerebellar function in harmony with all the facts, both experimental and pathological. After many efforts, more or less successful, to trace out completely the anatomical relations of the restiform bodies (inferior peduncles of the cerebellum), I accidentally observed, in experimenting on a small terrier, that if the anterior and posterior roots of a spinal nerve be severed between the ganglion and the spinal marrow, degeneration of the central portion of the posterior root from the point of section toward the central portion of the nervous system almost immediately commences. I kept a terrier three weeks after section, during which period the degeneration traveled to the interior gray matter of the marrow, and thence upward toward the brain, the floor of the fourth ventricle being the special section of the encephalon which was attacked. There was no corresponding degeneration of the motor root, and hence it must be concluded that the sensory root of a spinal nerve receives its nutrition from the ganglion, while the motor root is dependent on the anterior horn of the spinal marrow. Serres, in a case of lesion of the Casserian ganglion (of the fifth pair of nerves), traced degeneration along the decussating fibres of the nerve root to the convolutions of the opposite hemisphere, but did not either definitely propose or definitely assist to establish the doctrine that lesion of a sensory nerve travels from the point of lesion inward, while lesion

of a motor nerve is not likely to result in disorder of the nervous center to which it appertains. Hence lock-jaw, epilepsy, or other derangement may speedily follow injury to the peripheral extremities of a sensory nerve, while such a result seldom or never occurs in lesion of a motor nerve. The point is that, as concerns the sensory nerves, the direction of physiological activity is always centripetal, while in motor nerves it is centrifugal. By injuring the extremities of sensory nerves in animals the exact routes of their physiological activities may thus be traced out and established.

Fortunately, since pathologists have learned to apply the microscope efficiently, many facts have come to light that tend to clear up the disagreements and the vague and inexact views that have so far rendered the diagnosis of cerebral affections the most difficult and uncertain department of the physician's work. Long after the discovery and demonstration of Bright's disease of the kidneys, the *post mortem* stopped with the demonstration of the disease, and it was not supposed to be specially accompanied by encephalic degeneration. It was Bernard who first showed that puncture of the gray matter of the floor of the fourth ventricle of the brain is immediately followed by deranged function of the kidney, and the development of an increased quantity of sugar in the urine. Since then it has been definitely established that diabetes, with its augmentation of sugar, is symptomatic of progressive degeneration of the posterior portion of the brain, the gray matter of the fourth ventricle, the olivary bodies, the tubercula quadrigemina, and the cerebellum being the special centers attacked. The white nervous tissue suffers more than the gray, these centers excepted. Again, in general dropsy, the soft commissure of the cerebrum, connecting the optic thalami, often becomes wholly obliterated, and the thalami are specially attacked, as they sometimes are, in conjunction with the rest, in glycosuria. When, therefore, examination of the urine shows an augmented secretion of sugar by the kidneys, our diagnosis and treatment must include the supposition of progressive degeneration of the whole tract of the encephalon

supplied by the vertebral arteries—the tract lying behind the ears. Loss of sight, in the one eye or the other, has been frequently observed as a symptom of Bright's disease, but not until recently has it been shown that degeneration of one kidney or one ovary or testicle is associated with degeneration of the opposite lobe of the cerebellum, and that the loss of sight is due to the degeneration traveling to the corresponding optic ganglion along the superior peduncle. Hence in lesion of either kidney degeneration of the opposite lobe of the cerebellum, of the optic ganglion on the opposite side, and (as the optic nerves cross each other) of the retina on the same side, may be looked for. This degeneration travels spinally along the interior of the cord, somewhat enlarging the central canal; attacks the floor of the fourth ventricle, and thence radiates to the cerebellum and adjacent centers. Whether the kidney disease be of the type eventuating in the large white or the red granulated appearance of the organ, the accompanying encephalic disease appears to be the same, and thus, pathologically considered, Dr. Flint's view is confronted with a series of facts that are destructive of its validity. Moreover, there are abundant reasons for believing that the brain degeneration is primary in diabetes. The special form taken by it is enlargement of the capillary extremities of the arteries, exudation of blood into the tissues of the brain, and excavation of cavities by destruction and absorption of the nervous substance. Now, in cases of sexual impotence, the pathologist generally finds phenomena of this exact type, more or less developed, within the several tracts named as subject to attack in Bright's disease, and in the several known cases of rupture of the arterial vessels of the brain during coition, the cause of death has been traced to effusion of blood in the substance of the cerebellum. The late S. R. Wells had notes of one very marked case of this class, in which the *post mortem* was conducted at the New York Hospital; while that able physiologist, Dr. Joseph Worster, of this city, supplies me with notes of another at which he personally officiated.

Having these facts in view, my own experiments were based upon the idea of trac-

ing the routes of nervous activity associated with the urino-genital organs, by injury or extirpation of the organs in healthy animals under full anæsthesia. Dogs and cats being the most accessible, I have, during the last seven months, carried on a pretty thorough series of experiments, which, by way of precluding controversy, I will ask physiologists to verify. My first two experiments were conducted with a couple of kittens, five months old, the one male, the other female, by contusion of the urino-genital organs on one side, under full anæsthesia, with the forceps. I kept the specimens three weeks. On killing them, I found that the contused organs had sloughed partially; and, on examination of the opposite hemisphere of the cerebellum, extensive tissue changes had taken place. These changes were such as would be described by the term retrogressive—that is to say, a substitution of the nervous by connective tissue elements, with diminution of the bulk of the organ. Experiment on a terrier puppy by extirpation produced the same result. In all three, the route of degeneration was along the central portion of the spinal marrow, interior to both horns of the gray matter, and the floor of the fourth ventricle was correspondingly affected. The rest of the encephalon was healthy. Notwithstanding the fact that the local inflammation was severe in the first two cases, the animals were tolerably quiet, and appeared to be dull and lazy, rather than excited. As it is an ascertained fact that the great nerve of the hind-leg in the mammalians ascends as a part of the lateral white column of the spinal marrow, at least until it is well within the lumbar section, my next experiment consisted simply in the extirpation of the lumbar and sacral ganglia of the spinal nerves in a terrier puppy, by cutting the posterior root between the ganglion and the column, and paring away the ganglion. If this is skillfully done, the animal readily outlives the immediate effect of the operation, but finally dies at the expiration of a few weeks of progressive degeneration of the urino-genital organs. I kept the animal alive twenty-seven days after the operation, examining the urine daily, with scientific carefulness, noting the gradual diminution

of urea, salt, and other constituents. No general urino-genital inflammation supervened, and the wound healed well. On killing it, the urino-genital organs were throughout considerably softened and somewhat reduced in volume. The bladder was very small, and contained a small quantity of water mixed with mucous granules and blood corpuscles, but scarcely impregnated at all with the normal constituents of urine. The degeneration of the peripheral portions of the severed nerves was not so complete as I had expected; but, as concerns the central portions, the route of degeneration was exactly that followed in the previous experiments.

I should like to discuss these experiments more fully, but must hasten to draw the necessary inferences, leaving minutiae for a future article. First and foremost, the manner in which the ganglia of the brain are trophic centers becomes tolerably clear. The corpora striata are the great ganglia of voluntary motion. It is seen, from their affection in general dropsy, that the thalami are probably concerned in the growth of structures having a serous origin; that the pons varolii contains the great centers of vascular growth and co-ordination, and that the cerebellum and floor of the fourth ventricle include the centers of glandular growth, while the medulla oblongata may be generally designated as the great tract of respiration and deglutition. In progressive muscular atrophy, the anterior horns of the gray matter of the spinal marrow are the special centers attacked, and it is thus very clear that they are musculo-trophic in a very special manner. I have never been cognizant of more than one case of paralysis of the sympathetic nerve, and in this case the patient suffered very little inconvenience while awake, but, on dropping to sleep, respiration was at once suspended. Again, the details of recent German experiments as to the function of the optic thalami seem to prove that, in their anterior tubercles at least, they are centers of a sense that may be designated as muscular, which would naturally follow as an inference from their function as the great trophic centers of the structures having their origin in the serous layer of the embryo.

I have, I believe, expressed the opinion in some preceding paper that Bell's hard and fast distinction between motor and sensory activities had been productive of some harm to the cause of enlightened psychological science. Not that I intend to deny the distinction as a question of function, but that the integrity of each is essential to the integrity of the other. If, with a solution of carbolic acid, one part to twenty, I sponge or spray my hand until local anæsthesia supervenes, although I can not presume that the acid has penetrated so deep as to affect the motor nerves, I have, nevertheless, rendered the hand altogether useless for grasping or for the purposes of manipulation; or if, again, I immerse the sole of my foot in the solution, I shall render myself incapable of well-co-ordinated walking, and shall limp

at every step, although voluntary pressure of my whole weight on that foot causes no pain. Lesion of the cerebellum is scarcely more effectual in experiments on animals, in disordering the movements, than is simple spraying the soles of the feet with carbolic acid water. I apprehend, therefore, that experiments on the cerebellum are in no way demonstrative of the view that it is the center of motion; and, in the few attempts at Faradizing it that I have tried, I have never been able to induce the least muscular response. I claim, therefore, to have definitely established that the cerebellum is the great glandulo-trophic center, and that, as such, Gall and Spurzheim were substantially correct in the view of its function promulgated by them.

FRANCIS GERRY FAIRFIELD.

ANOTHER CONSIDERATION OF SOME APPARENT INCONSISTENCIES,

WITH AN ATTEMPT AT THEIR EXPLANATION.

IN an article on the subject of "A Consideration of Some Apparent Inconsistencies," in THE PHRENOLOGICAL JOURNAL for October, 1876, Mr. John L. Capen very ingeniously, if not correctly, reconciles the apparently inconsistent facts to which he therein calls attention. Having studied this subject for several years—a much shorter time than Mr. Capen has studied it, however—and arrived at some conclusions more or less definite, I venture to offer them to the readers of the JOURNAL. If my views are wrong, I shall be glad to have the errors pointed out and corrected.

Calling attention to the facts that some persons having large Benevolence and small Selfish propensities—Combativeness, Destructiveness, and Self-Esteem—sometimes manifest cruelty, or often seem to be deficient in disposition to help the needy or unfortunate, while others whose brain development is the opposite to a considerable degree, having, however, a full development of Benevolence and Self-Esteem, are always on hand to help their friends in sickness and trouble, and citing cases in illustration, Mr. Capen remarks that these apparent contradictions arise from the fact, not generally

understood, that that part of the "brain denominated 'Benevolence' does not sustain the full strength of so important a faculty, although it suggests the emotion and is an indispensable element of the faculty, much of the *work* of benevolence being done by the so-called 'selfish faculties;'" and he says further, that "It will aid us to reconcile the facts to suppose that the function of the organ is the instinct or sense for the appreciation of pain, and of the conditions which produce it; in which case it will become a power to injure when prompted to do so by other faculties, a regulator of the degree of severity to be inflicted, and an aid to gentleness when so directed."

It appears to me that the ability to appreciate or know the *conditions* which produce pain depends upon the Perceptive faculties, while the power to interpret the *expressions* of pain, as well as those of the normal activity of every faculty and feeling, is almost solely the function of the faculty of Human Nature; and that while Imitation inclines us to take on the feelings as well as the expressions and actions of others, it is the function of Benevolence to afford pleasure or gratification at the manifestation or contemplation

of all pleasurable feelings or conditions in others. Benevolence is therefore pained—excited to abnormal action—by scenes of suffering and distress, just as Ideality is unpleasantly affected by all marriages and imperfections, and Alimentiveness nauseated at the sight of carrion, because these things are just the *opposite* of what are desired by these feelings.

Now, it is possible that this reversed or abnormal action of a feeling may be so excessive as to blunt greatly or paralyze the feeling for a time, as was probably the fact in the case of the man referred to, who, when young, witnessing an altercation between two roosters, became so enraged at the victor that he “horribly mutilated it, by thrusting a nail into its eyes and through its head!” and is generally the fact in the case of those jilted lovers whose “love is turned into hate.”

Mental shocks, resulting from witnessing or learning of an accident which frustrates our fondest hopes and most ardent desires, or which results in the death of a very dear friend or relative, often produces entire unconsciousness; and why should not other things affecting mainly only one feeling, propensity, or sentiment, blunt or paralyze it for a time? Persons in great danger are sometimes said to lose their fear, and though naturally timid often manifest remarkable courage.

This is explainable only by inferring that the action of Cautiousness is, for the time being, suspended, while the other organs are excited to more than usual action, but not to a degree resulting in immediate paralysis, though this often occurs after a while; and this is in accordance with the well-known principle that excessive abnormal action of any organ is always followed by a proportional depression of its function. This principle is true in relation to both brain and body. It is thus plain that when this blunting or paralyzing of any organ, for example Benevolence, does occur, the “opposing forces” have it all their own way.

So it was in the case of the boy who saw the roosters fight. His sensitive Benevolence was shocked—even paralyzed—at the sight of the more unfortunate rooster that

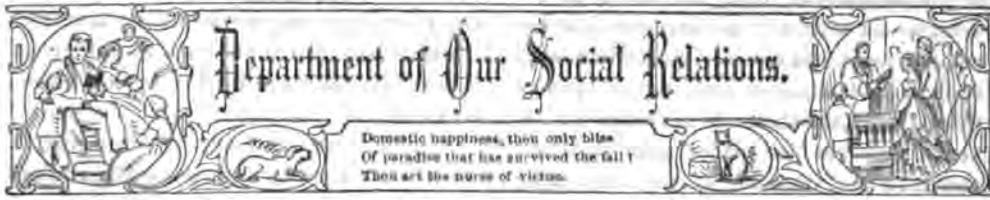
came off second best, and intellectual conceptions of revenge arose in his mind which were carried into effect by Destructiveness, which then had no moderator to say, “Hold; consider.”

The lady who had large Benevolence and small Selfish propensities (Combativeness—courage; Destructiveness—energy, and Self-Esteem), and was ever ready to receive favors, but when her friends were ill or in trouble, would leave them until their good fortune returned to them, was pained at the sight of distress, and not having the energy to attempt to afford relief, or the courage to incur the pain caused by witnessing distress, she naturally failed to perform what would seem to be her obvious duty. Such persons always have too little courage, energy, and self-reliance for the ordinary walks of life, though they are very tender-hearted.

F. E. ASPINWALL, M.D.

EVOLUTION AS CREATION.—Creation was accomplished by degrees. God took untold ages for the perfection of His work. In the beginning all was Chaos—“without form, and void”—and “darkness was upon the face of the deep.” Then began the separation: the earth from the firmament; the seas from the dry land; then the flora, and the other myriad forms of vegetation; then the various land and amphibious animals, rising each higher and higher above each other, in the order of Creation, until, at last, MAN was ushered upon the stage, God’s noblest and crowning work.

Now, whenever the “Philosopher” shall tell us why God did not do differently in regard to the Creation of His physical or material world; why, instead of consuming myriads of ages in the production of the wonders of nature, He should not have originated them at a breath, and that, in full development, and not by the tedious process of natural growth—nay, why there should ever have been “Chaos” at all, or darkness, seeing that God himself is from all Eternity, and only needed to have *willed* it, and it were done. When, we say, the sceptical philosophers shall solve us this difficulty in regard to material things, then, but not before, will we undertake to resolve for him why God’s *moral* government should be conducted upon principles different from those we behold in operation every day.—*The Appeal.*



WHO WOULD BE A WOMAN?

AMONG all the sad things a woman ever uttered is the so often expressed wish, "Oh, that I were a man!" It seems so cruel that woman should be driven, simply from the unfulfilled necessities of her physical nature, to wish herself other than the noble creature God made her, and be willing to resign the high prerogatives of her womanly estate. A poor German scholar once said to me, "I wish often that I was stupid—born like a cow—then I could make money." To me there is a sort of parallelism between this wish and the wish of a woman to be a man; not, of course, that it would involve being "stupid-born" to the woman, but it *would* involve a reckless sacrifice of gifts that she should prize beyond any advantage that could accrue to her by the change. And that because they are her peculiar gifts, her sanctified gifts—gifts that involve higher responsibilities than those of any other created being.

Without finding it necessary to characterize men, like Mrs. Weeks in "Felix Holt," as "a coarse lot of strident creatures—wasteful of meat and drink," it must, I think, be confessed that they are far better adapted by nature as well as education to do the heavy work of the world, to fight the great Apollyon, the inertia-fiend, whose greedy maw has fed on human sinews since the world began. And as we more and more study the orderly adjustments of nature, we shall be more and more satisfied to have man, for the most part, where we find him, and not strive, with elbows unequal to the task, to crowd him from his place. When, indeed, we see that he is usurping the true province of woman, and doing work for which she is better fitted, we need not hesitate to avail ourselves of any ever so small opening by which we may enter in. We

need not wish to be men even when stern physical necessity compels us to undertake that which has hitherto been man's exclusive work, for though the strain be painful, it is really far easier for a woman to compete with man in his sphere than for a man to compete with woman in hers. Woman has great versatility and adaptability. There are few things man can do that woman can not, under pressure of education or circumstances; while, on the contrary, man but awkwardly adapts himself to the work that belongs by nature to woman. You may, to use a homely figure, boil potatoes in your delicate porcelain-lined vessel, and though frequent common use may burn and crack the porcelain, it will still serve to boil potatoes; while, if you attempt to preserve strawberries in the iron potato-pot, they will turn black, lose their delicate flavor, and be no longer a luxury.

Men have long busied themselves with settling the boundaries of "woman's sphere." Why have they not tried to teach swans to swim, or eagles to fly, or nightingales to sing? If woman's sphere is ever to be defined so that the compasses of man can span it, the work must be done by woman herself. Her hindrances are, of course, still great; she is ignorant as yet of her best powers. As at the beginning of a great battle, there are still tremendous odds to overcome, and many victims must yet fall, and much treasure be poured out before the victory can be won; so the great struggle that shall place woman where she rightfully belongs is as yet but in its initiation. Yet woman is beginning to realize that it is initiated, and that God's hand that initiated it is pointing toward its triumphant end. And though her march must often be a painful and a tearful one, like Virgil's in *Inferno*—

must sometimes be over the heads of the "poor weary sisters" that have fallen by the way, she must still go on. And when society shall have adjusted itself to the laws of Divine Order, she shall find herself standing, like Daniel, "in her place," and shall not need to be told what her sphere is any more than the earth needs to be told in what orbit to fly round the sun. *Meanwhile*, ah, yes, meanwhile, society is so like a pack of cards that have just been shuffled, and the said Divine Order is so much a thing of the far future, that makeshifts are necessary. Women who differ from this disarrangement of things must bring help to themselves and their sex by crossing the charmed line that has hitherto confined them within its limits, and invading, for purposes of spoil, the far wider and freer space that man has hitherto held exclusively his own. If man blinds himself to his responsibilities toward the half-angel, half-slave of whom he boasts himself the natural protector, what is she to do? Is she to starve on the barren pedestal to which he has exalted her? or willingly bend her back to the burden he chooses to assign her? She does not purpose, I opine, to do him that injustice. She says, "God has given me a heart strong to endure and quick to hope. Whether welcomed or not, I will take my place at his side and work at whatever my hand finds to do. He shall see my courage and energy, and shall respect them. Wherever I go I will carry light and higher aspirations; I will meet him on his own ground and there decide the vital question whether I am created to minister to his carnal or his spiritual nature—whether my presence is to drag me lower, or lift him higher. My 'prophetic soul' tells me that I *shall* lift him higher, that this is my true mission, and the answer to the great riddle of my existence."

What woman needs most is a sense of her true value, not as a mere minister to man's external comfort, nor even to his sense of the beautiful, though both of these are good and worthy missions. He should be able to recognize her as the daily inspirer of that higher nature of his, that, but for her, would be mostly dormant in him, that spiritual sense that but gropes after the truth

without the aid of her more single eye. Am I arrogant in my claims for woman? It is because men *know* this, that they require of woman so exalted a purity, so refined a delicacy, so unimpeachable a name! Women and priests must be immaculate; and why are they so classed together unless their work is equally important in a moral and spiritual sense? This fact has always been jealously recognized by the priesthood, who have accordingly, in self-defence, insisted on the inferiority of woman. They feel their prerogatives in danger whenever woman rises to her full moral and intellectual height.

What a society of men without women is, we have all seen. Whenever the call of war or the thirst for gold brings men together in great numbers, whenever there is "lack of woman's nursing care, and dearth of woman's tears," society puts on ruder, coarser, and more vicious forms. We see what a social life was thus developed in our Western territories—lowering, by infection, the moral tone of the whole country, and developing a literature of which Bret Harte is one of the representatives. His genius and his faith in the Divine Spark, however buried in sensual and greedy souls, are both to be admired, but the necessity for such a literature would never have arisen had woman been an element in the society of which it is an outgrowth.

I started with the question, "Who would be a woman?" and I believe there are few, after all, who would say "Not I." So let women *be* women wherever they go, whatever they do. If they choose to take a place among men as militants or workers in the "world's great field of battle" or labor, let them not soil their hearts or their garments by the contact. If they must needs enter the "filthy arena" of politics, let it be with a determination to cleanse it. If they must help themselves to those means of life and happiness that it should be esteemed man's privilege to furnish them withal, let them not grow coarse and hard in grain; let them keep sweet and clean to the core. For in womanhood is included a treasure that should at all hazards be protected from the evil of the world—the treasure of moth-

erhood. Holy should this be in the eyes of every woman, for it is the source of her greatest power and her greatest blessing. Some writers have said "womanhood before motherhood," but the two are one. Every true woman is a mother in the highest and most spiritual sense—a brooding mother that evolves life and love from her own warm bosom; that seeks not her own, but rather to be a blessing to others; that feels her heart eternally go out to all the sinning and suffering of the world as to children of her adoption. And if such a woman be so happy as to be a mother also in the natural sense, to have smiled upon the pangs that brought her so great a joy as the "joy that a man is born into the world," who could wish her a higher mission, a nobler care? Who would regret that she had not equaled Shakespeare as a poet, or Phidias as a sculptor, or Michael Angelo as a painter? Not she, indeed, in her pride and joy. And if she were indeed

a poet or an artist, and had reached as such the highest heights of fame, that fame, in her secret soul, would shine pale before the glory of her motherhood. And a degraded motherhood, who can endure to contemplate? A false motherhood, that seeks for its own selfish end to shift its sacred responsibilities to weak and ignorant shoulders; or worse—that repudiates the charge and murderously refuses the gift for the sake of present ease and enjoyment; such a woman can never dream of the sublime joy of which she is by nature capable. She has robbed her own soul of its richest pearl—her life of its highest capabilities. Let her seek what joy she will; let her follow what ambition she may—the light is gone out in her soul of souls, and it will only be under a weary heap of ashes that the loving finger of God will at last find the spark to be rekindled by His ever-patient breath.

MRS. S. E. LEAVITT.

"BITTER-SWEET."

HEARTS that ripple gayest measures,
Deepest strains of sadness know.
Hearts that thrill with sweetest pleasures,
Oft are chilled with deepest woe.

Hearts that wall in wildest anguish,
Highest notes of mirth employ.
Hearts that pine away and languish,
Wake in ecstasies of joy.

Eyes that look love's warmest passion,
Glisten with the deadliest hate.
Man is but the dupe of fashion—
Fashion but the slave of fate.

Hands that shower greatest blessings,
Oft the foulest curses rain.
Hands that give the most caressings,
Oft inflict the deepest pain.

At the parting all our pleasures
Leave some bitterness behind;
And, in sorrow, dearest treasures
Linger with the weary mind.

Every sweet must have its bitter—
Every bitter have its sweet;
Sweet would not be sweet if bitter
Did not mingle with the sweet.

—JOHN W. MACKENZIE.

CLIMBING PLANTS FOR THE HOUSE.

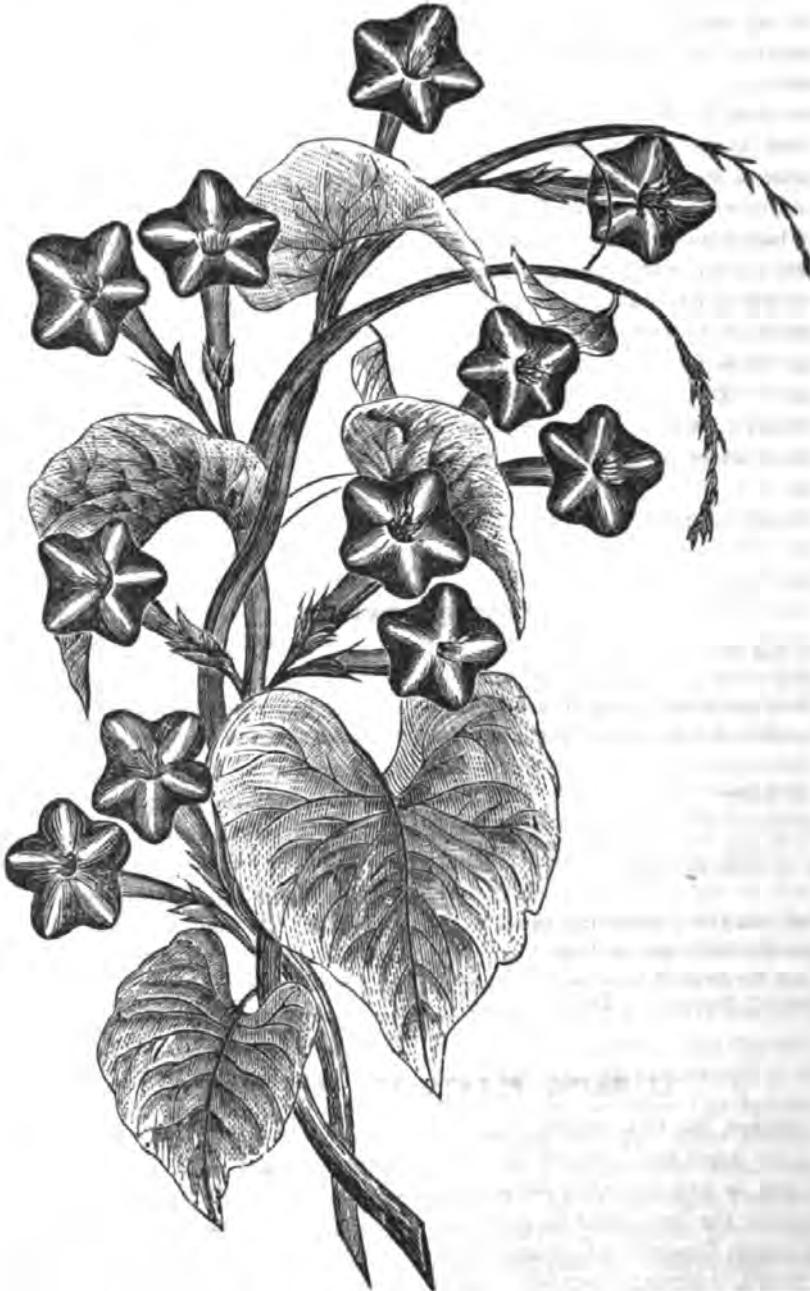
OUR number for this month may not come to hand too late for the lady reader to put in practice what we suggest with regard to the decoration of the home with those most beautiful of ornaments—climbing plants. Among vines which may be used for the bay-window or sitting-room, and which will repay the little care which is indispensable to their health, we would mention the symmetrical smilax, the luxuriant cucumis, cobus scandens, whose

large bell-shaped flowers and elegant leaves always delight the eye, the maurandya, which may be trained to great length over trellis, door, or window-frames.

Our engraving presents a view of the ipomea coccinea, a species of convolvulus, which is conspicuous among flowering climbers for delicate and intrinsic beauty, and well-suited for window ornamentation as it is a very rapid grower. It will usually begin to bloom in four to six weeks after

planting the seed. The flowers are small and star-shaped, varied and brilliant in hues, and produced in great profusion. Many who fail with almost everything else usually succeed in growing this plant.

it be mixed with sand, the plant is sure to thrive with ordinary care. If leaf-mold can not be obtained, use garden-loam mixed with sand; but, in this case, water the plants freely with liquid manure. Care



IPOMEA COCCINEA.

If any advice is required about the planting and care of this creeper, we would say, briefly, that the best of soil—fine, dark leaf-mold from the woods—should be used. If

should be taken that they be not exposed to frost, for the slightest touch will check their growth and make them miserable and sickly all winter.

THE WAY IT ENDED.

CHAPTER VIII.

THE STRUGGLE TO BE FREE.

PERHAPS a week after that brief "good-bye" at the door, there appeared in Mrs. Campello's journal an entry which read in this wise:

"I have thought the matter all over with prayer and tears, and I have come to the conclusion that there must be something morally wrong in the life I have been living. I fain would not think so, because I shrink from the strife and struggle of change in that which I have always regarded as unchangeable and eternal.

"It is awful to feel the very foundations of one's faith breaking up, or to find that it is too rotten and insecure to build any reasonable expectations of a healthful and helpful life upon.

"It is like rousing at mid-sea to the fearful knowledge that all is ventured in a sinking boat; that there is no safety but to spring out into the rolling tide and strike bravely alone and unsupported, save by trust in God, to the sure port of peace, happiness, and fulfillment of being to which we all set sail, but at which, alas, too many of us arrive after almost fatal shipwreck, and long, weary, and hopeless striving.

"It is so dizzying and bewildering to see the rocks on which we have been solemnly warned not to run, changing to beautiful illuminated barges bound for the blessed shore toward which we reach with longings that can not be uttered in speech. Whether to put confidence at last in that we have been bred to distrust, sadly perplexes us after we have come to reject what we have been diligently schooled to receive as absolute good and immutable truth. As for me, though I know not clearly what to do, I am convinced of what I ought not to do. To hold myself from wrong action will perhaps prepare me for right action. It may be enough for the time that I see I must cut loose from the old corrupt standard of duty to which I have clung as the martyr to his cross, feeling that salvation rested therein. After this I can but trust it shall be made clear to me, the way I am to go, the thing I am to do.

"Singularly, I can not take counsel in this matter, even if it were offered me, which certainly it is not. My dear friend, the wise and good Dr. Lacrosse, who has lifted me measurably out of the state of misery into which she found me almost hopelessly plunged, utters not even a word of suggestion as to the course she deems just and proper for me to pursue. I might, indeed, think her wholly-unconscious of the struggle I am undergoing, so little she seems to note, by look or comment, the abstracted mood in which I have moved to my slow conclusion.

"Yet without the faintest reference to personal troubles, she has, from the beginning of her dealing with me, instructed me in truths of which it was not possible to make practical application and fail to perceive the relation they bore to my condition, though not even the most delicate allusion were made to it. The irresistible logic of facts alone has forced home to me a sense of the wrong of my position and the necessity of a change which shall restore the lost dignity of self-respect, and the praise and harmony of life essential to any good and satisfying work and usefulness in the world.

"But, though I decide my own fate without advice, I feel an unspeakable longing for the comfort and support of sympathy in the step to which I am compelled, and must confide to madam the resolution I have reached, trusting in her approval and encouragement of my choice. This, indeed, I need to sustain me after once so cruelly deceiving myself. Ah! the bitter, bitter fruits of self-deception! I can see that Ariel has no patience with me. In his heart, perhaps he utterly despises me. I can not blame him. I have forfeited his respect and am deserving of his contempt. None the less, it is cutting to the soul, and so cruelly crucifying that I strive to think of it as little as I may. Very likely he contrasts Nora's grand womanly action with the weakness and folly of mine, and finds only pity and scorn for a creature so unworthy as I. Nora is noble and adorable. Under all the weight of shame and sorrow

thrust upon her by my most ungracious brother, she has walked bravely forward with hands outstretched in charity and helpfulness toward the sinning and unfortunate, herself all the time developing the graces and loveliness of angelhood. There is that in her glorious womanhood which would command the admiration and reverence of any man with Ariel's quick sense of beauty and nobility of character. There can be no doubt that all the homage of his royal soul is rendered to Nora Darley. That is just. I would not have it otherwise. Heaven helps me always to rejoice in the love and happiness of these noble ones. Heaven save me from remembrance of my own loneliness and misery."

These last sentences were written with many erasures and traces of blistering tears; then the book was pushed aside as though with impatience and self-disgust, and the woman's golden head fell upon her folded arms in troubled thought and prayer. The task before her was one from which she had reason to shrink with dread of the misunderstanding that was certain, or would have been certain to ensue had she been dealing with substance, as she supposed, instead of a harmless shadow. To announce the determination at which she had come to the man who had held it a God-given right to control even the direction of her thoughts—more, to impart to them shape and coloring, was an undertaking of a serious and very novel nature. For she could not yet escape the fettering sense of bondage to an influence which would never have suffered the consideration, the suggestion even, of an independent action; and to beard the baleful power with a sudden assertion of liberty was a somewhat bold proceeding, and a little agitating to nerves not yet wholly emancipated from the thrall against which they had long protested. Moreover, it was a perplexing matter to decide on a method of broaching the subject of separation, and of explaining her motives for it, which would be at all intelligible to the gentleman's mind, or afford the slightest vindication of her purpose. It was with a feeling of discouragement, therefore, though with unabated firmness, that she took up her pen to write to the Rev. Campello

what she must, or die a thousand living deaths. Two or three attempts she made to set the case in clear and true light before eyes that she felt were fatally blind to the luminous truths that she saw; and impatient, at last, with an effort she knew to be fruitless, she tore up her vainly appealing and explanatory letters, and wrote simply the following brief note:

CALVIN CAMPELLO: I have come to the decision that I can not consistently, with duty to myself, return to you. It will be useless for you to seek to change my resolution. It is fixed and irrevocable. I will send for the unfortunate child who shares the burden of sin and suffering resulting from our most unhappy union. I take that charge upon myself, not from love, but from principle. Let the past, so far as it may, be forgotten, and let us be to each other as the dead.

GRACE STAUNTON.

She was sitting back exhausted after this protracted and trying ordeal when Madam Lacrosse came quietly into the room with gentle, motherly greeting.

"How is this, my child?" she questioned, bending to kiss the pale face. "You bear the marks of severe mental conflict and pain, which, to be sure, is better than the old lethargy and torpor of disappointed and frustrated powers, but you should beware of trying yourself so much."

For explanation Grace shoved the sheet she had just traced into line of observation, leaning her head restfully against the arm that half encircled it.

"You see I have had, of necessity, something of a struggle in coming to a determination like this," she said when madam's eyes glanced from the letter back to her white, but resolute, face.

"Yes," slowly acquiesced the doctor, thoughtfully studying the subject before her as though called to the diagnosis of a new case. "You are quite sure, my dear Grace, that you understand yourself, and are making no mistake in this matter?"

"Quite sure," was the very decided reply. "The feeling of repulsion has been definite enough, God knows, since my first conception of the true character of him

whom I had promised to love, honor, and obey. But I have been a long time learning that this feeling was not a sin against which I must strive with all the might of heart and mind, though I died in the awful struggle. And even after I came to perceive that the sin lay in my disregard of my clear instincts of right and wrong in the case, I durst not trust to their guidance lest the impulse to do so should be a suggestion of the devil, for I had always esteemed the covenant of marriage so holy that I could not contemplate any violence to it without a shudder of horror, doing reverence to a form sanctified by the Church while I profaned and desecrated its actual spirit. Little by little I have come to realize the truth of my position, to distinguish between the real and the false in a relation that has in it all the elements of heaven or hell, and though I have been tossed and torn with doubts as to whether I was led of God or mocked by demons, I have followed my convictions to this final issue beyond which I have no care to see. I have chosen the right and will abide by the result."

"You are tranquil and satisfied?" madam rather affirmed than questioned.

"Aye," the hardy-pressed soul responded with infinite relief and content.

"Suppose that, at any time before you arrived at this decision, death had set you free in the natural way from a tie which you have now voluntarily sundered," the friend suggested with cautious approach to a communication which she felt the time had come to make. "Would you have considered the relation in its present light?"

"Very likely not," Grace returned, after a space of thought; "I should have put on the prescribed robes of mourning and bowed my widow's cap with the usual pious cant about the mysterious dispensations of Providence."

"You have not heard from Mr. Campello since you have been an inmate of our home, I think," madam said interrogatively.

"No; but that is not strange. He rarely writes in his absence, unless he has a command to enforce. He is too much occupied with the conversion and salvation of others."

"Do you recollect that day you left town, a little confusion and excitement ensuing upon the starting of the train?"

"I don't recall it."

"You did not catch the rumor that ran through the car of an accident befalling some one in stepping from the train?"

"I could not have noticed anything of the kind," Grace replied, turning her eyes in startled inquiry on madam's quiet face.

"You did not know that a telegram announcing such an accident was sent you here within an hour after your arrival?"

Grace shook her head, her breath coming quick and hard, her fascinated gaze fixed on the countenance of her friend.

"You mean —" she gasped, getting up and turning slowly around.

"That you are free by human law," was the tranquil response.

Grace Staunton shaded her eyes with her hands, and stared with bated breath into vacancy. It seemed to her that Calvin Campello with his old, snaky, sinuous movement had glided in and stood by the table, following with flexible tapering finger the words she had traced for his eyes. Involuntarily she sought the protection of friendly arms.

"I am not free," she whispered, laying her face in a white tremor, on madam's bosom. "Human law nor death even can not free me. The influence of this fatal association is coiled around my very life, and it is only possible to grow gradually out of it. I must find some work that shall absorb me, body and soul, heart and brain, trusting so to escape, at last, the thrall that has lain like a palsy on all my powers."

"Yes, dear, that will be best," Madam Lacrosse said soothingly; "but you must bide with me yet a little longer. The bird with clipped wings must tarry until time gives her strength for sustained flight. Put away these harrowing fears, and brooding thoughts of ill, and come out into the blessed sunshine of God's world. There yet is love, peace, joy, and fullness of life for you."

"I feel," murmured Grace, "that with you, dearest of friends, there is protection and love and strength, and that I must, indeed, remain with you a while longer."

CHAPTER IX.

UNCERTAINTIES.

Two years later, Ariel Lacrosse sat in his sanctum glowing with delight over a newly-published book, which, to review, was a keen pleasure in most agreeable contrast to much of the tasteless work that he was compelled to do in that line. Its spirit was so fresh and unhackneyed; it took hold of vital questions and vexed points of controversy with such simplicity, frankness, sweetness, and reverent daring; it went so directly to the heart of things, that it acted like inspiration on his own flagging energies and momentarily fainting faith in the possibilities of achieving the great results for which he had manfully labored. It was, he said, so free from the platitudes, catch-words, insufferable cant, and egotism of party; so surprisingly original in its observations; so straightforward, candid, sincere, and earnest in its discussions; so clear, discriminating, honest, and unprejudiced in its judgments, that it could not fail to exert a happy and harmonizing influence on opposing factions by bringing each to fair, frank, rational consideration of the subjects treated. And he quoted page after page in illustration of this felicitous quality of the book, and of the rare charm of its mingled strength and sweetness, until—moved by a sudden impulse or suggestion in character with his habit of appropriating and assimilating all available literary power—he drew toward him a fresh sheet of paper and dashed off the brief letter here appended:

"TO THE AUTHOR OF ——— :

"*Dear Sir or Madam,*—I am so sincerely pleased with your views that I should esteem it a great favor if I might secure an occasional expression of the same in the columns of ———. If agreeable, will you grant me the pleasure of a personal interview to make such arrangements as shall meet with your approval, and give us the honor of presenting to the public a few of your clear, candid, and comprehensive reflections on the questions of the hour?

"Respectfully yours,

"ARIEL LACROSSE."

Enclosing this note in care of the publishers, who had given no clew to the unknown author, our young man awaited the issue.

* * * * *

Grace Staunton—looking far happier, more hopeful, forceful, and resolute than when we last saw her—sat this summer afternoon on the beach at a quiet seaside resort, whither, with her brother, she had come for a brief holiday, or rather for the suggestions and incentives to farther work which one seeks and finds in intervals of repose.

They were watching with loving interest the expression of character in face and attitude of Nora Darley's boy, who was taking his first breathless view of the ocean, which so absorbed and possessed him that he seemed utterly unconscious of their presence.

"A grandly beautiful soul attuned to the finest harmonies and responsive to the most heroic strains of nature and of human life," Grace said, as, in that spirit of isolation which was his sad birth-mark, he moved apart from them and stood with hands clasped in adoring awe—his bosom heaving, and his splendid dark eyes glowing and dilating with the emotions inspired by the vastness and mystery of the sea which touched some sympathetic and hitherto unsounded chord of his being.

"Grace," Archie Staunton returned, laying a hand upon her arm in emphasis of his words, "the child is wonderful—wonderful! And he has been the salvation of me. I can not think what my life would have been without him; though, it is true, I would not have thought two years ago that anything so apparently insignificant as the existence and influence of a boy like that could have changed the current of my purposes, and wrought in me such a difference of feeling regarding the real aims and pleasures of life."

"You are, indeed, a changed man, Archie," his sister said, touching the hand upon her arm with grateful affection. "I scarcely recognize in you the cynical, skeptical, profligate brother of old times, with whom—if the truth be confessed—I had

very little sympathy. And yet, there was in you all these grand elements of character which you are developing, and which compel my love, admiration, and honor to a degree that now makes me wish to be always near you."

Archie Staunton responded to this acknowledgment with a fraternal pressure of the hand seeking his.

"I have wondered sometimes," he went on, "whether Nora considered and calculated the effect of such an association on me when she gave her consent to my visiting the boy and occasionally taking him away with me, as upon this occasion, to receive such impressions and gather such instruction as his quick, eager mind will absorb from the beauties and grandeurs of nature—the graces and refinements of art. Certainly, she manifested by this concession a confidence in me which I have striven honestly to merit, and which has aided not a little in the development of those possibilities of manhood which you do me the honor to recognize. Nora is a grand, noble woman, my dear sister."

"Aye," responded Grace, with generous approval, yet with a curious thrill of pain at her heart.

"And she has inspired me with a respect and reverence for womanhood that I never knew before," the gentleman continued, with the enthusiasm of the true worshiper. "She has risen so gloriously above the wrong I did her, and by the dignity, power, and gracious sweetness of her life has so put to blush the contemptible meanness, cowardice, selfishness, and utter poverty of mine that every instinct of honor and fidelity that is in me bows in homage to her and to all who, like her, have triumphed over the cruel conditions imposed by villainous sneaks and wretches masquerading in the character of the eternally true and devoted lover. I don't think I was innately bad, Grace; but I held, in common with the majority of men, those peculiar and unjust opinions and impressions regarding the virtue of your sex to which I, as they, have been trained from earliest youth. When, therefore, by the tenderest arts and subtlest persuasions of love I had succeeded in conquering maid-

en innocence and reserve, the whole force of my education came in to question and condemn the unhappy victim, and to argue that I was but the stumbling circumstance of an inevitable fall which was only, at the best, a matter of time and opportunity. And it followed, of course, that, with the instinctive self-protective policy and the exact uncompromising sense of propriety, purity, and honor which a man has in his dealings with and judgments of women, it was not possible to trust one whom I had proved susceptible to temptation; and, with the beautiful consistency that grows out of such reasoning, I turned and trampled in the dust this tender white soul whose sins were snow beside the pitchy blackness of my own guilt. Added to this injustice was the wrong I did in visiting upon her the rage I felt toward her father, whose worst crime, in my eyes, perhaps, was not his murder of Ralph Staunton, but his contempt for Ralph Staunton's son. My God! with the feeling I have now, I would, had I stood in his place, have poured every drop of Staunton blood upon the ground—I swear, I would not have left a representative of so dastardly a race upon the face of the earth!"

"Hush!" Grace breathed, with a look toward the boy, who, escaped a little from the spell of awe which at first possessed him, had wandered out with childish attraction after the shelly treasures of the beach.

"He is not of us," her brother said, answering her significant glance. "Victor has the heroic Darley strain in his blood, and will shed the lustre of a new glory on our name, if, when he comes to years of understanding, he chooses to bear it. Forgive me, Grace; I do not mean to include you in this sweeping scorn and denunciation of family; and yet, even you, who were always the angel of the house, have developed new and grander elements of character through the peculiar trials of your lot than belonged originally to our stock."

"Heaven knows I have suffered enough to bring forth new virtues to our name," was the fervently-uttered response.

"Well, thanks to the influence of Nora and the child, I feel that I, too, am growing toward a possibility of adding something

besides vices to the records of our house," Archie Staunton returned, with a humility in such contrast to the old self-assertive and haughty airs that his former associates could not have recognized him. "I would not fail to hold Victor's love and respect," he added, with a solicitous look toward the boy, from whom, indeed, his eyes seldom wandered; "and I could hope sometime to merit the forgiveness and restored confidence of Nora herself."

There was a brief silence between the two, in which it could not have been gathered what was the thought of either from any connection of the next speech with the conversation that had preceded it. Did Grace mean to caution her brother against the hope he had expressed—or, was she simply striving toward the true, unselfish spirit of renunciation which she felt was required of her, and to which she gave unconscious and disconnected utterance?

"I am glad," she said, "for Ariel's sake, that Nora is so grand and noble."

Archie Staunton turned on her with a brow of thunder and an eye darting with the lightning of apprehension and resentment inspired by her suggestion.

"For Ariel's sake?" he repeated, with contemptuous and indignant rejection of the insinuating phrase. "In God's name, why should Nora be grand and noble for Ariel?"

Grace shrank from him a little, startled by his vehemence, and confounded by the passion of his question, to which she knew not clearly how to frame her answer.

"Have not their sympathy of aims, their association in benevolent work, their union of interests for years, drawn their lines irresistibly into one current?" she asked, gently.

Staunton got up with an impatient, disdainful shrug, and strode off across the sands, gnawing his white lips in the speechlessness of pain and anger excited by this new suspicion, of which a thousand confirmations came trooping to his mind like mocking devils to torment him. Reason assured him that he held no right or power to control a love which he had forfeited; yet, all the man's sense of wrong and injury

was aroused by the thought of another encroaching even upon his lost dominion, and appropriating the affections which he had once absolutely possessed.

Would it have been different had he desired to escape a hateful thrall? He did not stop to dissect his feeling on that point. He could not think clearly under such distracting doubts; he could not arrive at conclusions under such agonizingly uncertain conditions. He must know the uttermost truth of this matter—he *would* know it before the set of next day's sun.

Having paced his way to this decision, he turned and walked back to the anxious, watchful-eyed waiter he had left to a pain not less cruel than his, because it was borne in silence.

Grace rose with extended hands as he approached.

"Forgive me, Archie," she said, "I had thought that you knew all this." And the pleading eyes questioned—Could not your man's strength endure a truth that I have carried hidden and patient so long?

"There's nothing to pardon in you, my dear sister," he answered, kissing her forehead gravely. "I should know all and more than you have suggested, and I shall lose no time in getting at a clear understanding of the case. I promised Nora to return Victor to-morrow. If I can wait so long in this horrible suspense I will not forestall my word. But be ready for the early morning train, Grace; you are going with me to 'The Lodge' this time."

She shrank back as though to avoid a stab, throwing out her hands against the threatening danger.

"I can not, Archie," she said, in breathless haste; "I—I have other plans."

"Defer them, then," was the uncompromising response. "You will go with me to-morrow. You must suffer me to assume for a little the old dictatorial habit of my youth. I shall not yield to you on this point. I have been charged by your friend, Madam Lacrosse, over and over, to bring you to the 'Home' and the 'Rest' for a friendly and family visit, and I am going to do it now. No excuses—they feel your neglect sadly up there. Madam complains that you do

not even write. Nora says, 'Grace must have quite forgotten us.' I don't know how Ariel thinks—I seldom meet him. But you will go."

She looked at him in dumb despair of any rational escape from an event of which he talked as resolutely as though it were marked by an inexorable fate, and as coolly as though it were one of unquestionable pleasure instead of inexplicable pain that she would not for the world have betrayed by unreasoning remonstrance. Was there not a possible strength to be gathered from submission to a trial which at last she seemed left without plausible excuse to shun?

"Come, Victor, my boy," Archie called to the child, as he led the way back toward their inn. "What, have you not had enough of the ocean yet, my brave man? Some time I will bring you to see it storm. Ah! my innocent youth," he apostrophized aside, "when you come to the passions that toss the heart on their stormy tides, these grandeurs of nature will dwindle to insignificance."

CHAPTER X.

"WHEN THE MISTS ARE CLEARED AWAY."

LACROSSE read and re-read with some surprise and inward questioning the answer returned to his proposition to the unknown. It was written in a masculine hand, with a brevity that piqued curiosity, and a familiarity that tantalized him with its suggestion of mystery. It seemed like a trick of his own household, but an instant's reasoning convinced him of the folly of such a suspicion. He turned the sheet critically over, examined the monogram, inspected the date, studied the character of chirography, and read again:

"LACROSSE:—The author of — will be at Nora Darley's to-morrow evening, when the interview you ask may be secured.

"S."

Who was "S"? And why at Nora Darley's? He was certain that his friend at "The Rest" knew nothing of the author, and yet his or her presence there

would imply an interest more or less personal and familiar. He had not, however, very long to wait for an explanation of the puzzling circumstance. The letter written the previous night had come to hand at noon, and he made hurried dispatch of the day's engagements, taking the earliest evening train for the point toward which his thoughts had set in steady current all the afternoon.

As he walked up the little eminence on which the "Lodge" spread its wings of shelter, he caught, through the interlacing vines, the gleam of a golden head, which thrilled his heart with a sudden flame of hope.

At the same moment, his mother, with love-quicken sense marking the fall of his approaching steps, came out of the shadow, touching her finger to her lip with the expression of one who has something pleasant to communicate. He returned her greeting with his usual affectionate ardor, but his glance shot past her like lightning, to the black-robed figure with the trailing locks of gold shrinking back in the vine-screened recess of the veranda.

"Grace, darling! Heaven bless you! Have you manifested yourself at last?" he cried with repressed joy, reaching her at one step, and gathering her closely in his arms.

"Pardon," he said, releasing her at the first faint motion of resistance, "I felt you had reserved to me this right."

She sat down, trembling with a fearful, deprecating, backward look over her shoulder, as though at some forbidding observer who needed to be pacified for such demonstrations. Naturally, his eyes followed the direction of hers, with surprise and questioning. There was no person visible. Madam herself had disappeared mysteriously after her hurried greeting, and there was no sign of human presence, beyond an indistinct murmur of happy voices in some distant portion of the house.

"I had hoped you might signify your wish that I should seek you long before this," Ariel resumed, seating himself beside the woman he had most desired, yet least expected to meet. "I have almost despaired

at times of your fulfillment of the trust which your last words inspired, and have been tempted more than once to break over the restrictions that you imposed, and seek you without permission; but, so far, you must do me the credit to acknowledge I have held to the strict letter of your command, and waited, however impatiently, for some signal of your desire to see me. Shall you not give me the joy of assurance that this chance meeting—if, indeed, it be only chance—holds some hidden rapture of happiness for you?"

She put her hand in his, but almost instantly withdrew it with the same shuddering, backward glance of apprehension, which had before perplexed him.

The faithful lover looked at her in grave wonder.

"Grace," he said, with sudden insight into the mystery, "do you still feel the clutch of the old power on your life?"

"At times very vividly," she answered, shivering with dread. "And more than ever when my heart turns to you."

"Grace, look at me! Why do your eyes shun mine? You need the assistance and protection of a strong, true, vital, living love to break this evil spell which would benumb every faculty of your soul if you did not strive to resist it. I have left you too long to fight alone the old ghostly terror that reaches out its cold, clammy hands even from the grave, to grasp at the control of your life and happiness. Look at me! Turn your gaze forever from the horror of the past. Feel in every pulse and fibre of your being, that I love you with a love that knows no variability or shadow of turning from its first true point of attraction; a love that seeks only your purest, highest good, intensifying its powers to serve and bless you in the future by so much as it has failed, by lack of wisdom, to shield and save you in the past. Will you accept such love, dear heart, and give it leave to prove itself in daily deeds of devotion?"

She answered by a straight, tender, trustful look into his luminous, magnetic eyes, laying her hands with self-surrendering grace in his.

"But," she said, after the long silence in which lovers find more eloquent and satisfying expression than can be put in speech. "But"—a wave of memory tossing stormily over her—"I thought you loved Nora Darley."

"What!" Lacrosse questioned with a closer clasping of his new-found happiness. "Had you that shadow also to fight down? Verily, 'we are such stuff as dreams are made of'! I have to confess to once entertaining the vain notion that Nora loved me. Ha! she very quickly set me right upon that point. She doesn't believe in any such folly as misconceptions and misunderstandings in matters of the heart. She will tell you about it. Is not that the shimmer of her white robe that I see approaching us through the twilight? And what is that blackness stalking at her side? Your brother Archie? They lean toward each other—the light and the darkness—like reconciled and happy lovers. Or is it simply the looking through love's lenses which gives that peculiar and significant inclination to objects? Good evening, Nora—Archie."

The "light and the darkness" came up the steps together, with hands outstretched to the pair who had risen to greet them.

"Well met, good friends," Archie Staunton said, with cordial salute to Lacrosse, confronting whom, by a sudden sweep of his arm, he brought his sister Grace. "I have, my dear Ariel, the pleasure of presenting to you the unknown author of —, a work with which, from your recently published critique, I judge you to be well satisfied. Grace, allow me to make you acquainted with Lacrosse, journalist, poet, lecturer, philanthropist, who, I learn, desires to make an engagement with you, the nature of which I leave him to communicate."

Ariel stood before the lady, dumb with surprise at the unexpected revelation. He had utterly forgotten the errand which had brought him thither that evening. He had not once thought of the unknown author since his eye caught sight of Grace through the flickering shadows of the twilight. He was totally unprepared by any suspicion to find old friends masquerading in literary

character. But with quick appreciation of the situation, he dropped upon his knee and touched his lips reverently to the hand extended graciously in acknowledgment of the introduction.

"I have just made a formal offer of my heart to the woman I love; I here tender my sincere homage to the artist whom I admire," he said, again saluting the slender hand.

"But this premature betrayal of my secret savors of conspiracy and underhanded dealing," Grace observed with an inquiring look at her brother.

"I will explain," that gentleman made haste to reply. "Last night, after looking over our mail together, I found, accidentally mixed with my letters, which I had carelessly gathered up, this opened note from Lacrosse through your publishers, requesting the pleasure of an interview, and I then and there conceived the plan, which consultation with you would have frustrated, of arranging, upon my own responsibility, the meeting which has occurred, to all appearance, very satisfactorily and happily."

"And you were my correspondent 'S'?" Ariel said with a smile.

"Yes. I had a more absorbing interest in this matter, from the fact that Grace had just intimated to me the existence of a tenderer sentiment between you and my wife than I could find it in my heart to approve, and I was wild until I made opportunity for the development of the truth, for I have not a woman's patience and resignation in these things."

"Ah?" Lacrosse breathed with a tenderly quizzical look at his sweetheart's face, whose flushings the falling veil of the twilight mercifully covered. "Tell them about it, Nora," he said, turning to that serenely self-poised lady.

"I will," she responded promptly. "Ariel Lacrosse, you must know, never disappoints a friend. He is a chivalric gentleman, always ready to lead a forlorn hope, and to sacrifice himself in defence of the weak. I had been, in the world's phrase, 'unfortunate;' I had the world's contempt, the world's persecutions to endure. He pitied my single-handed combat with fate, he de-

sired, out of the great magnanimity and chivalry of his soul, to give me his support and protection under the sanction of the law. I had a child—he conceived that I should have a husband."

"Be a little lenient towards me, Nora," Lacrosse interposed, his own face flushing in the darkness.

"As lenient as the truth will admit," was softly returned. "So he came to me one day long ago—this brave, self-sacrificing gentleman—saying quietly, 'There is one woman in all the world whom I love—Grace Staunton—but she seems lost to me. I honor and admire you, Nora Darley; I sympathize with your aims; feel a helpful interest in your work, and would loyally bear and share with you the burdens and pleasures of life. Will you marry me?' I answered, 'There is one man in all the world whom I love—the father of my child—but he is not worthy of me. You are grand, noble, true; I depend on your sympathy, your interest, your loyalty, but there is no feeling in my heart that would prompt me to marry you! I honor and revere you more than any man living, but my love turns'"—

She wheeled slowly around and put out both hands to her once faithless, but now thoroughly loyal and adoring lover, who reverently taking them in his, dropped his face upon them with the fervently uttered prayer, "God help me to be worthy of you, my noble, long-enduring wife!"

The hush which followed this intensely earnest appeal, was broken by a blaze of light from the door in which, looking around, the four saw, standing, Madam Lacrosse and the child Victor. "Your blessing, mother," they all cried, with one breath.

The serene-browed, silver-haired lady came forward with love's intuitive understanding, giving to each a congratulatory and tender greeting. "The atmosphere seems charged with blessings, dears, which your chastened and purified love invokes," she said. "I can even feel the souls of those who went troublously out of our visible life so long ago, coming into more harmonious relations and conditions through this happy reconciliation which makes, through you, the fulfillment of their human destiny an

easier possibility. The cloud of wrong which has these many years enveloped us is swiftly dissipating, and we are coming into the full power of lives adjusted to the harmony of heavenly laws. Let us rejoice with reverent and thankful hearts."

Yet a little shadow of trouble crept into the soul of Grace as Victor drew near, slipping his arm with shy affection about the neck of Archie, who had stooped to caress him.

"Ariel, can you endure the thought of Campello's wretched child?" she whispered.

"Dear heart," he answered with assuring tenderness, "we will share cheerfully together the sad effects of our sin."

"*Our* sin?" she questioned doubtfully.

"Ours," he replied. "For had I watched faithfully over you, you would not have fallen into the power of the dragon."

"And now, with an outlook to the future," resumed Madam Lacrosse, covering this whispered aside by a slight change in the position of the chair to which she had been beckoned by loving hands. "What think you, my children, of the new communistic movement in which we are called to participate?"

It was Archie, I think, who responded, "Grand, if only it might prove a success."

"The principle is true, all the same," Nora said, "whether this proposed experiment be a success or a failure."

"And since we have faith in that principle, are we not in honor bound to manifest it by open encouragement and personal support of any worthy practical effort to embody it?" suggested Madam. "The principle of communism lies at the foundation of true social order as the perfect co-operation of the vital organs of the body lies at the foundation of physical health. The combination of related and sympathetic forces for resistance of evil and development of good, is, indeed, but the projection upon a human plane of the angelic societies which constitute the grand order and harmony of heaven. That the solitary attempt at such an ultimatum should so often prove a failure is evidence rather of the strength than the weakness of the principle, since from its very singularity, it attracts heterogeneous

elements which can not be assimilated and brought into harmonious operation. It is like a single member of the body striving vainly to perform its function, while the whole system of which it is an inseparable fraction is disorganized, and in a state of anarchy and confusion; yet we do not throw discredit on the law of human organism because the one inspired member inevitably fails. When such efforts shall multiply, there will be an attraction to each of the special properties adapted to its needs, and the faithful action of each association in its own peculiar province of use will result in the clear vindication and establishment in men's minds of the truth of the divine law of socialism."

"With us, however, it is not a question of principle, but of our adaptation to the requirements of the particular organization that represents it, and of its capabilities of satisfying and giving full expression to our individual powers and aspirations," Lacrosse said thoughtfully.

"Surely," Grace responded, "its aims are broad enough to cover the whole field of human endeavor, and its conditions are far more favorable to success than the ordinary single hand-to-hand struggle with the powers of ill."

"True. But one does not want to be restricted by arbitrary methods, or have his limbs lopped to the measure of any procrustean bed; that would not accord with the nature of man which tends toward a superior growth; and unless we can maintain to a degree our individual freedom, we can not hope to do successful work by any organized effort. Still, I am inclined to think, with sister Nora, that this new venture fairly represents the aim and scope of our life plans, and to agree with our beloved mother, that we ought to put our faith in principle to the test of practice, and I move that we make a candid trial of ourselves for a life that will require much self-discipline and the exercise of genuine brotherly love. Let us have a clear vote on the matter. All in favor of union with the P. G., signify by the 'aye' of faith."

And the "ayes" were unanimous.

THE END.

THE EX-CONVICT AND HIS MISSION.

[In the October number some extracts from a letter were published containing many interesting details concerning the work of a reformed criminal among the Santhals of Hindostan. As some of our readers desire to know more of this matter, we herewith give a description of the tribe and a few more particulars of the remarkable work.—*Ed. P. J.*]

“INDIA is peopled by two distinct races —the Hindoos and the aborigines. It is to the last-named of these races that the Santhals belong, who, according to their own traditions, came originally from Armenia, from the Mount Haratta (Ararat). They first settled in the Punjab, where they say their institutions were formed, and where they lived in prosperity for many generations. Moreover, they claim that before that time they served the true God, that created the heavens and the earth; but that coming to the Punjab they forsook Him and served other gods. The Santhals, according to tradition, lived in the Punjab a long time before the Hindoos came into India; and when these latter came they drove the Santhals back into the mountains. The Santhals are much more unsophisticated than the Hindoos in their institutions, habits, character, and manners. They live in villages, numbering several hundreds, each presided over by a chief and four other officers, beside two priests. The tribe has three courts. The first, or lowest, is the Munchec, composed of the head people of the village; the second is the Taragna, or district chief, who has many villages under him; and the third is the General Assembly, which meets once a year during the hunting season.

“The conversion of a single native in one instance led to the bringing over to the ex-convict of the people of five villages. Immediately they formed themselves into a church, each village constituting a branch church. They at once set about building chapels themselves. At the first church meeting a remarkable thing took place. Mr. — explained what a church was, and asked whether they had anything for discussion or not. ‘Yes,’ they said, ‘having become Christians, in what way shall we

best show our gratitude?’ He told them that as the Lord had cleansed their hearts, they could best show their gratitude to Him by keeping them clean, and that if they were drunkards before, but did not drink now, and if they cheated before, but did not cheat now, then their neighbors would say, ‘There is something different about these people; surely there must be some good in Christianity;’ and so it proved.

“It was not to be expected, however, that the adversary would be idle while such a work was going on. The indignation of many chiefs was aroused, and they made up their minds to excommunicate the Santhal Christians. But the missionaries were instrumental in bringing the chiefs to an agreement that no native Christians should be excommunicated. Then they commenced to build their own chapels, pray in their own villages, and maintain their own pastors and schoolmasters; and they have, in addition, formed a missionary society to carry the Bible truths to other people two thousand miles away. The converts, as a general thing, show a real and a thorough change. The money the men used to spend on drink they now devote to the mission work; and the women, instead of keeping their ornaments, have brought and laid them at the feet of the missionaries, saying, ‘Sell them and put the proceeds in the mission-box.’”

All the facts not stated in the letter of his correspondent, Dr. Wines gathered from an address made by him two years ago at a missionary meeting in London. The speech was reported in the *Times*, and its statements appeared to the conductors of that journal so extraordinary, so almost incredible, that they detailed a special reporter in India to visit the scene of these labors and verify the story. As the result of his inquiries, the reporter addressed a series of letters to the *Times*, in which he confirmed all that had been related, and said, in substance, what the Queen of Sheba said of the wisdom and glory of Solomon, that the half had scarcely been told.

Having mastered the Santhal language, this ex-convict had prepared a grammar and dictionary of it, and had come to get them printed. These works he dedicated to an old and famous European university in Latin.

A NEW WORK ON SOCIAL SCIENCE.*

WITH Fourier and Comte, Spencer and Carey, as predecessors, to make no mention of earlier works, written exclusively from the standpoint of metaphysics, the attempt to furnish a new treatment of the principia of social science is one that presumes, on the part of the author, either the possession of extraordinary ability, or an exhibition of extraordinary egotism. But if to the natural qualities of mind presumed by such an attempt, is added a manner of handling these great masters with a spirit of critical independence, in place of subservient deference to their views, and a frankly-confessed return to the metaphysical method of treatment, at least in part, there is still less possibility of taking any middle ground in reviewing the work of a new candidate for admission to the inner circle of standard authorities in one of the most difficult, complex, and unsettled departments of literature. Mr. Wright's book, therefore, which is generally described in the initial member of the preceding sentence, is one that admits of no ordinary notice; it must be reviewed with thoroughness, if of sufficient value to command attention at all; or, if a mere production of overweening egotism, it must be passed over in silence. The dignity and ambition of the author's intention preclude the mere conventional paragraph usually given to mediocre intellectual products, and restrain the sarcastic laughter with which failures are ordinarily greeted by reviewers.

The more the student of social science ponders upon the complexity and variety of the data—to employ one of Herbert Spencer's special terms—the more evident becomes the fact that in this department the task of analyzing and simplifying is one of extreme difficulty, and one that has not as yet been fairly and thoroughly met. If any amateur investigator in this field were to be asked what social science is, he would no doubt be puzzled to find a better definition than that of Mr. Wright—the

"Philosophy of Politics," or, again, with special reference to its religious aspects, the "Science of the Dispensations of Providence." And yet, while social science ought to furnish a comprehensive philosophy of politics as one of the results of a thorough inquiry as to its principles, Mr. Wright's definition appears to be defective in several particulars, and in none more so than in the fact that it is a definition of the whole by one of its parts. The term politics (from *Polis*, a city,) is too limited in its application to cover all the phenomena with which the sociologist has to deal. The term philosophy is also inadmissible; for a science is not a philosophy, and whatever may be the method applied, whether inductive or deductive, or mixed metaphysical and observational, the data of social science are the same, and their classification is substantially unaltered. Indeed, a candid review of the processes by which we arrived at the foregoing definition must necessarily lead the author of the "Principia" to a definition that is something more than a periphrasis of the thing defined. To speak of social science as the philosophy of politics is but an example of the manner of defining one thing by comparing it with another thing that bears a certain analogy to it, which prevails in the standard dictionaries.

What, then, is social science? The answer to this question depends on what is meant by the term science in its application to social phenomena. In order that a given series of phenomena may form a part of a science, they must be classified, arranged, and coordinated, according to their relations, into a coherent system. Taking the first order of social elements, classified by Mr. Wright as instinctive or spontaneous, namely: the individual, the family, the social circle, the precinct, the nation, mankind, and regarding them as the basis upon which a definition is to be framed, it is clear that the relations of the individual unit to the primary social unit, or the family to the secondary social unit, or circle of society to the third unit, or precinct, which is politi-

* *Principia*; or, *Basis of Social Science*, by R. P. Wright. J. B. Lippincott & Co.: Philadelphia, Octavo, cloth. \$3.50.

cal in its nature, and finally to the higher units of the nation and humanity, constitute the proper domain of social science. The connection and coördination of these relations into a coherent organism is the special work of the sociologist; and hence social science may be defined as the theory of the relations of the individual man to the general man. These relations are naturally classifiable as family relations, social relations, and political relations; and out of each set springs a special series of duties and obligations, which, according to certain received principles, are styled legal, political or moral. To illustrate this definition, the reader has only to apply it to the given circumstances that environ him in life. For example, in the New England States, the individual finds himself environed with six distinct sets of relations, each involving special duties and eventuating in special privileges, before his large and general relation to humanity comes into view; and yet they are all but special departments of his relation to humanity. These are as follows: Family relations, neighborhood or school district relations—each town being subdivided into several such districts; relations to the town as a primary political unit, to the country as a secondary political unit, to the State as a tertiary, and to the nation as a quaternary unit.

How really logical Plato was, when he merged the question of what our rights are into the higher question of what our duties are, the preceding analysis clearly shows; for, as respects family, neighborhood, and State, the idea of rights is simply the correlative of that of duties, and each is complementary of the other. It is from this constant interpenetration of rights and duties, and from the constant convertibility of each into the other, that society acquires its right to the administration of justice as respects the individual. In other terms, the idea of morality and the science of morals could only have arisen from social relations and from the coexistence of rights and duties that social relations presume.

This view of the development of morals, as a consequence of social relations, is one

that is strictly in harmony with the development of the brain during the period that intervenes between the savage state and a fully developed civilization. The brain of the cultivated European, for example, differs conspicuously from that of the negro, or the Indian, in the relative development of the middle lobes—a fact which Dr. Carpenter has been the first to dwell upon with emphasis, without, however, perceiving its application to this department of science. The anterior or perceptive lobes are scarcely longer in the European than in the American Indian. In the middle lobes, on the other hand, each advance in civilization is accompanied by a corresponding advance in the development of nervous tissue. It is not our intention, in noticing this important fact, to censure Mr. Wright for having inquired less exhaustively than an inductive scientist would have done, into the physiological basis of social science. Writing mainly from the metaphysical standpoint, such data naturally presented themselves to his mind as comparatively unimportant. Again, as one of our younger physiologists has proved, in a memoir on the development of the nerve centres of the vertebrate brain, which appears in a late number of the PHRENOLOGICAL JOURNAL, and that which mainly distinguishes man from the lower animals, is not the special development of the anterior lobes, although his superiority is very striking in this respect, but the higher relative development of the superior lobes, which are the seat of moral and æsthetic function. It is, indeed, to be greatly regretted that in a work of such masterly analytic ability as his "Principia," Mr. Wright should have neglected the valuable data that Gall's "Physiology of the Brain" furnishes to the student of social science; for, without assenting to the particular doctrines of Phrenology, he might, from Gall's work, have readily supplied himself with a basis for the classification of his data that would have stood the test of rigid scientific criticism.

And this brings on the question whether sociology can be successfully treated from the standpoint of metaphysics—that is to

say, whether of all the sciences it is not the most rigidly inductive, although involving most important groups of psychological facts. Professor Jacoby, of the University of Berlin, in a work not yet translated, in which he bases social science upon the comparative development of the nervous system, has certainly produced the most profound and original treatise that has been issued during the last half century, prolific, as it has been, in original treatises. Moreover, it was the splendid discoveries of Gall that first set on foot the great German movement that has eventuated in Jacoby's elaborate monograph on the evolution of society and its institutions. Neither in England nor in France, less still in America, has the movement started by Gall taken the form and name of a special science, except as Phrenology; but in Germany, under Wagner, Huschke, Ehrenberg, Helmholtz, Wundt, and others, the style of *Psychophysik* (psychophysiology) has long since come to designate a class of profound inquiries, and a new science has been interposed between physiology and psychology—a science that concerns itself particularly with the relations of mind to matter, and is the Phrenology of Germany.

Thorough as Jacoby's work is, and vast as is its advance in exactness and vigor of treatment, when compared with the conventional text-books of social science, it is, nevertheless, scarcely equal to Mr. Wright's in analytic ability or in comprehensiveness of statement; and the two, taken together, suggest the opinion that neither the psycho-physical method, with its exhaustive study of nervous anatomy and function, nor the metaphysical, with its utter neglect of that field, is alone adequate to the solution of all the complex problems that the subject presents. On the question of the natural relation of the sexes, for instance, nothing could be more lucid and conclusive than the Berlin Professor's induction from the data of nervous anatomy and physiology; but when, on the other hand, he comes to the treatment of the higher problems of jurisprudence, police function, and political organization, the American thinker far exceeds his German rival in

lucidity of statement and nicety of analysis. To Charles Fourier, the poet of social science, and Auguste Comte, its statistician; for the one is as really poetical in his method as the other is statistical—it is unnecessary to revert here, except to say that our author has steered clear of the vague, but daring, speculations of the former, while avoiding the empty and superficial though brilliantly-expressed generalizing and dogmatism of the latter. It should be remembered, however, to the high honor of Gall, that his work on cerebral physiology, with its exact method of induction as respects the instincts, emotions, passions, and general psychic constitution of man, first rendered Fourier and Comte in France, Spencer and his disciples in England, and Jacoby in Germany, possibilities in literature. By neglecting to master the data presented by physiological progress, our own toilers in this field, foremost among whom stands Carey, whose "Principles of Social Science" is a work of masterly acumen, have, after all, produced systems of ratiocination on social statics, rather than works conceived and executed in a scientific spirit.

Another important series of facts has been overlooked by Mr. Wright, namely, those contributed by Sir Henry Maine on the village communities of India; those of Von Maurer, who has supplied the only thorough investigation extant on the ancient village communities of Germany; and those of Le Pluy, who has exhausted the same field as respects France. It is only by studying such facts as these indefatigable inquirers have collected, that the evolution of social and political institutions in Europe can be traced out historically. With all the Aryan races in their infancy, as with the ancient Turanian, the existing Mongolian, the Semitic, the Tartar, the Eskimo, the negro, the first political unit was the village community—a self-acting group of families, governed by elders or fathers; whence the term patrician, from *pater*, as a title of nobility. The land owned by the community was variously styled, as *mark* in Germany and in England, or *by* in Sweden and Denmark. The modern town perpetu-

ates the ancient mark as a political division ; and that these ancient marks coined money and performed all the other functions of independent politics is proved by the frequency with which the term is applied to coins. Our whole terminology of trade carries with it the recollection of this primitive word. Markel, *mercator* in Latin, mercantile, commercial, and many other familiar adjectives, are all referable to the single syllable by which the ancient Aryan expressed the idea of a town. The members of this group of families held the land of the mark in common, each family being assigned a given tract for cultivation by the *batres* of the village, and individual property in real estate being as yet an undeveloped element in social statics, important as it is now. In certain favorable locations marks grew into cities, as independent politics ; and these cities, by conquest of their weaker neighbors, became the centres of larger political divisions and the *nuclei* of States. The importance of the city in ancient political history can only be understood by reference to the fact that, whereas our modern cities are of subordinate importance, and cities may spring up within previously-formed States, in the infancy of politics the city was an independent political unit, which, by conquest or by superior influence, gradually acquired outlying territory, and thus built up a State about itself as a centre. The origin of municipal rights, and of many curious points in municipal government, is to be sought in these very simple and comprehensible facts. The modern town is the correlative of the ancient mark, as the modern county is of the ancient tribal territory. When the feudal system superseded the earlier community system, the lord of the mark was styled a marquis, and the lord of the tribe a count. When this country was settled by the Europeans, they found among the aborigines, had they but known it, a social system, with the family as its first, the village as its second, and the tribe as its third or larger unit, exactly identical with that under which their fathers lived ere Aryan civilization was evolved. Dr. Rink, in his careful collection of Eskimo legends, de-

scribes the same system as universally prevalent among the Labrador and Greenland aborigines.

The reader will see, at a glance, that a proper science of society necessarily involves a thorough collation of such facts as have been outlined in the foregoing paragraph, and that it is only by a detailed examination of the historical data that the origin and progress of our complex institutions can be traced out.

Defining sociology as the science of men's relations to each other, in preference to such paraphrases as the philosophy of politics, and reminding our new Professor of Economics that the data of *Psychophysik*, a German term for Phrenology, on the one hand, and those of the historical development of institutions on the other, are important and conclusive materials for the study of the subject, even from the metaphysical point of view, it by no means follows that Mr. Wright has not produced a volume that, compared with others in the market, is superior as respects a thorough analytic exhibition of the science. Nor is it intended to imply that such is the case. On the contrary, as an abstract statement of the principles of sociology his volume is superior in exactness of classification and lucidness of arrangement to that of Dr. Jacoby, which may be accepted as the ablest inductive work on the development of society that has yet been written. He classes his first principles under two heads :

I. Instinctive or spontaneous elements—the individual, the family, the social circle, the precinct, the nation, mankind.

II. Rational elements, such as corporate bodies, educational institutions, governmental organizations, etc., etc.

It is not clear that religious observances are not to be included in the spontaneous class. Indeed, it is equally evident from the historical and the psychological data that they are to be included as instinctive products of human life, and have proved themselves among the most potential causes of the development of institutions and culture. This is mere statement of a fact.

The classification of elements into instinctive and rational is, however, one that

simplifies the study of social phenomena very materially, although in special instances the question whether an element is to be regarded as spontaneous or rational, primary or secondary, is not so easily settled. Great religious movements have, so far as the facts throw light on the growth of culture, universally preceded the development of great nations, and constantly presented themselves as the precursors of eras of onward progress. The great Saracenic development of the middle ages—an intellectual movement of the Arab tribes that has always been regarded with wonder by European critics—had its origin in the religious enthusiasm spoken into being by Mohammed, and was the direct result of that great religious revival. There is something very mysterious to the calculating man of science in this law, that periods of great psychic and emotional awakening invariably, in the history of races, precede the development of higher civilization. A race like the Arabs lies fallow for ages, until some religious enthusiast, with his revelations and trances, fuses its units into one heated and molten mass, from which springs a new and intense nationality and a new and higher culture. The Elizabethan age in England, the era of Luther in Germany, and the revolutionary era in France, with many others that the reader will readily recall, are only so many illustrations of this important law in the development of institutions. And if the student will scan the facts of our own national development narrowly, he will see that the settlement of America came about mainly through a series of migrations consequent upon the new religious awakening of the sixteenth century in Europe, and that the law holds good even here. It was a common religious fervor that fused the diverse races from which the colonies sprang, into one common nationality, and led to the development of institutions in which freedom and tolerance were leading principles.

The method that Mr. Wright has adopted appears to exclude the discussion of such facts as the foregoing. And yet they are so important to an exact conception of the

scope and penetrating power of his own principles of social science, that a fuller and less rigidly abstract method would better serve both himself and his large constituency of readers. Large constituency? Yes!—for a volume of such analytic power, so lucid in its arrangement, and so clear in its diction, ought, as a mere map of the principia of one of the most important sciences, to command a large constituency. If the aim of the social scientist is to supply an analytic guide-book to the explorer of social phenomena, our new author in this field has accomplished all that is required. From our point of view, however, a summary of principles in this science calls for something more than Mr. Wright's volume affords, and something that he can very readily supply, namely, a more frequent reference to illustrating facts, while preserving the same rigidly analytic method of treatment. This would relieve his dry abstractness of statement, and convince the reader of the value of many an aphorism that standing unillustrated appears at first glance to have no more significance than one of the examples of a rule of syntax in an ordinary text-book on grammar. Again, as human society is an organism, having its institutions as anatomical elements with different functions, the nearer our treatises come to organologies, the better for the popular reader. Anatomy and physiology, the organ and its function, are just as applicable to social growths as they are to physical growths.

ASSOCIATION OF RACIAL TYPES.—Herbert Spencer, in *Popular Science Monthly*, says upon this subject, that "throughout the animal kingdom the union of varieties that have become widely divergent is physically injurious; while the union of slightly divergent varieties is physically beneficial. Some facts seem to show that mixture of human races extremely unlike, produces a worthless type of mind. Natures respectively adapted to slightly unlike sets of social conditions may be expected, by their union, to produce a nature somewhat more plastic than either. The best genius of England resulted from a union of Celts and Anglo-Saxons."

MRS. ABIGAIL SCOTT DUNIWAY.

THIS lady has an excellent constitution for health, vigor, and long life. Her brain measures twenty-two and one-quarter inches, and as she weighs 160 pounds, she has, fortunately, body enough to give ample support to the brain, and enable it to work long and hard without exhaustion.

large measure, which, with a good deal of the sympathetic and womanly, contributes much of the heroic, positive, and forcible to her character.

Her head is broad from side to side, showing executiveness and courage. She has a full degree of Secretiveness, which



Her temperament indicates the vital and mental,—the first giving a tendency to zeal, enthusiasm, and earnestness in work; the other giving a studious disposition and talent: the power to think, gather knowledge, to know its meaning and its use. We think that she takes on her father's nature in a

gives a certain amount of conservatism, or the ability to find out the easy way of reaching people's wishes and sympathies; and she has the tendency to make people mellow first and then mold them. Some people are radical, so is she; they are strong, so is she; but they are angular, and she is not.

She does not let up, or excuse, or palliate the truth, but has a way of making people willing to be directed. Here we find a harmonious development of the intellect, the perceptive being large and active. She values facts, readily remembers them, comprehends their meaning and fastens them all to her theme, and makes them play a logical part. She has large Constructiveness, hence complicated matters seem to her mind clear. She would have made a very fine user of tools or manager of machinery, and she has a high sense of beauty and imagination, much poetic fancy and artistic taste.

She reads character, appreciates motive, and generally leads the people whom she would instruct or govern. In driving sheep long distances, one man is deputed to go forward with a salt dish and call them, and the strong sheep will get out of the way of the weak ones and follow close to him who calls, while the weak ones behind are urged forward by drivers, some of whom belabor the weaklings with the lash to keep them up. This lady is like the one who goes forward with the salt dish and *drives* the flock by going ahead. She believes in applying the law when it is necessary, just as she believes in having a sick man take treatment; but she would keep the bitter in it as far out of sight as necessary. She would prefer to *win* people to be good rather than to scare or frighten them to right ways.

She has strong Spirituality, and yearns for something higher and better than this mere worldly state. Three meals a day, a comfortable house and clothing, do not constitute to her mind the meaning of the word life or living. She has Hope enough to look for the good time coming, and encourages rather than blames people; rejoices over what is done rather than grumbles about the small progress that is made.

She is independent, proud-spirited, ambitious, upright in motive, cautious, mindful of consequences, but thoroughly energetic and executive; appreciates property and would manage finances wisely; enjoys good living, and inclines to be hospitable. Her large Language makes her a good

talker. Her excellent balance of intellect makes her a good writer, but she can do better as a speaker than a writer.

Her strong social nature gives her the ability to win friends and to acquire a social influence which is not often surpassed.

The subject of this sketch was born in October, 1834, in Tazewell County, Illinois, of American parents of Scotch, Irish, and English ancestry. She was brought up on a farm, but was very delicate in health until eighteen years of age, and unable to attend even the schools which the place afforded. Her entire opportunities at school, including a few months at a village academy, occupied less than one year.

In the spring of 1852 her father gathered his household goods together and started across the plains for Oregon. In the Black Hills of Wyoming her mother died, stricken down with the cholera, which was at that time epidemic on the plains. The family, after many hardships, reached the Willamette Valley, in the State of Oregon, where Miss Scott engaged in school-teaching until the following August, when she was married to Mr. B. C. Duniway, a foreigner by birth, education, and intuition, with whom she lived for nine years upon a farm, working at what seemed her allotted destiny—a maid-of-all-work—but performing prodigies of labor without assistance; and in recounting the exploits of her early life, she has calculated that she has milked a sufficient quantity to float the Great Eastern, and made butter enough to grease the axles of the Universe. After this nine years' experience of farm life her husband failed in business, through indorsing heavily for ambitious friends, and being compelled to leave the farm, he removed to the village of Lafayette.

He was shortly afterward stricken down by an accident, and rendered almost helpless. Mrs. Duniway immediately took affairs into her own hands, opened a school, and with no help taught successfully for four years, having under her care in that time some 1,300 different pupils. Besides conducting the school she personally cared for the needs of a large family of young children, and kept boarders, her household averaging from thirteen to fifteen in number.

To accomplish this work it was necessary for her to rise at four o'clock every morning, attend to household duties until nine, then rush to her school and take up her duties there; return to the house at noon for a hurried lunch, which had been prepared in the morning; after school was over, at half-past four in the afternoon, she returned home to complete the labors of the day.

After four years thus spent in school-teaching she became interested in a millinery and fancy-goods business in the town of Albany, in the interior of Oregon. In this business she was so far successful that after five years of constant effort she found herself with sufficient means to inaugurate her pet enterprise—starting a weekly newspaper. By this time three of her six children were old enough to enter the printing office, and they immediately took charge of the type-setting, she employing a tutor for the first year to initiate them into the mysteries of composition and thorough newspaper work. Her newspaper, the *New North-West*, began its existence in Portland, Oregon, on the 5th of May, 1871, since which time it has prospered, outliving many a more ambitious journal. Her sons have performed the entire mechanical labor upon the paper and attended school during the time, keeping ahead in their classes, and without any other guide or dictation than their own good sense, they have contributed invaluable service in bringing the paper to time.

Her daughter was graduated in music at seventeen, and has been since a very successful teacher. She has proved most serviceable toward Mrs. Duniway's public career by holding the domestic reins with a steady hand during the latter's absences from her large and happy household.

Mrs. Duniway's newspaper is devoted mainly to progressive ideas; a free speech, free press, and a free people being its motto. She has been assisted in her literary labors in the last two or three years by Mrs. C. A. Coburn, her sister, who also displays rare ability as a writer. In addition to her editorial labors, Mrs. Duniway has written many serial stories that have commanded attention throughout the Pacific Coast. She travels and lectures almost constantly, her

lectures averaging within the last five years from three to five each week. She receives invitations from all parts of the Pacific Coast and elsewhere, which she fills whenever opportunity offers, devoting her energies mainly to the temperance movement, political, social, and domestic reform, and the enfranchisement of women.

Mrs. Duniway early evinced a taste for poetry, and wrote poems that appeared from time to time in the local press. She, however, appears to have attached little importance to them at first, and the regions in which they were printed were remote from the world's literary centers. In the summer of 1872, while crossing the continent after an absence of twenty years from the solitudes wherein her mother lies buried, her heart was stirred and she composed a lyric dedicated to her mother's memory. The publication of this drew marked attention in the West and stimulated her mind to further effort in verse. On her return from New York, whither she had gone on business connected with the National Woman Suffrage Association, she wrote a descriptive poem, which she was induced to read before the editor of the *Overland Monthly*. He at once recognized its merit and advised the lady to collect her fugitive pieces and print them. This she did about two years ago, and the pamphlet they made reached three editions in a very short time.

In going across the continent this summer, Mrs. D. found time to travel one thousand miles by stage, through Oregon, Washington, Idaho, Nevada, and Utah, to lecture forty-eight times upon different subjects, to contribute to her newspaper, canvass all the Western towns and thereby greatly increase her subscription list, and at intervals read her new epic poem, "David and Anna Matson," for which she readily found publishers on reaching New York. She says the poem was not written for publication, but to give vent to the theme which possessed her from the time she read the little story by Whittier upon which it was founded. During the last few years Mr. Duniway, having been restored to health, has materially assisted Mrs. Duniway in the prosecution of her social missions. Her design in

publishing her late venture in New York is to make herself known in the East, and we feel sure that she will receive that cordial welcome from the public which energy and true enterprise deserve.

It may be of interest to the reader to know that Mrs. Duniway is writing a serial for the PHRENOLOGICAL, the first part of which will appear in the January number for 1877.

THE ROYAL QUESTIONER.

I.

The King said in his heart :
 " This is a bitter part
 The soul must play
 In the resistless sweep and sway
 Of mighty powers that build the world.
 I sought not life ;
 Into the strife
 Some supreme power hurled
 My infant spirit scarcely risen from night
 Now that the light
 Of bitter consciousness
 Shines on the dire distress,
 In whose relentless arms
 Perforce I am holden,
 I curse the mystic charms
 That broke the golden
 And dreamless sleep
 My soul did keep
 Upon the breast of the high God,
 Or ere these realms of woe I trod."

II.

The night made no reply ;
 Across the leaden sky
 No star shed radiance pale,
 Nor did the moon assail
 With motion slow and sweet
 The forces of dusk cloud,
 Whose outspread crowd
 Sometimes make swift retreat,
 Sometimes in silver surges beat
 Around her lingering feet.
 The wind made dreary moan,
 And rose and fell in dolorous undertone.

III.

The King said :
 " I would that I were dead.
 All things I have and hold ;
 My days are girt with gold ;
 Like birds from all earth's climes,
 Swift pleasures fly to me
 Uninterruptedly ;
 The poet in his rhymes
 Utters my praises high,
 Proclaims my name shall never die,
 And writes it like a God's upon the sky ;
 The beasts of wealth and fame
 I long ago did tame ;
 The wide earth is my slave,
 I bind my chains upon the air,

And tread with feet the waters fair ;
 Yet do I crave
 More than all this
 To make my sum of bliss.

* * * * *

As some sweet plant
 May grow in hidden nook,
 By all its sisterhood forsook,
 And shed its odor rare
 Upon the solitary air,
 With no glad eyes to see
 Its crescent splendor,
 Even so in me
 There blooms a tender
 And wide-embracing hope.
 That right shall cope
 With regnant wrong,
 And prove more strong.
 But all in vain
 Are toil and strain ;
 I strive to find the solemn truth,
 I strive to do the supreme good,
 But still I fall from lofty mood,
 And weep the wasted energies of youth.
 My soul is rent in twain,
 And seeks to choose in vain
 Between the bitter beat,
 And honey-sweet desire
 That burns like wind-swept fire
 Within my breast.
 I love all noble things,
 But like thin mists at morn
 They rise on subtle wings,
 And leave my heart in scorn.
 This is not life,
 This unavailing strife,
 This inextinguishable feud
 Between myself and good.
 Therefore within my heart I said
 I would that I were dead."

IV.

The mocking wind,
 With voice worn-out and thinned,
 Like some old beldame croaking lies,
 That bring a pained surprise
 Into the maiden's eyes,
 Muttered its dismal moan
 In the four quarters of the night ;
 And the wide-wandering tone,
 The smothered cry for light,
 Pervaded the round atmosphere.

In gusts of anguish drear
 It rose from out the caverns of the east,
 Like one who, conscience-smitten, dies,
 It rose and fell in broken sighs ;
 Then, to a shrill fierce woe increased,
 It traversed the far bounds of space,
 And filled each place
 With passion sharp and dread,
 Till, caught in a strong whirl of sound
 The soul in eddies tossed around,
 Is left for dead
 In the midst of a sea
 Of pain, that sighs and sounds eternally.

V.

The King spoke words of scorn :
 "The yellow light of morn,
 The silence of the dark,
 Look on a world of war and hate ;
 As a stray spark
 Of pitiless fire
 Oft scatters ruin dire,
 And in brief space is strong to dissipate
 The high-built domes of weary years,
 Even so a drop of strife
 Hath entered into life,
 And poisoned all its several spheres.
 In nature's realm
 Rude forces overwhelm
 The strongly-bastioned fabrics of the ages toil ;
 Beast preys on beast,
 And gorges on the loathsome feast ;
 Time wearily makes spoil
 Of all its tireless effort strove to build,
 And, its long reaches filled
 With thick-accumulating death,
 It laughs in scorn beneath its breath,
 And mutters low,
 'From overturning unto overturning
 My leaden-footed moments go.'
 Think on the world of man :
 A chaos without plan,
 A carnival of passions fierce and rude,
 Whose overmastering brood
 With savage glee go spurning
 Under strong tread
 All things for which brave hearts have bled,
 And poured out life
 Upon the field of strife.
 No lofty aspirations
 Transfuse with hope the death-chilled nations ;
 The mad ignoble fight for gain,
 The dominance of bitter hate,
 The wide-spread rule of fear and pain,
 The death-in-life of resignation unelate,
 The ever growing forms of ill,
 My being fill
 With wild despair,
 And hatred of the vital air.
 I see no way
 Into the regions of the day.
 I would that I and all this world were drowned
 In a still ocean's depths profound,
 Past sight or sound,

Where dreamless sleep
 In its dumb calm our tumult might forever keep."

VI.

The silence dread
 Was as the silence of the dead ;
 The wind no longer sought to fill
 With prophecies of ill
 The vacant realms of space ;
 While clouds made bold to interlace
 Great gulfs of gloom
 With depths of night, dark as the doom
 Of souls lost in the trackless wastes of sin.
 Without, within,
 Throughout the visible sphere,
 Throughout the King's tempestuous soul,
 Reigned passioned fear,
 And uttermost expanse of dole.

VII.

Then spoke a voice
 Whose faintest tremble made the heart rejoice :
 A wondrous voice, whose tone
 Seemed effluent
 From nature's inmost element,
 As though the world-soul spoke,
 And its mysterious silence broke.
 "O tortured one,
 Thine anguish has its utmost done.
 Dost thou not see
 Thy limitless expanse of destiny ?
 Because within thy soul
 There dwells the vision of the whole,
 The world's vast scene of violence
 Offends thine inner loftier sense.
 Thou art the King ;
 Dost think a slave could bring
 Against the All such questioning ?
 Thy toil and pain
 Are only steps to perfect gain ;
 Within thy heart reside
 The pure realities that shall abide,
 That rule all spaces and all times,
 And bind all chaos in a poet's rhymes.
 Within thee find the kingdom sure,
 That shall endure ;
 And on the light of joy and hope
 Heaven's doors shall ope,
 And on thy transcended sight shall fall, [loving all."
 The vision of the Supreme Wisdom, guarding,

VIII.

Then like a rose,
 That in a queen's deserted garden blows,
 And fills the barren waste
 With splendor chaste,
 The moon shone in the east ;
 And, one by one, the stars
 Rode into sight upon their viewless cars ;
 Till the mild glow, increased
 To a pale sea of light,
 Flooded the night ;
 And, like faint echoes of some subtle song,
 That tenderest memories prolong,
 The winds made utterance sweet,
 And sped on swiftest feet
 Across the air's wide merc,
 And utterly displaced the latest shade of fear.

LEWIS J. BLOOM.



True philosophy is a revelation of the Divine will manifested in creation: it harmonizes with all truth, and one not with integrity be neglected.

HOW TO TEACH;

OR,

PHRENOLOGY IN THE SCHOOL-ROOM AND THE FAMILY.

PARTIAL DEVELOPMENT GIVES PARTIAL SKILL.

IF we had a correct method it would not take half the time that it now does to give pupils the usual amount of education. Consequently a thorough course of education ought to be much cheaper, and those who now have time and money for only half an education could then be educated as well as the best now are.

There ought to be some means devised by which the methods for teaching, as well as the pupils, could be classified. If all teachers had perfect heads, were developed in each faculty in equal degree, and all were *amply* developed and well cultivated, then each teacher could instruct every pupil in every department of education with equal facility and success. But unfortunately this is not true. One teacher is amply developed across the lower part of the forehead. He can teach *things*, and ought to teach them and stop. Another is amply developed through the middle of the forehead. He is adapted to teach history and the facts of science. Another is strongly developed in the upper part of the forehead, and he can teach ideas, but is not successful in teaching things or history; and he will talk to pupils on abstract ideas and try to come down to the practical, but only half a dozen in a hundred, perhaps, will have heads shaped like his own, or have a cast of intellect that will corre-

spond with his, so as to understand him properly.

TEACHING DIVIDED IN COLLEGES.

In college, teaching is divided among a good many professors, especially if the college be large and rich, and the pupils numerous. There should be one teacher for each branch of knowledge—unless, as we have said before, the teacher is amply and equally developed in all his faculties. There should be one teacher for history, one for geography, one for the mother-tongue, one for Latin, another for Greek, one for chemistry, one for mathematics, another for belles-lettres, and each of the pupils would have this advantage—if the teachers were rightly selected according to their talents and culture—that the teaching would be of the best, because in such a school, and under such a system of education, a person would not obtain a situation as a teacher of some specialty, unless he were well qualified for it by nature and by culture. Then if pupils were brought out and classified according to their mental capabilities, dispositions, and temperaments, a teacher thus qualified would give them the best possible instruction, in the shortest possible time.

MONITORIAL INSTRUCTION.

In the common schools the monitorial system might be introduced to advan-

tage. Some of the more advanced pupils could assist teachers. A large class might be divided into five classes, and a monitor appointed to each class, according to their mental and temperamental organization. In this way the advanced pupils, by becoming monitors, would learn to teach, and perhaps their method of explaining would be more in harmony with the understanding and mental calibre of the pupils than the teacher's method. But we do not despair of having the different branches in our public schools taught by special experts, no matter if the person be well qualified to teach everything. If he devote himself solely to language and literature, to mathematics, or any other department of science, he will become far more capable of bringing the highest order of talent and vividness of instruction to bear upon the subject than he possibly could if he were to devote himself alternately to all the varied branches.

SPECIALTY IN TEACHING.

In medical colleges this rule obtains. One man is professor of anatomy, another of surgery, or of physiology, of pathology, of chemistry, of theory and practice, of toxicology, of histology, or pharmaceutics. And why should not our common schools have one teacher for instructing in objects, another in grammar, geography, and history, and whatever other topics are taught? But when a teacher professes to instruct in music, in drawing, elocution, literature, and science, he must be a genius to have learned everything so as to be competent to teach it, or he must be poorer than the best in some things.

INTELLECT AND EMOTION SHOULD COMBINE.

Not only should all the intellectual faculties be addressed, according to their nature and the quality of work they

have to do, but teaching should be so adjusted that the feelings which go to make character should coalesce, as far as possible, with the intellectual culture. This obtains in regard to many of the phases of life. We have a Naval school where instruction in navigation is given. Our Government sends midshipmen to sea to put in practice the things they are taught in school, and when boys expect to become navigators they take special interest in all that relates to their future field of effort. So in the school of mines, boys look at stones, containing metals, with as much interest as their sisters look at the jewelry which is ultimately to adorn them. If one is being trained to cavalry service, he studies the horse as much as he studies tactics, and cultivates his spirit and courage, as well as his intellect, in reference to the science of war.

THE MORE FACULTIES ENGAGED, THE RICHER THE RESULT.

It is a rule in phrenological science that the greater number of faculties that can be brought into co-ordinate activity, the higher the sensibility and the more exquisite the enjoyment; and this constitutes one of the differences between the uncultivated and the cultivated. The farmer admires hills, and mountains, and meadows for the amount of timber, and grass, and stone he may be able to produce from them; but citizens who have had more culture in reference to art and scenery, who have had their eyes trained to see beauty in hills and valleys, rocks and streams, will go into that farming neighborhood, which has been looked upon with the dullest sense of utility, and see charming sweeps of hill and dale, forest and stream, and become delighted, and perhaps bring an artist to paint a costly picture of some choice scenes among the hills and mountains, while the farmer

would look on with mute derision, and feel that one acre of the woodland slope that adorns the picture is worth more than the three thousand acres as they are represented on the canvas. We are acquainted with men who looked with dread upon the hills and mountains we refer to, when boys, as too steep and rugged to be at all agreeable or tolerable, who have since gone back to them with admiration, and wondered they never could see any beauty there before. They have gone there with their artist, and treasure the oil paintings of these mountains, while their old neighbors think they have grown foolish by their residence in the city. Breadth of being, height of enjoyment, and intensity of pleasure, then, come from extended culture of all the faculties; and the difference between one man and another may not be great originally, but let one boy in a family, not superior to the rest, go away and obtain richer and broader culture, and it will lift him entirely out of the companionship of those who were nurtured under his paternal roof. He outgrows them altogether, and learns to see beauty and richness in that which, to his brothers and sisters who have remained at home without culture, seems meaningless and frivolous.

DISPOSITION AS WELL AS TALENT TO BE EDUCATED.

Until parents and teachers become fully impressed with the fact that a great part of the mental nature of the human race is emotional, not intellectual, and that the faculties which give the most trouble in the training of children are simply animal propensities, or blind instincts, which spring into spontaneous activity, or are sometimes excited by the action of the intellect, their efforts in the management of the young will be impractical and unsuccessful. Among the faculties which give the most diffi-

culty and disturbance in the training of children, those which produce anger and stubborn disobedience are, perhaps, the most conspicuous. This tendency of character arises sometimes from Combativeness alone; sometimes it is connected with Destructiveness, and the manifestations become severe and often cruel.

COMBATIVENESS AND DESTRUCTIVENESS.

Combativeness imparts to the individual a very resolute, courageous spirit, and gives presence of mind in the hour of danger, and enables one to meet opposition bravely and drive onward to success. We would by no means crush out nor smother this organ, nor that of its neighbor and coadjutor, Destructiveness, even when large; but we would aim to train them in harmony with, and in obedience to, the other faculties. They are to the man and horse what steam is to the locomotive, and we would have them harnessed to the intellectual and the moral faculties, and then they will lead to the highest practical benefits. Combativeness and Destructiveness, the first giving courage, and the second thoroughness and severity, are as necessary to character as hardness is to steel in the cutting instrument. Sometimes the axe or the knife is too soft, has not temper enough, it bends and bruises by use; sometimes it is tempered too hard and breaks. A happy medium between the two produces hardness enough not to bend, and not so much hardness as to crumble and break by use. So, when there is too little Destructiveness and Combativeness in character, the man is tame and sheepish, does not stand up to his rights and interests, is not brave and executive. If he have too much of these elements, and they are not properly modified and regulated, he flies into an unreasonable passion and makes himself a pest to his

friends, and damages his interests by his rashness and undue indignation.

HOW TO TAME THESE PROPENSITIES.

The energies of these organs may be very properly worked off upon the laborious pursuits which require great force, and thus they may be made useful. We once had a horse that was so fiery, and as our neighbors said, "wicked," that if during two days he was not worked, he would balk and fight when harnessed, and it would take hours to work off his fire and force, so that he would be willing to go quietly about his business. If there came a rainy day and a Sunday together, we learned that we must shorten his food and keep him on hay only, and thus when he was brought to his work he would go into it with a will, and after he had worked an hour or two, we would feed him some grain to give him strength for his duties.

Refractory criminals are placed in "solitary confinement" and kept on bread and water, and not too much of that; and they come to terms by the subsidence of the activity of these organs. It might be well, therefore, if a boy be headstrong and high-tempered, to give him a plenty of work on which he may exert his superabundant strength. Persons large in these elements need something to do that is legitimate, on which their power can be expended. Many a man and woman are sour in disposition, harsh, haughty, and quarrelsome, because they have nothing to do requiring strength, courage, and energy, on which they can legitimately work off the surplus force of *Combativeness* and *Destructiveness*, hence the action of these organs, in their cases, is perverted.

EARLY CULTURE OF CHARACTER.

The education of these feelings should begin as soon as the child is old enough to show anger. A calm, quiet, firm

look from the mother will be understood by an infant in arms. It soon learns when it is contravening propriety by the tone and look of the mother. The exhibition of anger by the child is apt to awaken the same feeling in the parent, especially if the child be old enough to know that its conduct is wrong. We have known parents to become irritated by the anger of children less than six months old, and who would treat them harshly, and even whip them severely. Such treatment on the part of parents can not be too strongly condemned. So long as the parent remains quiet, but firm, the child's anger is not increased; but the manifestation of anger, on the part of the parent, makes the child's anger burn still more hotly, and thus *Combativeness* and *Destructiveness*, by such frequent exercise, become enlarged, and as the child increases in age, and is ripened in the evil passions by such experience, it becomes quarrelsome, turbulent, and cruel, always fighting with and tormenting others. It is a law of mental development that the excitement or exercise of any faculty, increases its activity and power; and to such an extent may this influence be exerted, that the character can be pretty thoroughly revolutionized by the training it receives. Everybody knows that bad management will spoil a horse, especially when he is being broken, and many people know that a fiery horse, in the hands of judicious men, will become tractable and serviceable.

A CONTRAST IN TRAINING AND ITS RESULTS.

Suppose two children to be exactly alike in natural disposition, and one of them, at the age of six months, were placed in the hands of kindly, wise good people, and he were trained up under the best relations to life; and suppose the other were taken, at the same age, to a place where wickedness,

poverty, and misery prevailed, will anybody suppose that, at twenty-one years of age, the faces and the heads of these two boys would not be very different? We would be ashamed of the phrenologist who could not, in the dark, recognize the difference and describe it. We believe, if the facts could be known, it

would be found that most of the fighters and rowdies who disgrace humanity had been treated by parents and others in a rough manner, calculated to inflame and strengthen the fighting organs, or rather those which, by abuse, become such.

NELSON SIZER.

(*To be continued.*)

AN ENGLISH SAVANT ON AMERICAN SCIENCE.

DURING the past few years this country has been visited by several English scientists of the first rank, and each, after a brief survey of our condition—socially and intellectually—has expressed surprise at finding it much above his expectations. Professors Tyndall and Huxley were frank enough to state that they felt pretty much at home here; that the grade of scientific culture was so highly maintained by our thinkers and investigators that they could scarcely claim superior merit for science at home.

Among the eminent visitors to the Centennial Exposition last summer was Sir William Thompson, whose reputation as a geologist is second to none among English physicists, and, shortly after his return home, he addressed the British Association, of which he is the president, on his impressions of America. In the course of his remarks he gave a condensed summary of several of our more prominent scientific accomplishments, as follows:

"I came home, indeed, vividly impressed with much that I had seen—both in the great Exhibition of Philadelphia and out of it—showing the truest scientific spirit and devotion, the originality, the inventiveness, the patient, persevering, thoroughness of work, the appreciativeness, and the generous open-mindedness and sympathy from which the great things of science come. I wish I could speak to you of the veteran Henry, generous rival of Faraday in electromagnetic discovery; of Peirce, the founder of high mathematics in America; of Bache, and of the splendid heritage he has left to America and to the world in the United

States Coast Survey; of the great school of astronomers which followed Gould, Newton, Newcomb, Watson, Young, Clarke, Rutherford, Draper, father and son; of Commander Belknap and his great exploration of the Pacific depths by piano-forte wire, with imperfect apparatus supplied from Glasgow, out of which he forced a success in his own way; of Captain Sigsbee, who followed with like fervor and resolution, and made further improvements in the apparatus by which he has done marvels of easy, quick, and sure deep-sea sounding in his little surveying-ship 'Blake;' and of the admirable official spirit which makes such men and such doings possible in the United States Naval Service.

"I would like to tell you, too, of my reason for confidently expecting that American hydrography will soon supply the data from tidal observations long ago asked of our government in vain by a committee of the British Association, by which the amount of the earth's elastic yielding to the distorting influence of the sun and moon will be measured; and of my strong hope that the Compass Department of the American Navy will repay the debt to France, England, and Germany so appreciatively acknowledged in their reprint of the works of Poisson, Airy, Archibald Smith, Evans, and the Liverpool Compass Committee, by giving in return a fresh marine survey of terrestrial magnetism, to supply the navigator with data for correcting his compass without sights of sun or stars.

"In the United States telegraphic department I saw and heard Elisha Gray's splendidly worked-out electric telephone actually

sounding four messages simultaneously on the Morse code, and clearly capable of doing yet four times as many with very moderate improvements of detail; and I saw Edison's automatic telegraph delivering one thousand and fifteen words in fifty-seven seconds—this done by the long-neglected electro-chemical method of Bain, long ago condemned in England to the helot work of recording from a relay, and then turned adrift as needlessly delicate for that. In the Canadian department I heard 'To be or not to be * * * there's the rub,' through an electric wire, but scorning monosyllables, the electric articulation rose to higher flights and gave me passages taken at random from the New York newspapers: 'S. S. Cox has arrived' (I failed to make out the s.s. Cox), 'The City of New York,' 'Senator Morton,' 'The Senate has resolved to print a thousand extra copies,' 'The Americans in London have resolved to celebrate the coming "Fourth of July."' All this my own ears heard spoken to me with unmistakable distinctness by the thin circular disk armature of just such another little electro-magnet as this which I hold in my hand. The words were shouted with a clear and loud voice by my colleague-judge, Professor Watson, at the far end of the line, holding his mouth close to a stretched membrane, such as you see before you here, carrying a little piece of soft iron, which was thus made to perform in the neighborhood of an electro-magnet in circuit with the line motions proportional to the sonoric motions of the air. This, the greatest by far of all the marvels of the electric telegraph, is due to a young countryman of our own, Mr. Graham Bell, of Edinburgh and Montreal, and Boston, now a naturalized citizen of the United States. Who can but admire the hardihood of invention which devised such very slight means to realize the mathematical conception that, if electricity is to convey all the delicacies of quality which distinguish articulate speech, the strength of its current must vary continuously, and, as nearly as may be, in simple proportion to the velocity of a particle of air engaged in constituting the sound?

"The Patent Museum of Washington, an

institution of which the nation is justly proud, and the beneficent working of the United States Patent laws, deserve notice in the section of the British Association concerned with branches of science, to which nine-tenths of all the useful patents of the world owe their foundations. I was much struck with the prevalence of patented inventions in the Exhibition; it seemed to me that every good thing deserving a patent was patented. I asked one inventor of a very good invention, 'Why don't you patent it in England?' He answered, 'The conditions in England are too onerous.' We certainly are far behind America's wisdom in this respect. If Europe does not amend its Patent laws (England in the opposite direction to that proposed in the bills before the last two sessions of Parliament), America will speedily become the nursery of useful inventions for the world.

"I should tell you also of 'Old Prob's' weather warnings, which cost the nation two hundred and fifty thousand dollars a year. Money well spent, say the Western farmers, and not they alone. In this the whole people of the United States are agreed; and, though Democrats or Republicans, playing the 'economical ticket,' may for half a session stop the appropriations for even the United States Coast Survey, no one would for a moment think of starving 'Old Prob,' and now that eighty per cent. of his probabilities have proved true, and General Myer has for a month back ceased to call his daily forecasts 'probabilities,' and has begun to call them indications, what will the Western farmers call him this time next year? But the stimulus of intercourse with American scientific men left no place in my mind for framing or attempting to frame a report on American science."

THE EYE OF MAN IN THE PAST.—Science gives us interesting details about what the human eye has been and what it may become. The Vedas of India, which are the most ancient written documents, attest that in times the most remote, but still recorded in history, only two colors were

known, black and red. A very long time elapsed before the eye arrived at the perception of the color yellow, and a still longer time before green was distinguished; and it is remarkable that in the most ancient languages the terms which designated yellow insensibly passed to the signification of green. The Greeks had, according to the received opinion now, the perception of colors very well developed; and yet authors of a more recent date assure us that in the time of Alexander, Greek painters had for the fundamental colors only white, black, red, and yellow. The words to designate blue

and violet were wanting to the Greeks in the most ancient times of their history; they called these colors gray and black. It is thus that the colors of the rainbow were only distinguished gradually, and the great Aristotle only knew four of them. It is a well-known fact that when the colors of the prism are photographed, there remains outside the limit of the blue and violet in the spectrum a distinct impression, which our eyes do not recognize as a color. According to physiologists, a time will come when the human eye will be perfected, so as to discern this color as well as the others.

HOW TO DRAW THE FACE.

CHAPTER VI.

GENERAL EXPRESSION AND CHARACTER.

WE will further consider the subject of character and expression in a man-

ures, as the action, air or carriage of the head. As in this connection, the hair and beard, and the neck and shoulders, are important auxiliaries, their influence will also be included.

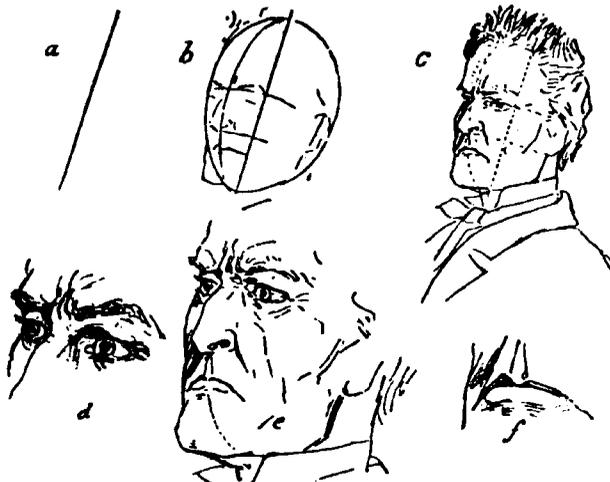


Fig. 113.

ner, though somewhat free from our formal preliminaries, yet with the endeavor to give

It is often desirable to get a head in quickly, in order to seize the spirit of the subject, which is generally, in strong cases at least, fleeting, and, if not got quickly, will be lost. To secure that element, the best, and we think the most natural effort, would be to get some quick short-hand signal or mark, which would express the first idea of it, in the *action* or *car-*

riage of the head. If, for instance, the subject be a proud, haughty, dignified, irate man, rebuking a subordinate, an unworthy and



Fig. 114.

such as may be serviceable for rapid work; and combine what relates to it in the feat-

recreant underling, the head would naturally be erect and slightly thrown back,

expressing both dignity and disdain; and a line by which they may be, at least,

ures touched in as rapidly as possible, to give their position and general



Fig. 115.

associated in the mind, for the time being,



Fig. 116.

is one smartly or boldly struck with as much of the sympathetic feeling with the subject as can be assumed. This line would intersect the crown and the junction of the chin with the throat (or any other diametrically opposite longitudinal portions of the head; it may be the facial, if a profile), and be slightly inclined from the vertical, to express the somewhat thrown-back position which the head would naturally assume. Thus *a*, in Fig. 113.

On this an oval may be hastily sketched, *b*, and a facial, if the head is turned from a profile view, may be quickly made, and then the feat-

character, such guide lines being used as are necessary to enable one to get them right, and then confirming and heightening the effect afterward; making the creases and lines from the eye, nose, and mouth, in accordance with the emotion. (See Planes of the Face, etc., Chaps. III, V., etc.)

Each feature may require its special treatment, in accordance with our rules in Chaps IV. and V., etc., to harmonize all with the character of the expression; but if the main spirit is caught, they can be more deliberately considered. (See *d, e, f.*, 113).

The eyes should be stern and commanding; the nose strong, with nostrils somewhat dilated; the mouth compressed and



Fig. 117.

scornful, and the chin prominent; and all

together, head, neck and shoulders, compact and braced. The hair may be so adjusted as to add nobleness or dignity to the carri-



Fig. 118.

age, and the beard also, and mustache, if present, to heighten the effect.

Whatever subject is aimed at, strike first, if possible, the main factor, indicative of its

party—let the appreciative feeling guide the hand in the first stroke. It may, like the former, be backward, but is struck with a different sentiment, no less easily perhaps, but not so firmly as the other, but still guiding (Fig. 114.) The oval is sketched in, the facial made, *h*, the features blocked in and characterized, and the neck and shoulders added. The eyes should be rendered wild and staring, the nose mean, the mouth open, with lips quivering and tongue loose or lolling out, and the chin retreating; the hair devitalized, hangs loosely, and the shoulders may be hunched up. The guide lines and other random markings, erased or overpowered, leave the completed result sometimes like this, (Fig. 115.)

Looking up, down, or sideways, in any of the various angles of inflexion, may be expressed upon the same principle, and carried out by our rules for steady drawing in Chap. III., etc.

For *looking* in any direction or in any view of the head, the direction of sight may be indicated to advantage by a smart touch with the pencil, to guide and preserve the feeling,



Fig. 119.

character, and in accordance with its appreciation in the mind. The line of *pose* or posture, the attitude of the head being drawn, you can then cover it with corresponding spirit.

If the subject be the reverse of the preceding—a recreant, debased or frightened

as in the looking-upward profile. (Fig. 116.) This should serve for the position or line of the eye. Sketch in the oval, and mark in the features, giving them their proper proportions and positions, and such expression as may be desired.

In motion, the hair and beard, etc., are

valuable auxiliaries in expressing the character and direction of it.

In *running*, the facial or line of position of the head may be vertical or slightly inclined inward, that is, toward the chin; but the line of sight, forward or horizontal. Sketch in the oval, and indicate features, but let the hair, if long enough, and unbound, flow backward, and the neck have a forward slant and stretch, and the shoulders be somewhat drawn up (Fig. 117.) Striking, in rage (Fig. 118), or dancing, in joy (Fig. 119), and other acts of violent motion, should have the hair flowing in accord-

ance with the natural action. If drapery be added, its flow would also serve to heighten and carry out the purpose desired.

The oval may be sometimes struck first, and the facial or line of position afterward, and other plans be adopted, but all must generally refer themselves to something like what we have given; but in these and in all methods of representing expression and action, particularly in hurried circumstances, much depends, for the best success, upon the force of the mental realization of the subject that is had or may be conjured up.

FAMILY RESEMBLANCE AND LONGEVITY.

A FRENCH writer has said that if one would know his probable term of life, a visit to the graves of his fathers would enlighten him; and later observers in biology trace, with much accuracy, the points of similarity between parents and children which affect the general constitution, physically and mentally, of the latter. Some interesting illustrations of family likeness were published recently in *All the Year Round*, and as many of the persons named are historically familiar to Americans, we give them here.

In spite of certain alterations, the typical features peculiar to the houses of Guise and Lorraine were transmitted to all their descendants through a long series of generations. The Bourbon countenance, the Condés' aquiline nose, the thick and protruding lower lip bequeathed to the house of Austria by a Polish princess, are well known instances. We have only to look at a coin of our George III. to be reminded of our present royal family. During Addison's short ministry, Mrs. Clarke, who solicited his favor, had been requested to bring with her the papers proving that she was Milton's daughter. But as soon as she entered his cabinet, Addison said, "Madam, I require no further evidence. Your resemblance to your illustrious father is the best of all." The Comte de Pont, who died in 1867, at nearly a hundred, told Dr. Froissac that during the Restoration he often met in the salons of M. Desmousseaux

de Givre, prefect of Arras, a man at whose approach he shuddered as he would at the sight of an apparition, so wonderfully was he like Robespierre. M. de Pont confided his impression to the prefect, who told him, smiling at his prejudice, that the person in question passed for Robespierre's natural son; that, in fact, it was a matter of notoriety. Next to family likenesses, vitality or the duration of life is the most important character transmitted by inheritance. The two daughters of Victor Amadeus II., the Duchess of Burgundy and her sister Marie Louise, married to Philip V., both remarkable for their beauty, died at twenty-six. In the Turgot family fifty years was the usual limit of life. The great minister on the approach of that term, although in good health, remarked to his friends that it was time to put his affairs in order; and he died, in fact, at fifty-three. In the house of Romanoff, the duration of life is short, independent of the fact that several of its members met with violent deaths. The head of this illustrious race, Michael Federovitch, died at forty-nine; Peter the Great was scarcely fifty-three. The Empress Anne died at forty-seven; the tender-hearted Elizabeth at fifty-one. Of Paul's four sons, Alexander died at forty-eight, Constantine at forty-two, Nicholas at fifty-nine, and the Grand Duke Michael at fifty-one. In the houses of Saxony and Prussia, on the contrary, examples of longevity are far from rare. Frederick the Great, in spite

of his continual wars and his frequent excesses at table, was seventy-four; Frederick William III. was seventy; the Emperor William, in his seventy-ninth year, is still hale and hearty. In all the countries of Europe, families of octogenarians, nonogenarians, and centenarians may be cited. On the 1st of April, 1716, there died in Paris a saddler of Doulevant, in Champagne, more than a hundred years old. To inspire Louis XIV. with the flattering hope of living as long, he was made, two years previously, to present that monarch with a bouquet on St. Louis' day. His father had lived one hundred and thirteen years, his grandfather one hundred

and twelve. Jean Surrington, a farmer in the environs of Berghem, lived to be one hundred and sixty. The day before his death, in complete possession of his mental faculties, he divided his property among his children; the eldest was one hundred and three, and, what is still more extraordinary, the youngest was only nine. Jean Golembiewski (the oldest man in the French army, if still alive), who accompanied King Stanislas Leczinski into France, belonged to a family of centenarians. His father lived to be one hundred and twenty-one, his grandmother one hundred and thirty.

PEACEMAKER GRANGE.

CHAPTER XIII.

A LOVE FEAST—CONCLUDED

THE pastor, continuing his comments, said :

“ Our doctrines elevate marriage by giving all possible evidence that it is a thing of the heavens and the eternities, a relation participated in by angels and archangels, cherubim and seraphim, instead of that affair of time and of the flesh which so many blind human creatures think it to be. I can testify to this result in my own case. There is one story here in ‘*Conjugal Love*,’ at page twenty-nine, that has haunted me for forty years, and often stood as a barrier against evil thoughts. Ten worldly-wise, but impure spirits are represented as visiting the upper spheres of Heaven by permission; they being providentially guarded from the injury that would naturally befall them in such an unnatural position. Among other sights they saw a marriage, and the bride attended by six virgins. Here is one paragraph: After this the conducting angel went to the six virgins and gave them also an account of his companions, and requested that they would honor them with their company, and they approached. But when they

were near, they suddenly retired, and entered the women's apartments, where were, also, the virgins, their companions. On seeing this, the conducting angel followed them and asked them why they retired so suddenly without speaking to the men. They replied, ‘ We could not approach ;’ and he said, ‘ Why is this ?’ and they answered, ‘ We do not know, but we perceived something that repelled and drove us back again ; we hope they will excuse us.’ And the angel returned to his companions and told them what the virgins had said, and added, ‘ I infer that your love of the sex is not chaste. In Heaven we love virgins for their beauty and the elegance of their manners, and we love them intensely, but chastely !’ At this his companions smiled and said, ‘ You conjecture rightly.’ They then explained their emotions from their own low standpoint.

“ What human beings, possessed of a spark of nobility of soul, can read such a statement as that without yearning exceedingly to become so purified that nowhere in the universe could other souls be found that would shrink instinctively

from association with them. Oh, how this thought pierces to the dividing of the bones and marrow! How the soul is rent by the idea that there are spheres of human existence into which nothing that defileth can enter, the portals of which are guarded by pure intelligences, whose subtle spirit-senses can detect the evil that exists in any impure souls that approach.

"Similar to the last is this passage on page 65: 'I saw genii, in the spiritual world, who were preparing for Hell, approach to an angel who was happy with his consort; and, as they approached, while yet at a distance, they became like furies, and sought caverns and ditches, into which they cast themselves.' Such stories as this should have great effect in democratic America, where everybody wants to be 'as good as anybody.'

"At page 136 the seer says that one morning he was awakened by most sweet singing. He perceived that it was a song of angel wives. He went, in spirit, to the husbands, and requested permission to speak with the wives in their presence; and they assented and called them. The latter, he says, inspected my eyes sharply, and I asked, 'Why so?' They said: 'We can see precisely what inclination, and, thence, what affection and what thought from this affection you have concerning the love of the sex; and we see that you are meditating intensely, but still chastely, concerning it.' And I answered: 'Tell, I pray, something concerning the delights of conjugal love.' And the husbands assented, saying: 'Disclose, if you please; their ears are chaste.' And they asked me: 'Who taught you to question us concerning the delights of that love; why not question our husbands?' And I answered: 'This angel, who is with me, said in my ear that wives are the receptacles and sensories of them, because they are born

loves, and all delights are of love.' After further talk the husbands said: 'This is given to wives because they are most tender loves, and, as it were, burning zeals for the preservation of conjugal friendship and confidence, and thus of the happiness of the life of each, which they carefully look to for their husbands and themselves.'

"The seer shows, page 256, that they have a test of admission to marriage ceremonies, and feasts in Heaven that would puzzle Brown, of Grace Church, and greatly thin out his guests, if adopted there. He says: 'Walking once, in repose and pleasant frame of mind, I saw at a distance a grove, in the middle of which was an avenue leading to a small palace. I saw virgins and young men, and husbands and wives entering. Thither, also, I came in spirit, and asked a certain guard standing in the entrance whether I, also, might enter. He looked at me, and I said: 'Why do you look at me?' He answered: 'I look at you that I may see whether the enjoyment of peace, which is in your face, draws anything from the enjoyment of conjugal love.' He then stated that there was a marriage party within, and that his orders were to use this test to all comers.

"Of the same tenor is this, at page 44: 'All novitiates ascending into Heaven are explored as to their chastity, being admitted to an audience with virgins, the beauties of Heaven, who perceive from the tone of voice, the speech, the face, the eye, the gesture, and from the sphere that flows from them what they are in regard to the love of the sex; and if it be unchaste, they quit them instantly and tell their associates that they have seen satyrs, etc. The candidates are then sent back.'

"At page 151 he says: 'Once, from permission given, two consorts were with

me from Heaven, and at that time the idea of eternal concerning marriage was taken from them by a certain worthless spirit speaking cunningly; which being taken away, they began to wail, saying they could live no longer, and they felt a wretchedness which they never felt before. Which being perceived by their fellow angels, the worthless spirit was removed and cast down. When this was done, the idea of eternal concerning marriage instantly returned to them, 'From which they were gladdened with gladness of heart, and most tenderly embraced each other.' Don't you call that a sweet, pretty story?

"Finally, at page 345, is one of the best. He says: 'When I had finished the meditations concerning conjugal love, and begun those concerning scortatory love, suddenly there stood by me two angels, and they said: 'We perceived and understood the things which you before meditated, but the things which you are now meditating pass off, and we do not perceive them. Put away these, because they are nothing.' But I answered: 'This love about which I am now meditating is not of nothing, because it is given.' But they said: 'How can any love be given which is not from creation? Is not conjugal love thence, and is not this love between two who are capable of becoming one? How can there be a love which divides and separates? What young man can love any other virgin than her who loves in return?' On

hearing these things, I asked these two angels from what society of Heaven they were? And they said: 'We are from the Heaven of Innocence. Into that heavenly world we came infants, and were educated under the auspices of the Lord. And after I became a youth, and my wife, who is here with me, a marriageable girl, we were betrothed and contracted and joined by the first omens. And because we know nothing concerning any other love than that truly nuptial, therefore when the ideas of your thoughts concerning a strange love entirely opposite to our love were communicated to us we did not comprehend anything. Wherefore we have descended for the sake of inquiring why you are meditating upon things imperceptible.' When they said such things, I rejoiced in heart that it was given to speak with angels of such innocence who were entirely ignorant of what scortation was.'

"And now," said the pastor, "the night is far spent. I wish only in dismissing you, to ask the young and old men to consider well those reasons given for deference to woman in this her special realm; and do you women, married and virgins, renew your determination to use most carefully and discreetly that wonderful sense of chastity imparted to you; and remember, that to you especially it is given to maintain the purity of the relations of the sexes."

SAMUEL LEAVITT.

(To be continued.)

ERRORS IN EVERY-DAY SPEECH.

A CONTEMPORARY has selected some of the more conspicuous faults of language to which people are given, and held them up in their bare deformity. An incorrect phrase may *sound* well enough; but when written or printed, its impropriety seems to stand out clearly enough.

"There are some faults of speech into which people have come from sheer bondage to traditional custom. These faults vary with sections of our country and change with communities. The provincialisms of New England, of the Middle, of the Southern, and of the Western States have their well-

defined characteristics. Still, there are some errors common to all, and which spring not so much from ignorance of grammatical rules as from long-continued colloquial carelessness. Let us specify a few of these: 'I have a new pair of shoes.' 'I only want a trifle.' 'I expect that it may be so.' 'I should like a muffin.' 'A party told me the story.' These little vulgarisms pass currently and quite unnoticed. Still the shoes are new and not the pair. A trifle only is wanted. One supposes without expectation. Should expresses a future obligation; would, a present desire; and a person is never a party.

"Then there is another class of pet errors with which one is constantly annoyed, 'You had n't ought to say it.' 'He is a very reliable man.' 'I will learn you your lesson.' 'I lost near ten dollars.' 'I mean to stop at home.' 'He was gone before I knew it.' 'Who do you think I saw?' 'I know her well.' 'He has chose a wrong way.' These samples may suffice to point out a

large number of inaccuracies which are tolerated even among polite people.

"A few more of another sort may be fitly mentioned: 'He is better than me,' 'The book lays on the table.' 'You should have went at once.' 'Him and me took a walk.' 'He rose up and left the room.' 'You have mistook me.' 'Sing the two first verses of the 10th hymn.' 'Do not let me discom-mode you.' These are faults which can be readily avoided by due attention to the simplest rules of grammar and the laws of proper expression."

How common is the expression used by people who claim high culture, "You are mistaken," when they mean "You mistake!" Not long since we were provoked into a long discussion to prove the error of "You are mistaken," an acquaintance failing to perceive at once the inaccuracy of the phrase. So, too, people mix the terms "will" and "shall" in a most promiscuous manner.

WILLIAM H. LEININGER, INVENTOR.

THE portrait of Mr. Leininger will strike the observer at once, as being particularly full through the region of the temples, at the location of the organ of Constructiveness. The head is wide also, as it rises above that point, showing large Ideality and prominently developed across the region of the brows, and between the eyes, indicating good practical mechanical talent. He has a fair moral development, great force of character, clearness and vigor of thought, and a good degree of prudence and circumspection. He would have made an excellent surgeon, or a first-rate engineer.

William H. Leininger, the inventor of an improved shackle for prisoners, illustrations of which are given in this number, was born in Pennsylvania, in 1842, of Ger-



man parents. When but a lad, his family moved to Northern California, where the father kept a stock-ranch, and cultivated a small farm. In that wild region he had very few advantages in the way of books and that culture which comes by school discipline; his leisure hours were spent in the study of nature, and devising something for use about the place. His mind seemed to be always running on the improvement of the kinds of machinery and implements of daily use that came under his observation.

In the summer of 1875, he took a trip from Salem, Oregon, where he was then living, up into the gold diggings of the British Possessions. On the ship in which he sailed were several prisoners who had on their ankles heavy, clumsy shackles, known as the

"Gardiner" invention. These shackles were riveted on by a blacksmith, and were not usually taken off until the final release of the prisoner. This plan of keeping the shackle on the ankle caused soreness and much suf-

fering, and that excited Mr. Leininger's benevolence, and prompted him to think of an improvement on that means of securing prisoners. The result is the shackle which is here shown and described, and which is



Fig. 1.—SHACKLE IN POSITION.

fering, and that excited Mr. Leininger's benevolence, and prompted him to think of an improvement on that means of securing prisoners. The result is the shackle which is here shown and described, and which is

with comfort, and do most kinds of labor on the farm, in the shop, in the stone quarry, on the railroad, etc.

The fact that the prisoner or his friends can not undo the fastening, and that the shackle is made of a material so hard that no file, saw, or chisel can go through it, and so tough that no amount of hammering can break it, makes it a new and very important feature in prison discipline and labor.

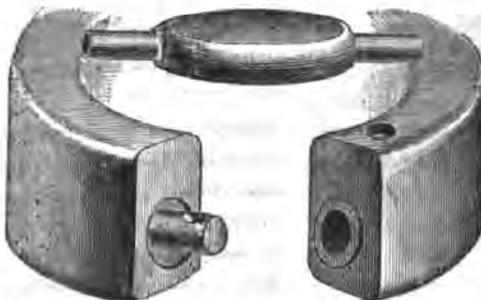


Fig. 2.—SHACKLE AND KEY.

now manufactured and sold by Mr. John J. Tower, of New York City. This shackle, as shown in the accompanying cuts, though it is calculated to hold the prisoner as safely

Fig. 1 represents the shackle in use, the stirrup which supports it being screwed upon the heel of the shoe, and the entire weight of the affair, therefore, resting on the ground except when the foot is raised. The screw, by means of which the shackle is fastened, is operated from the under-side, so that no dirt gets into the place to mar its working, and it can not be tampered with by the subject himself. Fig. 2 shows the shackle when taken off, lying bottom up, with one

of the dowel pins represented, which unite the parts. A screw hole is seen, with the screw in it which can be screwed down to hold the dowel pins securely. This is done by means of a thread cut on the upper part of the screw, and the key which is seen screws on to that and so drives the fastening pin down. To withdraw the screw sufficiently to permit the shackle to open, a reverse thread is cut on the top part of the screw, and the handle is screwed on to that and then turned, making it thoroughly impossible to take an impression of the screw or to turn it without a proper key to do it with. The shackle represented in the engraving weighs fourteen pounds, but is made heavier or lighter as required.

There are two aspects in which this invention may properly be viewed. The first is, that it is to be applied to those who are under the law, deserving confinement and restraint; in which it is designed to be a thorough and effective restraint. The second aspect is, that the person being restrained effectually, may be permitted to work in a quarry or shop, on the railroad, or on the land where he may serve the State to the best advantage and maintain his health. When brought back to his cell, his shackle can be taken off in half a minute; this convenience making it humanitarian to the prisoner and useful to society. With this on, a convict can work in the daytime without much watch-care. At night he can have healthful repose, his cell making his detention sure, or, if in an insecure building, the shoe and stirrup may be taken away at night, leaving the shackle around the ankle. When it is desired to remove prisoners, one officer could take charge of a large number, each having shackles on, without the least danger of their escape.

We would educate the race and train the emotions, so as to obviate the necessity of imprisonment and punishment; but while men are not raised above the grade of being criminally disposed, we would, for the sake of the public, make a prisoner's detention sure; and, for his sake, we would do it in such a manner as to give him freedom to work, and an easy release from the shackle for the purpose of repose at night.

A BAD FIRE.

"JONES, have you heard of the fire that burned up that man's house and lot?"

"No, Smith, where was it?"

"Here in the city."

"What a misfortune. Was it a house?"

"Yes, a nice house and lot—a good home for any family."

"What a pity! How did the fire take?"

"The man played with fire, and thoughtlessly set it himself."

"How silly! Did you say the lot was burned, too?"

"Yes, lot and all. All gone, slick and clean."

"That's singular. It must have been a terribly hot fire—and then I don't well see how it could burn the lot."

"No, it was not a large fire, nor a very hot fire. Indeed it was so small that it attracted but little attention."

"But how could such a little fire burn up a house and lot? You haven't told me."

"It burned a long time—more than twenty years—and though it seemed to consume very slowly, yet it wore away about one hundred and fifty dollars' worth every year, until it was all gone."

"I can't quite understand you yet. Tell me all about it."

"Well, it was kindled *in the end of a cigar*. The cigar cost him, he himself told me, twelve and a half dollars a month, or one hundred and fifty dollars a year; and that, in twenty-one years, would amount to \$3,150, besides all the interest. Now the whole sum wouldn't be far from \$10,000. That would buy a fine house and lot, even in Chicago. It would pay for a large farm in the country."

"Whew! I guess now you mean me, for I have smoked more than twenty years; but I didn't know it cost as much as that. And I haven't any house of my own. Have always rented—thought I was too poor to own a house. And all because I have been burning it up! What a fool I have been!"

The boys had better never set a fire which costs so much, and which, though it might be so easily put out, is yet so likely, if once kindled, to keep burning all their lives.—*News, Prattsburgh, N. Y.*



It is only by training all together—the physical, intellectual, and spiritual elements—that the complete man can be formed.

MAN'S PROPER DRINK.

MAN is so constituted that he requires daily liquid supplies, as well as solid aliment. No substance in the world but *water* can possibly answer or supply the natural demands of the system for drink. Water taken into the stomach is absorbed into the general circulation, but it is never assimilated. It serves to give fluidity to the blood, to supply the aqueous portion of the secretions, excretions, etc. No other fluid will answer this purpose; consequently no substances, except such as contain water, can answer the purposes of drink. As a general thing, foreign substances artificially mixed with water make pernicious drinks. Tea and coffee, beer, etc., are abominable, and not to be endured for a day.

Notwithstanding man requires daily supplies of water, yet the quantity, in a perfectly normal condition of the body, and under correct diet and regimen, is very small; not more than can be abundantly supplied, under ordinary circumstances, by the juices of those fruits and succulent vegetables which he ought to eat as a part of his daily meals. Nor need or ought the quantity of these to be large. If our habits are correct, we shall feel thirst only when the system really needs water. A small quantity of ripe fruit, taken with our meals, will then keep the system abundantly supplied with moisture, and, except under extraordinary circumstances, prevent our ever being thirsty.

In his lectures, Mr. Graham says: "If the dietetic and all other habits and circumstances of man were truly natural and in strict accordance with the laws of his nature, he would very seldom require drink, and therefore very rarely experience thirst. The fruits and succulent vegetables which entered

into his diet would afford all the aqueous matter that his vital economy requires; and this would always be of the purest and most salutary kind. Besides, being introduced in such a form, the stomach would never be inundated by a flood of water at once, but would receive it more gradually, and in a manner better adapted to the action of its absorbent and receiving vessels. So that, by this means, the system would be secured from improper quantities and qualities of fluid, and the sense of thirst would never be depraved, nor its integrity impaired. Many individuals in the United States, who have adopted the diet and regimen advocated in these lectures, have so regulated their dietetic habits, as to be able to live without taking any kind of drink or feeling thirst for the space of three, four, and six months; and these have invariably found that their health was, in every respect, more perfect at such times than when they frequently experienced thirst, and drank even pure water. By deviations from the strict line of physiological rectitude, however, in the quantity and quality of food and drink, and other errors of voluntary habits, the actual demands of the vital economy for pure water are increased, and the integrity of thirst as a natural instinct is always more or less impaired."

The experience of the author perfectly corresponds with that of those mentioned in the above extract. While he followed the common dietetic and other habits of Americans, before he adopted a true physiological diet and regimen, he was in the practice, and had been for years, of drinking immense quantities of water. He was constantly, winter and summer, night and day, afflicted

with a tormenting thirst, which he had not moral power sufficient to resist. It was a species of insanity, and drinking water became a real mania, which must be gratified at whatever hazard. He thought, and still thinks, that abstinence from water for a single day would have produced madness. In the summer it was the worst, and when laboring in the harvest field, he has often drunk several gallons in a day. The stomach would be filled and kept so full during the day, that it would not be emptied by absorption until near morning. A quart at once was a common draught.

After he adopted a correct system of living, and without any other means being used, this thirst entirely left him. He could now work through the hottest day in July without being thirsty hardly at all, and without drinking more than a very little if any fluid, of any kind whatever. When he could have ripe fruit, fresh, to eat with his meals, he did not want any other drink. He has been for eight months together without even once tasting of any kind of fluid whatever during the whole time, or ever once being thirsty. During all this time his health has been perfect, and not the least lack of water in the system for all the purposes of life; not even excepting perspiration and renal secretion.

These experiments, as well as everything else, go to prove that, under ordinary circumstances, man need not, if his habits are correct, drink fluid. All the water which the real wants of the system demand, is abundantly supplied by the fruits which he ought daily to eat, and in the purest and most proper condition possible. This is as nature designed.

Now if man were designed and constitutionally adapted to receive the fluid necessary to sustain his body in health, in the form of fruits and succulent vegetables, as he beyond question was, then the reception of it in any other form, even the drinking of pure water, is to some extent a violation of Nature's laws, and therefore injurious: that is, it would be better to receive it as Nature intended. But if we can not procure fruit, or if for any other cause the wants of the system can not be fully supplied by its use, then

pure water is the next best drink which it is possible to procure, and the only one which ever ought to be used by man. It should be pure and unadulterated.

One strong objection to the use of water rather than fruit to supply the demands of the system for aqueous matter, is the fact, that it is extremely difficult to procure water perfectly pure, or free from deleterious substances; while the juices of fruits are entirely free from all injurious substances, and just as Nature prepared them for our drink. The beverages which Nature has prepared for us are the best possible—are *precisely right*—and those differing from them in any respect are, of course, not as good. In Nature's beverages—the juices of fruits—there are no injurious substances mixed; while everything is present which makes, or is necessary to make, them perfect.

Concerning water, most of that which is used for drink, or at least much of it, is too impure even for the purpose of washing our clothes; what do you say to its fitness for drinking? A large proportion of our wells furnish water so thoroughly impregnated with mineral substances, that it is unfit for washing; it is called *hard* water, and rain-water is used in its stead; but it is drank without any hesitation. Can it be possible that the mineral matter contained in several quarts of this water can be taken into the general circulation of the human system daily for years, without doing any injury? It is irritating and offensive to the delicate tissues with which it comes in contact, and must of necessity be constantly doing injury.

"It is well-known that if hard water be habitually used for washing the hands, even for a short time, the skin on which it acts soon loses its natural softness and smoothness, and becomes dry and rough, and often cracks and becomes painfully diseased. And can any one believe that a fluid which produces such an effect on the external skin, that is protected by a horny epidermis or cuticle, can continually come in contact with the most delicate nervous and other tissues of the vital domain, and not injure them?" If we use fruit for drink in the room of water, and so regulate our habits as to avoid the necessity of drinking, we shall, of course,

escape the evils of drinking hard water—the evil of introducing daily into the system a large amount of poisonous mineral matter.

Again, the deleterious influence of unhealthy climates and situations is known to depend, in a great measure, upon the badness of the water found in them. It is a kind of proverb among people, that if the water is good, the situation is healthy; if it is bad, it is unhealthy. If we are in a situation where the water is bad, and are under the necessity of drinking several quarts of it daily, how are we going to escape this deleterious influence? But if we make fruit supply the necessary moisture to the system, and so regulate our habits that we shall not be under the necessity of drinking water, we can live in an unhealthy climate or situation with comparative impunity, and escape most or all of the deleterious influences which it is supposed to exert.

We have before remarked that if the habits are truly natural, the quantity of drink required by man will be small. All that he takes more than the legitimate wants of the system require, is evil, and necessarily injurious. If more be taken than is necessary, the absorbents which take it from the stomach, and the organs which excrete it from the system, are overtasked. Vitality is wasted thereby, and the organs debilitated and prostrated, and finally diseased. The action of the stomach is also interrupted and deranged, and digestion therefore impaired. Dyspepsia with its train of evils follow. If, when we are at work, for instance on a summer day, we drink large quantities of water, and perspire profusely, the vital energy necessary to absorb and excrete it will be withdrawn in a measure from the muscles, and therefore make them less able to perform a given amount of labor; while the additional task thus put upon the vital machine will make it much more—perhaps painfully—fatigued at night, than it otherwise would be. So far from being less able to endure the heat, we shall be better qualified to endure it, as experience abundantly proves.

Whatever produces irritation in the stomach or alimentary canal, causes morbid thirst; remove the cause, and the effect will cease. The appetite may also demand large

quantities of fluid from *habit*, when the vital economy does not need it, or perhaps would be injured by it. Break the habit, and this unnatural appetite, which is supposed to be true thirst, will be overcome. The appetite for drink can as well be depraved as the appetite for food; and in point of fact the depravity of thirst is almost universal. "When thirst, by whatever cause produced, is not the true instinctive demand of the vital economy for water, it is never so well satisfied with water as with some stimulating beverage; and when such beverages are used, the sense of thirst is still more depraved; and in exact proportion to the stimulating and intoxicating power of those beverages, and the freedom with which they are used, it becomes more and more exclusively a demand for accustomed stimulus, and correspondently, more frequent and more despotic. So long as the dietetic habits of mankind are greatly at variance with the physiological laws of the human system, therefore, nothing but necessity arising from the want of means, or the most powerful moral restraint, continually imposed and enforced, can keep the race from universal drunkenness:—and hence the melancholy fact that from the earliest history of the species until now, with the occasional exception of a limited and brief paroxysm of reform, the human world has staggered with inebriation; and, so long as the fixed constitutional laws of Nature shall remain, in spite of all the efforts that have been made or that *can be made* to choke man off from his intoxicating cup, the human world will continue to stagger on, unless the reformation goes beyond the cup, and removes the deep depravity of thirst."

For reasons stated in Chapter VI., no fluid should be taken with our meals, nor until digestion is completed. The times of drinking, if we drink at all, should, as a general thing, be regulated with as much precision as the times of eating; that is, they should be at the same hour every day, as nearly as possible.

"On the whole, then, in regard to the drink of man, it were best, and most truly natural, if his dietetic and other habits were such that the demand of his vital economy

for water were fully answered by the aqueous juices of the fruits and vegetables which properly compose a portion of his food." But if he *must* have drink, let it be pure water, not warmer than the blood, not taken with the meal or too soon after eating, nor in large quantities. If you are thirsty, or if you can not get fruit, take a glass of pure cold water—rain-water is decidedly the best of any that can be procured—some twenty or thirty minutes before eating, or three or four hours after. Have a regular hour for drinking, and regulate the quantity according to the real demands of the system. Nothing but pure water should ever be drunk. Never drink for pastime, or because the beverage has a pleasant taste, but solely to supply the legitimate wants of the system. Obtain a good filter, for the purpose of filtering rain-water, and you can always have water almost as good as distilled water. But if possible, make fruit supply the system with aqueous matter.

The above remarks are designed to apply to those in health. In certain conditions of disease, very copious drinking of pure water

may be very salutary, and often necessary. Indeed, internal as well as external applications of cold water are employed with the greatest success as remedies in cases of disease, and promise soon to supersede all other remedies; but still it is best to remain in health, by obeying the organic laws, so as not to be obliged to use even the *water-cure*. "An ounce of prevention is worth a pound of cure," let the cure be ever so valuable. We will leave this application of water to the physician, as our purpose is only to speak of the laws which govern the system in a state of health. To cure disease, it is frequently necessary to take a certain course, which would not be salutary—at least not the best course to pursue—in health. However salutary copious drinking may be in certain diseases, it is certainly not necessary, nor best, in health. But in health, and with correct habits, there is little or no danger in this direction; and with improper habits—especially *dietetic* habits—copious drinking, at proper times, may mitigate the evil. — *Sax's Organic Laws*.

HOW ATMOSPHERIC DUST OCCASIONS DISEASE.

THE charmingly situated island Phylae, in upper Egypt, presents in its well-preserved ruins to-day some idea of the splendor of the old Egyptian temple service. The traveler now ascends from his Nile barque to the island by the same broad steps on which, in ancient times, the priests of the temple used to descend to carry the sacred image of Osiris to the neighboring island. Well preserved are the sculptures as well as the colored ornaments and doors of white marble. Although the carved outlines were painted only with water-colors, and a wet sponge would suffice to destroy them, yet Upper Egypt being situated between two deserts, and rainless, therefore the marble still shines in its polish, and the colors are as fresh as they were a thousand years ago.

Such preservation would be impossible in our and most other countries, as the rain, the snow, the fog, would long ago have washed away and destroyed the colors, the marble surface also would have become defaced,

What a beautiful and glittering look many of our public and private edifices, built and ornamented with white marble, have when just finished; but a few years pass and their aspect is quite changed; the white is turned into a dirty and doubtful gray; and the statues in the pediment look more like sweeps than marble statues. What is the cause of all this? It is the dust taken up and deposited by the air.

The atmosphere, especially in large cities, is constantly filled with dust, such as minute particles of coal, sand, lime, etc. What, for instance, becomes of the worn-out parts of our clothing? Of that part of our stone and wood pavements which is worn away by passing feet? What becomes of the iron tire of the carriage or wagon wheel? What of the ruggedness of the road, which is made smooth by travel? We call all this *wear*, *i. e.*, mechanical friction, whereby small particles of the stuff are taken off in a way similar to the action of the file of the me-

chanic, which rasps off particles of iron. The greater the traffic, the greater is the grinding and pulverizing of the surface, which is carried off by the wind as dust. The weather, likewise, does its part; rain-water enters the small cracks and openings; the frost transforms the water into ice, which expanding opens the cracks more and more like a wedge; but imperceptibly the sun rises, and by its warmth the ice melts; another frost forms a new wedge, which again expands the crack a little more; and so the process goes on, and in the course of time new cracks open, and small pieces of mortar, stone, wood, clay, or whatever may be the substance, are peeled off, and are pulverized by other agencies, and the wind strews the powder

sprinkling of the same in the hot season. Disease and death! Are not these reproaches too hard? By no means; the greater mortality in cities in comparison to that in the country, and again, the difference in the number of deaths in dusty cities compared with that of cities free from dust, and the authentication of poisoning and life-shortening through dust in different situations and business operations, will fully prove their truth.

The cause of this dust does not always lie in the uncleanness of streets, but is often to be attributed to occupations which impregnate the air with small particles. In this respect the file-cutter is situated about the worst of those who follow a mechanical pur-



Fig. 1.—AIR CELLS LARGELY MAGNIFIED.

through the air and becomes to many the seed of death!

The swift-flowing air is able to carry along great quantities of dust, just as running water carries incredible quantities of sand and gravel. The dust of the great desert Sahara is blown into Central Europe; the spawn of the red snow algæ is carried from the arctic regions to the glaciers of Switzerland by the north wind, and the dust of the country roads and fields covers not only the neighboring fields, but also those far off.

Every cloud of dust carries disease and death through the city, and is a standing reproach against those who neglect the cultivation of lawns, trees, and shrubs, and the cleaning of the street, and the frequent

suit; he has to inhale the most injurious of all dusts, viz., that worn from metals. In comparing their maladies with those of other persons in a line of trade, but not quite so much exposed to the effect of dust, we find sufficient evidence of its harm to the organs of respiration. The records show that out of every hundred patients in mechanical pursuits the following proportion suffer from complaints of the chest, viz.: of blacksmiths, twenty-seven; of locksmiths, twenty-nine; of cutlers and toolsmiths, thirty-one; but of file-cutters, ninety-one, or more than nine-tenths of the whole; the stone-cutters number of one hundred patients about sixty-one suffering from complaints of the chest. The dust of stone is less injurious than metallic

dust, but still very dangerous to health. Stone-cutters die early, and the mortality among them is not trifling. A steel and glass grinder produces during eleven or twelve hours work about five pounds of dust, of which two pounds are from the grindstone and three pounds metallic matter. Asthma is very prevalent among these grinders; out of one hundred, about seventy are generally suffering from it in one form or other. The bronze worker, the sand-and-emery paper maker, the hat maker, feather cleaner, carpet beater, etc., all suffer

air rushes through the windpipe and into the lungs, carrying along whatever lies in suspension; so dust enters the lungs.

But our two lungs are wonderfully constructed. The ramifying branches from the windpipe terminate in many small cells or cavities, which are located in clusters, and are so small that they number over six hundred millions. This cellular structure renders the lungs exceedingly soft, elastic, and sponge-like. Figure 1 shows these clusters of cells highly magnified. An examination of the lung on the outside, under a magnify-

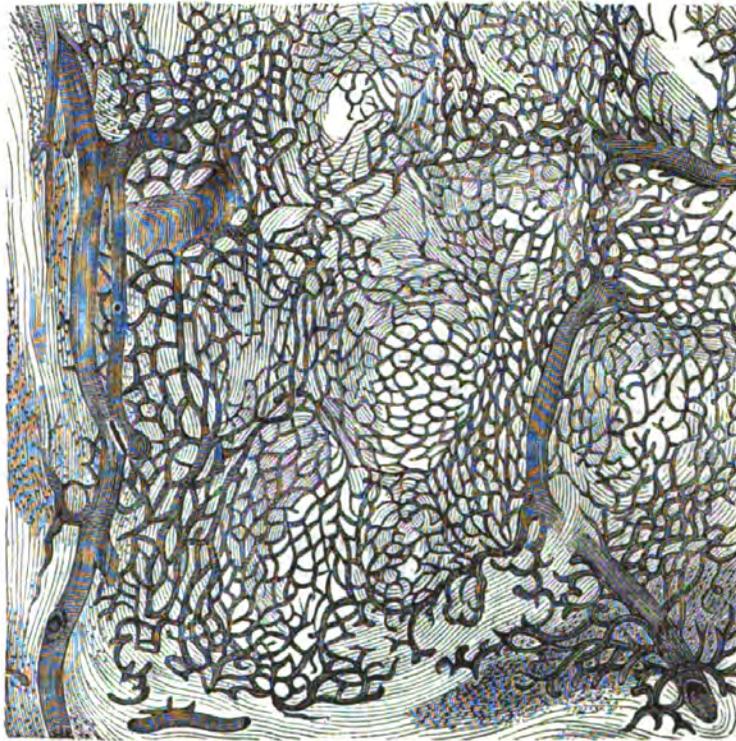


Fig. 2.—LUNG PLEXUS, WITH BLOOD VESSELS.

mainly from complaints of the lungs, which are manifested by coughing, emaciation, premature weakness, and general debility, all the symptoms of pulmonary disease. Let us see how this originates and in what it consists.

Our lungs, which hang in the interior of the chest on both lateral branches of the windpipe, as two membranous bags with many partitions and blood vessels, are expanded by inhalation and contracted by exhalation. Through this expansion the air in the interior becomes rarified, and the outer

ing glass, if the same has been injected before with a colored and stiffening fluid, shows the translucent clusters of cells.

If the lungs were to serve only to receive the air, like the natatory bladder of the fish, a large hollow pouch, with a firm and solid skin, would suffice. But our lungs serve rather to utilize the air breathed, to extract its good elements (as the oxygen) and to carry them into the blood, and also to expel all the useless parts, as carbonic acid and gases. And all this is effected by the above described elaboration of the lungs into nu-

merous cells, which contain an incalculable multitude of partition walls in their interior, on whose moist surface the inhaled air passes along bringing it in contact with the im-

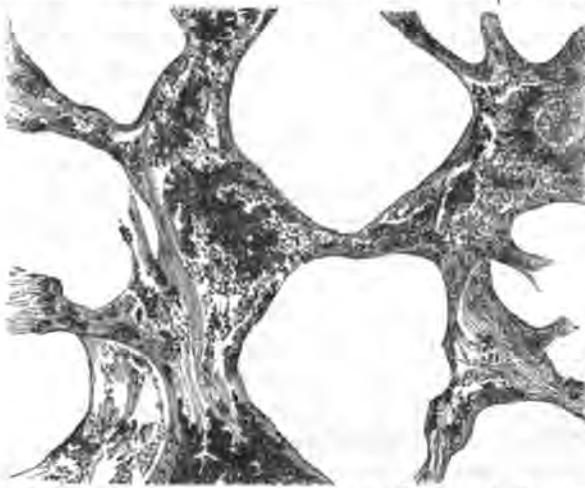


Fig. 3.—LUNG TISSUE PENETRATED WITH DUST.

mense number of diffusing blood vessels, whereby the blood absorbs the oxygen and also expels the carbolic acid.

Figure 2 shows, highly magnified, the inside wall of a cluster cell, injected with a coloring fluid, with its fine network of capillary vessels. The inner surface of the lungs is so much enlarged by the numerous partition walls of the cell clusters, that it is thirty times larger than the surface of the skin of the whole body. This innumerable multitude of capillary blood vessels extracts the oxygen of the air, and who can believe now that it is not injurious to our health and vitality, if this great breathing surface be

covered with minute particles of solid substance. The partial or total veiling of the capillary vessels by dust, obstructs the exchange of gases, the absorption of oxygen, and the expulsion of carbolic acid, which is the function of respiration.

The first symptom of the effect of the dust in our lungs is *hard breathing*—asthma. The accumulation of dust in the cells irritates them, excites inflammation, then catarrh of the lungs, and coughing for the ejection of the mass of dust and secreted mucus follow. The inhaled dust sometimes covers single cells or clusters of cells almost entirely, so as to make their normal action impossible; through pressure it destroys the vessels and penetrates the interior of the blood plexus. Figure 3 shows a section of a partition wall of the cells covered with coal, stone, and other dust. The affection known to coal miners as "black spit" is thus occasioned. In such cases breathing becomes scanty, less oxygen gets into the blood, and in consequence the person is less nourished, and the restoration of his consumed strength is almost impossible. At last ulcers form in the interior of the lungs through the irritating influence of the dust; some cells become larger and larger, the partition walls being broken, and the lung plexus destroyed, and then death enters under the form of what is termed consumption.—From the German of PROF. C. RECLAM, M.D.

FIRST, BE CLEAN.

HYGIENIC COUNSEL FOR BOARDING-SCHOOLS.

THE subject of personal cleanliness may be very homely and unwelcome, but it is one that forces itself upon the attention of many school-teachers, and that should not be thoughtlessly thrust aside. In our public schools there is always a class of pupils who are not properly instructed in this regard at home, and to whom the teacher must impart information not set down in text-books. Sometimes she is driven to this in self-defense, but when the claims of external decency have been fully met, there

yet often remains much to be desired in the interest of health and morals. Principals and teachers in private and higher schools, also, are not exempt from the necessity of reminding their pupils of the conditions that belong to real gentility. Neatness is not merely the preservation of visible freedom from what we call "dirt;" it implies thorough preservation from every kind of contamination, whether of garments, person, or surroundings.

The habits of boarding-pupils can be

more carefully watched and controlled than those of pupils living at home, and influence with parents can only be secured by the exercise of tact and patience. It is an ungracious office to inform a person that his habits are detrimental to health and self-respect, when perchance he is performing all that public sentiment requires of him. But cleanliness is so efficient an ally of all good causes that it can not be safely overlooked. Therefore should all teachers bravely advocate the high standard of order and neatness which, we trust, is rightfully imputed to them as a class, in their personal relations.

Headache, colds, bad breath, feeble circulation, may often be traced to personal neglects of which a pupil is quite unconscious. Instead of scolding a girl for an imperfect recitation, an observant teacher may kindly make private inquiry as to her state of health, and suggest a simple preventive for future listlessness. When the pores of the skin are kept open by frequent ablution, and the surface impurities that are absorbed by garments are removed by suitable exposure to air and sunlight and by change, one source of dullness is removed.

The proper care of the teeth is not too small an affair to require notice, for it is often wholly neglected by growing children whose parents make no effort to establish a proper habit until the appearance of tartar and decay. To keep the mouth sweet should be accounted one of the essentials of cleanliness, and yet even well-dressed children of considerable age will often be suffered to be careless, so be that the outside of their front teeth show no discoloration. We hope the day will come when a more refined public sentiment will compel all gentlemen to discard tobacco, but, while waiting for that millennium, it is not too much to ask that every person keep the breath free from the defilement of decay. The food which clings to the teeth decomposes in a short time and becomes offensive. This fact, suitably illustrated as a chemical phenomenon, could be so impressed upon a school that many would take the hint without the teacher's personal application.

The disinfecting power of sunlight is un-

derrated and neglected as a sanitary auxiliary in all our homes. Many a housekeeper who has a reputation for neatness and order, forgets to avail herself of this, and sends the children to school with headaches or dullness resulting from sleeping in beds filled with the perspiration of three generations, or from wearing their own underclothing too long. Not only should bedclothes be well aired, but the direct rays of the sun should often be invited to free the mattresses from the accumulated emanations of the skin's pores. Moreover, children should be taught to be even more attentive to the condition of underclothing than to that which is open to public inspection. It is the invisible enemy that destroys, oftener than we think, and one has only to maintain correct habits in this regard to become aware by olfactory demonstration of the causes which contribute largely to mental sluggishness, ill-health, and moral decay. Soil upon the body inevitably induces feebleness of mental action, and, by insensible, but sure steps, lays the foundation of moral obtuseness and neglect. The "little things" of life often prove to be the substance of personal history. A person physically clean is in a fair way to maintain genuine moral respectability.—G. G., in *Home and School*.

A HINT PHARMACEUTICAL.—Under the caption of "A Warning to Drug-Clerks," the New York *Herald* published an account of how a clerk in a Jersey City drug store was seriously poisoned by the contact of a sore finger with a prescription which he was preparing. If so-called "medicines" by such slight means can produce the startling effect which was exhibited in this case by contact with a part of the hand which is slightly abraded, have not the homœopaths some good ground for their claim to great results from infinitesimal doses? Considering the potency of a medical prescription to produce so serious a disturbance of the circulation, when applied merely to the hand, as to paralyze the arm and endanger the life of the compounder, what can we think of the policy of *swallowing* it even in minute quantities?

THE TRUE ECONOMY OF RIGHT LIVING.

BY JULIA COLMAN.

Doing Without—Prejudices—Social Eating—Mistaken Economy—Common-Sense—“More Expense!”—The Best is None Too Good—Our Food must Relish—Food in Its Season—Modify Expectations—Destruction of Nutrition.

RECIPES.—Apple Dumplings, Grape Pudding Sauce, Stewed Grapes, Quince Medley, Apple Breakfast Cake, Canned Rice Pudding.

TYROS in the art of right living are liable to some curious mistakes, which often lead to fatal errors. One of the commonest of these, is the persuasion that they are to reap a harvest at once from the lessened expenditure incident to

DOING WITHOUT

many articles to which they have been accustomed. It is true if they make their main reckoning on cutting off large bills for brandy, wine, and segars, they might not be far out of the way in their conclusions, for these are articles which require nothing in their place. But the people who adopt habits of right living are not usually those who have recently patronized these poisons, a fact somewhat significant in itself. One of the first thoughts suggested by a superficial acquaintance with the subject, is “no coffee, no tea for breakfast! That will cut off large items of expense!” So it would, where coffee is from thirty-five to forty cents per pound, if that were all that were to be taken into consideration. The fallacy of the thing is easily illustrated by carrying it a few steps further, and doing without their beef-steak, their white bread and butter. Many hygienists do without all these, but what would be left for breakfast? Such a doing without plan would, indeed, be very inexpensive, but by the time they became accustomed to it, they would probably be in the predicament of Paddy’s horse, and not want any more breakfasts of any sort.

I sincerely deprecate this “doing without” mania. I believe it to be a serious hindrance to all attempts to introduce a really wholesome dish. In recommending this diet to others, we should never lose sight of the fact that we are liable to come in contact with one of the strongest

PREJUDICES

of the American mind. In no respect very much given to economy, we are so reckless of our expenditure in the food line, that Europeans consider us extravagant and wasteful. Doubtless some of our extravagance is due to the much greater abundance of all kinds of food in this country; the result as in all new and fertile countries of an abundance of land in proportion to the population. Nothing but extreme poverty, and that mostly due to drink or laziness, need prevent any one from having an abundance of both food and luxuries. Few families are so poor that they do not have sugar and butter, and tea and coffee for common use, and “meat” three times a day if they wish it. And further, not knowing the real requisites of wholesome food, and having a theory which would do credit to a starveling tramp, that the “generous diet” necessary for health and happiness, means a superabundance of everything they like, they reject with scorn the idea of economy in their food.

You can readily test this by recommending any new dish on the score of its economy. Say it is “cheap,” and your hearers immediately infer that it is poor and undesirable. Assure them that they can dine upon it for a few cents, and they will look coldly indifferent, and probably reply that they prefer to economize in some other manner; that they can “afford to set a good table,” and do not care for cheap food. Perhaps some of our reformatory writers have not made due allowance for this prejudice. When Dr. Alcott recommended us to get our variety on successive days, by boiling up a peck of potatoes at once, and eating little or nothing else till they were gone, then having a day or two of bread, and then another day or two of boiled corn, it hardly seems possible that he was taking into consideration the views of the people whom he was addressing. I doubt if three families ever adopted and continued that method for any length of time. Neither should I expect much better results from Dio Lewis’ curious commenda-

tions of a meal of samp, and another of oatmeal or something similar. In truth, I do not believe in the practicability or the desirability of these methods any more than I do in the first-mentioned doing without system.

SOCIAL EATING.

The science of feeding human beings implies something more than "so much a head." It is an established custom, never probably to be done away, for human beings to eat in each other's society. In no place is civilization and refinement better indicated than in the dining-room. The Esquimaux may gather around their pot of boiled flesh, the Indians around their boiled potatoes or their corn bread, and the Arabs around their dish of rice, eating voraciously, without the aid of spoon or fork. But people of high culture use a greater variety, partake of it in a more cleanly and dignified manner, and consider the play of mirth, the sparkle of wit, and the tone of conversation generally of nearly as much importance as the order of eating. It is hardly possible to conceive such refinement habitually, and of choice, marshalled around a dish of potatoes or of boiled corn. This state of things we consider to be in accordance with principles founded in the very nature of things. Delicacy and refinement in the setting forth and partaking of our food is very desirable as exerting an important influence upon our character. The nice points now calling for our discrimination are to have our food delicate and yet wholesome, appetizing and yet nutritious, varied and yet not wasteful or extravagant.

MISTAKEN ECONOMY.

Now we will return to our experimenter upon cheap breakfasts. He misses his coffee. His food seems dry and tasteless, for his breakfast was planned with reference to coffee. Bread and butter and beef-steak form but two sides of the triangle. Those who are accustomed to drink anything with their food suppress the due secretion of saliva, so that without the drink their food is much more dry and tasteless than it would be with correct habits of eating. When the drink be omitted, it requires time to promote the secretion of the due degree of moisture. The

man's nerves miss the coffee too, so that with taste and feelings unsatisfied, he drags out an uneasy morning, thinking all the while about his breakfast. If he perseveres until the saliva is duly secreted and until his nerves recover their tone, so that he begins to realize his improved condition without the coffee, he may triumph, but his effort is so unnecessarily difficult and disagreeable that in nine cases out of ten the experiment will be relinquished.

COMMON-SENSE

would have said, take something else in place of the coffee. What this should be is suggested by the absence of fruit, an important requisite of every meal. Let fruit sauce of some kind or kinds, according to the season, be introduced when the coffee is removed, and you will have something appetizing, moist, and agreeable, which will promote the flow of saliva, and sooner or later be preferred to the coffee. Very likely it will cost as much, or more; but what if it does? we can afford to pay for health even in this way. It is more economical to pay for health than for medicine.

Next we would put upon the table an additional article, hominy, cracked wheat or oatmeal, preferably the latter. Most people at first would require trimming for this, which might be syrup, butter, sugar, milk or cream.

"MORE EXPENSE!"

you say. Well, are you not the one who could "afford to set a good table?" It will more than pay for itself in the amount of nutriment afforded. You can get more brain food and muscle from oatmeal than from steak. If you find the usual quantity of steak decrease, while the health and strength of your eaters increase, you need not parade the economy of the thing. If you do, your eaters may think that you care more for the money than you do for their pleasure and profit. At all events, you will soon begin to feel paid for the extra labor and expense, and very likely, before long, your bills for the breakfast-table will not average more than they did when you used only coffee, beef-steak, and bread and butter, while you have a much more relishable and healthful breakfast.

Doubtless, by this time, if not before, your attention will be called to Graham bread. If you are wise, you will get the flour and make the bread yourself. You will soon learn that to have the flour good it must be made with great care, and of the best of wheat, and all this costs money. The day is past when discriminating people will accept of "bran flour" and permit their grocer to make it up of fine flour, bran, corn-meal, and other such trash. Very likely your "No. 1 Gem flour," direct from Kelly & Smith's, will cost more than the best family flour that you have been using, but if properly made up, the bread will contain from twenty-five to forty per cent. more of nutrition than the fine-flour bread commonly used. If you do not consider this sufficiently economical, you may extend the calculation into its effects upon the health. You may balance the extra dollar per barrel against the usual doctor's bills and the loss of time incident to sickness. You may decide how much money will be required to offset a fit of indigestion or the loss of a few nights' sleep, or the horrors of chronic dyspepsia, to yourself or to those dearer to you than your own life.

Perhaps some cheaper grade of Graham flour *might* be equally healthy, but the chances are against even this, for the cheapness is too apt to be purchased by neglect in cleaning the wheat, or some other equally important particular. Certainly it will not answer the purpose so well in your family if it produces so indifferent an article of bread that it requires more condiments to make it go down, or proves so unattractive as to be gradually neglected and given up. That is a kind of economy that overreaches itself, and you will usually find, that is if you can afford to set a good table, that

THE BEST IS NONE TOO GOOD

for common use. People who can afford tea, coffee, steak, and hot cakes, because they like them, ought to afford to make wholesome food attractive. If they can afford to pay for the gratification of the appetite, they ought to be able to pay for health. If time and space permitted we could easily show that none enjoy their food with a

keener zest than those who secure health by plain living. Probably, however, the effort would be wasted, for people who think so much of their appetites would not be likely to comply with the necessary conditions. Besides, this kind of enjoyment, like any other happiness, is coy if courted directly. Like seeking religion, should we do it from higher motives, but true happiness follows. Observe, too, that while it is indispensable to true economy to eat that which ministers to health, the latter is in itself the best incentive to appetite.

OUR FOOD MUST RELISH

in order to digest well and nourish us properly, though it does not follow that all that relishes digests well and affords us nourishment. Our appetites are not natural, and the preparation of many of our dishes is very artificial, so that we need to school our tastes to some extent in learning to enjoy a wholesome diet. Fortunately wholesome food is abundant in most countries, and it would be far more abundant than it is if we took more pains in producing and in preparing it. If we put a small portion of the expense which we now lay out for flavors and relishes into the more careful preparation of our food, we should not so often need the condiments to make it agreeable. This would be a very desirable change in the object of expense, though it might not prove, on the whole, less expensive until we count up the ultimate results.

Another method of curtailing the expense without really diminishing the pleasures or the wholesomeness of the table, is to provide

FOOD IN ITS SEASON.

A vast amount of money is now spent in purchasing, at a high figure, the first products of the season—in getting green peas from the South in March or April, strawberries in May, and tomatoes in June. When you get them they are far inferior to those you have in your own garden in their proper season, and not so keenly relished anyway as when eaten in such weather as ripens them. Take the withered green peas and the sour, faded strawberries on a cool April day and you are not only robbing

the richness and brightness of a warmer season, but paying dearly for it and not half enjoying your plunder when you get it. Wise people can eat ripe beans, blue Imperial peas, tomatoes, and strawberries that were canned when they were in their perfection, and wait for the new ones till they are also at their best, and they can get them fresh from their own garden, saving their money for some better purpose. Nature has been liberal to our tropical neighbors. They have a great variety from which to send us, and they should not complain if we do not send to them for things that we can raise ourselves.

It becomes evident, then, that some people, at least, should

MODIFY THEIR EXPECTATIONS

as to the economy of right living. As matters now stand, I doubt if the first expense of a well-kept hygienic table is much less than one of the common diet, though the comparison is difficult because people's ideas differ so widely as to what they would like to have. I consider it important, too, that the question of economy should not be made prominent when such changes are proposed. If tea and coffee, butter and spices are omitted, figs, raisins, and other fruit should be increased, and the bills may even be somewhat larger until the new diet has become familiar and the partakers have decided what they like best, so that some of the variety can be dispensed with.

The real economy of a wholesome diet lies in much broader considerations, as we have already hinted. The difference counts up rapidly when we begin to include the doctor's bills, the loss of time, and the cost of funerals incident to sickness and death. There is, doubtless, a money value attached to the sadness and sorrow occasioned by the sickness and loss of friends, as well as to our own invalidism, but we have not the heart to make an estimate of it, and certainly no money would be received for it. We prefer to dwell upon the pleasure afforded by a longer lease of life and the greater vigor, elasticity, and readiness for work of all kinds. Many individuals have noted in themselves a greater capacity for

brain work and an increased ability for muscular exertion.

These are things all desire and would be willing to pay for if money would buy them directly, and they are results which all people in ordinary health have a right to expect from wholesome food. The reason why we hear very little about them is that most people do not resort to wholesome food until pushed by invalidism, then they take it as a medicine only until they get well, or continue the use of what will barely keep them in a passable condition; few or none take it up in health and test the results fairly, and fewer still give it the advantage of a life-long test, while we are all suffering from the bad dietetic habits of our ancestors.

But the greatest direct economical result would come from preventing the great loss we now suffer from the prevailing

DESTRUCTION OF NUTRITION.

Suppose it be true that much of the nutrition of our wheat is destroyed before it reaches the eater, and that too by processes expensive in themselves, such as the bolting of flour, and the loss of the gluten, etc., taken out, and the yeast and baking powders, and shortening required to impart the flavor, and lightness, and tenderness which have been unwittingly destroyed, besides all the labor required in adding them. To prevent this loss and expense would secure a saving equal to from one-fourth to one-third of all the wheat that we use. This alone would be a large item.

Again, the process of raising flesh meat is exceedingly expensive, and, in one sense, a great waste of nutritive materials. For these animals which we kill for food have been eating to support themselves and to enjoy life, and not to store up nutriment for us. If we shut them up and fatten them with a view to storing up food for us, the fat they accumulate is not known to be nutritious. The muscle is nutritious, but not so much so, weight for weight, as the grain which the animal has been eating. It is estimated that in this country the land which will afford meat enough for one man will raise grain enough to support fifteen men, and with very little more labor.

We might also begin to count the cost of making butter and cheese, two very expensive articles not known to be nutritious, and more than suspected of being unwholesome.

How far these investigations will eventually lead us we can not say. We believe that we now have a sufficiently correct knowledge of the human system and its wants, and of the nature of food to know when we are on the right track, and we certainly ought to know that the perfect adaptation of food to our wants is essential to the highest economy, and if our desire for a "generous diet" and "a good table" lead us to insist upon having the best, let us learn what the best is. This will lead us not only to avoid the feeling and the appearance of meanness, but will enable us to assure ourselves that we are getting what we pay for, and to practice on a grand scale the true principles of economy.

RECIPES.

APPLE DUMPLING.—Provide small, deep tins, holding nearly half a pint, into which put a spoonful of thick batter, made with one part oatmeal porridge, one part water, one part boiled rice, and one and a half parts Graham flour. Into this set a pared and cored rich tart apple (greening or Spitzenberg if available) stuffed with blanched raisins. Cover with another spoonful of batter; set in a steamer or in a kettle just above the surface of boiling water, and cook thirty-five or forty minutes. Serve warm, with quince or grape pudding sauce.

GRAPE PUDDING SAUCE.—Cook Concord or Isabella grapes, even-full of water, fifteen minutes, and rub them with a pestle through a colander. Thicken slightly with corn starch or sifted Graham flour, and sweeten to the taste.

STEWED GRAPES.—Those who use grapes at this season of the year, are likely to have many that are hardly presentable at the table. They are crushed in the box, or slightly mouldy, or they fall off the stems, and though they might be used, they are so good for various purposes in cooking, that it is well to use them in this way. The dark grapes, such as the Concord, Isabella, and Rogers', are much richer when stewed than the light sorts. When picked off and washed (if necessary), fill them even-full of water and cook fifteen minutes. Then set them off a few minutes. When returned to the fire, make them boil up on one side first, and usually the most of the seeds will settle there from which the stewed fruit can be taken off. Grapes are excellent for flavoring other fruits, such as citron and

melon, with which they can be cooked to advantage.

QUINCE MEDLEY.—One part quince, two parts pears, and three parts apples, all pared, cored, and quartered. Stew the quinces and pears first in a porcelain-lined kettle, and when nearly done, add the apples. Sweeten, mix well together, and serve cold. If sweet apples are used, they may be put in with the other fruits and, perhaps, forestall the necessity for sugar.

APPLE BREAKFAST CAKE.—Stew, strain, and sweeten good rich apples (or use part sweet apples), as for ordinary apple sauce; pass through a colander, and mix with fine oatmeal (Schumacher's "A"), spread out on a tin half an inch deep, and bake half an hour. Serve warm.

CANNED RICE PUDDING.—Mix one part good washed rice with five parts chopped apples and sugar to sweeten, scattering in about one part dark grapes. Put into a glass can, fill up with water; screw on the top (without the rubber), and boil or steam two hours. Then take out, fill up with boiling water if necessary, and seal and put away like fruit. When unexpected company comes, your dessert is ready.

PEA-NUT OIL.—The vegetarians in London are recommending this oil for cookery and condimenting purposes. It is said to be "very sweet and palatable, and without that rich, greasy taste which olive oil seems to possess." At present the Jews are the principal consumers of this article, which is sold under the name of "East India nut oil."

WHITE ASPARAGUS.—The French method of bleaching asparagus has been introduced into this country. It is simply the "colossal" asparagus, grown white instead of green by heaping up the earth around it as it grows.

TRICHINA.—An expert says that fully one-tenth of all the hogs killed are infested with trichina, and that many people are suffering from that disease without surmising the cause. He furthermore adds that there is no safety in relying on any amount of heat to kill the beast in the process of cooking.

CHINA has commenced to import wheat from San Francisco, on account of a partial failure in the rice crop at home.

IMPORTING INSECTS.—Many of the cases of seeds, especially those from abroad, in the Exposition, show the insects at work which usually infest these seeds. This is an "exhibit" of which the exhibitors should not be proud. Indeed, the carelessness appears quite inexcusable, and seriously reprehensible.

RECORD OF SCIENTIFIC DISCOVERY.

BY FRANCIS GERRY FAIRFIELD.

Cysts in the Muscles of Fishes.—Recent investigations have developed some curious data as to the cysts sometimes observed in the muscular tissues of fishes. According to the lamented Clapardè, who was the first thoroughly to examine and describe them, and who studied them in a *fera* transmitted to him by M. Luni, these cysts generally contain a liquid resembling milk; but in one he found a whitish paste, evidently produced by a metamorphosis of a lacteous fluid, the watery elements of which had obviously been reabsorbed. The constituent elements of the fluid consist of psorospermies, having a resemblance to each other, and composed of a head of lenticular shape, and a tail double from its base. A granular protoplasm is always found with them, at the expense of which they are developed. Similar cysts are, it appears, often found in the mucous glands about the gills; but the remarkable fact is that the psorospermies contained in the latter are very unlike those observed in muscle, and considerably smaller, not being more than from one-tenth to one-fourth of a millimetre in diameter. They are not lenticular, but perfectly spherical, having no tails, and each encloses a spherical kernel and a few granules. Clapardè was of the opinion that there was a generic connection between the two, but did not find sufficient evidence to demonstrate the hypothesis, although he found one gill-cyst, the contour of which was similar to that of muscular, and the psorospermies of which had tails somewhat shorter than those of psorospermies found in muscles, but bifurcated at the end. Later investigations have confirmed Clapardè's opinion, and shown that mucous psorospermies must be regarded in the light of development partially arrested by unfavorable conditions. It is a familiar fact that certain peculiar developments of tape-worm are common to fish-eaters, and that special types of parasitic diseases show themselves in persons addicted to fish diet; so that investigations in this direction are not without their value to medical science.

Colloid and Crystalloid Death.—The fact that fishes, frogs, and many other animals of less complex organization can be frozen to death in water, and, upon the water being very gradually thawed, are resuscitated by the increasing temperature, has been long familiar to experimental physiologists. If, on the other hand, the temperature is elevated too rapidly, or if more rapidly in one part of the animal than in another, *rigor mortis* may supervene in one portion, while another recovers its vitality as a living tissue. It has, however, only recently come to be understood that death by freezing consists simply in a congelation of the crystalloid elements of the tissue, and is thus to be distinguished from colloid or albuminous death, in which

the colloid elements become pectous or rigid. Thus in crystalloid death, by freezing, the salts and crystalloid elements of the blood and tissues become crystalline, and life-movements are interrupted. In true *rigor mortis* the stiffening is due to pectizing of the albuminoid constituents; it is a general coagulation, not of the blood only, but of all the vital tissues. A living tissue may be defined as a hydrated colloid and crystalloid compound, the crystalline constituents, by their facility for the absorption of water, while albuminous substances are not distinguished by such facility, contributing to maintain the tissue in a hydrous condition. In coagulation of the blood the main agent is now known to be carbonic acid; so in coagulation or pectizing of any tissue. This brings on the real *rationale* of the coagulation of albumen under increasing temperature; the heat hastening the development of carbonic acid, and the free carbonic acid acting on the albumen to set free the aqueous constituent, which renders the tissue anhydrous and hastens the pectizing process. The pathology of sun-stroke, although various consequences of high temperature are classed as such, furnishes an apt illustration of sudden colloid death. The dangerous temperature here is one from 10 to 12 degrees above the natural temperature of the tissues—98. If an egg is placed in water at a temperature of 115 to 130, and left for half an hour, the yolk coagulates, while the white remains fluid; that is to say, most vital albuminous compounds coagulate at a very low temperature indeed, blood being included among them. Why such compounds coagulate at a lower temperature than albumen itself, is a question that need not here be discussed. In some studies of true sun-stroke, as distinguished from syncope of the nervous centers, and from congestion of the interior organs, occasioned by high temperature, the writer had an opportunity of examining last summer some specimens of blood taken immediately from a vein before death, and found in every instance all the recognizable indicia of spontaneous coagulation. So that the probable process of sun-stroke is this: The increased temperature and more rapid decomposition of tissue set free an increased quantity of carbonic acid, which, in the absence of rapid oxidation, promotes coagulation, and the blood becomes pectous. Deep inspiration may postpone the pectizing process by increasing the oxidation, or profuse perspiration may postpone it by promoting the excretion of the acid by way of the surface. Venesection suggests itself here as the most immediate remedy for true *coup de soleil*, and one that should be instantly applied on the supervention of the symptoms. The point is, however, that sun-stroke is the only special form of pectous or colloid death that presents

itself in nature as the proper antipodes of the death by crystallization which supervenes in freezing fishes.

Spectroscope Studies of Nervous Tissue.—The editor calls attention under this caption to certain experiments he is now prosecuting as to the possibility of applying the spectroscope to the study of nervous pathology. It is a fact familiar to physicians that, in nervous diseases, there is still a margin of tissue changes that can not be described by the microscope, which is only available when structural changes have actually set in. It has always been presumed that specific molecular changes have preceded structural alterations, and that the earlier symptoms in nervous disturbances are consequent upon the former; but this has never as yet been scientifically demonstrated. In the series of spectroscopic studies of fresh nervous tissue from the brains of mice killed by bleeding, in which I am now engaged, I have observed that specimens taken from different sections of the gray matter present identifiably different spectra; so that there is a definable difference in molecular properties between nervous centers differing in function. It is thus very probable, as physiologists have assumed, that perversions of function have their origin in molecular changes in the affected tissues. I have not yet prosecuted this species of observations far enough to give definitive results, but shall submit my materials in the form of a memoir in the course of a few months. Of course, the investigations of Wundt, showing that the molecular changes accompanying a sensation, and those that take place in a center of motion, differ very materially, are already familiar to scientific readers; but his methods of arriving at the conclusion have scarcely been such as to secure unquestionable certainty of induction.

Fructification of Fungi.—Since the brilliant researches of De Barry on the mildew-fungi, our studies of these ephemeral organisms have taken a new aspect. Although the Tulasne brothers had previously shown that the sclerotics (black fungi) are not perfectly developed organisms, but are analogous to the tubers of the higher plants, and that they contain different kinds of spores, as well as spermogonia and spermatia, the organs of fructification were not discovered until De Barry made his famous study of the *Peronospora Alsinearum*, a parasitic plant living on the *Stellaria media*. Pringsheim, in his masterly paper on the *Saprolegmia*, describes the zoospores and the manner of fructification; and Hoffmeister confirms the latter in his later observations on truffles. According to Hoffmeister, the process is as follows: The antheridium comes in contact with the oogonium, one of the sharp processes of the former penetrating into a minute opening in the membrane of the latter, and discharging either seed, fertilizing filaments, or granular contents, as the case may be. The latter are communicated to the antherozoid, which,

previously membraneless, commences immediately to grow a cellular membrane, and finally becomes the stationary spore of the plant. The similarity of this process to that observed in androgynous insects is so striking that one almost stops to question whether one is studying a vegetable or an animal process of reproduction. Again, when one sees the germinating spores from mucous fungi forming a peculiar body within themselves, which is gradually converted into a plasmodium, a substance having no analogue in the vegetable kingdom, and finally develops into a perfect plant, one is strikingly reminded of parthenogenesis in insects. There are analogies between vegetable and animal reproduction, in the lower types, that will repay thorough investigation.

The Missing Link.—M. Herman Fol, a Swiss naturalist, has recently contributed a memoir to the Geneva Society of Physics and Natural History on the *Appendiculaires*, a family belonging to the class of animals known as *Tunicifers*. In this article he confirms the near relation that several authors have established between these animals and the vertebrates, and proposes them as the trunk from which the latter were developed. On this point the editor will, perhaps, be pardoned a few necessary observations. It seems evident at a glance, whatever may be our views on incidental questions, that the spinal column that distinguishes vertebrates could only have originated in aquatic habits. In fishes, for instance, it serves the function of an axis of motion extending from the head to the tail, the central canal being occupied by a tissue having the function of conjunctivity, and the muscles being arranged in such a manner as to act from a central osseous axis. Of the various types of motion observed in aquatic animals, the vertebrate appears to be that most conducive to rapidity of movement combined with flexibility as respects direction. Accordingly, in land animals, so long as the perfect integrity of the spinal column continues, as in reptilians, the type of motion continues to be substantially the same as in fishes; and, in the course of their foetal development, all vertebrates pass through a spinal type that has its homologue in fishes. That this is an original type of motion, and one not fairly derivable from another or lower type, seems evident from the fact that no satisfactory link can be found to connect it with other forms. The extinct ornithic reptiles furnish a clear link between birds and reptilians. So, again, the mammalian type of motion can be readily traced to the aquatic type presented in fishes. Our conclusion, therefore, I think, in the present state of the facts, must be that the vertebrate type of motion had its origin with aquatic animals as a simple and primitive type, springing directly from the primordial necessity in such animals for a type of motion dependent on, and involving the development of, such a longitudinal axis as that which is exhibited in fishes in its simplest and most perfect form.



MRS. C. FOWLER WELLS, *Proprietor.*

H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
DECEMBER, 1876.

THE RULE OF THE PROPENSITIES.

WHEN one is born in an environment of degradation and vice, and grows from infancy to manhood amid influences which stimulate almost exclusively the organs which relate to physical gratification, it is natural that he should manifest an indisposition to submit to the laws and proprieties which wise legislation and conventionalism have ordered for the governance of society. His birth and training have evolved principles of conduct which are at variance with the symmetrical formulas of truth; he comprehends the unreason of the mental deformity which conduces to selfishness and immorality, but his understanding fails to appreciate the reason of that mental balance which lies at the basis of a normal, happy, beneficent career.

The trouble lies in his education.

Not long since, some of the New York newspapers published a letter written by a notorious burglar. In phrase uncouth he related how he had entered the dwelling of a well-known clergyman, with the view to stealing; but was deterred from his purpose by the minister, who, entirely alone, unarmed and unthreatening, met him and preached the gospel of honesty and mercy to the

armed ruffian, and persuaded him to leave the house. The spirit of surprise and confusion pervades the letter, indicating clearly that the robber gave up his scheme of plunder against his will, and could not say why. There was something in the manner and language of the aged Christian that made him pause in his guilty career, and softened his sin-encased heart to an unwonted tenderness. Here was an expression of moral power indeed!

When Combativeness, Acquisitiveness, Secretiveness, and Destructiveness have obtained a dominant growth, and so have given tone and quality to the cast of character, it is a difficult matter to produce an impression which will tend to modify the action of those faculties. The treatment required is peculiar to each case of vicious organization, and its application must be accompanied with an earnestness which precludes all uncertainty on the part of the person whose moral health is its object.

Any one who is conversant with the class which feeds our prisons and penitentiaries, knows this. The case mentioned by Dr. Wines, which was detailed in the October number, is an illustration of the difficulties in the way of the positive reformation of a criminal. The change in the character and life of him who was *born* a thief, was brought about as stated in that eloquent paragraph:

"No day passed during all these long years of hope and fear, of prayer and watching, of anxiety and toil, in which he did not visit the cell of the young prisoner with words of tenderness and encouragement, with counsels of wisdom and with persuasions eloquent from their sincerity and tearful earnestness. Drop by drop water works through the granite rock. So looks, and tones, and words, and acts of kindness persisted in for years, despite ingratitude and opposition, can not fail, never do fail, to

make in the end an impression upon the hardest of human hearts. This youth, though steeped in crime from infancy, formed no exception to the rule. The medicine at length took effect; the cure was radical and complete. He left the prison a changed man; changed through and through; changed in heart, purpose, and life!"

The faculties whose activity conduce to a high order of manhood, were weak and inoperative while the man pursued the course which seemed natural to him. Propensity ruled his spirit. Yet those small and dormant organs through which the moral life finds expression could be reached and aroused to action, and developed to the degree of mastership in the man's mentality. So that appetites, greed, passion, contempt of order, and integrity no longer characterized him, and he was no longer the outlaw, and enemy of his fellow-men, but their sympathizing, zealous friend and co-worker in the ministry of truth and charity.

The basis of the rule of the propensities is found in the original organization, but careful training, accompanied with the best moral and religious influences, will modify an unhappy organization, and cause good to appear where formerly there seemed to be only evil.

THE TEMPERANCE WOMEN.

THE work goes bravely forward. The Convention of the Woman's National Christian Temperance Union, which was held in the city of Newark, N. J., in October, indicated a degree of strength and of real successful effort which is highly gratifying. From twenty-eight States reports were offered, a fact in itself significant of the comprehensiveness of the movement which women, earnest for the purity and

elevation of home and society, have brought about. The closeness of organization, and the settled determination which they evince, should make the supporters of the liquor traffic pause or tremble, if what they have already accomplished in some of the former strongholds of rum have not awakened sober second thought. "When a woman will, she will." Here is not one resolute woman, but an army, with leaders like Mrs. Wittemeyer, "Mother" Stewart, Miss Willard, Mrs. Denman, who add to their enthusiasm for temperance reform high intellectual culture and eminent practical ability. The enemy of happiness and of every good element in human character, although surrounded by his thousands of victims or avaricious agents, can not withstand the assault of such an army. We are hopeful of a better order of things through this movement, and we know that hundreds of poor men, in a captivity worse than death, would rejoice to have the "cursed thing" driven from the land, so that they might no longer be tempted. Noble women, go on. Our nation's very salvation depends much upon your effort.

HOME PHILANTHROPY.—A correspondent writes thus feelingly:

"I have a neighbor with three young sons, aged thirteen, sixteen, and twenty, who are growing to manhood without culture or discipline. The father—very ignorant, weak, and vacillating, with animal propensities predominant, and an inveterate chewer of tobacco—cuffs and abuses the boys, is domineering at home, but, to the public, servile and fawning; never reads a book, or allows his children to 'waste money' in buying them. The boys, as might be expected, are stubborn and disagreeable generally; still, they show traits which make me believe that they would make men of promise, with some chance. How my heart aches for them! These are the boys that I am trying to help as far as I

can with books and every means in my power. They are very fond of reading, and want to take the PHRENOLOGICAL JOURNAL next year.
M. L."

This is one way by which good can be done. In the spring-time of life the impressions of virtue, which may be sown in the heart by a considerate hand, will be likely to take some root and be productive of lasting benefit to mind and body. By regarding the youth of our neighborhood, who are growing up in evil ways, as in no way concerning us, and in no respect an opportunity given us for doing an excellent work with but little effort, we are helping to disseminate those elements of vice and crime which we are always ready to lament as contributory to the low moral state of society. Mr. M. L. can scarcely do a more benevolent work than to enlighten the minds of the boys he is so interested in with regard to the great principles of truth and duty.

BENEVOLENCE AT A DISCOUNT.

IN our views of things, whatever has a directly beneficial influence upon the physical health of people should not be hedged in by iron-bound restrictions, so that they who would try or adapt it can not unless they submit to the exactions of the monopolists. When we meet with a paragraph like this in a periodical of general circulation,—

"Patterns are not for sale. All these garments are fully covered by patents, and infringements will be rigorously prosecuted by law."

—with the fact before us that this cast-iron policy relates to an improved method of dress for women by which comfort and movement are promoted, we are inclined to believe that the persons who maintain such a policy in business would bottle up the atmosphere if they could, and institute legal

proceedings against all found uncorking it without having previously bought the privilege of doing so.

Our habits of thought and business may be all wrong in the matter, but we have always believed that in things of so much importance as the preparation of food and the construction of clothing, it was a principle of duty and benevolence to give as wide circulation as possible to methods—new or old—which will tend to promote health. We supposed that, in the matter of "dress reform," all its advocates were philanthropically inclined, but the paragraph above shows how easy it is to mistake; and that some people, who have a "good thing," will obtain a government privilege for its exclusive sale. Doubtless, "there's money in it."

CALCULATING DESTRUCTION.

THE Providence, R. I., *Journal* published recently a short account of an opium-eater who deliberately counted the cost of the habit which he had contracted. "He began to eat opium when about thirty-five years old, and finding a few years later the habit firmly fastened upon him, he determined that he could not live at the longest more than thirty years. He was then taking half a grain of morphine a day. He figured out the amount of morphine that he should require in thirty years, allowing an increase of a quarter of a grain a year. He then made a deposit of money sufficient to supply him with his regular allowance during all those years, and now he goes about continually under the influence of morphine, viewing life and the world in which he moves as if he saw them from the large end of an opera-glass."

Here is the case of a man who resigns himself to a course fraught with evil and death, in the very outset of a calm realiza-

tion of its consequences. How extraordinary, that one whose intelligence and sagacity enable him to estimate calmly the probabilities of longevity and expense, and to make provision for thirty years of intoxication, should not determine to make at least one effort to release himself from the horrid slavery! All that is pure and noble in manhood shudders in the contemplation of so debasing a sacrifice. But how many

thousands of intelligent men and women there are who indulge habits of appetite which they know to be destructive to health and happiness! The great army of shiftless, reeling drunkards, and the multitudes of feeble women who follow the pernicious counsels of fashion, furnish examples of error and misery which should warn the strong and stimulate the weak to avoid temptation and every evil way.



[In this Department will be noticed such matters as are of interest to correspondents and to the general reader. Contributions for "What They Say" should be brief, pointed, and creamy, to secure publication.]

To Our Correspondents.

THE PRESSURE OF OUR BUSINESS IS SUCH that we cannot undertake to return unavailable contributions unless the necessary postage is provided by the writers. In all cases, persons who communicate with us through the post-office should, if they expect a reply, inclose the return postage—stamps being preferred. Anonymous letters will not be considered.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be propounded, if a correspondent shall expect us to give him the benefit of an early consideration.

IF AN INQUIRY FAIL TO RECEIVE ATTENTION within two months, the correspondent should repeat it; if not then published, the inquirer may conclude that an answer is withheld, for good reasons, by the editor.

ALCOHOL, COFFEE, TEA, OPIUM.—In a recent number of the JOURNAL you give the effects of alcoholic stimulants. You say that coffee, tea, and opium also act as stimulants. Why is it they do not produce the same effect? *Ans.*—Arsenic, prussic acid, and strychnine are all poisons—they all kill, but no two alike, for the poisonous principle differs. Alcohol is a poison in large doses; a dangerous stimulant in small. Opium is a deadly poison, but kills in a different way—in small doses it is a stimulant, but a different one. The same is true of tea and coffee. They are stimulants, but all these act somewhat differently, for the active principle is different—in one, alcohol, in the others morphia, caffeine, and theine.

EXISTENCE OF MATTER—S. W. M.—Whatever may be the primary form of matter—call it albumen, protoplasm, or what you please—the principle which conduces to its life and growth must be conceded to be something distinct from its mere substance. The experiments made by eminent scientists with reference to spontaneous generation show that the impression of life can not be imparted to earthy matter which has been exposed to intense heat and then placed in a vessel containing pure air; that no chemical process merely will make a substance grow. Clearly, then, a creative impulse is essential to life and organic development in its multitudinous forms.

BREAD.—C. A. Z.—We shall publish an article soon—probably in the January number—on the subject of wheat and its preparation for food purposes, in which will be given a simple recipe for the making of healthful bread. Our Hygienic Cook-Book contains a variety of recipes in this line.

BENDING OVER WORK.—G. A.—Work which requires exertion in a stooping or bending position when persisted in for several hours a day is injurious, because it cramps the vital organs—particularly the lungs—preventing them from performing their functions completely.

ACROBATIC EXERCISES.—All excessive muscular exercises are unhealthful. It is a statistical fact that circus performers and athletes become injured and diseased early in life. "Acrobats" are even more subject to injury because of their efforts at distortion and abnormality. They who live most healthfully and long

are moderate in the matter of exercising the body.

EXCESSIVE APPETITE.—They who are troubled with a gluttonous perversity and are really anxious to reform for the sake of health and decency, should, if they feel incompetent to struggle independently, submit the case to another, and let it be understood that a certain, reasonable quantity of food shall be given them at each meal, and their relations should be so adjusted that they may not "help themselves." In fact, the status of "doctor" and "patient" should be established, as gluttony is as much a disease as inebriety.

HYDROPS ABDOMINIS.—C. P.—The case you speak of is dangerous enough in itself and should not be ministered to in any manner. An abstemious diet, with nothing in it of an irritating or stimulating nature, should be adopted in all cases of dropsy. Movements and manipulations would be found grateful to the patient and would promote a cure, if the disease is not too far advanced to be curable.



A CONTRIBUTOR'S OPINION.—In the May number of THE PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH appeared a protest from a subscriber, objecting to a continuation of the story entitled "A Bad Beginning." This protest was so seriously considered by the courteous editor of the magazine, that I was very apprehensive lest the fascinating fiction should be suspended. To my great relief, however, Miss Muzzey's photographs from life have continued to beautify and give flavor to the beloved old journal, which, before, seemed sometimes like a parson at a picnic, a little too solemn for every-day use. To matter-of-fact people, who have no sentiment in their natures, the absolutely useful may suffice, but readers of imagination feel the beautiful to be an essential of their happy existence. These two qualifications are delightfully blended in "A Bad Beginning" and "The Way it Ended." The author's text is always purest English, and there is something startlingly novel in her management of plot and character—an originality, indeed, that seems perfectly spontaneous, and not as if it had been studied out and elaborated.

"Jarl Darley's Flea," in the eighth chapter, has in it the ring of true eloquence that wins over understanding and goes straight to the heart. This poor criminal is, in truth, a hero, "martyred by this generation for the salvation of the next;" willingly yielding up his life, with the hope of

being to the civilized world "a final example of the barbaric horror of capital punishment," "a spectacle over which the angels of heaven might weep with pity for the folly that supposes it possible to stay crime by the gallows, which appeals only to the most brutal instincts of human nature, fostering the very *spirit* of the wrong it is intended to punish." The female physician, Madam Lacrosse, is a most winsome illustration of the right of woman to that office which made the ancient Therapeutæ, or Essenes, revered for their blessed, peaceful power of healing. What depths of meaning are conveyed in the words, "No office is menial which ministers to the well-being of another;" and again, the mission of the healer is "to bring the last transgressor into harmony with the laws of being." In the July number, opens Part Second of "A Bad Beginning," "The Way it Ended," and here occurs a conversation between Ariel Lacrosse and the editor of a radical journal, full of striking and eloquently expressed ideas. This young man refuses a position of associate editor, because though "tempted by the thrilling joy of a free expression of his own ideas of the true processes of reform," his heart tells him that "to keep his hand lifted in perpetual protest against his brother man is not the wisest way to convince him of his errors." For the masses, "those multitudes whose faults of judgment and distorted views of things are so inwrought by birth and education that any rude jarring of their cherished beliefs is like a thrust at their lives," a "muffled tone" is more effectual, a mere "ray of light to reveal to them the darkness in which they are unconsciously groping." In chapter V., in the October number, we have a taste of the young editor's style in dealing with subjects for reform, and there is power in it, the power evolved when reason and instinct conjoin. He assails the law of blind, bigoted social prejudice, with a battering-ram. I admire, I *revere* the brave and true writer, who widens the limits of my vision (as *great Jarl* did for Grace); and in the warmth of my enthusiasm would like to shake her hand, and give her a heartfelt "God bless you."

VIRGINIA DURANT COVINGTON.

Hernando, Miss.

DRASTIC MEDICATION vs. HEALTH.—Most of the unhealthy people of modern days, especially those of bilious-lymphatic temperaments, owe their illness, in a great measure, to unwarranted drastic medication. In fact, the greater part of the people throughout the country persist in making the stomach a depository of pills and potions, if empty boxes and bottles are evidences. They forget that the stomach is a receptacle for food—a digestive apparatus. There is scarcely a month passes without an attack being made upon the living structures, if

living involves changes and combinations which are incompatible with the frigid formulas of elementary substances.

A great number do not use the proper kind of food, but that which is over-seasoned, half-cooked, and dirty, besides eating it irregularly, drenched down with black, scalding coffee; and then, when the trouble becomes chronic, wake up, as it were, in a state of exhaustive debility. The first thing, then, is drastic medication. Oh, my! how the calomel is poured in to deplete and *undermine* the already weakened system! How great an amount of nauseating stuff is flooded down the throat to tone up the distracted organs! And, having done all this, we find ourselves not toned up, but afflicted with habitual constipation and other troubles. Who would have thought it? The more drugging one does, the better off one is! Does this sound rational? No! Better say, The worse off one is! What then? Why, well-cooked, good, plain food; bright sunlight; fresh, pure air; bright aspirations; less drugs, less stimulants; more exercise, and the desired health may return.

Friendly Hygeia keeps her old record,
While every virtue has its own reward!

F. A. EVANS, M.D.

INDIVIDUALITY.—The meaning of this word, according to our lexicon, is that which is not divisible. So the individual object is one which is bound by cords that can not be rent asunder, and is held by such cohesion as defies every chemical dissolvent. We speak of persons as individuals, not intending to indicate that there is any individuality of our bodies, however, for Death's destructive hands are daily tearing down the masonry of our frame and pulling to pieces the delicately-wrought fabric of our bodies; so that physiologists tell us the icy fingers of the dread destroyer would, in seven years, utterly eradicate our bodily existence did not its builders constantly recuperate our structures after these ravages. How wonderful is it, that we retain our sameness, when life and death are thus continually battling within us! How miraculous is it that our features change not from infancy to decrepit old age, when the body has not unfrequently been ten or twelve times made anew! Surely the architect forms plans and designs that far outbaffle our skill, and uses invisible tools in the construction of our organism. Within our earthly tabernacle there sits enthroned a workman who commands the artisans, and stimulates to action the five hundred muscles and innumerable nerves that wrestle with the destructive influences of time. This being is the spirit, and it comprises our individuality. It is without parts, and is in the image of the Almighty. Earthly powers, the elements of heaven, time "the tomb-builder," human skill can not distract or add an iota to the mechanism

of the soul. Every being who has lived and passed from earth or is new among the world's inhabitants can claim an individual sameness peculiarly his own.

What admiration and worship may we give to the Artisan who can breathe the breath of a different life into millions of His creatures! Perhaps there is no greater evidence of His omnipotence than that He has created innumerable souls essentially so dissimilar. In reviewing the history of the world, we recognize certain individuals as "great." If we ask ourselves the meaning of greatness, it may help us to comprehend how the possessors of it can feel and act so differently. Charlemagne, or as his name implies, Charles the Great, and Alfred the Great, are both distinguished from their royal predecessors by this flattering title, and yet who would think of comparing the disposition of the former haughty monarch with that of the humble king who could feel at ease in the household of the lowly peasant? Cæsar and Newton both strove to place themselves at the head of a nation, the first as the greatest soldier, the second as the ablest philosopher of his age. Yet who would liken the brave, indomitable spirit of Cæsar to the patient efforts of Newton? Every one of God's creatures has his own peculiar pleasures and pains; every heart is stirred by a different hope, and every soul tried by dissimilar confusions. Must it not then be the greatest work of the Almighty to have planned a heaven that can satisfy the needs of His millions of hungry souls? and a rest that can quiet the varied emotions of the human heart?

What a beautiful study is the working of the mind, which speaks so much of its divine Author! What an important task is the adorning of our spiritual life that "lives in God immortal as Himself!"

G. V. H.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

OCCASIONS of adversity do not make a true man frail, but they show what he is.

ON the outside of things seek for differences; on the inside for likenesses.—*Guesses at Truth.*

AS we get farther from the form, and nearer the fact, do we get less through the head, and more through the heart.

NEVER be sorry for any generous thing that you ever did, even if it was betrayed. You can not afford to keep on the safe side by being mean.

THERE is a great deal of unmapped country within us which would have to be taken into account in an explanation of our gusts and storms.

If idle people only knew that the enjoyment of rest and pleasure is to be attained only by real honorable labor, we should have fewer valetudinarians and hypochondriacs in the world.

"One by one fall ancient errors,
Reared by might and propped by wrong,
And earth wonders, when they perish,
That they stood the test so long."

ACCUSTOM yourself to overcome and master things of difficulty; for if you observe, the left hand for want of practice is insignificant and not adapted to general business, yet it holds the bridle better than the right, from constant use.—PLINY.

ALL the other passions condescend at times to accept the inexorable logic of facts; but jealousy, due to Amativeness, looks facts straight in the face, ignores them utterly, and says that she knows a great deal better than they can tell her.

THE world is a looking-glass, and gives back to every man the reflection of his own face. Frown at it, and it will in turn look surly upon you; laugh at it, and with it, and it is a jolly, kind companion.—THACKERAY.

A WOMAN may be of the talented few—may be accomplished—nay, even beautiful; but without affection, strong and lasting, she is like the iceberg that glitters in the moonbeam; none may dream of holding communion with its frozen sterility.

LIVE FOR SOMETHING.—Do good, and leave behind you a monument of virtue that the storm of time can never destroy. Write your name in kindness, love, and mercy, on the hearts of thousands you come in contact with year by year; you will never be forgotten. No, your name, your deeds will be as legible on the hearts you leave behind as the stars of heaven.—CHALMERS.

MIRTH.

"A little nonsense now and then,
Is relished by the wisest men."

AN Irish peasant being asked why he permitted his pig to take up his quarters with the family, replied: "Why not? Doesn't the place afford every convenience that a pig can require?"

A FARMER the other day wrote to a New York merchant, asking how the farmer's son was getting along and where he slept nights. The merchant replied: "He sleeps in the store in the daytime. I don't know where he sleeps nights."

"Now, John, suppose there's a load of hay on one side of the river and a donkey on the other; how can the donkey get to the hay without getting wet?" "I give it up." "Well, that is just what the other donkey did," said John's friend.

AN English advertisement: "A situation wanted by a Nottingham man; age twenty-six; height five feet ten inches. Objects to cleaning lady's maid's boots. High Church family preferred. First Footman five years. Address, etc."

LANGUID LEVITY.—Tom—"No wind, Jack. Take a pull!" Jack (who doesn't notice the flask)—"Oh, that be blowed in this weather. Besides, I can only see one skull, and that's a good deal too thick for the purpose!"

"I've stopped to get a bite," said a vagabond to a lady in her garden, in an insolent manner. "Here, Tiger!" cried she; and as a huge mastiff came bounding to her side, she said to the tramp: "If you don't leave at once you'll get one." He didn't stop to expostulate.

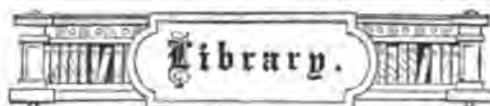
"JONATHAN, where were you going yesterday, when I saw you going to the mill?" "Why, to the mill, to be sure." "Well, I wished I'd seen you; I'd 'a' got you to carry a grist for me." "Why, you did see me, didn't you?" "Yes, but not till you got clear out o' sight."

"Is it not time that you paid me that five dollars?" said a farmer to his neighbor. "'Taint due," was the reply. "But," said the farmer, "you promised to pay when you got back from New York." "Well, I hain't been," was the reply.

"WHAT on earth am I to do with that incorrigible son of mine?" inquired an anxious father of a friend. "Dress him in shepherd's plaid," was the reply. "Why, what possible benefit would that be?" demanded the wondering parent. "It would, at least, be a way of keeping him in check."

"I ALWAYS did love to gaze on the children in their sports," said Potter, as he pensively contemplated a crowd of urchins; "I am carried back to—." Just then the baseball came over his way and tried to get into his vest pocket and doubled him up. When his breath came back he shouted, "You young ragamuffin, you, if I catch you playing ball on the street again I'll get the police after you."

A LITTLE squint-eyed Chicago boy pranced up to his mother one day this week, and said: "Ma, hain't I been real good since I've begun goin' to Sunday-school?" "Yes, my lamb," answered the maternal, fondly. "And you trust me now, don't you, Ma?" "Yes, darling," she replied again. "Then," spoke up the little innocent, "what makes you keep the cookies locked up in the pantry the same as ever?" A strange look entered that mother's eye, as she endeavored to solve her little son's deepness with the heel-end of her slipper.



In this department we give short reviews of such New Books as publishers see fit to send us. In these reviews we seek to treat author and publisher satisfactorily and justly, and also to furnish our readers with such information as shall enable them to form an opinion of the desirability of any particular volume for personal use. It is our wish to notice the better class of books issuing from the press, and we invite publishers to favor us with their recent publications, especially those related in any way to mental or physiological science.

DAVID AND ANNA MATSON.—By Abigail Scott Duniway, editor weekly *New Northwest*. With Illustrations. Broad octavo, pp. 194, tinted, fine cloth, gilt, etc. Price, \$2; full gilt, \$5. New York: S. R. Wells & Co., 737 Broadway.

A new epic, from a vigorous and skilful pen, on a subject which occupies a large place in the social discussions of the day. The plot is taken from Mr. Whittier's short narrative of "David Matson," with which the reader is probably familiar. David Matson, a Merrimac sailor, was captured by the Algerines (during one of his voyages) and sold into slavery. After many years he obtained release and was on his way to the home of his boyhood, when he fell in with his old employer, who informed him that his wife, believing him dead, had remarried, and rather than cause her trouble, he surrendered all claim as husband and father to the man who had stepped into his place, and departed. Mrs. Duniway has found a theme in this story with which her heart beats in warmest sympathy, and her lines flow on in the smooth cadence indicative of the fullest accord. She pictures the gentle, tender, trustful Anna, and the wily, covetous Pelatiah, in vivid colors; and how years of poverty and longing, and the cries of the hungry boys, compelled poor Anna to yield to Pelatiah's importunity.

"Rise, rejoice,
My poor, unmated dove," said he,
"And look henceforth for love to me."

A little further on he says:

"Become my wife and you shall be
Made happy through prosperity"—

While, if she persists in declining his advances, wolf-like he threatens to abandon her to starvation and cold. And this Pelatiah was a "deacon"—

"In exhortations deep and loud."

The wanderings of David, his captivity, release, hapless interview with Pelatiah, discovery of Anna's second wifehood, and his sad going back to Algeria, are all told so pathetically that our feelings are deeply enlisted. No one, with any true sentiment, can read the poem without being stirred pretty thoroughly. The illustrations are in admirable keeping with the passages they are designed to portray, and a fine engraving of the

author is a fitting frontispiece. The subject, spirit, fire, and passion of the poem should give it an extensive reading, aside from the interest which the literary reputation of the author must awaken in it. As a specimen of book-making the volume is certainly beautiful, and would adorn any center-table.

A PIECE OF SILVER. By Josephine Pollard. One vol. 18mo, 180 pp. Muslin, price 50 cents. New York: National Temperance Society.

Miss Pollard here tells us an interesting story about Dora's trials, and how she was led and cared for by her heavenly Father and His agents, and how she was enabled to do more for others than had been done for herself. Her experiences illustrate how the hardest trials sometimes lead to the happiest results, for what is more "happifying" than to know that we have saved a fellow-mortal from a drunkard's life and a drunkard's death. The volume also contains several excellent short stories, all pertaining to temperance, and told in the author's happy style.

FRIEDRICH FRÖBEL: a Biographical Sketch. By Matilda H. Kriege. With portrait. Paper, 25 cents; cloth, 50 cents. New York: E. Steiger.

We have an interesting sketch in this neat little volume of one of the most patient and persevering of teachers. It is particularly interesting, however, to those who give attention to the training of children, because it relates to the man who originated the Kindergarten or object-system. Like all pioneers in affairs of high practical utility to man, Fröbel was compelled to struggle against prejudice and bigotry for years before his merits obtained the respect and sympathy of his own class of mental workers. A complete catalogue of Kindergarten materials accompanies the volume.

HOW TO SING; or, The Voice, and How to Use It. By W. H. Daniell. Pp. 110. Cloth, 75 cents; Paper, 50 cents. New York: S. R. Wells & Co.

This volume furnishes, in moderate compass, much practical information for the use of those who sing or would know how to sing. The author is a teacher of large experience in the very line of his book, and, in preparing it, has aimed to furnish advice for the removal of many of the difficulties which meet and puzzle the music pupil. The style is agreeable and the language clear. He believes that most people can learn to sing, and provides "a definite method which will enable one to sing with precision and intelligence."

Instruction is given with respect to the positions of the mouth, and the exercise of the vocal organs, and all through the pages words of wisdom are closely distributed which singers of every grade can read and reflect upon with ad-

vantage. As a manual for the perusal of those who contemplate the study of vocal music, it forms a most valuable preliminary text-book, and teachers, whatever their experience, can obtain hints and suggestions of high importance.

Music text-books are usually diffuse and expensive, and ill-adapted to the need of the masses. In "How to Sing" we have a compact, well-digested manual, whose low price and really practical utility should render it a favorite with musical people.

CATECHISM ON ALCOHOL, with Responsive Exercises on Temperance. By Julia Colman. Price 5 cents each, 60 cents per dozen. New York: National Temperance Society and Publishing House.

This is the title of a new Temperance Catechism written by Miss Julia Colman ("Aunt Julia"), the substance of which was published in the *Youth's Temperance Banner*. Of course, the readers of the PHRENOLOGICAL need no introduction to the author. The matter has been re-written and improved, and it now appears in a neat little pamphlet for the children and youth of America. The subjects embraced are as follows: The Origin of Alcohol; Decayed Drinks; Distilled Drinks; First Effects of Alcoholic Drinks; Nothing Good in Alcohol; The Deceits of Alcohol; Alcohol and Disease; Alcohol and Crime; Temperance Work; Hindrances to Temperance; Advanced Temperance Work; The Good to be Done by Temperance; Tobacco. Thus the field is well covered in a clear and logical manner. To these are added several Responsive Exercises for Schools, Bands of Hope, and other juvenile gatherings, making an instructive little pamphlet well-adapted to being placed in the hands of children.

NEAR TO NATURE'S HEART. By Rev. E. P. Roe, author of "Barriers Burned Away," "What Can She Do," "Opening a Chestnut Burr," "From Jeat to Earnest," etc. One vol. 12mo, 558 pp. Muslin, \$1.75. New York: Dodd & Mead.

Another book from a pen which has become prolific, indeed, in the expression of varied character. Mr. Roe's stories "are written with the honest, earnest purpose of helping people to do right; and success in this respect is the best reward he craves." The scene is laid among the highlands of the beautiful Hudson River, as they were a hundred years ago, and many of the pictured landscapes will be familiar to the reader. Vera, the "child of nature," is placed among peculiar family relations; having a father, who, shrinking from the sight and contact of men, had found a rude home in the lofty wild, and there passed his time, chiefly occupied with morbid and gloomy fancies—and a mother, whose heart and health were breaking under the rude experiences of her past and present life. Saville, a

young New Yorker, the owner of a large estate, with a wife and mother, who as warmly advocated the tory cause as he did that of the patriots, is the other principal figure in the plot. Several incidents connected with revolutionary days in New York are woven in and are interesting additions. In one of these Saville is desperately wounded, but by the timely aid and ministry of Vera, is restored to health. The associations which follow have one important effect, viz.: the conversion of Saville from his French rationalism to a belief in the moral potency of Bible truths.

TEN CENTS. By Mary Dwinell Chellis, author of "The Temperance Doctor," "Out of the Fire," "Old Times," etc. One vol. 12mo, 334 pp. Muslin, \$1.25. New York: National Temperance Publication House.

"Ten Cents" is the unique title of the book which tells how to spend that amount profitably and unprofitably, and also illustrates the influences for good or bad that we exert over our associates and they exert over us. Duff was a bad man and almost ruined the boys whom he cajoled and then taught to steal; but they at last learned that he had used them as cat's-paws, and realized that his imprisonment was richly deserved. Allan Southgate visited him in prison and promised to care for one about whom Duff was anxious, but his escape and subsequent reformation rendered that promise unnecessary.

THE SCIENCE AND ART OF EDUCATION: an Introductory Lecture; and Principles of the Science of Education, a Paper. By Joseph Payne, late Professor at London. Pp. 29, cloth. New York: E. Steiger.

The lecture as above entitled certainly contains many points of practical interest to the educator. One, that he who knows a subject can not always teach it to another, is evident enough to those who understand the organization of mind. And so also is Mr. Payne's statement, that "to students who had been mainly occupied with the concrete and practical, it seemed to me much better to commence with the concrete and practical." To the phrenologist such pupils present such a positive brain-development, that any "seeming" would be precluded from the consideration as to what the line of their study should consist mainly in.

Mr. Payne refers to the lack of science in educational affairs, and to the difficulty of impressing people with a sense of the importance of intelligent methods in school-training. He labors, however, in his endeavor to present a definite formulary for the government of teachers, because he lacks certain physical data. He appreciates the fact that "education is the development and training of the learner's native powers," but can not point the way to a correct understanding or estimate of those native powers which is the first stage to successful teaching. He goes back

to the old unsatisfactory speculations with regard to the human mind, when he attempts to present a body of "general principles," and assigns to "sensations" or impressions the chief place in the educational order.

Mr. Steiger has added a catalogue of general works on education and philology which is valuable in itself.

THE CASE AGAINST THE CHURCH: A Summary of the Arguments against Christianity. 73 pp., cloth, 75 cents. New York: Charles P. Somerby.

From the "prefatory note" we take the following, which is a brief statement of the writer's motive: "The object of this essay is to present in outline the arguments against Christianity from the standpoint of materialism." The arguments and illustrations presented do not appear new to us, although the method of reasoning is compact and powerful. Some of the writer's statements—that, for instance, with regard to the Deluge—are not altogether in accordance with the views of scientific bibliographers, and present mainly the character of assumptions.

ESSAYS ON MIND, MATTER, FORCES, THEOLOGY, etc. By Charles E. Townsend. 12mo, 404 pp. Cloth \$2. New York: Charles P. Somerby.

The field of thought—both metaphysical and scientific—covered by the discussions to which the reader of this book is invited, is very broad. The author aims by their publication "to uphold the theory of the stability of matter and forces, and the perpetuity of all minds as material forces, on a new basis of reasoning in opposition to the many present vague theories of Spirit minds. Also as opposed to the assumed origin of matter from nothing, and its inevitable extinguishment in time—not mere change of form and action, but utter annihilation being claimed by some." Several of the papers have titles, which recall to mind that they or something very like them were published formerly in the *PHRENOLOGICAL JOURNAL*; for instance: "Mode of Creation," "Mind in Man and Animals," "Man in the Image of God," "Spectrum Analysis," "Matter in Correlation with Mind," "Origin of Coal," "Foreseeing and Foreknowing," "Animalcules in Vegetation," etc. Mr. Townsend discusses important physical problems in the same vigorous spirit which characterizes his metaphysical and religious considerations, and everywhere his individuality as a thinker and critic is conspicuous. Very liberal in opinion, he can not be said to be much influenced by any "great leader" of the *isms* to which he is more favorably inclined.

The publisher has produced in this case a creditable piece of book-work; the type being excellent, the paper and binding well selected.

WATER LILIES. A capital book for children. Large quarto size. 100 fine engravings, and as many excellent stories. Elegantly bound. Price \$1.50. Published by the National Temperance Society and Publication House, New York. Orders received at the office of the *PHRENOLOGICAL JOURNAL*.

THE series of articles by Dr. S. T. Spear, on "Religion and Government," just concluded in the *Independent*, have been published in book form by the same firm.

PUBLICATIONS AND PERIODICALS RECEIVED.

NEW YORK TRIBUNE EXTRA. No. 35. Guide to the Centennial Exhibition. A compilation of the interesting letters which have appeared from time to time in that enterprising newspaper, and will prove of value to those who did and to those who did not see the Exposition. Price 25 cents.

LITTELL'S LIVING AGE comes freighted with literary treasures from the magazines of all nations. The number 1688 gives it an air of antiquity.

GLASS. The utilization of Iron Slag. Mr. Britten's patent. Here is something worth consideration. If this waste product may be in great part converted into glass, the method should be made available.

NEW KINDERGARTEN OCCUPATIONS for Children, now offered by E. Steiger, of New York. No. 7, Plaiting; No. 8, Ring laying; No. 9, Intertwining Paper; No. 10, Cutting Paper. Price, 75 cents each. Excellent practical diversion for the little folks.

THE HUB, monthly, is a fine exhibit of enterprise, editorial and otherwise. It illustrates many of the fine carriages at the Centennial Exposition, and seems to be making the most of a fine opportunity. Let other trade magazines take the hint.

NINTH YEAR OF THE HOUSE OF THE GOOD SHEPHERD, which affords a home in the country at Tompkins Cove, Rockland County, N. Y., for orphan and destitute children. This is a charity which is worthy of cordial support. Its chief objects are: 1st. To afford a home in the country for orphan and destitute children of both sexes. 2d. To train poor children to farm work, for service or trades. 3d. To educate deserving and earnest-minded youth who wish to work their own way and elevate their position.

No encouragement is given to idleness, but every inmate is obliged to work, unless hindered by age or sickness.

Under the good management of the officers in charge, it costs but \$130 to support a child for a year. Rev. E. Gay, Jr., is President.

We learn that the well-known London House of Macmillan & Co., publishers of *The Practitioner*, has undertaken the publication, in England, of *Micro-Photographs in Histology*, the excellent work conducted by Drs. Sellar, Hunt, and Richardson of Philadelphia. A large edition is required by the English profession.