

Morse

THE
PHRENOLOGICAL JOURNAL

AND
LIFE ILLUSTRATED.

A REPOSITORY OF
SCIENCE, LITERATURE, AND GENERAL INTELLIGENCE,

DEVOTED TO

**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.**

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VOL. LXXIV. OLD SERIES—VOL. XXV. NEW SERIES.

JANUARY TO JUNE, 1882.

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

NEW YORK:
FOWLER & WELLS, PUBLISHERS, 753 BROADWAY.
1882.



“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 perfectionners 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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THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 7. 1882.

NUMBER 1.]

January, 1882.

[WHOLE No. 518.



THURLOW WEED,

THE NESTOR OF THE NEW YORK PRESS.

THURLOW WEED, the American Warwick—if a man may be called a king, and where red blood is as royal as that which is blue—has exerted more political influence than any other man of

his time on this continent. Politically speaking, he has discrowned and decapitated more men than any Roman emperor ever did, and he has enthroned many in comfortable places of profit and honor.

He is at this "present writing" in his eighty-fourth year, but his brain has not lost its force, nor his hand its cunning. His frequent appearance on the platform at public meetings—his familiar initials, T. W., in the columns of the newspapers—his tall form towering above most other men in the street—his plain and yet attractive and intellectual face on 'Change, at the bank, and elsewhere—make him one of the best known of men in this vast hive of human industry and enterprise, the city of New York.

How he is pursued by the inquisitive interviewers, who consider his opinion authority on many of the great questions of the day! How brilliant and pathetic his sketches of associates and acquaintances who have dropped in the harness in the work-day and foot-worn path of human accomplishment! How liberal his donations to various institutions and to the poor and needy!

In the meridian splendor of his power as a politician—shall I not say statesman?—he manipulated wires that touched town, county, State, and national affairs. He was, with rare exceptions, the match of the strongest and most skillful men that ventured to measure swords—or rather pens, mightier than swords—with him in the arena of discussion. His advice, which was usually wise and discreet, was sought by the savants of the State. His support was considered the equivalent of success, and his opposition the shadow that goes before defeat. His marvelous influence was due not alone to his almost prophetic vision and foresight, but in part to his apparent unselfishness and his generous magnanimity. His happy combination of tact and talent enabled him to demolish in a paragraph a long editorial leader from the pen of the gifted Croswell—his accomplished Democratic opponent. The grape-shot

of the *Journal* killed more men than the forty-pounders of the *Argus*. A broadside from Croswell's mortar was terrible—a discharge from Weed's mitrailleuse swept squares of voters from the front. When the *Argus* made the most noise—in other words, the most thunder—the *Journal* flashed out the most vivid and destructive lightning. Croswell wrote essays—and fine ones they were. Weed wrote leaders and paragraphs that throbbed in type. In the language of another, his sentences seemed so full of vitality, that if you had lanced them they would have bled. These two distinguished editors fought many paper battles, but they remained personal friends, and were never so silly as to cut each other in the street because they thrashed and slashed each other in the newspapers. The only sticks they used in their warfare were sticks of type. Not so with Horace Greeley. He had a grievance; he considered himself badly treated by Mr. Weed and by Mr. Seward, his political twin and partner; and the wound was deep, sore, and incurable. Friends endeavored in vain to bring about a reconciliation. Even the sun has spots, and Mr. Weed's neglect of Horace Greeley seems to have been indefensible. When the great editor and founder of the *Tribune* needed assistance, and Mr. Weed could have given it without cost to himself, he did not help his gifted co-laborer and brother of the pen! There may be another side to this statement, but the writer has never heard of it. There were undoubtedly other causes of estrangement arising out of differences of opinion in relation to public measures and public men. Greeley was eloquently in earnest, outspoken, and too lofty of purpose to stoop to the tricks of policy and party maneuvering. Weed was a shrewd, trained, and skillful manipulator of men and of parties.

The distinguished subject of this sketch was born in Cairo, Greene Co., N. Y., November 15, 1797. The loss of parents when he was young threw him at an early age on his own resources, and he

entered as a cabin boy in a sloop. He afterward became an apprentice in a printing office at Catskill, from which place he went to Herkimer to set type in the service of Colonel Stone—subsequently the famous editor of the New York *Commercial Advertiser*. On the breaking out of the War of 1812, young Weed enlisted as a drummer in the United States army, but was soon promoted to the position of quartermaster-sergeant. He served at Sackett's Harbor and elsewhere on the frontier. On leaving the army he returned after a short stay in New York to the village of Herkimer, where he was married. His next move was to start a paper in Onondaga Co. Not succeeding in his enterprise, he tried his fortune with a paper at Norwich, Chenango Co. In that paper he not only displayed his knowledge of farming, but he also advocated the canal policy of Governor De Witt Clinton. His paper was not a pecuniary success, and he went to work at the case at Albany. Becoming deeply interested in politics—especially in the struggle which terminated in the election of John Quincy Adams—his reputation as a wise counselor reached Rochester, where he was called to edit a daily paper. During the excitement caused by the abduction of Morgan in 1827, he took charge of the *Anti-Masonic Inquirer*, and was twice elected to the State Legislature by the anti-Masons. On the establishment of the *Albany Evening Journal* in 1830 Mr. Weed returned to Albany and became its editor, and conducted its columns in the interest of the anti-Jackson party. From 1830 to 1862 he was a powerful political leader at the capital of New York State, and was at the head of first the Whig and then of the Republican party.

He advocated with great force and brilliancy the claims of Harrison, Taylor, Scott, Fremont, Lincoln, and Seward to Presidential distinction. As an independent adviser at nominating conventions he seems to have been endowed with an irresistible influence. In No-

vember, 1861, he went to Europe in a semi-official capacity and returned in June, 1862. In 1865 he became a resident of New York City, where for a time he edited the *Commercial Advertiser*. He is the author of "Letters from Europe and the West Indies," and he has been for a considerable time preparing his autobiography and correspondence for publication. He is honored and beloved, not only as the Nestor of the New York Press, but as a wise, sincere, and trustworthy patriot, and his quiet philanthropy has won the affection of all who know him best.

What shrewd moves this remarkable man has made on the chess-board of political experience! A word whispered at Albany was at once heard and heeded at Washington. Men who considered themselves safe in office and fenced about with good works for their party, and who dreamed of advancement at night, were astonished to find their heads in the basket in the morning. If a letter by mail, a message by telegraph, or a few words through the telephone failed to shorten the stature of an offending office-holder, a personal effort was sure to bring him down. He had the strength of a giant, and he did not hesitate to use it for what he considered the benefit of his party. He had the skill to weave variant interests into a cable strong enough to hold his ship in the harbor where she dropped her anchors. His magnetic influence over men, and his command of resources enabled him to marshal them to the front to fight, if need be, for his measures. Long-headed and far-seeing, he often made combinations of city and country plans to enable him to carry into effect his own methods to secure success. Sometimes he was like Barmecide in the "Arabian Nights," who promised an exquisite entertainment and called for tempting viands that were never given to the guests—not that he intended to disappoint, much less to deceive his political friends.

Mr. Weed will be long remembered for his marvelous skill and tact as a party

manager. Never accepting office himself—save in three or four instances, in two of which he consented to take a seat in the Legislature of his native State—he did more than any other man in the United States in advancing the political interests of many of his party friends. His services in securing the election of De Witt Clinton as Governor—his gallant fight against the Albany regency—his aggressive warfare with the Democratic party—his brave and prosperous leadership of the Republican party—his success in bringing about the Presidential nominations of Harrison, Taylor, and Scott—his advocacy of the election of Fremont and Lincoln, and his services in a semi-diplomatic capacity for the latter in England and elsewhere on the other side of the Atlantic, have made him a man of mark in our history.

Over and over again he was urged to take high and honorable positions under the State and under the National Governments. He could have been easily elected to a chair in the lower or upper House of the United States Congress. Many times he has been invited to accept a foreign mission, and he had the "pick of the Courts"—but he had rather be Thurlow Weed (Warwick) than Governor of the State, United States Senator, or Minister at the Court of St. James.

Perhaps I ought to add that this shrewd and enterprising politician, who

made Horace Greeley editor of the *Log Cabin* (which was the portico of the White House), was the inventor of the Albany lobby—not necessarily a bad machine, save when in the hands of untrustworthy men. He also discovered a number of men who were hidden in obscurity and he brought them to light, and some of them reflected great honor upon themselves and their country. The writer is impressed with the idea that Mr. Weed was generally governed by patriotic and disinterested motives—that he loved his party much, but loved his country most of all, and sought the influence and power of his party to promote the best interests of his country. He now accepts the task of peacemaker, and his labor of love is often crowned with success.

He looks like a chief—a real leader of men. Upward of six feet in height and well formed, he stands like Saul among the Hebrews—a head and shoulders above the multitude. His large head is well covered with white hair, which grows low on the forehead; his grayish-blue eyes have a direct, steady, and benevolent gaze; his nose is large enough to suit one of Napoleon's marshals; his lips are too closely compressed to unsay any word that he has spoken. His face shows the reason why during our late war he adopted the motto of Algernon Sidney, "*Sub libertate quietam*"—"No peace without liberty."

GEORGE W. BUNGAY.

MISTAKEN IDENTITY.

"CLOTHE me as you will," said Sancho Panza, "I shall still be Sancho Panza."

To those who are as familiar with the appearance of Don Quixote's famous companion as with the features of their relatives in the photograph album on the parlor table, the words carry weight. The gross, selfish, credulous, yet withal good-humored and amusing Sancho Panza, bearing the name which has immortal-

ized his "paunch" and "spindle-shanks," could be held in no way responsible for the stupidity which would lead any one to mistake him for other than—Sancho Panza.

The quaint esquire of Don Quixote may be more easily recognized and understood than John Smith of commonplace appearance and pursuits, yet if John Smith makes no pretension to being other than he is, surely it is not his fault if he

is encouraged or condemned, applauded or abused, out of all proportion to the circumstances and facts of his existence. Disguise is as impossible for some natures as it is instinctive and habitual to others. Yet the vast majority of mankind wear no masks as they move about through this work-a-day world, and are not to be held responsible if the world expects and exacts from them something inconsistent with their character and conditions.

"Oh, he talked well enough, only you sec I aint the feller he thought he was talkin' to." The fun in the twinkling eyes of the street vagabond showed plainly that though the clothes were tattered, the boots ragged, and the hat most shockingly bad, the enjoyment of the ludicrous had not been lost with everything else.

The man who "talked well enough" was a clean-shaven, finely-clothed clergyman, an elegant, cultured, aristocratic representative of Episcopacy. Magnifying his priestly office, he was an enthusiastic devotee to the True, the Beautiful, and the Good, striving in his own artistic and poetic way to lift humanity toward the highest ideals of spiritual nobility and purity. The vagabond was a happy-go-lucky street *gamin* of the *genus* tramp, who, believing that the world owed him a living, was content to pick it up where he could, satisfied with anything for which he was not obliged to work. Between the two men there was as little resemblance and sympathy of understanding, as between the guttering candle in a poor man's cellar and the crystal chandelier of a millionaire's palace, and yet, in one sense, the loafer was wiser in his generation than the philosopher. He understood perfectly that the philosopher had mistaken his identity.

Such mistakes are common and contain the elements of romance, comedy, and tragedy. The courts are full of them, and if our social satirists are to be believed, the wrong man is arrested, tried, and hung quite as often as the right one. Friends and lovers can trace many quarrels to this cause. Some outline of figure,

peculiarity of gait, a similarity to voice or laugh, and unless the person convicted can prove an *alibi*, it shall go hard with him for his unfortunate resemblance to some other man.

But more subtle and curious are the blunders concerning spiritual individuality. We all have standards and ideals of some sort. They are the results of inheritance and training, thought and experience. Well for him who has high and worthy ones, though his disappointment shall be in proportion to their worthiness. We may obey the divine command and not "judge by appearances," but it is always questionable whether we fulfill the rest of the injunction and "judge righteous judgment" when we judge others by ourselves, the most natural, common, yet withal the most injudicious thing to do.

In love and marriage these mistakes are most frequent, from conditions which our social philosophers may or may not sometime remedy, and most fatal as they strike at the very root of the tree of all domestic and social life. The god and the angel make too often rapid and pathetic change into commonplace, quarrelsome, unhappy human beings.

We cherish great expectations of our poets, painters, and patriots. But the song which rose so triumphantly to heaven's gate in the early spring-time of the singer's verse, stops short while we are listening, or dies away prematurely in a far-off minor cadence. The picture which made the artist's reputation stands alone. We look for a reproduction of its genius in other forms, but they represent nothing save canvas and color which the divine spark has never touched. The eloquent patriot, impassioned advocate of justice, liberty, and the divine rights of man, to whom a nation looks hopefully for redress and deliverance, sells his patriotism and his eloquence for a profitable office in which money takes precedence of men and morals.

Yet "poets must ever be their own best listeners," and the singer should be too wise to suffer in the discovery that

the music of his song is less melodious to the ear of the listener than the jingle of the peddler's wagon, suggestive of good bargains. The artist may in vain look for recognition and appreciation into eyes beautiful and bright enough, but too blind to see the soul of the picture which he has painted. Patriots and preachers ought not to be surprised if the report of the stock market or the police courts is of more absorbing interest than the most inspired reflections on "the fatherhood of God, and the brotherhood of man."

"Resolve that you will never again touch the intoxicating cup," says some enthusiastic temperance speaker who has never himself experienced the frantic cravings of an appetite "set on fire of hell." A knowledge of mental philosophy would prove to him that this resolution, determination, to which he appeals, is the grandest development of intellectual and moral growth. Will is defined as the endowment of the soul by which it is capable of choosing: the power of man to do as he pleases. Endowment of soul for the poor wretch whose only life is the cold, hungry, miserable one of the body! Power to do as he pleases when it was the lack of all power which made him the broken-down, discouraged negation that he is! Such a man might truly say of such an orator "He talked well enough, only I'm not the fellow he thought he was talking to!"

Persons who lack order are the most unintelligible of human beings to those who instinctively have a place for everything and everything in its place. Equally so are those who have no mechanical ingenuity to the men who can plan houses or military campaigns, fashion muslin or marble, construct boats or bridges. The courtesy, consideration, and tact inherent in fine natures, which cushions all the hard seats of life, oils its wheels and hinges, gilds the edges of all circumstances and conditions, keeps their possessor in a state of chronic wonder and disgust at the boor and the churl who tread upon other people's toes literally as well as figuratively, who go through the

world with arms akimbo, increasing the friction of life's inevitable annoyances and miseries by their carelessness, selfishness, and general wrongheadedness. The individual with great veneration is shocked and horrified by the irreverence and profanity of those who are destitute of that endowment. Imagination, ideality, hope, speak in unknown tongues to dull, dumb, or despairing souls. A keen sense of the humorous is constantly confounded by lack of response in those to whom it laughingly or wittily addresses itself. The man whose appreciation of benefits received is one of his strongest traits, looks with dumb amazement upon an ungrateful recipient who not only takes without thanks, but without the least idea of ever acknowledging or returning anything which he accepts. The avaricious man is a puzzle to the spendthrift, as is the miser to the philanthropist. The weak, timid, and self-distrustful, overwhelmed and borne down by their strong, arrogant, and conceited companions, spend their days in vain speculations concerning the origin of strength, impudence, and self-assertion, and wonder unceasingly at the fact that these qualities can so easily push themselves into prominence and success. Laziness, tardiness, all the various forms of what is so well expressed in the uncompromising Saxon word, "slackness," which does not mend its clothes, repair its fences, pay its bills, keep its engagements, answer its letters, which borrows books that it forgets to return, and money which it forgets to repay, is inexplicable and aggravating beyond all expression, to prompt, punctilious, and conscientious people. The Unsnubbables of society, the self-satisfied and obtuse, upon whom frowns, hints, and sarcasms produce no more effect than glass upon granite; the Bore, concerning whose visits we may transpose a familiar line and too often truly state that "he is not for a time, but for all day"; the Paul Prys and Miss Nancys, the Micawbers and Skimpoles, the Mrs. Nickle-bys and Mrs. Malaprops, present a riddle more hopeless than that of the Sphinx

to their independent, thrifty, plain-spoken neighbors.

A famous clergyman remarked to a brother theologian, with whom he had held a spirited argument concerning the "First Great Cause, least understood," "Oh, I see, my dear sir! your God is my devil!" It is with just such foolish mis-

understanding that more than one wordy war is conducted with general waste of time, strength, and patience, good blood and raw material. To take the world as it is, and men as we find them, faithfully trying to make the best of everything that exists, is true economy, philosophy, Christianity. C. B. LE ROW.

STUDIES IN COMPARATIVE PHRENOLOGY.

CHAPTER X.—(Continued.)

LOW ORGANISMS COMPARED WITH HIGH.

LET us now consider some of the principal differences in the brains of the civilized, taking some specimens of prominent Europeans and contrasting them with those of the low types which we have just considered. To be sure there are wide individual differences to be encountered among Europeans; now and then a brain is to be met with in the walks of civilized life which approaches closely in size, relative development of lobes and arrangement of convolutions the low standard presented by the brain of the Bush-woman. In others the characteristics are found to be very much higher, although in certain parts there may be one or more features which remind us of the Bush-woman.

Viewed from above the shape of the European brain varies considerably; the anterior lobes are narrow and as it were compressed in the Bush-woman's cerebrum, and there is a narrowness of contour in the occipital lobes, which is one of its prominent characteristics. As a rule, this contracted condition of the anterior lobes is not seen in the European brain; in some specimens, indeed, there is so much breadth that they approach a circular outline. The brain of the great mathematician, Gauss (Fig. 245, Dec. No.), as shown from above, has a distinctly elliptical outline, the curve of the anterior being almost exactly equal to that of the posterior lobes, and the greatest transverse diameter being equi-distant from both extremities.

The upper outline of the brain of the philanthropist, Hermann, as depicted by Wagner, is also nearly elliptical, the posterior being very little narrower than the anterior extremity. Its widest transverse diameter is situated midway between its two extremities, though its medium region corresponds with the supra-marginal!



FIG. 243.—BRAIN OF BUSHWOMAN, (MARSHALL). UPPER SURFACE.

lobule rather than with the lower end of the ascending parietal convolution, as in the brain of Gauss. Fig. 243 shows that the brain of the Bush-woman is widest in the situation of the very prominent supra-marginal lobules, though these are found to be distinctly posterior to the median axis.

Another brain described by Wagner,

that of the eminent mathematician, Dirichlet, is longer and broader than either of the others we have mentioned; its posterior extremity is narrower than the anterior, and even noticeably pointed. Its greatest breadth is only slightly posterior to its median axis, corresponding with the lower part of the ascending parietal convolution. Variations are numerous from anything which might be presented as a standard of typical shape, and especially are they numerous when the shapes of the human skull in different races and individuals are considered. There are extremely long heads and extremely round heads, interspersed with individuals whose cranial diameter is more nearly equal. In general, perhaps, it is most frequently found that the greatest breadth of the brain is behind the median transverse axis, and that its posterior is more rounded than its anterior extremity. As observed also from the side, the brain presents obvious differences when we compare the simple forms as found in low organisms, like those of the Hottentot Venus and the Bush-woman, with one of the highly cultivated or evolved brains belonging to men of eminent minds, such as Gauss. One of the most striking characteristics of the brain of this gentleman consists in the great development of the frontal lobes; this is rendered the more evident by the fact of their comparative breadth, length, and height, and also by reason of the extraordinary complexity of their three ranges of convolutions. Wagner gives a full-sized representation of these lobes as viewed from the front, and also compares them with the same view of the frontal lobes of a common artisan of uneducated intellect. The difference is very marked.

Professor Bastian has in his possession the brain of the late Prof. DeMorgan, a celebrated English mathematician, and although in it the frontal lobes are likewise large and well-developed, their convolutions are by no means so intricate as in those of Gauss. He speaks also of the brain of a journalist who had been educated for orders (Fig. 247). In it the size

of the frontal lobes is greater, the intricacy of the convolutions fully equal those in the brain of the German. In other regions this brain of the highly educated though not notable man, is more highly organized than that of DeMorgan. It was preserved because it was the brain of a well-educated person, and because it presented such well-marked complexity of convolutions. In both the brains mentioned, as well as that of Gauss (Fig. 246), the fissures of Rolando are very sinuous, owing to the many secondary foldings of the ascending frontal and parietal convolutions. The relative positions of these fissures show, however, very differently in the two brains; in that of the journalist the distance of the lower end of the fissure from the tip of the temporal lobe is altogether remarkable. It is interesting to note that as a consequence of blindness of the right eye, dating from a few days after his birth, the left cerebral hemisphere of DeMorgan's brain was notably smaller than the right, although the measurements of the organ, on account of the changes which have taken place since it was taken from the skull, do not show so clearly as when it was in a fresh condition. The occipital lobes are as nearly equal as they can be, but the left perpendicular fissure, owing to the smaller size of the frontal and parietal lobes, now lies three-fourths of an inch in front of that of the right hemisphere; the left occipital lobe is altered distinctly; the temporal lobes are of equal length, but in regard to relative breadth they have been too much altered by pressure for any opinion to be formed. The diminution in general size of the frontal and parietal lobes is still very obvious, both in breadth as well as in length, though it is not a diminution localized in any special part of these lobes; nor is there any perceptible difference observable in the convolutional development of any part of the hemisphere as compared with that of the opposite side. The region of the supra-marginal lobule and of the angular gyrus seems certainly to be best developed on the left, although these

are the convolutions which, according to Ferrier, should be required as the principal seat of the visual center. DeMorgan

those of the lower types—for instance, that of the Hottentot Venus—is the shortness of the Sylvian fissure, which may scarcely reach half-way back to the upper end of the perpendicular fissure, and may be separated therefrom by several convolutions instead of being interrupted by the descending limb of the angular gyrus, as is the case in the chimpanzee, or by this convolution together with the upper "bridging convolution," as in the Bushwoman and the Hottentot Venus. The Sylvian fissure is most elongated in some of the quadrumana, such as the howler, and also in

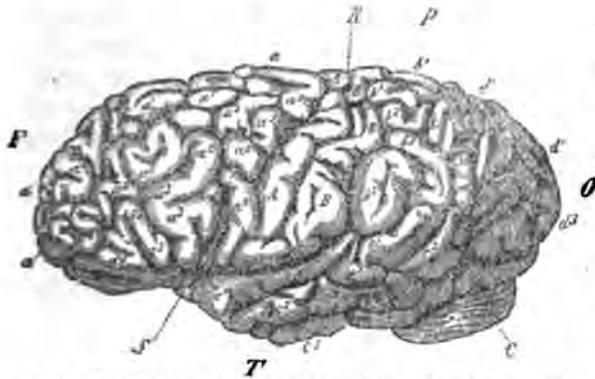


Fig. 246.—BRAIN OF GAUSS. LATERAL VIEW. (AFTER WAGNER).

had an exceptionally large head in life; he died at an advanced age, and his brain, which was not removed from the skull until the third day after his death, indicated in the left hemisphere a shrinkage, due mainly to age, but partly to the disease which produced emaciation during the last year of his life; nevertheless it weighed nearly fifty-three ounces. The measurements of the head in health were: circumference, twenty-four and seven-eighths inches; from the root of the nose to the occipital protuberance, fifteen and three-eighths inches; from ear-opening to ear-opening, fifteen inches. Except for the wasted appearance of the optic nerve and the corresponding left optic contraction, there is nothing to be discovered which can possibly account for the smaller size and stunted development of the left hemisphere. In DeMorgan's case the presumption is warranted that he used in his mental operations the right hemisphere even more than the left.

the brains of the Saimiri, which is described by Gratiolet, in each of which it extends back almost to the longitudinal fissure.

It has already been pointed out that the length of the temporal lobe and the extent of the posterior prolongation of the fissure of Sylvius are notable characteristics of the human foetal brain. This shortness of the Sylvian fissure in the highly-evolved brain tends to produce a corresponding shortness of the temporal lobe. In the brain of Gauss we notice that this segment of the brain is much diminished. The broad simple convolutions of the temporal lobe in the Hotten-

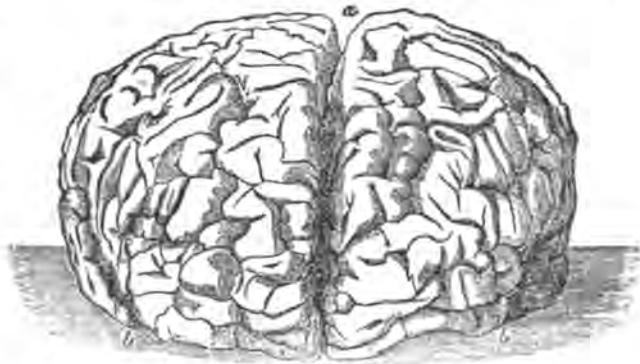


Fig. 247.—BRAIN OF A JOURNALIST, FRONT VIEW. (BASTIAN).

Another notable condition often met with in European brains of the higher type, and which declares their difference from

tot Venus (Fig. 242) correspond sharply with the corresponding gyri in the brains of the two mathematicians, as well as in

that of the clerical journalist we have mentioned. The occipital lobe has a much greater depth in the brains of Gauss and DeMorgan than is to be met with in the lower types previously described; consequently in them the infero-posterior border of the cerebral hemisphere as it extends along the side of the cerebellum is much more nearly horizontal than it is in either of the two African women. In these, however, a superiority of the same kind is to be met with when they are compared with what obtains in the cerebral hemisphere of the great anthropoid apes of the higher types.

The occipital lobes of each hemisphere, taken together in the higher organisms bear a much smaller proportion to the mass of brain substance comprised in the frontal and parietal lobes than is the case in the brains of the lower types. In the lower quadrumana, the temporo-occipital segment of the hemisphere instead of being much less is about equal to, or may be of even slightly greater bulk than the frontal parietal segment. Thus the proportions met with in the lower human types are, as it were, intermediate between those which obtain in the higher human types and those found in the quadrumana. Diminution of the temporo-occipital segment in the human brain, especially of the higher class, is more apparent than real; the great extent of the frontal lobes and of the upper or parietal lobes conduces to this reduced appearance. It is certain that the convolutions of the temporal lobes tend to complexity of structure in the higher human brains, and there is also a tendency to an actual increase in the size of the occipital lobes; these lobes also become deeper, fuller, and more rounded. Complexity of the occipital convolutions also increases in correspondence with the higher general development of the brain structure, and this should be taken into consideration by those who examine comparatively the characteristics of human and brute brains. The large size of the occipital lobes in many of the quadrumana has been dwelt upon by many observers, it being appar-

ently forgotten that if these parts seem to be rather smaller in man in proportion to their size, the area of superficial matter becomes enormously increased by reason of the number and depth of the foldings. In general the observer does not find in the brain of man new parts or regions so much as he does an enormous development of parts and regions existing in the lower animals.

DECEMBER'S CROWN FOREVER!

LIFT thy head, oh dark December,
With a glory crowned forever!
As thou fleetest onward, onward,
Down Time's swiftly-flowing river!

Shaded, sombre, pale December—
Till one hour illumed thy sadness;
Till the Rose of Sharon blossomed,
And thy gloom changed into gladness!

Now, the light, oh dark December,
Bursts through every Christmas morning,
Shows the Lily of the Valley,—
All thy darksome hours adorning!

Better than the hopes of Spring-time,
With the merry wild birds singing;
Better than the gifts of Autumn,—
Joys and hopes, which thou art bringing!
GRACE H. HERR.

AN ENCOURAGING THOUGHT.—Every effort for good is of avail. Every prayer for purity lightens a cloud, and fervent desire in the direction of right is always sure of some reward. There can not be a lost effort, for in God's great creative plan nothing dies but it lives again in some form. Nature is a rare economist, and works over into new fabrics all the worn material, with no possibility of an inevitable loss.

That human hopes are slow to blossom and break into fruitage should not discourage the mental gardener. If good seed is sown, though it be borne off by the four winds, some grains will fall on mellow ground and show the flower.

MRS. OBERHOLTZER.

THE SPHERE OF ACQUISITIVENESS.

MANY people condemn Phrenology for the simple reason that they fail to notice the various methods by which success, or what the world terms success, is obtained. They see a man with a fine head, fine physiognomy, and strong energy occupying a low station in life, while a man with a very common type of features, head, and temperament is on the top round of fame and fortune. "How is this?" they say; "if Phrenology is worth anything, these men ought to change places." "How is it that A., whom all recognize to be a very able man, has not succeeded better in this life, while that common fellow, B., is a great success? How is it?" they again repeat.

This class of persons think themselves very wise when they have asked such a question. Were they wiser, they would not ask it; and had they good common sense, they would endeavor to think it out by themselves.

Under the circumstances of life, it oftentimes calls for more talent to run a small institution than a large one. Notwithstanding our talents, we are all creatures of circumstances. When circumstances are unfavorable, our talents show up in a poor light; when favorable, we are revealed in the most favorable light. No matter what one's talent may be, talent alone will not place a man where he can use his superior faculties to the best advantage. Perhaps his stronger talents did not reveal themselves until the advent of his more mature years. He is poor and honest. With the common lot of good men, he recognizes that the first thing in life is to be practical and to earn an honest living. All the years when he was bound down by poverty to some stern necessity, his fellows were having the advantage of the most favorable surroundings—surroundings that it was not possible for him to enjoy.

When a man has acquired a large fortune, the impression always seems to be that he has obtained it through the supe-

rior development of that business faculty, Acquisitiveness; but I doubt if Acquisitiveness is the plain and simple cause in this matter. It takes more than one faculty in a man's nature to make him a success, and the successful man must be more or less selfish. He must not only be able to deny himself, but to deny his fellow-men. If he be a business man, he must be continually guarded by selfishness. Acquisitiveness may prompt the desire to get money, and how to put it where it will pay the best per cent.; but, without a good selfish nature back of it, mere Acquisitiveness will not amount to much—indeed, as in the miser, it may defeat itself.

The man who has been successful in life always seems to carry the idea that, had others worked as hard as he, they too would be as well-off. He doesn't seem to think that there is a limited amount of money in the world, and that money receives its value from scarcity more than from any other source. Then, rich men are oftentimes very boastful as to how they get along in life. Some "cock and bull" story is told about their extreme poverty in their early days. They overlook or keep back many a little assistance whereby they obtained advantage. Great stories used to be told about a "certain rich man"—how poor he was, how he kept a small store, did his own work, etc. By and by another and more true version leaks out, and it seems that "fifty years ago," when the man started in business, he had to back him not less than twenty thousand dollars, which, "fifty years ago," was equivalent to a hundred thousand now. In addition to this, you hear various other stories about him and his methods; and the more you hear, the more the fact is revealed that the man did many a selfish act, in order to satisfy his ambition, that no honorable man would have done for all the fortune that this man managed to secure to his name. Acquisitiveness undoubtedly aided this man in his great ambitions, yet

there are many men with native talents, equal if not superior to this man, whose mental balance would not permit them to be such a slave to money, and, therefore, in the light of the world, not such a "success." Yet, because they have not financially been the success this other man has been, the world at large thinks them wanting in Acquisitiveness; while the cause is a generally higher nature that would not permit them to stoop to acts of mere selfishness whereby the other man made his immense fortune.

Then there is another class of "nice men," with well-balanced social qualities, whom everybody, it seems, wants to help. They move so easily through life, and have such plenty about them, that they wonder how it is that other people don't get along. They have attended to their work, and their work has prospered. They never met with any very ill fortune. They know little or nothing about the *strife side* of the world. At fifty the lines of their faces are as smooth as at twenty. They are not troubled about "advanced" thoughts. The improvements of the world trouble them not; although, when an improvement has become established and well patronized, they patronize it too; but you never see them "lend a hand" to some poor brother in need. Nor are they troubled whether human slavery exists or does not exist. Their good, easy natures will not permit them to enter the field of strife, even to save a nation, although they are willing that others should do it, and they are willing to accept the fruits of others' hard labor.

All rich men, though, are not thieves; taking that which, in "God's chancery," does not belong to them. There are all kinds of rich men, as there are all kinds of poor men—honesty and integrity are not patent to either class. One man is poor through his higher qualities, while another is poor through his lower qualities. Then, men are very much like ships. All the ships sailing on the ocean of life can not always have fair wind; though we well know that without any

thought on the part of the sailing-master, one ship may have fair winds most of the time, while another ship may the while have ill or contrary winds. Many a man to-day is enjoying a fine fortune, more through what the world calls "luck" than through any other source. For example, a man known to the writer obtained an immense fortune and enjoyed the benefit of it through the greater part of his life, without the least thought that such a thing was coming to him. When a young man he kept a small store, and was just keeping his head above water. By close living and saving he managed to secure about two thousand dollars. This he loaned to a man. Through some financial operation the man was unable to pay him in money. He thought that his whole little fortune of two thousand dollars which he had labored so hard to obtain was all gone. Apparently there was not the least show of his ever getting it back. He even would have been glad to have secured fifty per cent. of the principal. One day his borrower came to him and said: "Here is some stock that I have in the 'John Smith' mill—it is all, that in any way represents money, that I have. I know it is not worth much, and I don't know as it ever will have a par value, but it is all I have. My fortune is gone, and it must be this or nothing." After much delay Mr. Q. took the stock. It was that or nothing; and, although the stock had no market value, he would not lose by keeping it, and perhaps "some day" it might advance a little. He put the stock in his old store ledger, and there it lay, and continued his work in his small store—barely making a living. Months and years even went by. The stock of the "John Smith" mill began to go up, and up, and up. The stock lay quietly in the man's old ledger. He was so narrow-minded, and had so little taste for anything beyond his "two-cent" store, that he knew not what was going on about him. The "John Smith" stock the while was going up—even paying 200 per cent. dividends. Able, yet selfish, men were

running the "John Smith" mill. They controlled the market. One night some of Mr. Q.'s old store loafers got talking about the wonderful dividends of the "John Smith" mill. Then it occurred to Mr. Q. that he had some of the stock. He took it out of its hiding-place, and after a while mustered courage enough to present his papers for dividends. Almost in the twinkling of an eye he found himself a rich man. He held on to his stock, purchased more, and ere many years he was very wealthy. The community was as much surprised as he. They did not dream that such a man had such stock. Nevertheless it was true, and, in a few years, it made him one of the most wealthy men of the community.

Surely, this is a rare case; yet it sometimes happens that a man obtains great advantage in life in spite of himself. This man was close and selfish, he held on to his stock; but, instead of becoming a public benefactor, he did all he could to avoid honorable taxes for the public good. By his general selfish qualities he held his purse-strings very close—gave little or nothing to charity. He became rich in spite of himself; Acquisitiveness had something to do with it, but not much. What the world calls "luck" gave him the immense fortune, and his supreme selfish nature caused him to hold on to it.

It is a good desire to be comfortably well-off. No sensible person would object to it or declare it an evil, so long as a man makes his fortune honorably, at least as honorably as the world will permit. The world oftentimes condemns the acts of a man, at the same time it neglects to advance itself beyond some prevailing low moral code. The world should interest itself in whatever affects the property of the world—protect both the poor and the rich—not condemn a man simply because he is poor or because he is rich, but look at the condition of the man; see why he is poor or how he becomes rich; and, if he acquires a fortune, see how he got it and what he does with it.

Fortune gives a man a great power for good or evil. It increases his power in the community. With fortune comes responsibility, and if the rich man use his money wisely, he can not only increase his own fortune—enhance the value of his own property—but, by keeping his money in circulation, do much good to his poor fellow-men. Probably nothing curses a community more than a close, narrow-minded rich man; while, on the contrary, nothing puts so much life and hope into a community as a few rich men with broad and generous ideas. Such men, in helping others, help themselves. Perhaps their works may not protrude themselves very much; yet, when such men move away or "go hence," they are greatly missed.

The rich man has an immense power in a community. If he is wise he will exercise it with caution, and will not too much impress his wealth upon the community, but will improve his fellow-men with his higher character, and thereby show himself worthy to hold a fortune. His Acquisitiveness will be a blessing. He will look beyond the interests of a day. He will look ahead into the years, and do that which will keep his memory green with the oldest inhabitant. Surely the rich man has much responsibility resting upon him.

Let him remember that his fortune is not for himself alone, but that the higher the interest he takes in the world, the more he lifts himself above the world and secures happiness to himself by making others less fortunate than himself happy.

Our faculties, correctly used, are not detrimental to our fellow-men. Acquisitiveness, although it has a bad name, is not a bad faculty; on the contrary, it is a most important and noble faculty; and, perhaps as much as any other faculty, adds its blessing to humanity. It prompts mankind to be saving and not wasteful. It prompts us to be prepared for the future. Acquisitiveness is not caught napping; it is always prepared for the emergency; it has enough "against the time of need"; and then,

with Benevolence, it scatters the blessings which it has put aside for future comfort.

Our faculties do not operate singly. We are governed by the stronger or more active power. Our latent wisdom should prompt us to study ourselves. We can not all be angels or "very nice people"; indeed, there is such a thing as being too refined for our surroundings. We need a certain amount of selfishness for self-preservation. With this we should be satisfied. We want sufficient selfishness to protect ourselves, but not enough to make us aggressive, and to become a bird of prey upon our brethren who in this life happen to be "down in the world."

If we are wise we will discover that more happiness comes through the disposition to be fair toward our fellows than in cultivating that short-sightedness which implants within the human mind a disregard for the happiness of others; and that, through Acquisitiveness, as well as through any other faculty, we are enabled to complete the happiness of the world. All our faculties well-used and well-controlled is what brings happiness to our neighbors and ourselves. All intelligent people should by this time see that it is far better to make the world happy than miserable. By improving the condition of those

about us, we advance ourselves in the sphere of existence. How a man can believe in the advancement of the soul to immortality—his neighbor's as well as his own—and neglect to further his fellow's soul, is one of the most difficult things for a reasonable person to understand. Surely a belief in a future life, an advancement to a higher plane of existence, ought so to develop the mind of a wise man as to prompt him to use all his powers—Acquisitiveness, as well as his other faculties—to the great end of advancement.

He is a most foolish man who thinks that he can acquire enlightenment for himself only; and yet there are in the world people so selfish as to think that they can possess the wealth and culture of the world only for themselves. By such acts they isolate themselves from the world, and, instead of inviting its sympathy and respect, invite only its cold scorn and contempt—which is about as empty a thing as a man can obtain.

It is good for us to acquire. Acquisitiveness is a noble faculty. United with selfishness, however, it becomes a curse to all; while, in connection with our higher nature, it completes the happiness of the world and makes our existence here a little heaven below.

Washington, D. C.

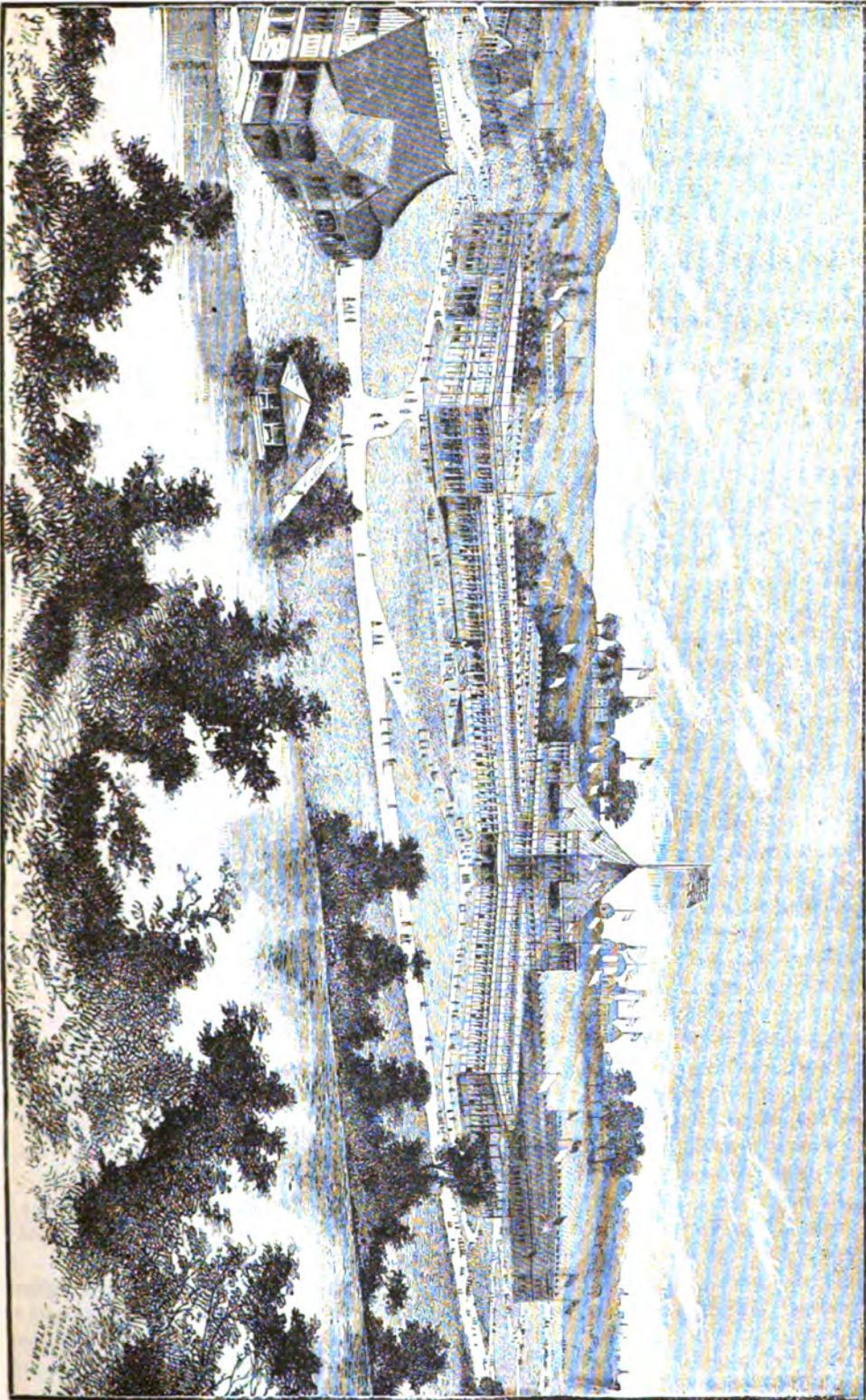
ISAAC P. NOYES.

THE GREAT SOUTHERN EXHIBITION.

ONE of the most encouraging events of a national character in the year 1881 was the exhibition of Southern products at Atlanta. Its encouragement consists in the fact that it was an indication of substantial growth and genuine enterprise in Southern affairs. The initial steps—due, we believe, to a suggestion by a Northern man—were taken not without many misgivings; but the people came so heartily to the support of its projectors, that the undertaking swelled into proportions far beyond what was

originally contemplated, and its results, from a commercial and industrial point of view, must be of immense future value to the South, as well as very important to the nation at large.

According to a brief account of it given in the *Scientific American*, the Exhibition Company was organized in 1880, and, under the energetic management of Mr. H. I. Kimball, of Atlanta, subscriptions to the amount of \$200,000 were early secured—of which, business men in New York contributed about one-fifth. A



VIEW OF THE BUILDINGS AND GROUNDS OF THE EXHIBITION OF SOUTHERN PRODUCTS AT ATLANTA, GA.

site having been chosen in Oglethorpe Park, just outside of the city, work upon the buildings was begun in the last spring.

The principal building was designed for a model cotton mill; and the general plan of the exhibition buildings was thought to be, if anything, over-ambitious. But the demands for space came in so rapidly, that successive annexes were erected, ultimately quadrupling the exhibition space at first contemplated; and yet the demand has exceeded the twenty acres of exhibition space finally provided.

The original "Main" building is a handsome structure almost entirely of glass, 720 x 400 feet, and well lighted and ventilated. Abundant steam power with eight lines of shafting was supplied, arranged for the operation of every description of machinery, with magnificent aisles affording opportunity for a grand and artistic display.

The Art and Industrial Pavilion, 310 x 55 feet, open to the roof, fifty feet high, with capacious galleries, was provided for the display of fine-arts and manufactured goods to the very best advantage.

The Department of Minerals and Woods, 300 x 100 feet, an elegant building, provided for the especial display of the collective exhibits of the natural products of mines, fields, and forests, which constituted one of the finest displays of the kind ever presented.

The Judges' Hall (88 x 112 feet) included—besides the commodious offices, committee-rooms, etc.—a capacious hall, seating 2,000, for the accommodation of the various assemblies attending the lectures, business meetings, etc., held during the exhibition.

The department of Public Comfort contained—besides the offices of the department—convenient offices for the telegraph, telephone, and exhibition messengers, stands for fruit, newspapers, etc.; also barber-shop, check-room for parcels, ladies' parlors and retiring-rooms, gentlemen's parlors and retiring-rooms, etc.

The Exhibition Restaurant (100 x 53

feet, two stories) contained saloon, dining-room, serving-room, and ladies' parlor and retiring-room, gentlemen's retiring-room, store-rooms, kitchen, etc.

A number of annexes for special purposes were also erected in addition to the large buildings for the general purposes of the exhibition.

Inside the grounds and in the fields just outside representative Southern crops were planted, including a dozen varieties of cotton, sugar-cane, sorghum, rice, hemp, potatoes, peanuts, etc., etc. These growing crops served to show the visitor not only the characteristics of Southern agriculture, but also its needs and the conditions which will have to be satisfied by inventors of time-saving, labor-saving, and crop-saving implements, machinery, and processes for use in the South. The exhibition of cotton machinery was very large, and embraced substantially everything in use by planters and manufacturers.

The first committee of the National Cotton Manufacturers' Association pronounce this part of the exhibition the best and most abundant ever before brought together in this country or elsewhere. The evidence of the natural resources of the South in agriculture, in commerce, in minerals, and in timber presented in the annexed buildings, could not be equaled, they say, by any other equal area of the earth's surface; and, in the use to which these resources will shortly be applied, they find the promise of great commercial advantage to the North as well as to the South. They concur unanimously in the judgment that greater promise of improvement in many directions, but especially in the handling of cotton, has emanated from this exhibition than from any ever held before. The committee represented more than \$100,000,000 of capital, over 1,000,000 spindles, and nearly 25,000 looms.

We can not but most heartily congratulate the Southern people upon so extensive and noble an expression of their resources and industry.

PLANT ORGANIZATION.—THE FLOWER.

THE diversity of color, and the charms of perfume, are chiefly due to the flower, and often the entire habits and varied phenomena of the plant are overlooked for the beauty and sweetness of this alone. The physiology of the flower is identical with that of the green leaf; in fact, the colored leafy appendages, which constitute the beauty of the flower are but undeveloped leaves, which have been called to the service of protecting the stamens and pistils—the organs for producing seed. The bud of the flower is a modification of the leaf-bud, and as the leaf-bud develops into a branch, the flower-bud develops into a flower, which may also be termed a branch, though the ultimate purposes differ somewhat. The ordinary leaf—the green leaf—is to assist the growth of the plant by absorbing and assimilating the air and moisture, and the flower is intended for the development and production of seed, which contains the germ of the future plant.

The flower is the most beautiful and interesting portion of the plant. It can generally be studied with the naked eye, and without the teacher's aid. If the flower and fruit be well understood, we hold the key to the entire vegetable structure. They are the organs of reproduction, or the "terminating of the old individual, and the beginning of the new."

Pliny termed flowers "the joy of trees," and they have been the delight of man wherever his footsteps have wandered;

"Springing in valleys green and low,
And on the mountains high,
And in the silent wilderness,
Where no one passeth by."

A *complete* and *regular* flower consists of four distinct sets of organs, arranged

in concentric whorls—the floral envelopes, two in number; and the organs of reproduction. There are many and wonderful deviations from this order, stamens and pistils alone constituting a *perfect* flower, these only being necessary for the perfection of the seed. This distinction between a *complete* and a *perfect* flower should be borne in mind.



THE PASSION FLOWER.

During the flowering season the plant is in its perfected beauty, and with the parts or organs of the flower we will seek a more intimate acquaintance. The rose, so long celebrated as the queen of flowers, and around which cluster numberless poetical associations, is familiar to all. It is complete in all its parts, is of fragrant and glowing beauty, and has been famed in romance, song, and history through the past ages. The purest type among earthly things to portray Divine perfections and love, was the "Rose of Sharon"; and there is no more excellent

teacher of floral physiology than the rose. Not only is it the glory of the garden, but the wild rose—scarcely less lovely, in its modest and simple wrap of pale pink or white—is found during the summer-time near a hundred New England streams, and indeed throughout the moist lands of the entire country.

But it is with the physiology of the rose we have now to do. The flower-bud is nicely covered with the calyx, an envelope of green leaves adorned with pretty little leaflets, and in the moss rose with its dainty covering of moss. The calyx leaves—sepals—expand to admit of the opening of the flower, and in some species, as the Damask, fold themselves back closely around the stem. Within the calyx is the corolla, or inner whorl of floral envelopes, upon whose graceful form and delicate coloring depends so much the beauty of the flower. In the wild rose there are but five leaves—petals. Cultivation increases them to hundreds.

The odor of the rose is due to a volatile oil thrown off by the petals. Nestling within their fragrant floral coverings are the stamens, delicate thread-like organs surmounted by a knob. The filament, the slender portion, supports the anther—the knob—within which is contained the yellow dusty pollen, so necessary to the perfection of the fruit or seed. The pollen of flowers is also manufactured by the bee into waxen cells for honey. Within the stamens is placed the pistil. In the rose it forms the little conical center of the flower, while in the lily it is very prominent, being longer than the stamens. At the base of this central organ is the embryo of the future plant. Darwin calls the corolla, the lungs of the stamens and pistil.

The pericarp, or outer covering of the seed, varies widely in form and quality, and is sometimes quite showy, as the scarlet rose-buds of autumn. The pericarp, under different names, is the eatable substance of all our known fruits. The apple and pear are *pomes*, from *Pomona*, the Roman goddess of fruits and

harvests. Stone fruits, as the peach, plum, and cherry, are drupes. The receptacle, the top of the stem, upon which rests the flower, completes the analysis of the rose, though by no means exhausts its physical history.

The variations of leaf are not as distinctive as those of flower, the uniformity of color neutralizing the effect of the difference in form. To the accidental properties of flowers is due their pre-eminence over the other products of the plant, in conspicuousness and beauty. Flowers are of all colors except black, and some varieties of the pansy nearly invalidates that one exception. They also hold in their petals every variety of perfume. Heber's beautiful lines,

"What though the spicy breezes
Blow soft o'er Ceylon's isle,"

were born of no poetical fancy. The odors of the cinnamon groves of that island are wafted for many miles over the ocean.

Scientists tell us that the higher the altitude, the brighter are the hues of the flowers of any known species. Herschel's theory concerning this phenomenon is, that the chemical rays of the spectrum are absorbed in passing through the atmosphere, and the effect of the greater abundance of these rays in the higher regions of the air is shown in the increased brilliancy of the flowers found blossoming on the Alpine heights.

The early voyagers to the New World often engrafted their superstitions upon the strange and unknown flowers they found blossoming in the wilderness. To one of these floral wonders, which holds within its pure, waxen petals the form of a perfect white dove, about an inch in length, they gave the name of *Spiritus Sanctus*.

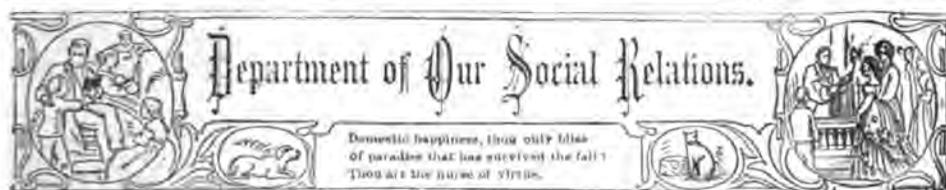
The *Passiflora*, or passion flower, also entered largely into their superstitions. This plant, which abounds in the Southern States and tropical America, appealed strongly to the vivid fancy of the Spanish settler. It is a strong climber, ascending to the tops of the tallest trees, and cov-

ering the branches with their fragrant, and showy flowers of blue, red, and white, with lovely shades of pink and violet. When the Jesuit missionaries discovered it in all its primeval glory in the native forests, they at once saw in it, the emblem of the Saviour's passion, and they named it the *passion flower*. The stamens are curiously arranged in the form of a cross; in the anthers they saw the nails; and the hammer in the stigma. Within the corolla is a triple row of silky filaments, and in this was recognized the crown of glory, and they held this flower—so unlike any they had known in the Old World—as emblematical of the final

subjugation of the land to the dominion of the Cross.

Some flowers are so sensitive to atmospheric influences as to close their petals while the sky is unclouded, and the shower yet several hours distant. The scarlet pimpernel, sometimes called the poor-man's-weather-glass, a little plant common by roadsides, closes its pink petals three or four hours before the approach of rain, and no matter how inauspicious the aspect of the sky and clouds, if it opens its eye in the morning, a sunny day is sure to follow; but if it keeps closely shut, though the sun may struggle with the clouds, a rainy day is at hand.

ANNIE E. COLE.



SALLY.

HAD I money enough and time enough, I should like to work in illuminated colors a motto, and give it to Santa Claus on Christmas eve to fasten over every kitchen door in the land—its letters so clear and glowing that every fool or philosopher might read. This motto is not from Scandinavia or Italia—Virgil or Homer, but one of the best of kitchen classics for mistress or maid, viz:

"For every evil under the sun,
There is a remedy or there is none.
If there be one, try and find it,
If there is none, never mind it."

In all our paths, there may be troubles, like adamantine rocks, that we can not dig up or burn away; let them alone: the green moss of resignation will grow over them, the golden flowers of patience wreath around them. Batter away at them, we break our backs and scar our hands. If we can not remove a trouble, like the flower-crowned rocks in our lawns, we can adorn it, grace it, glorify it. There is a sunny side to everything,

and if it is not sunny, we can make it sunny—or at least may be even funny. To see the humorous side of a trial helps us to bear it. Said the great-granddaughter of John Adams to me one day, "I never read sad things, I don't want to hear horrible things. Everything bright and cheery I see in print, I cut out and keep and read over when it rains, or the day seems lonely or dreary. I sometimes read them to some lonely, discouraged friend. There is trouble enough, and I am not going to hunt it up; if it comes right before me, I try to find something pleasant in it." So all her troubles are moss-grown, and one hour with her has often made me feel brighter the whole day.

How much better for us all, if we could be like the man in the bramble bush, who "when he found his eyes were out, with all his might and main, he jumped into another bush and scratched them in again."

So can we make the moment of our greatest failure, the beginning of our

greatest success. Every wife and mother, if she would not grow prematurely worn and weary, must learn to wreathe care with sunshine.

Transplanted suddenly from a dearly loved city home, for twelve long years have I lived in a secluded farm-house, surrounded by all the ancient conveniences. After a rich and varied experience with successive Susans, Catharines, and Bridgetts, homesick for their beloved New York, came to me one morning, Sally, and said, "I have come to live with you, ma'am, if you like me, until I get married." She was tall, brown, and wiry, about fifty, I should think, and having heretofore resisted whatever eligible matrimonial opportunities she might have had, I had a reasonable hope of keeping her with me if I wished.

I wish a good phrenologist could have examined Sally's head. If George Combe, studying mathematics seven years, never could master the multiplication table, I am quite sure Sally never would have learned it in seventy times seven years. All her idea of mathematics was merged and comprehended in the word "couple," and I soon found that her word couple meant any number from two to twenty. There was in that part of her head where the organ of Calculation is located, a decided depression. I was phrenologist enough to know that she had no Constructiveness, no Ideality, and no Calculation, and I found in a few days that phrenology and experience agreed. She had no Causality, no "resource-creating power," of adapting ways and means to ends. I found that all these desirable powers she had not. She had no head to calculate; no constructiveness to make, manage, or fix up, or to turn off work; no ideality to beautify or see beauty in anything; no causality, no power whatever of reasoning, never knowing one of the great secrets of housekeeping, to "kill two birds with one stone," going up-stairs seven times, perhaps, to bring down seven plates or goblets that might have been left there.

With supreme content Sally seemed to

take her place in my kitchen. Everything in the shape of tin was brought out and brightened, and put in a sightly place on the shelves. The stove shone, and the windows shone, and the dishes shone. The next day I went to New York, and Sally said "that night she would 'set sponge'" for bread. I returned late and retired, and the next morning I found Sally in the kitchen peering into the serene depths of a tin basin. "Why, ma'am," she said, "I made sponge last night, and I thought it would be most up to wall this morning, and it aint riz at all." I looked in the pan and I could see nothing but water. She had crumbed up her yeast-cake in the water, and put in no flour, and left the wonderful sponge of yeast-cake and water to rise. So I made bread that time. If her sponge was so unpropitious, what might her bread be?

But Sally scrubbed and washed dishes and brought water. Every available pail in the house she kept filled with water, and standing in a row in the back kitchen, as if waiting for a sudden conflagration, and to the well the tea-kettle went regularly to be filled. All the wood in the wood-house she brought in and piled up in a symmetrical pile, and then scoured every corner of the yard and barn, to get chips to "keep on a fire," and not destroy the symmetry or lessen the quantity of her wood-pile. Again I went to New York, and returned. Sally had ironed the shirts, and put them in "him's drawer," as she called it. The next morning I rose early, and went to the kitchen, and soon at the kitchen door appeared *paterfamilias*, clad in a close-fitting dressing-gown, with a shirt in his hands. "Sally, did you do up my shirts?" "Yes, sir, aint 'em done nice?" "What did you starch the flaps together for, so I can't get into them, and the sleeves so tight that I can't tear them apart, and why did you not put some starch in the bosom?" "Aint them done nice? Aint them done nice?" she said. What "him" said, I do not repeat, as it certainly was not designed for the press, but I am sure

he used some interjection that a reporter would have heard, had he been there.

Up to "him's drawer" I went, and there were six shirts with their flaps all starched tight together from top to bottom, and the sleeves' sides fastened close from shoulder to band, and the bosom—soft and starchless—immaculately white, but fearfully stiff, all those shirt flaps.

The thing was so ludicrous—but I dared not laugh, for fear of meeting a conjugal frown. Sally had no idea of numbers; she insisted upon it that she weighed just three pounds herself. I taught her to make pie-crust; she had to have always three cups in a row, each one full of flour, then one next filled with lard, next one of water, with a teaspoonful of salt in it—and so she made her crust always with her five cups in a row, but she didn't make the "fillin'" as she called it. One day I was sick in bed. Sally came up-stairs—"What shall I do now, ma'am?" "You might make custard pie if you know how, Sally, we have so many eggs and so much milk." "Yes, and 'him' likes 'em too," she said; "I'll make 'em." Then she repeated the formula of the crust, after me, counting the cups on her fingers. Then I told her about the custard; four eggs, holding up my four fingers; four tablespoonfuls of sugar, holding up the four fingers of my other hand; and a quart of milk—she repeated the process, slowly counting her own fingers.

Half an hour after she came up-stairs. "Got 'em done, ma'am," she said, looking like a victorious general returning from a battle. "How did you make them?" I said. "Mixed them ar cups of flour, water and lard, beat up eggs, and sugar, and milk, and put 'em all in a pan, ma'am." "What! the crust, and the custard, you put *all* in a pan together, Sally?" "Yes, ma'am, stirred 'em all up good." "You may go down-stairs, Sally," I said, "and let it all alone now, and when Alice comes from school, you may tell her to come up here."

This was one of the cases to which language could not do justice. I imagine

somebody would have said, "You thundering fool, don't you know better than that?" and I was "real mad inside, at first," as the children say, and then I began to laugh, and I laughed till I almost cried. When Alice came from school, I said, "Sally has made the crust and the custard and mixed it all up in the pan together; you look at the mixture, and if it is thin add some flour; if it is thick, put some milk in it till you can roll it out and make cookies of it. I think we will have a new kind." They *were* unparalleled cookies, and *not* placed before the *paterfamilias* at supper. They were kept for hungry people to eat between-times, and they lasted longer than any cookies we ever had. But Sally was honest, good-natured, and neat, and go from one end of the farm to the other, she would, to reclaim a wandering pig, a straying cow, or entice a wayward colt into the barn, and puss always had a warm corner undisturbed by her fireside. So I let her think she weighed three pounds exactly, and that she was in deep mourning for her mother, because she had black lines in the border of the bright yellow ribbon she wore on her bonnet.

Sally taught me one lesson: not to be angry with, but to pity the natural defects of humanity, and to be very thankful for whatever common sense the good Lord has pleased to give me. If we knew more about the human head we would encourage right doing when we see it, and be more patient with wrong doing, and try to help make up the natural deficiencies of those around us.

Now far away from the old farm-house, I hear the clock strike one, over the way, and I wish we could all as faithfully and bravely as the old clock leave all sorrows and wrongs behind and begin cheerily at one again, in the round of unknown cares before us. After all the weary hours that clock has struck, it begins again, loud, clear, and sweet, with one. *One* moment only is ours, one duty only at a time—and only one trouble to cure or to endure.

LYDIA M. MILLARD.

GEORGE ELIOT'S "ROMOLA."

GEORGE ELIOT is dead, and yet George Eliot lives. The mortal frame of the woman has been laid with the dust, but the creations of her wonderfully-gifted brain survive; and, like the pyramids, are imperishable. So it

ing color and pleasing beauty; the cunning, forceful fingers that used the pen—even as the Tyrian artist used his brush and dye amphora, making of common, almost useless things, treasures of art fit for the palaces of kings—are at rest for-



[From an engraving in *The Century Magazine*.]

ever is. Man passes onward to the tomb, but the monuments that he builds remain for future generations. Matter is material, and decays; the spirit alone is immortal, and of God.

We say the woman is dead. That is true, alas! The wise, active brain behind those calm, dispassionate, far-seeing eyes that wove such subtle, deft webs of glow-

ever. She is dead and buried. The world has already ceased to think and to talk of her. Not even the conventional thirty days for mourning of the patriarchal times could well be spent by busy moderns in grieving for the dead authoress whose life went out with the departing year. For a few days, indeed, the press was filled with George Eliot.

It discussed her and her books, criticised, eulogized, bewailed, and condemned—now the genius, now the woman. For a few days—it is not too much to say, perhaps, that we breakfasted on George Eliot, we dined on George Eliot, we supped on George Eliot. Dailies, weeklies, semi-weeklies, political, sectarian, and religious sheets alike teemed with what may be called this George Eliotish literature. Then followed the great monthlies with pages of editorial comment, criticism, expressions of sympathy and regret, to revive temporarily the fame of the departed genius. Now we have forgotten whether she be dead or living—so little can one individual, even of the highest type, affect the rushing, busy, daily life of the world. It was but a little while ago that Carlyle died—a greater intellect, if not so great a genius; and the world has forgotten him, in the sense that it has ceased to be occupied with any thought of the rugged Titanic force of "Sartor Resartus." The affairs of men move on. Geniuses may die, or they may be born—the event scarcely makes more than a ripple on the great ocean of life. Men live eternally in the present. The Transvaal war, the affairs of Ireland, the Eastern Question, the South American revolution, the Panama Canal scheme, the Refunding Bill, the rise and fall of breadstuffs, famines in Russia, and cold storms in the West are here—living, struggling, practical issues that affect the lives, comforts, and interests of us all. A lonely soul here and there may not forget the dead, but the thousand and millions of the sons of earth will rush onward, oblivious of all, save the great historic events which preserve the equilibrium of society and nations.

Perhaps it is well. Certainly it can matter little to the poor dust sleeping so quietly in the little English churchyard at Highgate. She did her work, and did it nobly; no one disputes that. Let the woman be forgotten if the works of her hand abide, and abide they will. There are her volumes on the library shelves to

be read or not to be read, as one chooses. There they are, and it will be long before they will be displaced. Generations that will know not whether George Eliot was a man or a woman—whether married or unmarried—whether she was English, Continental, or American—will peruse with interest and delight those studies of life and character that she delineated; the descriptions of rural English scenery of those peaceful highways shaded by hedges of rose and hawthorn trees; the summer sunsets; the bloom of daisies and asphodels on fertile moor and meadow; or mediæval Italian city pictures; the flow of Arno's glittering tide under old stone bridges and past historic walls; the autumn leaves falling in Vallambrosa, or the stern reformer's *auto da fé* as the dark shadows crept down from wooded Apennine; and those shrewd, epigrammatic statements that flowed from her pen with the energy and truth that oracular utterances always fall from the mind of genius, even as they fell from the lips of frenzied Pythoness beneath Dodona's rustling groves of oak, or from the lips of the grand prophetess who dwelt under the palm-tree between Ramad and Bethel in Mount Ephraim.

Some wise man has said that our opinions are the angel part of us. If so, and I believe it to be true, George Eliot could not complain if she would that the world has forgotten the woman for her books. Not that she had sins more than the rest of us. She was human, and therefore erred; for that is the lot of humanity. But as the years go by men will think less of Marion Evans the woman, and more of George Eliot the genius. By her books alone will she be remembered. Who thinks of Shakespeare as the deer poacher, the wild gallant, the play-actor; the cold, heartless husband who bequeathed his gentle, loving wife—the dear Anne Hathaway of his youth—only his best bed? We speak of Shakespeare; we mean the genius that shines through the storm in "Lear" and in the sorcerer's eyes of "Cleopatra"; that speaks in the soliloquy of "Hamlet," the burn-

ing eloquence of "Portia," and the deathless dialogue of the "Lovers of Verona." Shakespeare is no longer a person, but an abstraction. It is all those dramas, tragedies, lyrics, and comedies which some say Bacon wrote—which some say were largely confiscated from earlier plays—but which all confess to be matchless. As with Shakespeare, so will it be with George Eliot. All that is worth remembering of her is in her books. In "Romola," in the "Mill on the Floss," the world will alone behold George Eliot.

For reasons that are apparent, we do not care, therefore, to stop to compare George Eliot with any other of the great masters of fictitious writing. She may be greater than Scott, Dickens, Bulwer, Thackeray, or Hawthorne—or she may be inferior. It is almost impossible to decide this at present. Possibly it always will be. I am of the opinion that no fair comparison can ever be made. There is such a multiplicity of questions to be considered. They all wrote voluminously. Of course they all executed inferior work—inferior work, I mean, as compared with their best. If we were allowed to compare the best work that each performed, an estimate of their respective ability might easily be arrived at. But would it be a correct one? We opine not. If each of their great works was its author's only work—if each was composed at the same period of its author's life, then perhaps the estimate would be a true one. But not otherwise. For instance, if Scott had written only "Ivanhoe," and George Eliot only "Romola," we should say that Scott was the greatest novelist—that is, that his skill in constructing a plot, his power of grouping events so that effect will follow cause in a logical sequence, his faculty of description, his analysis of character, and, above all, his power of producing lasting impressions, are superior to those same qualities in George Eliot. But none of George Eliot's novels fall to so low a level as Scott's "Pirate" or his "Quentin Durward." If she had

launched into the literary world at an age as youthful as that of Scott or Bulwer when they wrote their first novel, she might have done as poor work as either of these did. As it was; being nearly forty years of age, in the full maturity of her powers when her first great novel, "Adam Bede," appeared, we have none of the crudeness of the inexperienced *littérateur* in any of her works. She never wrote anything of which she was ashamed to own the maternity, as Hawthorne and Bulwer did.

Another secret of George Eliot's success lay in her vast erudition and her philosophical training. She possessed the largest culture. In this respect there has been no woman like her since Aspasia. The brilliant Milesian could exchange repartee with the witty Aristophanes—sustain arguments upon the most subtle speculative questions of the day with Socrates or Anaxagoras—talk of art with Phidias—and, in eloquence and politics, was the teacher of Pericles. George Eliot was as learned. In her knowledge of science and philosophy, of poetry, art, and political economy, she called no man master. From this rare union of gifts—of genius with highest culture, it might be supposed—in fact, it has been asserted—that the dead authoress surpassed every other writer of her age. But we choose to judge genius as we do faith—by its works. Bulwer had not a tithe of her scientific attainments, although a man of vast research and profound historical erudition. Thackeray possessed more than ordinary culture, but he knew nothing of philosophy, and almost nothing of political economy. Hawthorne—with his poet's eye for beauty, his knowledge of art and general attainments—was, as we all know, utterly ignorant of scientific or historic lore. But to say that George Eliot wrote anything better than the "Last of the Barons," than "Henry Esmond," than "The Marble Faun," would be insufferable dogmatism, to say the least.

But we were going to discuss—not George Eliot, but her works. We do not

mourn because they are at last complete. In one sense they were completed eighteen years ago. When she finished "Romola," George Eliot finished her greatest work—the crowning effort of her genius. We suppose that many will dissent from this. We will confess that it is not so popular a novel as "Middlemarch" or "Adam Bede." Neither is Scott's "Ivanhoe" so popular as the "Heart of Midlothian," yet none will be so brave as to deny that "Ivanhoe" is a far greater creation than its more popular rival. For the same reasons, with others, we mean to show that "Romola" is superior to any other of George Eliot's works.

A novel must, primarily and absolutely, be judged by its literary merits according to the highest standard; and not relatively, by the tastes and fashions of the age in which it is produced. So must a poem. Milton's grand epic remained almost unread by his generation. Every school-girl now can repeat its most glowing lines. Shakespeare's "King Lear" was rivalled in his day by Greene's "Orlando Furioso" and Marlowe's "Jew of Malta," but who cares for the latter now? The verdict of a contemporary populace is hardly ever a correct one as regards the merit either of a poem or a novel. Scott's first novel, "Waverley," was read more eagerly than even his "Ivanhoe" and his "Kenilworth." Bulwer's "Eugene Aram" and his "Earnest Maltravers" excited more comment than his "Harold" or "The Last Days of Pompeii."

George Eliot's "Middlemarch" has had ten readers to every five who have read "Romola." Does this fact prove it a greater novel? By no means. The story may be a more satisfactory one. There is no scene in it that haunts us with that nameless terror that we feel when the frater Savonarola leads his two friends into the Piazza della Signoria to meet the trial by fire, or when old Baldassarre watches in the twilight the raven hair and the beautiful Greek face floating upon the purple flood of Arno. But the

mere pleasure a novel gives does not constitute its sole or chief merit. If that were so, "Robinson Crusoe" would be a greater work than "Wilhelm Meister"—Mrs. Child's "Philothea" than Eber's "Egyptian Princess." Possibly one reason why "Middlemarch" is so popular is the fact that its heroine, Dorothea, in some degree is supposed to personate George Eliot herself. A mistaken fancy, we think; but, were it true, it is no reason that the story is a more meritorious production. So "Don Juan" is supposed to be replete with the personality of Byron. But Byron, in the first place, was in the habit of writing himself into his poems; and the fact that Juan reflects the voluptuous poet-lord more fully than any other character of his poems does not, as we have ever discovered, prove that particular poem superior in merit to "Childe Harold" or "Sardanapalus." Because George Eliot was reserved and reticent and led a secluded life, people's curiosity was excited. The least information regarding the life of the woman and the author was bolted ravenously. So when it was bruited that in the disappointed, unhappy wife of the contemptible Casaubon, George Eliot had pictured something of her own life and her own history, straightway everybody desired to read it, and the critics as mad as the crowd at once pronounced the book its author's greatest work. We fancy that the succeeding generation will care little whether Dorothea is identical with George Eliot or not. It certainly will not place the novel of which she is the leading character above "Romola."

In a great novel there is always to be found a concatenation of those several qualities which exist separately in even the poorest fiction. There must be delineation of character; there must be intensity and brilliancy of style; there must be great descriptive power; there must be more or less of that machinery to command a sustained interest—the physical and material difficulties to which the actors are subjected and those things which ordinarily constitute the "plot"

of a romance; and last, but not least, there must be a moral underlying the whole—not necessarily stated as such in as many words, like those of Æsop's Fables and some of Mrs. Edgeworth's moral tales, but apparent, tangible to the most ordinary and careless reader.

All of George Eliot's novels possess in a striking degree these several qualifications, but it is in "Romola" that this art reaches its culmination. The authoress' strong, terse, epigrammatic style, without losing any of its force, assumes in this work a richness, a brilliancy that is discoverable in no other of her novels. Is it because she writes of more gorgeous skies, of grander pageants, of more exalted characters, of a more historic age, that she uses more glowing colors than when she describes the tamer scenes of English village and provincial life? Is her pen dipped with the Tuscan fire? Perhaps so. One will unconsciously adapt their style to their subject. It is an admitted fact that George Eliot's particular forte as a novelist lies in the delineation, not so much of character already formed, as of its development. Those strong individual types with which her novels are filled are placed so that the reader may see the logical influence of every circumstance and event brought to bear upon their lives. In this subtle analysis of character, in this leading design of picturing the development of the individual life under different conditions, it seems to us George Eliot is nowhere else so great as in "Romola." Where else do we see a character so influenced, so directed by surrounding circumstances, as in Tito Melema? Not in vain, silly Hetty—not in passionate Gwindolen—not in impulsive Maggie Tulliver. The whole story is like a page from one of the old Greek dramatists. A stern fate—a pursuing Nemesis that has no pity, moving ever on and driving its victim to perdition at last—stalks through its pages. We dislike, we almost hate the man—so supreme was his selfish egotism, slipping away from everything unpleasant, caring for nothing so much as his

own ease and safety, false to every one, and committing the basest deeds to shield his pampered life—and yet his beauty, his cool insouciance, his intellectual keenness charm us, even as they charmed the peerless woman who was his wife. We pity and lament his end. Haunting one like an incubus—like that picture of Rispah mourning her slain children under the autumn skies of Palestine—like the sudden death of old Squire Pyncheon in Hawthorne's "House of the Seven Gables"—like the scene in the lists of St. George, when bold De Bois Gilbert fell, is that scene by the rushing river's bank under the evening skies, amid the flowers and the hedges, when the young life goes out forever from the graceful form and beautiful face under the lean, trembling, gripping fingers of old Baldassarre.

And of all stately, womanly, saintly heroines—where is there one to compare with the daughter of the blind old Bardi—with her lily bloom and aureole of golden hair, filial as Antigone, learned as Vittoria Colonna—true wife as Penelope? George Eliot has painted many noble women—many beautiful women whose faces are like the faces we see in ancient intaglios—but "Romola" is her masterpiece. She may be a trifle proud, this daughter of the ancient counts of Vernia—we like her all the better for that. No soft-hearted, impulsive, weak-headed woman for us. From the time that we get our first glance of her as she stands by the side of her blind father, helping him with his books, until the last scene when she takes Tessa and her children home to her heart, she is the same true, womanly, regal creature. Who can help loving such a woman—who can help reverencing her? We do not know of a grander conception of a woman in all literature. We have looked for one in vain among the scriptural women, the heroines of the Greek poets, the female characters of Shakespeare.

Ruth, Deborah, Esther—"Romola" is as self-sacrificing as the gleaner, as grand as the prophetess, as brave as the queen

of Artaxerxes. Antigone, Andromache, Nausicaa—"Romola" is as devoted to a blind father, as domestic and loving, as modest and innocent. Cornelia, Lucretia, Ophelia—she has their gentle, forgiving temper, their proud chastity, their noble womanliness. She is complete, she is matchless, and still she is natural; she is always a woman.

Of the other characters of the story none is so disappointing as that of Savonarola—the monk of San Marco, the reformer and martyr. But this is no fault of the writer; it is Savonarola's own fault, rather. The preacher is a historical character, and has to be represented as the best historical research shows him. George Eliot treats him fairly, though it must be confessed "Romola" strengthens our preconceived dislike of the man. He will do very well to rank with Mohammed and Calvin, but he bore very slight resemblance to the character of the Christ whom he preached day after day before the gaping multitudes in the Florentine cathedral. A narrow, headstrong kind of a man, with plenty of self-esteem as all demagogues have, Savonarola was rather an unsatisfactory sort of a man. As the bold denouncer of Alexander VI., whom Mosheim calls the Nero of the Popes, and who is certainly better entitled to the term by his infamy and base character than any other of the pontifical line, he demands our sympathy; but at the same time, it is well enough to remember that had he had his way, though Borgianism and perhaps the Papacy might have been abolished, something nearly as bad would have been substituted, and that would have been the rhapsodical reign of a single demagogue, whose hallucinations would have paved a path for the downfall of Florence two hundred years before her time. The scholar can not forget the insult he paid the genius of Dante, Petrarch, and Boccaccio, whose books he ordered to be burned; and even the most rigid orthodox believer staggers a little at that utter lack of Christian benevolence which hesitated

not to permit his two friends to walk into the flames, as they came very near doing in that wretched farce enacted in the Piazza Granducca. No, one does not much blame Pietro de Medici for burning the would-be reformer. Clearly, it was one or the other; the monk would have burned Pietro without compunction, but as that was not to be, the Medici burned Savonarola.

To all intents and purposes "Romola" is a historical novel. It has the grand, powerful movement of one. It takes us back into the middle ages when Florence reposed lily by lily under the gentle sovereignty of the princes of Valois Orleans. It deals largely with historical characters—the frater Savonarola; the young cavalier and future historian, Niccolo Macchiavelli; Lorenzo and Pietro de Medici sweep—in monk's cowl and coarse serge robe, in velvet tunic and tight hose, and in the trappings of State—across the stage. The whole story is redolent of a long dead past, and is gorgeous with the pictures of chivalry and gloomy with the stern realism that the Reformation ushered in. Over its quaint, narrow streets; its old stone houses with projecting gables; its carnivals and bustling crowds and old-fashioned agricultural life shimmer in the Italian sunlight of four hundred years ago. Is the novel any better for being historical? some will ask. We think that fact constitutes the greatest merit of "Romola."

The historical novel stands confessedly at the head of fictitious writing. It requires a greater genius to construct a good historical novel than it does to write a mere moral tale, a society story, a passionate romance, a descriptive or a philosophical narrative. To be able to rehabilitate the past, to see clearly into the characters and motives of public men, to analyze the principles of cause and effect as they bear upon certain events, to represent the manners, the society, the costumes, the ideas of former times, require all the qualifications of a historian; and, if you combine with the historian's insight, philosophic breadth,

and analytical power, the imagination, the fancy, the psychological keenness of the novelist, you have the qualifications necessary for him who would construct an historical novel. Only a few novelists would succeed in historical fiction. Many have tried their hands at it and failed, as poor Mrs. Child did. Those who have succeeded have proved themselves of superior genius, and their successes have been their proudest monuments. Charles Reade's "Cloister" and the "Hearth" will be read when his other novels are forgotten; and Thackeray's "Henry Esmond," with its pictures of Queen Anne's time, its glimpses of Marlborough, of Mrs. Freeman and Mrs. Marsham, is even now displacing "Vanity Fair." Jane Austen's "Northanger Abbey" and her "Persuasion" and Gold-

smith's "Vicar of Wakefield" may always have their readers; but in the far-away future the scholar will turn to the "Last of the Barons," to "Romola," to "Ivanhoe," to "Frederick the Great and his Court," with the sacredness that he consults his Gibbon and Herodotus, his Plutarch and his Froissart. Life is short, and men will care more to know something of the Kingmaker and Margaret of Anjou; of Richard Cœur de Lion and Savonarola; of wise teachers and great kings and heroic queens, than they will of factory girls, mechanics, overworked wives, and sweaty haymakers. The former in all cases may not be the more deserving; but when you read their lives, you read the history of the world.

FRED. MYRON COLBY.

THE WOMAN'S CONGRESS AT LUBECK.

THE General Association of German Women has recently held its annual congress at Lubeck, and one of its members writes me in these words concerning it: "I am very much satisfied with our congress in some respects, less in others. I am satisfied because the meeting was much more progressive—radical, you Americans would say—than any previous one; I am also satisfied because the press has taken so much notice of it, even the Southern papers, like the *Augsburger Allgemeine Zeitung*, having been represented by correspondents at its sessions; satisfied that from beginning to end there was a thronging public so that hundreds were obliged to go away. But I am disappointed that for the first time in the history of our organization there was no positive outcome of the congress, no local association formed which might put our ideas into action. Promises were made that such an association would be established in the end, some saying that Northern people were not so quick to act as those of more southern climes. But I know too well that what is not done im-

mediately, before the enthusiasm dies out, is not likely to be done at all. Besides, it is only natural that our speeches which treated not simply of general education and professional schools, but hinted at woman's rights in the American sense of the word, should meet with disapprobation from many who have never thought on these subjects, and who now hear them for the first time. New ideas—and they were indeed new for the Lubeckers—are always slow in gaining ground.

"The nature of the congress and the scope of the woman movement in Germany may be best understood by giving the subjects of the addresses pronounced during the three days' sessions.

"Miss Auguste Schmidt, of Leipsic, spoke on the character of the woman movement in Germany; Mrs. Louise Otto Peters, also of Leipsic, the founder of the General Society of German Women, dwelt on the past and future of the society; Miss Marie Calm, of Cassel, delivered an extemporaneous speech on the history of the woman movement in

America, England, France, and Germany, finding the recently published 'History of Woman Suffrage' most valuable, so she informs me, in her study of the question in the first-named country; Miss Jenny Hirsch, secretary of the admirable Lette Society of Berlin, gave an account of the work accomplished by her society to ameliorate the educational and industrial condition of women; Miss Julie Willborn, of Schwerin, read an essay on the scientific education of women teachers; Miss Menzzer, of Dresden, spoke upon the important topic of woman's work and wages; Miss Assman, of Hanover, discussed woman's position as a citizen; Mrs. Lina Morgenstern, of Berlin, described the Volksküchen of that city, and Mrs. Füllgraff, of Hamburg, paid a high tribute to woman's condition in the United States.

"A few words about some of the German women's rights advocates may not be uninteresting. The only one whom I know personally is Miss Marie Calm, of Cassel, and if she may be taken as a fair specimen of the others, Germany may be proud of these reformers. Miss Calm talks and writes French and English almost perfectly, is intelligent, vivacious, full of enthusiasm, speaks clearly and forcibly without notes or manuscript, and withal is a refined and cultured lady. She is in advance of most of her co-workers, but, on account of the conservative spirit of Germany, she feels bound to conceal her radical views when speaking in

public, lest their open expression might damage the cause which she has at heart. Referring to her address at the congress on the history of the woman question in Europe and America, already mentioned, she says: 'My sympathy with the suffrage movement cropped out so much that the papers called attention to it.'

" 'Mrs. Morgenstern,' writes a German friend in a private letter, 'is a pretty, plump woman, with bright blue eyes and an almost childish mouth. I once told her that I liked very much to hear her speak, but still more to hear her laugh, there is such a merry ring to her voice. She wore a beautiful broach and locket, gifts from the Empress Augusta, and also a decoration given her after the last war for her efforts in establishing eating-houses for soldiers on their way to the front. Miss Auguste Schmidt,' I learn from the same source, 'supported her mother and two sisters for a long time by teaching, she being one of many children of a Prussian officer. She is now at the head of a large seminary, beloved by her pupils and honored by all who know her. Mrs. Louise Otto Peters, though a poor orator, is a very good presiding officer, as she is thoroughly conversant with parliamentary law. She, as well as the other speakers, was dressed in black silk, and simply but elegantly attired. There was but one exception to this rule; Miss Julie Willborn, though begged to dress like the others, declined and kept her hair parted on one side!'"

THEODORE STANTON.

A LAWYER'S CHARITY.

THE Brooklyn *Eagle* recently published an incident of practical philanthropy, which is worthy of extensive circulation. The chief actor in the case is a well-known Long Island lawyer, the subject of his benevolence a vagabond boy, who had been indicted for grand larceny in the Court of Oyer and Terminer in Long Island City. This boy did not even know his own name, and never knew either his father or mother or any

relation or friend. He had drifted around for years among the farmers of Queens County, doing odd jobs and getting a meal and a night's rest where he could. His hair was long, tangled, and filthy. His face and hands were begrimed with dirt. His feet were shoeless and sockless, and a few unseemly rags were his only covering. The crime of which he was accused was the theft of a horse and wagon, the fact apparently being that the lad saw the

vehicle standing in the road, got inside and went off for a ride, imagining, perhaps, for a time that he was a wealthy farmer driving to town to collect a hundred thousand dollars or two for produce. He was caught, taken to jail, and indicted for grand larceny.

On Wednesday, when the poor little beggar was brought into court, lawyer Mott was there, and, when he saw the young prisoner, his heart was touched. Under the patches of dirt on the boy's face the worthy man saw lines of intelligence. The eye was bright and the movements were quick. The boy said he was 16 years old, but it was plain that he was barely 12, and knew no more of his own age than he did of the reign of Ptolemy. Mr. Mott went up to the prosecuting attorney and said :

"Downing, give me this boy."

"Give him to you," exclaimed Mr. Downing, "why, he's to be tried for grand larceny."

"Never mind that," replied Mr. Mott ; "I'll take him and make a man of him."

"That won't do," Mr. Downing said ; "he'll have to go to the House of Refuge."

"Not until he has been tried and convicted," said Mr. Mott ; "if he is to be tried, I appear for him."

The lad was remanded for the day, and again appeared in court on Thursday. Mr. Mott repeated his request to be allowed to take the boy.

"Don't make any mistake," said Mr. Mott ; "I'll take care of him. I've got eight of my own and another mouth won't make much difference."

The matter was referred to the Judge, and he, satisfied that Mr. Mott would do as he said, allowed the boy to go on his own recognizance.

The next morning Mr. Mott saw that the boy was thoroughly cleansed from head to foot and his hair cut. Then a complete suit of clothing transformed him into another being. Mr. Mott went to Mr. Downing's office, taking the boy with him. Mr. Mott has a son named John, and the lawyer practiced a pious fraud on Mr. Downing.

"Downing," said he, "this is my boy John."

"Glad to see you, John," said Mr. Downing, adding aside to Mr. Mott, "He's a mighty smart-looking boy."

"Ye-es," said Mr. Mott, "he is. Don't you remember seeing him before?"

"No, I can't say that I do," Mr. Downing replied.

"Well," said Mr. Mott, "this is the boy you indicted for grand larceny and wanted to send to the House of Refuge."

Mr. Downing was astonished and gratified as well. That evening Mr. Mott took the boy home with him. He behaved like a gentleman. When bedtime came Mr. Mott led him to a small room which he had prepared for him, and left him there. Soon afterward Mr. Mott went back to the boy's room and glanced in.

The little fellow was kneeling by the bedside praying aloud. As Mr. Mott described this scene his eyes were filled with tears.

"I heard him praying for me and my wife and children," said Mr. Mott, "and I never felt so happy in my life."

Next morning the boy was around attending to the cow and the horses before any one else was up. Mr. Mott told him he had a man to do that, but the boy said he liked to do it, as he had done it often for the farmers. On Sunday morning the lad was around early again and attended to the cow and horses as before. After breakfast he dressed himself and went to church with the family. This morning he was up earlier than before, and long before nine o'clock had finished everything and dressed himself.

"You have got through early," said Mr. Mott.

"Yes, sir," the boy answered ; "I'm going to Sunday-school with the boys."

It may not be often that a homeless, dirty, ragged boy exhibits such characteristics of head and heart ; it is certain that few such boys have the opportunity. We would, for their sakes, that there were more practical benefactors like the Long Island lawyer.



PHTHISIS PULMONALIS OR CONSUMPTION.

PHTHISIS pulmonalis, or consumption, is one of the most fatal and most common diseases that afflict our people. It prevails in nearly every part of our country. It has been estimated that one-fifth of all the deaths that occur in New England are due to this disease. If small-pox, cholera, or some other disease should produce as large a number of deaths for even one year, there would be a fever of public excitement and loud calls for the adoption of efficient sanitary measures and for the enforcement of all available means of checking the ravages of the disease. Consumption, however, goes on year after year, making its fearful inroads upon the lives of our people, consigning them to their graves by the thousand, and yet not a ripple of excitement is created, no call is made for sanitary measures to check its ravages, and everybody seems to regard human agency as powerless before the fell destroyer.

It is proposed to make some inquiries into the nature and causes of consumption, the means of prevention and cure, with a view of determining whether necessarily our people should hold themselves powerless in combating or opposing or dealing with this disease.

IS CONSUMPTION CURABLE?

A query which meets us at the outset is, Is consumption curable? The popular

opinion is, that after the disease becomes well established, there is no hope of recovery, and only a small chance even in the earliest stages of the disease. If it is announced that a person has consumption, his cure is at once considered to be hopeless, and his death is regarded as only a question of time. By the medical profession, up to a comparatively recent date, consumption was regarded as not only a very dangerous disease, but also as one which was uniformly fatal. If a recovery in any case took place, the physician regarded it as either a fortuitous result brought about by nature, and not due to treatment, as is evidence that a mistake was made in the decision as to what the disease was. Andral, a celebrated French physician, who lived during the first half of the present century, said: "No fact demonstrates that phthisis (consumption) has ever been cured, for it is not art which operates in the cicatrization of cavities; it can only favor this at most by not opposing the operations of nature. For ages remedies have been sought to combat the disposition to tubercles, or to destroy them when found; and thus innumerable specifics have been employed and abandoned in turn, and chosen from every class of medicaments."

So far as drugs are concerned in the cure of consumption the words of Andral are still true. No drug has yet been discovered which is potent enough to cure

the disease, and there is no probability that there ever will be one found. Its cure is not to be sought by such means. Louis, another well-known French authority, in his admirable work, while admitting that a cure might rarely take place, points out that in such cases the disease must be limited in extent and the result fortuitous. The recoveries which occasionally took place in no way interfered with the general view entertained of the fatal nature of the malady or stimulated medical men to endeavor to bring about a cure of the disease. A palliation of the symptom was all that was aimed at in the treatment of the disease.

At the present time it is generally admitted by medical men that consumption admits of cure in some cases, and that in many other cases life may be considerably prolonged by judicious treatment. Dr. Carswell, an eminent English physician, who spent many years in examining consumptive cases, and made numerous examinations of the lungs after death, makes use of the following strong and decided language: "Pathological anatomy has, perhaps, never afforded more convincing proof of the curability of disease than it has in that of tubercular consumption." In another place he says: "The important fact of the curability of consumption has been satisfactorily established, and its perfect cure demonstrated by scars in the lungs."

Dr. Evans, another English author, who for many years had an extensive practice in lung affections, says: "I promise you that by pursuing a proper line of treatment, you will be enabled to cure many cases of consumption in *every* stage." In commenting upon this statement, one of the editors of the *London Lancet*, which stands at the head of medical publications, said: "On this point we entirely agree with the author; that recovery from phthisis pulmonalis is much more frequent than is generally supposed, is an opinion daily gaining ground. There is necessarily nothing malignant or fatal in tubercle itself, and by treating the constitutional disease, its further disposition may be checked."

That numerous cases of consumptive disease of the lungs have been cured has been conclusively proven by the results of post-mortem examinations. Dr. J. Hughes Bennett, an eminent English authority, says: "The careful post-mortem examinations now made with such regularity in our large hospitals have demonstrated the frequent occurrence of old condensations, cicatrices, and calcareous concretions at the apices of the lungs in persons of advanced age, who have died of other diseases. In 1845 I pointed out that in the Royal Infirmary of Edinburgh they occurred in the proportion of from one-fourth to one-third of all the individuals who died after the age of forty. Roger and Boudet had previously shown that at the Salpêtrière and Bicêtre hospitals in Paris, amongst individuals above the age of seventy, they occurred in one-half and in four-fifths of the cases respectively. There can be no doubt that these cicatrices and concretions indicate the healing and drying up of cavities and softened tubercular matter of some previous period in the life of the individual, and the consequent spontaneous cure of the disease in a considerable number of persons." In view of the facts adduced, authorities cited, and the large mass of other testimony which might be produced, it must be admitted that consumption is curable.

CAUSES OF CONSUMPTION.

In dealing with any disease, it is important to understand the causes of it. In case the cause is still in operation, the first requisite of cure is that it be removed. The causes likely to produce a disease being known, those who have a care for their health are often enabled to avoid the causes and escape the disease. "Prevention is better than cure, and far cheaper," remarked John Locke more than two hundred years ago, and his remark is as true to-day as when he uttered it. The breathing of impure air is one of the most prolific causes of consumption. Those people who live in the open air or tents, where there is free circulation of air, are seldom affected with this disease.

"The Bedouins," it is said, "who live in the open air all day and sleep in tents, where ventilation is provided for, are entirely exempt from consumption." The inhabitants of the Hebrides Islands, off the west coast of Scotland, are exempt from this disease, while the rest of Scotland is desolated by it. An explanation is found in the fact that the inhabitants of these islands live in houses so constructed as to be permeated by a ceaseless interchange of air—that is to say, of the house air with the outer air—by reason of having a constant hearth fire and a hole in the roof. Thus it happens that the air is never—day or night, winter or summer—for a moment stationary; and thus, too, it is that the inhabitants never re-breathe, or possibly can re-breathe, their own pulmonary excretions."

Wherever persons are confined in close work-rooms or sleeping-rooms, and obliged to re-breathe the air from their own lungs, consumption is found to be prevalent. Animals, when closely confined for a considerable period of time, and especially if several are kept in the same apartment, are affected with this disease. Many of the wild beasts carried about the country for exhibition in the menageries, fall victims to it. Tenement-houses, where many persons are crowded together, are hot-beds for the production of this disease. The nearer air-tight the houses are, the worse it is for the tenants. Dr. Beddoes says: "I am informed that in a certain Highland district (in Scotland), where the proprietors have exerted themselves to build decent and air-tight dwellings for their tenants, instead of any improvement of health resulting, consumption, formerly uncommon, became very rife and deadly." The disease is scarcely known among savage races of men. Savages have no "comfortable houses," and consequently are pretty freely supplied with pure fresh air, and are not troubled with consumption.

DAMPNESS AS A CAUSATIVE INFLUENCE.

Dampness seems to exert a considerable influence in the causation of con-

sumption. Where impure air is added to dampness, the tendency to the disease is aggravated. The humidity of the climate of England increases the mortality from tubercular diseases, one-third of all the deaths being caused by them. In 1854 the Massachusetts Medical Society appointed a committee to investigate the origin of consumption. Among the questions sent out to physicians in all the towns of the State were two relating to the influence of locality. From the replies received, the committee were obliged to draw the following conclusions: Consumption is very unequally distributed in New England. Some places enjoy a very great exemption from its ravages, if not quite as much exemption as any portion of the globe can claim. There are some spots, even some particular houses, which are frightfully subject to it. The cause of this unequal distribution of the disease is intimately connected with, and apparently dependent upon, moisture of the soil on or near which stand villages or houses in which consumption prevails. These conclusions have since been confirmed by observations in Rhode Island, Vermont, Maine, New York, and other States. English investigations have also confirmed the same conclusions. Investigations carried on under the direction of the British Government, brought to light the important fact that in towns which had been thoroughly sub-drained, and thus been made comparatively dry, instead of having a soil permeated with moisture, there was a marked diminution in the number of deaths by consumption, in some instances to the extent of one-half.

Dr. Henry J. Bowditch says that "there are from twice to three times as many deaths from consumption in the wet places of New England as in those that are dry; and that generally in proportion to the amount of dampness of the soil is the tendency to death by consumption." Dr. Bowditch further declares that there are homesteads in Massachusetts, in damp locations, in which two or three generations have been cut down by

consumption—and more will be cut down unless the cause is removed; while other homesteads, in dry locations, not more than a quarter of a mile distant, have been exempt from the disease. The doctor relates the instance of two healthy brothers, who married two healthy sisters. Both had large families of children. One lived upon the old homestead, situated upon a beautiful and well-drained hill, where the house was bathed all day in sunshine, and not one of the children was touched by consumption. The other brother placed his house a short distance off, but upon a grassy plain, covered all summer by the rankest verdure. In front of the house was a large open "common," in the center of which water oozed up from between the split hoofs of the cows as they came home at evening. Back of the house was a large level meadow, reaching to the very foundations of the buildings. Through the meadow slowly flowed the mill-stream of the adjacent village. Further back these surroundings were inclosed by lofty hills, which kept from the house the rays of the sun in early morning and toward sunset. The house was chilly and damp most of the time. Not one of the children escaped the fell destroyer; affording a striking illustration of the causative influence of dampness in producing consumption.

PERVERSION OF NUTRITION AS A CAUSE.

In all cases of consumption there is a marked perversion of nutrition. Whether this state is to be regarded as a cause or result of the disease, is not fully settled. That it may sometimes be a result is quite possible, and that it is often a cause is evident. The perversion of nutrition may be caused by breathing impure air, by living in a damp location, by improper food, by imperfect digestion of food, by overwork, by anxiety, and by various influences. Whatever may be the cause of this perversion of nutrition, it involves a serious derangement of the digestive process. In this connection, a good authority remarks that "all food essentially

consists of albuminous, fatty, and mineral constituents, which are reduced in the alimentary canal to a fluid condition by the mechanical triturating action of the teeth, jaws, and stomach, as well as by the chemical solvent action of alkalines and acid juices. An observation of the peculiar dyspepsia which so frequently accompanies tubercular disease will satisfy the observer that it depends upon excess of acidity in the alimentary canal, which favors the solution of the albuminous and mineral elements of our food, but is opposed to the emulsionizing of fat. It has consequently been attributed by Dr. Dobell to diminished secretion from the pancreas. In youth the indisposition to eat fatty substances is well marked; and among the ill-fed poor it is fat which is the most costly ingredient of food. In either case it is the non-assimilation of the fatty elements of food and their diminution in the blood, while the albuminous elements are comparatively in excess, that gradually interferes with nutrition. The molecular basis of the chyle is impoverished, the elementary molecules so necessary for the formation of healthy blood corpuscles are diminished, the liquor sanguinis consequently is poor in fat and rich in albumen; the entire growth of the constitution, as a result, so affected, and its powers rendered weak; lastly, when exudations do occur, more especially in the lungs, they are of an albuminous character, exhibit slight power of transformation into cells, and only produce that slow abortive nucleus material which is called "tubercle."

This theory of the nature of the perversion of nutrition and the production of disease in the lungs seems the most reasonable of any proposed, and very well explains the phenomena observed.

THE PREVENTION OF CONSUMPTION.

The prevention of consumption depends largely upon an avoidance of the causes which produce it. The breathing of impure air, living in damp locations, and impaired digestion from whatever cause

produced, may be regarded as the prominent causes of the disease. The breathing of impure air must be guarded against by providing thorough ventilation of houses, and all places where persons are required to stay hour after hour, and it is desirable to be as much as possible in the open air. The most of our houses are built as nearly air-tight as the carpenter can make them, with little or no provision for ventilation, and the sleeping-rooms are small and often occupied by two persons, perhaps with doors and windows closed. If the location of the house is damp, the ground should be thoroughly drained, or else abandoned for a dry situation. In purchasing houses, particular regard should be given to securing a dry and healthful location. To guard against perversions of nutrition, careful attention should be given to the diet, and all the rules of health well observed.

THE CURE OF CONSUMPTION.

The cure of consumption is not to be sought in drugs. A long and fruitless search has been in progress for hundreds of years, and is still going on, to find a drug that will cure consumption. None has been found, and none ever will be found. Yet hundreds of persons have been cured of the disease—not always by physicians—often without any aid (hindrance) from drugs. The first step in the cure of the disease is the avoidance of the causes. Pure air is an indispensable requisite. Many have been cured in an advanced stage of the disease by passing most of their time outdoors, engaged in some light employment. The consumptive must not allow a fear of the weather to keep him within doors. He must protect himself from the weather by sufficient clothing, and go out and keep out in nearly all kinds of weather. The disease is sometimes arrested, and comparative health restored, when nearly one-half of one whole lung has been destroyed. Numerous cases might be given where recovery took place in a more or less advanced stage of the disease. One

or two instances must suffice. Dr. James Norcum, of Edentown, N.C., who had been seriously ill with the disease for a year, was on that account, in February, 1813, discharged from his position as surgeon in a United States regiment. He then commenced the practice of his profession, and continued to attend to the most laborious duties of it at all times of the day and night, in rain, hail, snow, storms, and sunshine, whenever he was called, for eighteen months. Of his condition then he says: "At the end of that time, I had lost my hectic fever, night sweats, purulent expectoration, and my cough had nearly left me; my chest had recovered its capacity of free and easy expansion, and the ulcers in my lungs were entirely healed." Dr. Norcum lived till 1850, when he was killed by an accident. Dr. Norcum related the case of a man who, by riding ten miles a day on horseback in 1810, was cured of consumption, and was free from the disease twenty years later. "A. P.," a lawyer-poet of some renown, a native of New England, was a sixth child. His parents had both died of consumption, and all his brothers and sisters, as they approached the age of twenty-one, paled away and died of the same disease. In his twentieth year he began to grow feeble, and, expecting the same fate as the rest of his family, he went to Arkansas, lived a hunter's life, camped out for weeks and months together, and at the end of twenty years was in perfect health. Outdoor life, in elevated and dry regions, is more beneficial than in damp locations.

In the treatment of consumption, the improvement of the nutrition of the body is very important. One reason why outdoor life proves so beneficial is, that it improves the nutrition as well as purifies the blood. Special attention is often required to insure the digestion and assimilation of fatty elements of food. Cod-liver oil may be of much benefit, being peculiarly well adapted by its composition to digest easily and afford the nutriment most needed in such cases. The general nutrition of the body must

be well attended to, and all the laws of health carefully observed.

In conclusion, it may be said that the curative treatment of consumption consists in keeping the patient moderately active, in the open air, in elevated or dry

locations, and in careful attention to the proper nutrition of the system. The consumptive, if able to go about, should never give up and confine himself to the house. His only hope is in an outdoor life.

HENRY REYNOLDS, M. D.

NEW ORLEANS AND YELLOW FEVER.

NOTWITHSTANDING the prolonged and exceptional heat of the summer of '81, this largest of the gulf cities escaped a visitation of the dreaded scourge, yellow fever. With reference to this really extraordinary matter, and the probable reasons for it, an interesting paper was read by Prof. Stanford E. Chaille, a medical practitioner in New Orleans for more than twenty-five years, and one of the most celebrated authorities on yellow fever, before the New Orleans Auxiliary Sanitary Association, September 22d, in which he stated that :

"Not only has no death from yellow fever occurred, but no case; not only no case, but no suspicious case; and not only no suspicious case, but no alarming rumor of one. All this is so extraordinary that, during the past sixty years at least, there has been only one year, 1861, in which no death by yellow fever was recorded. In January of this solitary year of exemption, Louisiana seceded from the United States, and its coast was soon thereafter blockaded. When this extraordinary concurrence of the blockade and of our exemption from yellow fever in 1861 is associated with the facts that New Orleans escaped yellow fever, as is alleged, in 1808, and in 1812-1815, when the Embargo Act and the war with Great Britain suspended its commerce, that there were no epidemics here in the civil population during the four years of our recent war, and that there has never been greater quarantine vigilance than this year, the conclusion can not be escaped, that those have strong evidence in their favor who contend that efficient quarantines serve, at least, to greatly reduce

our numerous annual risks of infection.

"To what cause has our total exemption this year been due? Has it been due to luck, including in this all causes which we can not or have not controlled? or, has it been due to such improved local sanitation as the great extension this spring of your valuable measure, which causes fresh water to flow daily through those streets perpendicular to the river? or, has it been due to increased quarantine vigilance? While strong arguments can be adduced in favor of luck, I prefer to call your attention to my conviction that the 'Lord helps those who help themselves,' and that inasmuch as we have done something to protect ourselves, we have in a measure deserved our luck. It is my belief, after thirty years' experience, that our local sanitation, notwithstanding many and grave deficiencies, was never, on the whole, as good; that official sanitary organizations were never more vigilant and active; and that never before had these officers both the power and the will to execute so efficient a quarantine. But not one of these means for protection is perfect, and if this community would enjoy continued exemption from yellow fever, it must vigorously persevere to perfect all protective measures. Thus alone can we deserve success, thus alone can we command, in case of failure, the sympathy, confidence, and, if need be, the aid of our neighbors."

This year has proved that New Orleans need not annually either originate or import yellow fever. That city is now free from this poison, and, therefore, can be kept free more readily than heretofore.

MILK AS AN ARTICLE OF FOOD.

THE views of a writer in one of our exchanges, *Food and Health*, a publication devoted mainly to the interests of the trade in food materials, are deserving of general consideration, and we take the liberty to print them here. Substantially they are in harmony with the opinion of the more advanced hygienists, who regard milk, as commonly used, an *artificial*-product, and unsuitable for healthful nutrition:

"Milk, on a rough calculation, contains in one hundred parts:

Albumenoids.....	4.5	Salts.....	0.5
Fat.....	4.0	Water.....	87.0
Lactin.....	4.0		
			100.0

"This combination supplies food *and* drink, and in simple modes of life is one of the most precious nutriment man possesses.

"Milk is a condensed food, for it has already undergone a digestive process before it is partaken. Its power of nutrition depends, however, on its digestibility. To us it appears that the constituents of milk make it most precious for the very young, the growing, and the old. Nature indicates this. The fibrous textures of food are wanted when growth is completed and has to be maintained, and nutriment is then required in different proportions to those which milk gives. An English physician has lately given it as his opinion, that the least quantity which a family of five should daily consume would be five quarts, and not less than a quart daily to a child. 'If this, or anything approaching it, were the rule and not the exception,' says Dr. Duckworth, 'the disease of rickets in its manifold phases would be completely banished from this country, and a much higher standard of health and robustness would unquestionably prevail.'

"Now we believe that a good deal that is said about milk is said on the face of it, and that no deeper inquiry into the physiological formation of milk has ever been made. We believe milk to be a principal necessity from birth to the age

of three or four, to be useful to the age of fifteen, and from sixty downward. During the between range a small quantity is sufficient to satisfy the required needs, and we believe that it is not a principal food throughout life.

MILK A PRODUCT OF THE ARTS OF MAN.

"Since we have commenced our researches into the chemical and physiological value of food, many a food substance has in our mind taken a different form to the one which it maintains popularly, even among scientific men. These views of ours can only be developed gradually. The milk of our day, drawn from cows, is not a product in the course of nature, but one which we force from the cow by art. We were glad to see lately that this is understood by *some*, and to find it stated that 'the cow in its natural state gives as much milk as will keep a calf about two months, then for four months as much as will partially sustain it; after that it takes care of itself. On the other hand, the cow which art has produced gives as much milk for four months in the year as will support four or five calves, and for five months more as much as would support three, two, and one.'

"Different breeds have different milk-giving qualities, just as man has induced them. With some breeds food goes into milk, with some into fat and beef. But it is art more in the former than in the latter case. The Durhams, Herefords, Ayrshires, Jerseys, Guernseys, and Alderneys are deep milkers, but are not equally turned into beef. Now this milk is not a natural product, and we say to a certain extent unhealthy, and no food product is so delicate, so easily contaminated, so quick in the transmission of disease, as milk. It attracts every particle that may float about, and transmits it to the consumer. If there exist a disseminator of disease it is milk. Its pure state is an absolute necessity, if it is to be a healthy aliment.

"We wish here to give our emphatic opinion, that the unnatural flow of milk in all mammals is unhealthy, that of the human mother as well as the cow, and that particularly that milk is unhealthy which is given by a mammal when again in a breeding condition. Now cows are made to produce milk up to a short time before calving, and so drained of their natural support. They not only give unhealthy milk, but produce unhealthy flesh in their offspring. Man partakes of both, and partakes of unhealthy food substances.

"Here are some of the sources of disease which our own shortsightedness produces.

"We say that it is better not to partake

of milk than to take unhealthy milk, and most of our milk is unhealthy, for the reasons just stated. Chemical analysis can not always detect those physiological conditions which determine the healthiness of food products, but we are quite sure every philosophical chemist will be on our side.

"A time will come when our idea will be understood, and when scientific men will decry the practice of producing milk by artificial means; when milk will be used mostly for the young only, and when the danger to human life will be considered in sustaining it on an unnatural product."

THE NOSTRUM FALLACY.

WHEN a child complains of headache, lassitude, or want of appetite, the nurse concludes that he must "take something." If the complexion of a young lady grows every day paler and pastier, her mother will insist that she must "get something" to purify her blood. If the baby squeals day and night, a doctor is sent for, and is expected to "prescribe something." What that something should be, the parents would be unable to define, but they have a vague idea that it should come from the drug-store, and that it can not be good for much unless it is bitter or nauseous. Traced to its principles their theory would be about this: "Sickness and depravity are the normal condition of our nature; salvation can come only through abnormal agencies; and a remedy, in order to be effective, should be as anti-natural as possible." But Nature still persists in following her own laws. Her physiological laws she announces by means of the instincts which man shares with the humblest of his fellow-creatures, and health is her free gift to all who trust themselves to the guidance of those instincts. Health is not lost by accident, nor can it be repurchased at the drug-store. It is lost by physiological sins, and can be regained only by sinning no more.

Disease is Nature's protest against a gross violation of her laws. Suppressing the symptoms of a disease with drugs means to silence that protest instead of removing the cause. We might as well try to extinguish a fire by silencing the fire-bells; the alarm will soon be sounded from another quarter, though the first bells may not ring again till the belfry breaks down in a general conflagration. For the laws of health, though liberal enough to be apparently plastic, are in reality as inexorable as time and gravitation. We can not bully Nature, we can not defy her resentment by a fresh provocation. Drugs may change the form of the disease—*i. e.*, modify the terms of the protest—but the law can not be baffled by complicating the offense: before the drugged patient can recover, he has to expiate a double sin—the medicine and the original cause of the disease. But shall parents look on and let a sick child ask in vain for help? By no means. Something is certainly wrong, and has to be righted. The disease itself is a cry for help, but not for drugs. Instead of "taking something," something ought to be *done*, and oftener something habitually done ought to be *omitted*. If the baby's stomach has been tormented with ten nursings a day, omit six of them; omit

tea and coffee from the young lady's *menu*; stop the dyspeptic's meat-ration, and the youngster's grammar-lessons after dinner. But open the bedroom windows, open the door and let your children take a romp in the garden, or on the street, even on a snow-covered street. Let them spend their Sundays with an uncle who has a good orchard; or, send for a barrel of apples. Send for the carpenter, and let him turn the nursery or the woodshed into a gymnasium. In case you have nothing but your bedroom and kitchen, there will still be room for a grapple-swing; the Boston Hygienic Institute has patented a kind that can be fastened without visible damage to the ceiling. If the baby won't stop crying, something ought to be done about it. Yes, and as soon as possible: remove the strait-jacket apparatus, swaddling clothes, petticoat, and all, spread a couple of rugs in a comfortable corner, and give the poor little martyr a chance to move his cramped limbs; let him roll, tumble, and kick to his heart's content, and complete his happiness by throwing the paregoric-bottle out of the window.—DR. OSWALD in *Popular Science Monthly*.

HOW VOLTAIRE CURED THE DECAY OF HIS STOMACH.—In the "Memoirs of Count Segur" there is the following anecdote: "My mother, the Countess de Segur, being asked by Voltaire respecting her health, told him that the most painful feeling she had arose from the decay in her stomach, and the difficulty of finding any kind of aliment that it could bear. Voltaire, by way of consolation, assured her that he was once for nearly a year in the same state, and believed to be incurable, but that nevertheless a very simple remedy had restored him. It consisted in taking no other nourishment than yolks of eggs beaten up with the flour of potatoes and water." Though this circumstance concerned so extraordinary a person as Voltaire, it is little known, and very rarely has the remedy,

simple and dietetic as it is, been practiced. Its efficacy, however, in cases of debility, can not be questioned; and the following is the mode of preparing this valuable article of food as recommended by Sir John Sinclair: Beat up an egg in a bowl, and then add six tablespoonfuls of cold water, mixing the whole well together; then add two tablespoonfuls of farina of potatoes; let it be mixed thoroughly with the liquid in the bowl; then pour in as much boiling water as will convert the whole into a jelly, and mix it well. It may be taken alone or with the addition of a little milk, or perhaps subacid fruit jelly that is but slightly sweetened, in case of stomachic debility or consumptive disorders. The dish is light and easily digested, and nourishing. Bread or biscuit may be taken with it as the stomach gets stronger.

OUR DAILY RECKONING.

If you sit down at set of sun
And count the acts that you have done,
And counting, find,
One self-denying act, one word
That eased the heart of him who heard;
One glance most kind,
That fell like sunshine where it went,
Then you may count *that day well spent*.

But, if through all the livelong day
You've cheered no heart by yea or nay:
If, through it all,
You've nothing done, that you can trace,
That brought the sunshine to one face;
No act most small,
That helped some soul, and nothing cost,
Then count *that day as worse than lost!* *Ex.*

KNOWLEDGE, truth, love, beauty, goodness, faith, alone can give vitality to the mechanism of existence. The laugh of mirth that vibrates through the heart—the tears that freshen the dry wastes within—the music that brings childhood back—the prayer that calls the future near—the doubt which makes us meditate—the death which startles us with mystery—the hardship which forces us to struggle—the anxiety which ends in trust—are the true nourishment of our natural being.—JAS. MARTINEAU.

NOTES IN SCIENCE AND AGRICULTURE.

The Panama Canal.—M. De Lesseps, the President of the American Branch of the Panama Canal Company, issued a statement a while ago on the condition of the work. From this it appears, that notwithstanding the obstacles encountered in the luxuriant vegetation and the thick forests, there has been opened and recorded transversely to the axis of the canal over 200 kilometers of paths, and also a passage from 20 to 30 meters has been made from one end of the Isthmus to the other, according to the proposed lines of the Canal Commission. For meteorological studies, to which especial attention has been given, four stations have been established—at Colon, Gamboa, La Boca del Rio Grande, and Naos Island. Geological surveys have been made and are now in progress. It has been ascertained that between Colon and Lion Hill the canal will not encounter any rocks. At the present time two steam-sounding apparatus are being put up similar to those at Colon. At this station the samples brought up by the spoons have given an exact structure of the soil. It is shown to be a succession of layers of clay, representing the degradations of a greenish pyroxenic rock, which through its gradual degradations and decomposition has produced this formation. At other places the ground, bored to a depth of 25 meters, has revealed nearly every way, instead of successive formations methodically arranged, a chain of derived rocks growing softer and softer. The thickness of the mellow soil is quite remarkable, and, in a word, the soundings have given results beyond expectation on the whole line of the canal. The company now have 200 cars, 12 locomotives, 2 pontoons, 2 steam cranes, 13 flat-boats, 2 dredges with change pieces, ribbon saws, rails, etc., a part of which is already at Colon and the remainder is on the way. The store-houses at Colon cover an area of 1,400 meters, and are full. Five barges and two steamboats are plying upon the Chagres River. Another steamboat at Panama is used for hydrographic surveys of the bay.

For the Observation of Mental Phenomena in Young Children.—A correspondent writes us the following :

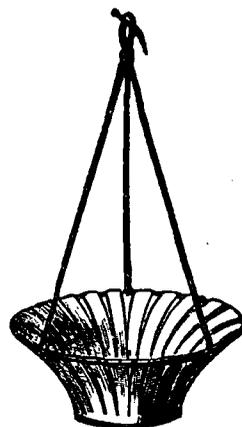
PARIS, October 26, 1881.

DEAR EDITOR : In your excellent monthly for October is an editorial entitled "A New Boy Science," which suggests to me a little book not as widely known in America as it ought to be. I refer to "The Mother's Register," the admirable creation of a Frenchman, Professor Fonsagrives, of Montpellier, which, if faithfully written up by parents, would not only furnish invaluable data for a baby science, but would prove an interesting and precious history of the development of the children of every household. The little

work has been translated into English, and may be obtained, at the office of the New York Nation, now the weekly edition of the Evening Post.

Very truly yours,
THEODORE STANTON.

Converting Old Cans to Use.—One of the eye-sores of village and country life is the accumulation of discarded tin cans in the back-yards and on the public wayside. In the city, the emptied tin can which previously held fruit or condensed milk, fluid chocolate, or boned turkey, may be turned over to the disposition of the ashman, but in the leafy suburbs it is likely to be cast out and lie around loose. In the *American Farmer* we find a good suggestion on utilizing these waste products of latter-



day civilization, and give it to our readers. The accompanying illustrations show how the can is to be treated. One simply removes the top by heating it, then cuts the cylindrical body into strips about three-fourths of an inch wide to near the bottom. Then take a strong wire, and with a hammer and a wooden block bind the end of each strip over the wire at equal distances apart. Painted a bright red, with pretty moss and some simple vines or choice flowers, and suspended by wires, the old can is converted into a feature of home attraction.

Metaline.—For twenty years or more, "anti-friction" metals, as they are called, have been used more or less in machinery for the purpose of increasing speed and reducing wear, and the tendency to heat up. Metaline is an improved composition of the kind, and it is claimed that no oil whatever is required when it is used. Indeed, metaline has been used for some years on both heavy and light machinery, on railroad car journals, locomotives, etc., etc., down to the smallest spindle, and however heavy the bearings or rapid the motion, these can be run more steadily, with less friction, and therefore less heat, and much more economically without oil than with it. When once

applied, metaline requires no attention; is free from dirt and smell, and is inexpensive and very durable. Its application to sewing-machines is one of its best features; and yet we are told that the great manufacturers are reluctant to employ it because the owners of the patent refuse to sell their rights or permit any monopoly of its advantages. The Metaline Company is prepared to receive orders for the application of metaline to sewing-machines, and the satisfactory results already achieved justify the expectation that the time is not far distant when no sewing-machine, either in family or factory, will be tolerated that has not this invaluable improvement as part of its composition.

Peculiar Eyes.—White hair and pink eyes are said to be the peculiarities of two children of Mr. and Mrs. Franklin Rix, of Franklin Township, Polk County, Iowa. One is four years old and the other two. While they are compelled to wear goggles because they can not bear the sunlight, they can see in the dark even better than in the day-time, being able to pick up a pin in a dark room.

A Hartford (Conn.) paper relates a singular circumstance connected with the eyes of a young lady sixteen years old, residing in Litchfield. She was recently confined for a few days in a dark room on account of her eyes, until one day, after a sudden and peculiar sensation, they felt decidedly better and she was taken into the light. When she entered the dark room her eyes were straight and natural; she was now cross-eyed; but the most singular thing is the asserted fact that when she closes the right eye she can see to a distance of eight or ten miles with the left eye, and distinguish objects as though they were within the ordinary range of vision. The distant hills appear to be brought closer as if by a telescope. On the other hand, when she closes the left and uses the right eye for vision it appears to be a microscope. The point of a needle looks like a blunt piece of iron, and so with everything near by. But when both eyes are open they assume the cross-eyed expression and she sees everything naturally as other persons see.

Dr. Arthur Mitchell, a prominent gentleman of Edinburgh, and one of the Royal Commission of Lunacy for Scotland, has made some interesting discoveries in the Hebrides, Shetland, and Orkney Islands. He found people there who could read and write, using stone and bronze implements, pounding their grain in hollow stones, using a stone fly-wheel for their spindles, living in bee-hive huts built without the aid of a hammer; and he even found cave-dwellers who would (if dead and exhumed) pass for good specimens of the bronze age. The fact appears plain, that all the so-called "ages" are current on the earth, and were, it seems reasonable to think, when certain recently discovered deposits were made in the earth.

It is becoming more and more apparent that the so-called Stone, Bronze, and Iron ages were—as such cases as the above show them now to be—contemporaneous. The simple fact is that the "ages" are getting pretty well "mixed," and are existing side by side to-day, as doubtless they were when those recently discovered deposits, about which we have heard so much, were made.

Deep Fall Plowing.—I. N. Stone, writing to the *Fruit Recorder*, says: "Seven years ago I had one acre of ground which I wished to set to strawberries the following spring, and knowing that there were a great many white grubs in every tont of it, concluded to plow in deep, just before winter set in. I commenced one afternoon and plowed one-fourth of it; a hard breeze at night kept me from plowing the balance until spring, when I finished plowing the piece and set it to strawberries. The plants on the fall plowing were not disturbed at all by the grub, while those on each side were nearly all destroyed by them. Since then I have adopted the plan of plowing fruit ground just before it freezes up for winter, and have not had any loss from grubs and cut-worms."

On Transplanting Trees.—Mr. Meehan, in the last *Gardener's Monthly*, reviews some of the many practical things brought out in experience on this subject. He says:

"It is now established beyond all question that a tree or shrub, taken out of a poor soil, will not bear transplanting as one that has been well fed. For instance, if five years ago two Norway spruces were planted, both of same age and in soil both just alike, but one should receive no manure for all that time and the other have a little manure every year, the chance of success in removal will be very much in favor of the well-fed tree. Numbers of trees with good roots and well planted, die after removal simply from a weakened constitution brought about by poor living.

"Another capital fact of practical value to transplanters has been developed, and which is only just now becoming well known. It has always been understood in this country that a transplanted tree is safer from being pruned, but the pruning generally consisted of shortening in all the branches, strong as well as weak. But it is now found that the tree should not be shortened in, but merely thinned out. All the weaker branches should be cut out and the strong ones left. Any extensive planter who has read of these things in our pages will have saved his subscription price a hundred times over.

"And then there is the practice becoming now better known than others also first learned through our pages, that it is not possible to pound the earth too tight about a transplanted tree. It is not possible to avoid all risks in transplanting. The art will never be so perfected that some will not die; but year by year we are learning; and mortality,

where all the good conditions can be controlled, will be less than ever before.

"Another thing may be remembered, that trees die in winter from drying out. Therefore give the roots all the chances you can to heal and grow before cold drying winds and frosts come. One of the best of these chances is to plant early. Plant as soon as you can after the fall rains come. It makes little difference whether the yellowed leaves have all fallen or not."

The Cancer Remedy.—In the October No. of the PHRENOLOGICAL JOURNAL a statement was given of the successful treatment of a case of epithelial cancer of many years' standing with a preparation of oxalis acetosella, or wood sorrel. The subject of the treatment, a Brooklyn physician of high reputation, reported the case fully to the County Society, and the incontrovertible fact, as set forth in that report, was given to the JOURNAL readers. There have been several inquiries made, and much doubt expressed, concerning the case, which could be answered only by referring correspondents to Dr. Eltinge himself; but since the October Number was issued fresh testimony has accumulated in the shape of two cases of cancer, successfully treated, as the following extracts from letters sent to the doctor will show.

S. G. Culbrett, of Henderson, Md., writes: "I went exactly as you directed, and the charred mass fell out the following Monday. It is about as large as a medium-sized chestnut. I preserved it in alcohol. It is whitish in color. It left a place larger than a twenty-five-cent piece, and in five days it came down to its original size of a ten-cent piece, and then remained that size for several days. I was a little uneasy, though it is healing slowly—a little smaller every day. It is not larger than the nail of my little finger now. It is three weeks since I put the first plaster on, and I think in another week it will be entirely well."

An officer of the regular army stationed at Fort Fred Steele, Wyoming, writes: "The seared portion dropped off yesterday, just eight days and five hours after the first application, and my lip is about well, and I am so very thankful to you. I send you the seared part, so that you may judge of the original disease. . . . Three army surgeons pronounced it epithelioma, or cancer."

The editor of the JOURNAL is so favorably impressed by the method of treatment introduced by Dr. Eltinge, that he will communicate with those who may be afflicted by the dread disease with reference to its treatment.

A Compound is described for the preparation of what are termed safety envelopes. That part of the envelope covered by the flap is treated with a solution of chromic acid, ammonia, sulphuric acid, sulphate of copper, and fine white paper. The flap itself is coated with a solution of isinglass in acetic acid,

and, when this is moistened and pressed down on the under part of the envelope, a solid cement is formed, entirely insoluble in acids, alkalies, hot or cold water, steam, etc.

CHURN SLOWLY.

A LITTLE maid in the morning sun

Stood merrily singing and churning—

"Oh, how I wish this butter was done,

Then off to the fields I'd be turning!"

So she hurried the dasher up and down

Till the farmer called, with a half-made frown,

"Churn slowly!"

"Don't ply the dasher so fast, my dear,

It's not so good for the butter,

And will make your arms ache, too, I fear,

And put you all in a flutter—

For this is a rule, wherever we turn,

Don't be in haste whenever you churn—

Churn slowly!

"If you'd see your butter come nice and sweet,

Don't churn with a nervous jerking,

But ply the dasher slowly and neat—

You'll hardly know that you're working;

And when the butter has come you'll say,

'Yes, this is surely the very best way'—

Churn slowly!"

Now, little folks, do you think that you

A lesson can find in butter?

Don't be in a haste, whatever you do,

Or get yourself in a flutter;

And while you stand at life's great churn,

Let the farmer's words to you return—

"Churn slowly!"

—SARAH KEABLES HUNT.

Effect of Food on Eggs.—A Canadian observer rightly touches on this subject: "It does not require much, if any, extra understanding on the part of any one to really see how the flesh of a fowl fed on wholesome food and water should be better to the taste than those fed at random, and upon all manner of unwholesome food. This applies equally to the eggs also. Any one can test this, if he so wishes, quite easily, by feeding on slop food, or food of an unclean kind, such as swill and decaying garbage. The flesh of such fowls will quickly taint, and eggs will taste unsavory, at least to any one with an ordinary palate. Fresh air has much also to do with this matter. No flesh is fit for the table which is not allowed an unlimited quantity of pure air. If any person of ordinary discernment would consider the actual condition of highly stalled animals of Christmas and other similar times of rejoicing, he would be quite easily satisfied that although to look at the stall-fed animal, which always lacks pure air, is the fattest, yet its flesh does not agree with the stomach, as does that of the healthy, ordinary-fed animal. Some may say that the extra fat does this. I say not, for I have quite often kept account, and though I do not touch a morsel of fat, I was troubled afterward with a disordered stomach, which never happened when I partook heartily of ordinary fine beef, both fat and lean."



CHARLOTTE FOWLER WELLS, *Proprietor.*

H. S. DRAVTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
JANUARY, 1882.

OUR SALUTATION.

A NEW YEAR'S Greeting to our readers and friends, and a heart-felt wish that the twelvemonth upon which we have entered shall be rich in blessings to their "bodies, souls, and spirits."

We have in the year just ended passed through an extraordinary series of events. A frowning Providence has seemingly been the lot of the nation; calamities have fallen upon the people; in some sections there have been sickness and death, to an extent before unknown; in others the land has been swept by fires which destroyed hundreds of lives and made thousands of peaceful and industrious people homeless; in others misery and loss have descended with great rains and unexpected floods; while over a very broad extent of country a great drouth prevailed from the beginning of summer till autumn had been well advanced, and brought in its train blasted crops and ruined fields, and a gloomy winter prospect for the poor and dependent. Finally, as if the climax were reached, President Garfield was stricken down by the shot of an assassin and the whole nation made to lament the loss of one whose

occupancy of his exalted office, although brief, had given promise of much good.

But the record of suffering and loss, bad as it is, might have been much worse. Peace has reigned within and without. In certain parts of the country, notably in the South, there are evidences of growth, of the dawn of a new era. Immigration has greatly increased, and thousands of industrious and honest foreigners have weekly landed on our shores, and been absorbed as rapidly as they have come into the great commercial, manufacturing, and agricultural industries of our people. From the West and the South the cry has been maintained, Come to us; we want the help of strong arms and willing minds; the work is growing, growing, growing upon us!

The fires, the floods, and the drouth have destroyed millions, but the balance is nevertheless on the credit side; science, education, the arts have advanced; the country is better off in material wealth to-day than it was a year ago, and the heart of the nation is just as eager for work in the multitudinous industries of society as ever. Forward! The hill-tops re-echo with the call to labor. The blood of our people is up, and they are bound to go still onward in their wonderful career of progress.

Macte tua Virtute O patria! Thy sorrows are but the seasonable chastening of thy God, who would make thee strong and glorious, a noble nation zealous for true liberty and righteousness.

THE SCHOOLMASTER IN THE EDITORIAL CHAIR.—One of our exchanges recently published an item on "The Great Salt Lake," doubtless intended to supply its readers with some information con-

cerning that Utah wonder. Among other things we are told: "Four or five large streams empty themselves into it; and the fact of its still retaining its saline properties seems to point to the conclusion that there exists some secret bed of saline deposit over which its waters flow, and that thus they continue salt; for, though the Lake may be but the residence of an immense sea which once covered the whole of this region, yet, by its continuing so salt with the amount of fresh water poured into it daily, the idea of the existence of some such deposit from which it receives its supply seems to be only too probable."

We are also told by the same authority that this Lake has no outlet—a fact in itself sufficient to account for the saline character of its water, as the earthy matters brought into it by the many streams large and small have been accumulating for ages, and the process of evaporation, ever going on, has induced condensation and precipitation of those earthy matters. Hence it is altogether probable that a very considerable layer of alkaline substance forms the bottom of the Lake. The tendency of all ponds or lakes which have no outflow to become saline as a natural process appears to be unknown to the writer of the paragraph.

ON DOCTORS.

THE case of Mr. Garfield has probably done more than any other thing in the annals of American medicine and surgery to awaken the public mind to a realization of the large margin of possible mistake in the diagnosis of a physician. The wide discussion of the extraordinary error committed by a council of physicians deemed of superior ability has, we think,

accomplished much in removing that blind and almost superstitious dependence upon the wisdom and potency of the doctor, which a large class of people, intelligent in nearly everything but medicine, have been wont to exhibit.

If, it has been reasoned by such, the gentlemen who were selected to attend the chief officer of the nation, could be so misled by appearances connected with a wound as to declare a condition of things which was shown to be wide of the fact by the post-mortem examination, what are we to expect from the average practitioner who meets in his daily round symptoms and conditions of disease more or less complex and obscure? Then, too, the average practitioner is not a man of high intellectual attainments; frequently his organism is quite lacking in those qualities of close observation and keen analysis which are most essential to a prompt appreciation of symptoms.

The fact that a man has attended two or three courses of lectures at a medical school, while it somehow gives him the right to offer his services as a physician to the community, does not always render him capable of performing such services well. Too many young men, in truth the majority of those attending our popular medical schools, are without adequate preliminary training, even ignorant of the elements of natural philosophy, chemistry, and other sciences, and not well grounded in the common English branches. Several of our better known physicians have complained of this as a chief cause for much of the odium which is reflected upon the medical profession by quacks and charlatans. Dr. F. H. Hamilton advocated not long ago in an assembly of physicians the general practice of compelling those who applied for

admission to a medical school to undergo a preliminary examination as a test of fitness for the study and vocation of medicine. We know of but one institution of the fifty or more in the country where any such test is applied.

A writer in the *Christian Advocate*, not long since made some wholesome remarks respecting the enlightenment of the masses on subjects that concern health, and on the privileges of physicians; the motive, which was apparent enough and worthy, being to foster an intelligent confidence in the skill of the man who has devoted himself to the study of disease and honestly seeks to relieve the suffering and cure the sick. What was said elicited a letter from a "doctor" residing in a large city, which illustrates well what we have said above, and "points the moral" of the *Advocate* writer. We quote from the letter as follows:

"In their ignorance of the pathology or true nature of fever, as it is called, which is not the disease, but the symptom of disease only, Doctors that call fever disease remain ignorant of the cause of it. They might as well look for the cart in front of the horse. All forms of diseases are attended with more or less fever, or inflammation as it is called. The causes of fever are numerous taking cold is the most common cause. Intemperance in eating or drinking excessive exercise, whatever disturbs the equilibrium of the system. The correct way to abate a fever is to remove the cause, cleanse the system. Open the pores promote all the secretions.

"With few exceptions the fever can be broken up in a few days without reducing the system, under proper treatment. Those Doctors who say the fever must have its run, are ignorant of proper treatment, and they should be caused to run and leave the patient to nature to do the

work alone. All sedative Narcotic and depressive fashionable treatment at the present day, endangers the life of the patient, and sometimes causes the death of a member in a family. I care not what Doctors may say or people may think about breaking up fevers at the commencement, I have done it for 35 years past. Not only so I have broken up numerous cases of Typhoid fever in the advanced stage, after they were given up as hopeless cases, by councils of Doctors.

"I can give reference to a large number of the latter class. I use sanative treatment on the positive adjustive principle, To set right to adapt to suit.

"J. A. M., M. D."

The well-educated, tolerant, and experienced physician is of a far different stamp from J. A. M. He acknowledges that the processes of disease are mysterious, and in a given case is far from pretending that his opinion is infallible and his treatment just what is essential to cure. The really able physician is, like the learned scientist, modest in self-assertion; almost without a single exception this will be found to be true. Appreciative of the limitations of human wisdom, he is candid, never bigoted, and never loud in his insistence upon what he considers the proper course. Ignorance and pretension are never allied. Your good physician may not have the bluntness of the doctor who, according to an editorial in the *Boston Herald*, said to a mother: "Bring down the child, it is mostly guess-work any way, but we can guess better if we see the patient," but he will not assume to know everything, and when called to treat a grave malady his candor and earnest endeavors to do his full duty, will inspire confidence in the patient, in itself a powerful factor in successful medication.

FUNDAMENTAL PRINCIPLES.

WHATEVER affects injuriously the moral tone of a community, affects its material condition injuriously; for solid and enduring prosperity can not exist without a healthy mental status. There may be evidences of wealth, so far as warehouses filled with costly merchandise and private houses elegantly furnished and decorated are concerned, but these may be evidences only of moral decay, inasmuch as the rich merchandise and palatial mansions may be the creatures of selfishness, greed, and vanity, and only to be indulged in by a few pampered ones; while the masses of the people may be ignorant, oppressed, and lacking in the very necessities of life.

" Ill fares the land to hastening ills a prey,
Where wealth accumulates and men decay."

Rome, in the days of the Cæsars, is deemed to have been at the zenith of her power—her power as a severe and cruel mistress of conquered nations, but she was far from the zenith of her real prosperity: that had long passed away—even with the vigorous and frugal activities of her youth. The canker of luxury and the ulcer of vice were destroying the foundations of her national existence. In the midst of material splendor she was rapidly declining, because morally she was full of rottenness.

Who can regard that people happy and prosperous who tolerate any system or practice which, in its very nature, is antagonistic to every principle of virtue and physical integrity? Who can say that a community is wisely governed when individuals singly or in corporations are permitted to carry on enterprises which enslave them while they in-

ferish the majority? To-day in America wealth is apparently fast becoming the most powerful lever in political and social life. It is establishing a caste or class among us more arbitrary than the aristocracy of the old world, since its disposition is to look upon the poor not only as inferiors, but as servants or dependents. There seems to be looming up in the near horizon of our national life a grave contest—call it social or industrial, or what you will—between the rich and the poor; a struggle on the part of the former to secure what selfishness and greed have extorted from the producing classes, and a struggle on the part of the latter to escape from the tyranny of the rich, and to obtain a full recognition of their rights as human beings and citizens in a common state.

There are many questions, moral and physical, pressing for solution, and thoughtful men see in this coming struggle an effort for their adjustment, and their settlement upon grounds of justice and right will be essential to the future perpetuity of our special institutions, and to the harmony of the people.

The grand principles declared by our constitutional law have among them as a primary axiom the equality of man; and this axiom it is that like boiling lava deep within the caverns of the volcano, now and then makes the whole social fabric tremble and threatens an outburst which may destroy the whole body politic. We who have wealth and we who have power in the affairs of business or in the civil service too easily forget this axiom, and incline to regard ourselves as superior to the artisan and the private citizen and therefore, more entitled to respect and honor than they; indeed, we easily get into the habit of expecting

them to honor and obey us. We somehow incline to regard them as dependents, almost subjects, who should be very grateful for any concessions, whereas we are dependent upon their industry and practical integrity, for our wealth, our comforts, our places. In their skillful hands the resources of the country become available to the man of money and the civil officer. If usefulness were taken as the measure of worth, where would the attribute of superiority rest? We trow that the crusty Diogenes of antiquity and the splenetic Carlyle of our day would not place arrogant Money-bags or haughty Demigogue above the salt.

THE INSTITUTE.—The session of the Phrenological Institute just closed has

proved of unusual interest. The number of students in attendance was larger than for four years past, and four of them were old graduates. As heretofore, different sections of the country were represented, and several were persons of considerable experience and culture, and following professional vocations.

The directors and faculty of the Institute feel much encouraged in the prosecution of their humanitarian work by the harmony and enthusiasm exhibited by the students as a whole in the special studies of the session, and direct the attention of the JOURNAL reader to the report of the exercises at the close of the lecture term, which will be published in the February Number.



To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

A "LEARNED" OBJECTION.—*Question:* If it be convenient, please answer the following objections to Phrenology. One I think often presented in one form or another, which has been made by the learned men, viz: Phrenology is impracticable, though size were the measure of power, as there is no practical way of ascertaining the amount of power, when neither the parts nor the foldings of the brain can be measured. Further, the greater the number and the depth of the convolutions of the brain, the greater the surface, and the greater its power; but as these convolutions are invisible, their number and depth are undetermined. Likewise the power depending upon them.

Answer: The first objection with regard to size, is untenable, because anatomists generally of the present day accept the relation between size of head and intellectual capacity. Ferrier, Bastian, Bennett, and other prominent physiologists accept this proposition as demonstrated.

As regards the character of the convolutions, their determination is not so difficult as your "learned men" put it. They are dependent upon the character of the nervous system. We are enabled to appreciate superiority of organism by external appearances, just as a good woodsman can tell the character of wood by the bark which surrounds it. Culture has a relation to complexity of the folded surface of the brain. In another part of this Number you will find a discussion of the comparative development of the brain in low and high types of man. The statements there are derived from eminent authority, and they conform to the views of experienced phrenologists. Quality affects the entire organization of man. A predominant Mental temperament imparts lightness of frame and fineness of tissue; the bones of the skull are relatively thinner, and the brain development is greater than in persons having a strong development of the Motive or bony temperament. Your "learned men" might, with as much pertinence, object to the diagnosis of a skilled physician in the case of liver disease. His determination of congestive conditions, enlargement, ulcerations, etc., in that organ is even more subject to objection and criticism, on account of invisibility, than the diagnosis of a brain by a skillful phrenologist.

THE BANANA AS FOOD.—W. G. P.—We are not inclined to approve the use of bananas as an article of diet in the North, because, as usually sold in our markets, they are unripe, and more or less decayed. On general principles unripe fruit, and especially unripe and somewhat rotten fruit, should be discarded by all those who would eat only healthful things.

ORGANIZATION OF A GOOD PHYSICIAN.—J. C. C.—A physician needs a good general organization; he should have a large brain and a well-developed body to sustain it. The quality should be good, the Mental temperament slightly predominating. He should have the executive faculties well indicated; the perceptive range of faculties should be large; Constructiveness, Comparison, Human Nature, Benevolence, Firmness, and Conscientiousness being among the more influential of the sentiments.

DISEASED CHILD.—We are inclined to think from your brief statement that the disease involves the nasal bone. There is evidently an opening into its passage which may be due to necrosis. It would be quite impossible for a physician to treat the case properly without an examination, and we think that it demands immediate treatment, and the character of that treatment is of course dependent on the diagnosis.

BRAIN OF MAN AND WOMAN.—*Question:* Were two children, a boy and a girl, of

nearly the same temperament and disposition, raised together, taking the same exercise, studying the same lessons, following the same profession, and making their lives as nearly dual as possible, when he was matured and she was matured, would her capacity for reasoning be equal to his? It is a common theory among some people that a woman has no more reason than a horse; that it is all intuition with her, and we want to know if there is any foundation for this theory in Phrenology. J. R.

Answer: Your question involves so many issues that we could not answer it in the brief space allotted to the consideration of questions in this department.

You suppose that the children possess nearly the same temperament and disposition, the "nearly" is very indefinite; you might better suppose that they possess precisely the same nervous organism, then you should start fairly; but such a hypothesis is next to impossible, for the endowments of man and woman are different naturally. A perfect man stands upon a certain basis by himself. A perfect woman stands apart, as it were, by herself in the matter of organization. If, however, the boy and girl were brought up as you premise, it might be that the girl would show more reasoning ability than the boy, and still the result would not be conclusive. You probably know that some of our educators who favor the mixed method in education, have declared as the result of observation, that young ladies take higher rank in scholarship than the young men. We remember a case of competitive examination in the classics, not long ago in this city, where a young lady bore off the first prize. We have known women who were skillful in argument; we know some now to whom we would rather listen than to many gentlemen who are prominent on the platform. Woman is endowed with more of the intuitive sense than man; by this faculty she is enabled to see truth more quickly than man. You may call it jumping at conclusions, but if the truth be reached by a sudden bound is it any the less truth? Should it be any the less influential in human affairs? We will admit that the rank and file of women are not given so much to logical method as men, but may not this be due largely to neglected intellectual training? It is only within the last half century that it has become generally recognized by those who have charge of public education that woman is as much entitled to mental training as man. Heretofore her opportunities were restricted; it was somewhat as if she were to be regarded as more ornamental than useful in the social walks of life. Now she is demonstrating her usefulness in a hundred branches of active life, and the necessity of her general intellectual training is being constantly demonstrated.

LIGHT IN DARK PLACES.—L. H.—The story with this title was published a few years ago as a serial in the *PHRENOLOGICAL JOURNAL*, and can now be obtained in a handsomely printed and illustrated volume. It is a most appropriate holiday present especially for young folks, having not a little solid instruction mingled with its entertainment. Copies supplied by Fowler & Wells at \$1.25.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

THE SECRET OF HAPPINESS.—The following observations relate to a subject equally interesting to all; but a subject on which the young are particularly apt to form absurd theories and visionary hopes, which, frequently, are not dissipated till it is too late to repair the errors to which they lead.

The word *happy* is a relative term: that is, when we call a man happy, we mean that he is happier than some others with whom we compare him, than the generality of others, or than he himself was in some other situation:—thus, speaking of one who has just compassed the object of a long pursuit: "Now," we say, "he is happy"; and in a like sense, compared with the general lot of mankind, we call a man happy who possesses health and competency.

In strictness, any condition may be denominated happy, in which the amount or aggregate of pleasure exceeds that of pain, and the degree of happiness depends upon the quantity of this excess. Happiness does not consist in the pleasures of sense, in whatever profusion or variety they be enjoyed. By the pleasures of sense, I mean as well the animal gratifications of eating, drinking, and that by which the species is continued, as the more refined pleasures of music, painting, architecture, gardening, theatrical exhibitions; and the pleasures, lastly, of active sports, as of hunting, shooting, fishing, etc. These pleasures continue but a little while at a time. This is true of them all, especially of the grosser sort of them. Laying aside the preparation and the expectation, and computing strictly the actual sensation, we shall be surprised to find how inconsiderable a portion of our time they occupy, how few hours in the twenty-four they are able to fill up.

These pleasures, by repetition, lose their relish. It is a property of the machine for which we know no remedy, that the organs by which we perceive pleasures are blunted and benumbed by being frequently exercised in the same way. There is hardly any one who has not found the

difference between a gratification when new and when familiar, or any pleasure which does not become indifferent as it grows habitual. The truth seems to be, that there is a limit at which these pleasures soon arrive, and from which they ever afterward decline. They are by necessity of short duration, as the organs can not hold on their emotions beyond a certain length of time; and if you endeavor to compensate for this imperfection in their nature by the frequency with which you repeat them, you suffer more than you gain, by the fatigue of the faculties, and the diminution of sensibility.

These pleasures, after all, have their value; and as the young are always too eager in their pursuit of them, the old are sometimes too remiss, that is, too studious of their ease, to be at the pains for them which they really deserve.

Happiness consists in health. By health I understand, as freedom from bodily distempers, as that tranquillity, firmness, and alacrity of mind, which we call good spirits, and which may properly enough be included in our notion of health, as depending commonly upon the same causes, and yielding to the same management, as our bodily constitution.

Health, in this sense, is the one thing needful. Therefore no pains, expence, self-denial, or restraint to which we subject ourselves for the sake of health is too much. Whether it require us to relinquish lucrative situations, to abstain from favorite indulgences, to control intemperate passions, or undergo tedious regimens, to whatever difficulties it lays us under, a man who pursues his happiness rationally and resolutely, will be content to submit.

When we are in perfect health and spirits, we feel in ourselves a happiness independent of any particular outward gratification whatever, and of which we can give no account. This is an enjoyment which the Deity has annexed to life; and it probably constitutes, in a great measure, the happiness of infants and brutes, especially of the lower and sedentary orders of animals, for which I have sometimes been at a loss to find out amusement.

The above account of human happiness will justify the two following conclusions, which, although found in most books of morality, have seldom, we think, been supported by any sufficient reason:

First, That happiness is pretty equally distributed among the different orders of civil society. Second, That vice has no advantage over virtue, even with respect to this world's happiness.

C. WHITTIER BROWN.

UNREMUNERATIVE TALENT.—I wonder if many people ever think of the great injustice practiced toward persons possessing some peculiar talents; talents of the higher order that have been cultivated by years of

study, and often incurring a great expense; talents which the possessors take delight in practicing and improving, ay, and are even miserable when circumstances prevent them from exercising their natural gifts? How many such are wearing their lives away pursuing some uncongenial calling, because the one they are naturally fitted for fails to be remunerative, or, in other words, they have failed to make their talents remunerative. But is the fault mainly in the individuals so situated? Let us see. No kind of a common day-laborer, mechanic, business man or woman, would be called upon to perform a day's or hour's work without the offer of pay for it. Of course it is well known that from various causes they often fail to get their wages; but pay is always expected, and it would be next to an insult to ask one to work for nothing. Yet it is common for a singer, reader, writer, or musician to be called upon to render service without the least thought of pay, much less the offer of it. Such services always go for the benefit of somebody or something perhaps not so much in need of help as the talented helpers.

It often costs more hard work for one to become a good reader, singer, or writer, than to learn the ordinary routine of dress-making, millinery, or blacksmithing; yet how much more readily would any of the latter-mentioned workers be paid for services than the others? Should this be so, especially when the former are as dependent upon their own exertions for a livelihood as the latter? Once in a while a favored one rises to distinction by aid of influential friends, and earns what would easily support a half-dozen in comfort, while scores of others as meritorious and deserving remain in obscurity, dragging out a miserable existence. One cause of this state of affairs is, that some who possess rare talents, being born in easy circumstances, have plenty of leisure for culture, and can afford to give their services *gratis*, and would be offended if offered remuneration; and so persons of humbler pecuniary stations are expected to consider themselves favored when called upon to give an exhibition of their powers to the public. Yet a seamstress would not be asked to make a garment, or a tinker to mend an implement without pay.

What would be thought of the wealthy lady, who, having a natural talent for millinery, should make and trim the hats and bonnets of her friends gratuitously, thereby taking the custom from some poor woman wholly dependent upon her trade for support? She would certainly be deserving of the severest censure. Yet those who furnish literature for papers and magazines free of charge, because they like to write and can afford to, practice almost as great an injustice toward others who write for a living, for it is, in an indirect way, merely taking the

bread from their mouths, the clothes from their backs, and happiness from their lives. If people of all ranks would demand remuneration for services, let them be what they may; unless done in charity, the needy ones would naturally be the most patronized, and in time a new order of things would be brought about. The meritorious would be recognized and rewarded accordingly. One would not see so many care-worn, discontented faces here and there.

Young persons just starting out in life would not be forced to choose a calling they have no liking for in preference to a higher one more suitable to their tastes, in order to obtain a livelihood. Darkness now reigns where there would be many bright and shining lights in song, literature, and the drama, which proper remuneration would furnish.

DELPHINE RAYMER.

PERSONAL.

DR. SHELTON MACKENZIE, next to the late George Ripley, probably the best known and most trustworthy literary critic in the country, is dead. He possessed an extensive knowledge of the literary, artistic, dramatic, and other celebrities of Great Britain and America during the first half of the present century, and was himself as genial in disposition as he was able.

MRS. ABRAHAM LINCOLN, so much reported to be in distressed pecuniary circumstances, is said on good authority to be in receipt of over \$5,000 per annum, \$3,000 of which is the annual pension granted by Congress. Mentally, Mrs. Lincoln is much improved, but she is suffering from paralysis.

REV. HENRY WARD BEECHER has withdrawn from the editorship of *The Christian Union*. Mr. Lyman Abbott will now have the whole editorial control, the major part of which he has had for several years. Mr. Beecher will continue, however, to contribute to the paper as before.

MR. WALTER, of the *London Times*, on departing from this country, which he visited last summer for the first time, expressed a desire to return annually, for at least a brief sojourn, as long as he shall live.

RICHARD WATSON GILDER, who has been associate-editor since the foundation of *Scribner's Magazine*, succeeds to the chief-editorship made vacant by the death of Dr. Holland.

MR. JOHN B. MORRIS, whose will has just been admitted to probate in Paris, Kentucky, left all his estate to his former slaves.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE society of women is the element of good manners.—GOETHE.

DEFER not till to-morrow to be wise:
To-morrow's sun to thee may never rise.

—CONGREVE.

A FAVOR well bestowed is almost as great an honor to him who confers it as to him who receives it.

THOU wilt be great only in proportion as thou art gentle and courageous to subdue thy passions.—FENELON.

WE can not help thinking that when a head is filled with ideas, some of them will involuntarily ooze out.—ELIZA LESLIE.

THERE is much complaining now at the high price of wheat, potatoes, etc., but nothing is said about the high price of beer, whisky, and tobacco.

A SKEPTICAL hearer once said to a Baptist minister: "How do you reconcile the teachings of the Bible with the latest conclusions of science?" "I haven't seen this morning's paper," naively replied the minister; "what are the latest conclusions of modern science?"

SOCRATES introduced ethics, and taught duties, and then finally Plato asserted, or reasserted, the idea of a God, the maker of the world. The measure of human philosophy was thus full, when Christianity came to add what before was wanting—assurance.—COLERIDGE.

—No man

And no woman of right should the coming days scan

With foreboding. The present is ours; and the rest,—

That is God's. He will care for his own as is best;

And our watching is worthless, our dread is in vain.

—DR. HOLLAND.

MIRTH.

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

WHEN an arm of the sea encircles a neck of land, look out for fishing smacks.

A NEW YORK reporter, in describing a railway disaster, says: "This unlooked-for accident came upon the community unawares."

WHEN little Minnie was two years old she asked for some water, one night. When it was brought, she said, "Papa, can't you get me some fresh water? This tastes a little withered."

"WHAT is the meaning of the word 'tantallizing?'" "Please, marn," spoke up little Johnny Holcomb, "it means a circus procession passing the school-house, and the scholars not allowed to look out."—*Chicago Journal*.

A YOUNG English lady who is doing the Alps, reports progress to her guardian: "I tried to climb the Matterhorn; didn't reach the top. It's absurdly high; everything is high in this country. Please send me some money."

A SHIRT has two arms, the same as pantaloons have two legs. Yet one is called a pair and the other is only one. Isn't it time that we let up on astronomy, and paid more attention to the everyday trifles that vex the clearest minds?—*Detroit Free Press*.

"THERE'S one thing I like about the New Version," said old Blunderbuss. "That ere text about 'the boy being father to the man' is left out altogether. I always thought that was wrong end to." And he didn't know why the smile went round.—*New Haven Register*.

"FATHER," asked little Johnny, "when you was a boy did you use to think what a great man you would be when you grew up?" "I suppose so," said his father, "why do you ask that?" "I don't know," replied Johnny, "only I heard you say last night that life was full of disappointments; that was all."

THE Countess of X— was summoned as a witness in a French court. "Your age, madame?" asked the judge. "My age?" said the Countess; "well, I—really have such a miserable memory." "But certainly you must know when you were born?" "No, indeed, judge, on my faith I don't; I was so little at the time." The judge did not insist any further.

THAT worthy and witty divine, Thomas Fuller, was a man of considerable substance as well as spirit, and one day riding with a friend named Sparrowhawk, he thought to chaff him after the manner of the ancients. "Pray, what is the difference," quoth he, "between an owl and a sparrow-hawk?" "Oh," retorted the other, "most everyway; an owl is fuller in the head, fuller in the body, and fuller all over."



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 and physiological science. We can usually supply any of those noticed.

COME FOR ARBUTUS AND OTHER WILD BLOOM. By Mrs. S. L. Oberholtzer. 12mo, pp. 145. Philadelphia: J. B. Lippincott & Co.

If a foreign critic should dare to cast upon American society the reproach that we have no

refined culture, he could be answered in a no more emphatic manner than by pointing to the wealth of our current literature in poetic composition. And this poetic composition is by no means confined to a section—even the best or highest creations in rhythm are no longer peculiar to New England—but there are sweet-tongued bards south of the Potomac and west of the Mississippi. The number of volumes of poetry issued each year from American presses is something wonderful. Our people like poetry, and this fact stimulates fresh talent, new writers to rush into print; consequently, every week almost brings the announcement of a volume of verse by a new name, or one that has possessed little or no reputation beyond the boundaries of its owner's place of residence. Often have we been called to review such a volume, and if we have not found anything specially marked by the touch of genius, we have usually found tenderness, delicacy, fervor of sentiment, and the indications of superior mental training.

In the volume of which we have given the title at the head of these remarks, we find the qualities just mentioned. There may not be the metrical smoothness and finish of a Lowell or a Bayard Taylor in the poems as a general characteristic, but they are evidently the spontaneous outflow of the spirit's deeper feeling—a feeling which has found words not inappropriate for the expression of its meaning. Mrs. Oberholtzer is at her best when strongly moved; her lines may not then be cut and squared according to the strict rules of prosody, but they are touching and impressive because of their natural responsiveness to the ebb and flow of human emotion. "The Dove's Memoriam" has a sweet pathos, and many of the lines are highly poetic; for instance, in the closing verse:

"Resteth the light on the still, still river;
Breaketh the morn on the lily land;
The stars stoop down in their restless quiver,
The Dove's transfigured at God's right hand."

The contrast drawn between haughty wealth and cringing poverty in "A Memory Ballad," is very impressive; the gentleness of pity is finely mingled with a keen sarcasm. "The Chopping-block" has much grace, and finely sets off a phase of married life.

THE GOSPEL OF MARK. From "The Teacher's Edition of the Revised New Testament," with Marginal Passages printed at Length; making a commentary wholly biblical. 8vo. Paper, 15 cts. Cloth, 50 cts. New York: I. K. Funk & Co.

This is a special preparation for the use of teachers and others who wish to follow the series of "International Sunday-school Lessons" for the year 1882, which will relate entirely to St. Mark. It comprises the features of the "Teach-

ers' Edition," such as full-page punctuation to mark verse endings, subject headings at the top of the page, and blank pages for notes, the readings and renderings preferred by the American Committee, etc., and excellent Maps of Palestine in colors.

PRACTICAL HINTS ON THE SELECTION AND USE OF THE MICROSCOPE. Intended for Beginners. By John Phin, editor of "The American Journal of Microscopy." Fourth Edition. Illustrated with six plates and numerous figures. 12mo, pp. 238. Cloth. Price \$1. New York: The Industrial Publication Company.

When practical men give to the public facts which have been realized in their own experience, it should be expected that what they say will receive a closer attention and find more readers than the compilations or hashed-up volumes of the mere *litterateur*. This has been the case with Prof. Phin's Manual, the fourth edition of which we now signalize, and which comes to us in a revised and enlarged form. It is a closely printed, compact book, containing the substance of large treatises like those of Beale, Carpenter, and others; and certain useful suggestions which are not found in them. Microscopical studies are exceedingly fascinating as an employment of leisure to one with a scientific turn; but we would not advise any one to enter upon them without a preparatory examination of what such studies involve, as too many persons have gone ignorantly to work with the microscope, and after a few trials have thrown it aside as a mistaken undertaking on their part.

That Prof. Phin writes on a favorite topic is evident in every paragraph; at the same time he is careful in his statements, so that no false impression should be left upon the mind of his reader. He would have the microscopical neophyte commence his work with a fair understanding of the difficulties attending the proper use of the wonderful instrument which enables human eyes to penetrate into the realm of the infinitesimal. He supplies much elementary scientific information related to optics, the manufacture of lenses; and describes the working parts of stands, the preparation of objects, and a hundred other essential matters.

WHAT EVERY MOTHER SHOULD KNOW. By Edward Ellis, M.D., late senior physician to the Victoria Hospital for Sick Children, etc. 12mo, pp. 75. Cloth. Price 75 cts. Philadelphia: Presley Blakiston.

Here we have a plainly written book on a most important subject, the management of young children from their birth. Dr. Ellis is, to use the language of the *Pull Mall Gazette*, "a practitioner among doctors, and a doctor among practitioners," evidently in his knowledge of children; a knowledge derived from a long and special experience in treating their ailments.

We like his views generally, they show the discrimination of the close observer. Unlike the majority of physicians of his school, he is very sparing and cautious in advising the use of alcohol in sickness, and severe upon the ignorant or reckless prescribers of "soothing syrups" and nostrums. In the chapter on "Signs of Disease," there is a very valuable summary of symptoms, described in good, common-sense English; and the hints on "Seeking Medical Advice" would save most mothers who followed them a world of annoyance, anxiety, and expense.

We can not agree with him in regard to certain of his ideas on tonic medication, and some of his doses seem extravagant for little children, for we believe that natural measures properly applied will operate best; but we must believe that he speaks with respect to them from the sincere conviction of personal experience.

HILL'S ALBUM OF BIOGRAPHY AND ART: containing portraits and pen-sketches of many persons who have been, and are, prominent as religionists, military heroes, inventors, financiers, scientists, explorers, writers, physicians, actors, lawyers, musicians, artists, poets, sovereigns, humorists, orators, and statesmen; together with chapters relating to Evolution, Astronomy, Phrenology, Household Decoration, and Landscape Gardening. By Thos. E. Hill, author of "Hill's Manual of Social and Business Forms." Quarto, pp. 328. Sold only by subscription, by the Hill Standard Book Co., Chicago, Ill.

The title as above given clearly describes the character of this new and handsomely made book. It is, in fine, a cyclopedia of eminent persons, and of the subjects in religion, science, art, and literature which are deemed by the world of importance to civilization. Upward of six hundred and fifty historical men and women are sketched, and a large proportion of these have their portraits given. We are informed of the tenets of ancient religions, and in contrast with them a brief exposition of Christian doctrine impresses the reader with its superiority. Mormonism, Spiritualism, and other later forms of belief receive their share of consideration also. It should be added that the prominent Christian sects are described as to their history and growth. Following the religious department, which is very properly put first, we have a summary of the great military heroes of history, and of important battles fought in Europe and America—the late war for the Union receiving a good share of the compiler's attention. Then follows a department of Exploration and Discovery; then a very interesting, because fresh in most of its details, section related to Inventors and Invention. The rich men of the world come in for a share of the printed space, and then Science, Politics, and Philanthropy fill fifty or more of the large pages.

The author evidently places much confidence in the doctrine of Gall and Spurzheim, for a considerable section is devoted to a synopsis of Phrenology, with several well-selected illustrations. The humorists, the artists, the writers who please the public with their facetious talk and drawing, are well represented, and so are the writers, essayists, poets, and orators who direct attention to the serious side of life. The practical has its place in the book, especially in the space given to Penmanship, Household decoration, and Architectural designs. Mr. Hill has prepared a very attractive book, and its success will probably match that of his "Manual," which was gotten up on the same elegant scale.

PUBLICATIONS RECEIVED.

HOW TO KEEP BOYS ON THE FARM is a pleasantly written little pamphlet, describing the advantages of rural life and the proper management of a country household, so that the youth born in it shall not lose interest in its duties and enjoyments, and sigh for the bustle and garish pleasures of the town. Published by Geo. D. Hunt, of Salem, Ohio, at 20 cents.

THE CHRISTMAS OWL watching for Santa Claus. A Budget of Entertainment, Original and Selected. By Mrs. Martha J. Lamb. A striking novelty in the publishing line, and well calculated to please young and old. The poems and rhymes are holiday in style and illustration. The owlsh cover must excite the curiosity of the little ones. 50 cents. White & Stokes, Publishers, New York.

THE LIFE AND WORK OF JAMES A. GARFIELD, by John C. Ridpath, LL.D., a large octavo volume, illustrated with fifty engravings on steel and wood, is in the press of Messrs. Jones Brothers & Co., Publishers, of Philadelphia, Cincinnati, etc.

Messrs. J. S. Ogilvie & Co., Publishers, of New York, have sent the following recent additions to their "People's Library":

AROUND THE MOON. By Jules Verne. 20 cts.—**HILARY'S FOLLY.** By the author of "Dora Vaughn." 10 cts.—**A HAPPY RELEASE.** By the author of "Constant Dare." 10 cts.—**FOR LOVE OR GOLD.** By Jennie S. Alcott. 10 cts.—**THE FIGURE IN THE CORNER.** By Miss Emma A. Burden. 10 cts.—**WIFE OR WIDOW.** By the author of "Missing Diamonds." 10 cts.—**CASH 17.** By Sophy S. Burr. 10 cts.—**SOUGHT AND SAVED.** By M. E. Paul, the \$500 Prize Serial. 20 cts.—**MRS. CAUDLE'S CURTAIN LECTURES.** By Douglas Jerrold. 10 cts.—**HER FIRST LOVE.** By the author of "Miss Lytton's Lovers." 10 cts.—**A WIFE'S ORDEAL.** By Emma S. Southworth. 11 cts.—**LIONEL FRANKLYN'S VICTORY.** By E. Van Sommer. A \$500 Prize Serial. 20 cts.—**HEIRSES TO A MILLION.** Author anonymous. 10 cts.

INGERSOLL; OR, WHAT MUST I DO TO BE SAVED? By Joseph Parker, D.D. No. 67, "Standard" Series. This pamphlet sermon was preached by the eminent preacher of the City Temple, London. His name is a sufficient recommendation. 15 cts. Published by Messrs. Funk & Co.

MUSIC. William Adrian Smith, Publisher, of New York, sends us the following new compositions: **THE BONNY BROWN HAND.** A ballad with chorus. Music by William Adrian Smith. 30 cents.—**REPENTANCE AND PRAYER.** Words by Geo. F. Rogers, music by the same composer. 30 cts.—**IDALJA.** A Mazurka caprice. By the same composer. 30 cts.

THOMPSON'S BANK-NOTE AND COMMERCIAL REPORTER for October is well-arranged, well-known, and quite indispensable to business men in these days of defaulting cashiers and cracking banks.

THE ANNUAL REPORT OF THE CHIEF SIGNAL OFFICER TO THE SECRETARY OF WAR FOR THE YEAR 1881. A very interesting exhibit of the work of an important department, and a strong argument in favor of its permanence, the benefit to the agriculturist, and commercial interests of the country, growing out of systematic observations taken at stations distributed all over the country, is signally indicated by the few quoted statistics which are incorporated with the report.

THE BLUNDERS OF A BASHFUL MAN. By the author of "A Bad Boy's Diary." Paper, 25 cts. New York: J. S. Ogilvie & Co. They who have read the very remarkable and yet not altogether inhuman diodes and pranks related by the "Bad Boy," will have some idea of the character of the present volume. It is certainly absurd, funny, nonsensical, idiotic, etc., as might be expected of a bashful man.

PREPARATION AND USE OF CEMENTS AND GLUE. By John Phil, editor of the *Young Scientist* and *The American Journal of Microscopy*. pp. 58. New York: The Industrial Publication Co. A very complete list of recipes for the manufacture of cements and glues, articles of indispensable importance in every department of life, and particularly in the arts.

A BRIEF NARRATIVE OF FACTS RELATIVE TO THE NEW ORPHAN HOUSES ON ASHLEY DOWN, BRISTOL, and the other objects of the Scriptural Knowledge Institution for home and abroad, by George Müller. This narrative is certainly one of the most remarkable which it has been our province to read. The new Orphan Houses which are described were founded and have been supported by funds entirely contributed by the English public, and that, too, without any personal solicitation. George Müller, in the beginning of the charitable work, applied for help to his Maker, the source of all benefit and all

wealth and power. The needed resources came in answer to his prayer. Hundreds of thousands of pounds have been contributed during the years of its existence.

THE BEER QUESTION, by A. M. Howell, is designed to answer some assumptions of brewers with regard to the composition of beer, and its influence as a beverage. 10 cts. Published by the National Temperance Society of New York.

CONSOLATION FOR THE BEREAVED. By Rev. William Hollinshed. This little pamphlet is tenderly written and adapted to the reading of those who know the sorrows of bereavement.

THE MORAL LESSONS OF GEN. GARFIELD'S LIFE. An address delivered by Hon. Frank Fuller to the young men of New York. Second edition. An appreciative sketch of a noble life, by one who knew him personally. It is touching, instructive, and worthy of the widest circulation.

UNFERMENTED WINE A FACT. A review of the latest attempt to show that the existence of unfermented wine among the ancients was impossible. By Norman Kerr, M.D., F.R.S. This pamphlet of 48 pages is a strong discussion of the question, whether or not unfermented wine existed in ancient times. As there is so much said on both sides of this question, it is becoming that men of scientific abilities and of historical information should take it up. Dr. Kerr has been at very considerable pains in the preparation of his brochure, and it is really an important contribution to the literature of temperance. Paper, 10 cts. Published by the National Temperance Society of New York.

THE JOURNAL OF THE AMERICAN AGRICULTURAL ASSOCIATION, for July and October, 1881. This quarterly is eminently worthy the attention of agriculturists throughout the country. It contains a series of well-digested articles upon vital topics by prominent men of practical experience. The first article is a description of the dairy stock farm of Mr. T. A. Havemeyer. It is embellished with several illustrations of barns and yards. There are articles on ancient husbandry, the state of agriculture in England, the experimental farm of the *Rural New-Yorker*, the railroad and a farmer, and other things of a readable character. 75 cts., or two dollars a year.

ESAU HARDNET. A novel of American life. By William Osborne Stoddard. Octavo, pages 405. White & Stokes, Publishers, New York.

ANTHROPOLOGY: an Introduction to the Study of Man and Civilization. By Edward B. Tyler, D.C.L., F.R.S. Illustrated. D. Appleton & Co., New York.

THE PRIZE PAINTING-BOOK, "Good Times." By Dora Wheeler. White & Stokes, Publishers.

Notices of the above three books will appear in the February Number.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 74. 1882.

NUMBER 2.]

February, 1882.

[WHOLE No. 519.



CHARLES J. FOLGER,
SECRETARY OF THE U. S. TREASURY.

WHILE there is always a multitude of aspiring men waiting for appointments to offices of greater or less dignity, it is by no means easy for those in authority to select such as will prove fully competent to discharge official du-

ties. In the case of Cabinet officers, it is especially difficult for the President to find the right man when a portfolio is vacant. President Arthur entered upon his high functions at a very critical juncture, and the resignation of several members of the late President's circle of councilors added to the perplexity of his position. Mr. Windom, who had administered the affairs of the Treasury with general acceptance during his short occupancy of the Secretaryship, was among the number who found it expedient to resign; and the public waited in not a little anxiety for the appearance of his successor. In selecting Judge Folger, we think President Arthur has shown a high degree of sagacity, and little, if any, political bias. As a jurist, Mr. Folger has been many years out of politics, although occupying most responsible judicial positions; and although a professed Republican, it is not an unwarranted presumption that his attitude as an executive officer of the Government will be politically independent.

In his portrait we discern strength of body and strength of brain. In the temperament there is activity combined with endurance; there is fineness of quality mingled with strength. The general observer would see power in that face and in the whole make-up, while at the same time there are calmness, self-possession, stability, tenacity, and a kind of wiry intensity that enables him to hold himself to the duties before him with a consciousness of ability to maintain his position, and to advance if it be required. He has the qualities of the soldier, courage, steadfastness, coolness, and clear perception and sound judgment.

The head appears to be large, well poised, and harmoniously balanced; the

fullness across the brow indicates quick capacity for gaining knowledge and forming critical judgments; the middle and upper sections of the forehead show retentiveness of memory, power of reasoning, and especially the ability to analyze, sift, and criticise.

That is a good head for science, for history, for the prosecution of literature or practical business. As a lawyer he would carry his case in his head and be expert in meeting emergencies and cool in conducting intricate and responsible questions. He does not lose his self-possession; if he were Master of a vessel, he would be as stern as iron when there was danger and would seem to be perhaps the only cool man on board.

He has the quality of being wrought up by duty and responsibility to a kind of wiry tension like piano-strings in tune, and like them works all the better for being brought up to concert pitch. When he has very little to do and no responsibility, his mind is not so clear or his character so strong as when he is full of business, and that business involves weighty responsibility, sharp criticism, and prompt action.

His Firmness is large, and this feeling stands central in his character; around it conscience, dignity, courage, prudence, and hopefulness stand in co-operative harmony, aiding to carry out his purposes with steady and independent strength.

The whole moral development appears to be favorable. The intellect is noted for sharpness and for solidity of judgment; the disposition is affectionate, confiding, brave, thorough, watchful, and ethical; his sympathies are quick, his knowledge of character excellent. His imitation, or power to conform to social

usage, is not remarkable; he will have his own views and his own ways, and not be likely to subordinate himself to the popular judgment unless his reason cordially accepts it.

He is not overstocked with blandness and mellowness; his language is emphatic, and he is able to say no without feeling the necessity of sending an apology with it. He will impress strangers anywhere as a man of true dignity, good judgment, and fidelity.

CHARLES J. FOLGER was born in April, 1818, at Nantucket, Mass. When he was about twelve years of age his parents removed to Geneva, N. Y., where his home has been ever since. He studied at Hobart College, taking the Baccalaureate in 1836, and the first honor of his class. He selected the law as a profession, and was admitted to the bar in 1839. Five years later, when he was but twenty-six, Governor Bouck appointed him a Judge of Common Pleas in the Ontario district, a position which he resigned after one year's service to become a Master and Examiner in Chancery in the Chancery Court that was abolished by the Constitution of 1846. In 1851 he was elected County Judge of Ontario County and served as such for four years. Heretofore he had not strongly identified himself with any political party, but when the Republican party was formed he became one of its most sagacious leaders.

In 1861 he was elected to the Senate of New York, and re-elected in 1863, '65, and '67, thus serving eight years in succession and acting as President *pro tem.* of that body most of the time. He was a member of the Constitutional Convention of 1867, and chairman of its Judiciary Committee. While in the Legislature he was the uncompromising opponent of all rings and monopolies, and the Tweed tax levies for New York City never failed to meet with his most determined opposition. In 1869 President Grant appointed him Assistant United

States Treasurer in New York, a post which he accepted, and which, although he held it but a year, was administered with marked ability and won for him a reputation as a financier that is still remembered. In 1870, when the Court of Appeals of the State was reorganized, he was elected an Associate Judge, and on the death of Chief Judge Church last year, he was elected to fill the vacancy.

This sketch is exceedingly brief, but is sufficient to prove that Judge Folger is by no means wanting in the experience indispensable to the efficient discharge of his great trust as Secretary of the Treasury. Some financiers look upon him as exceptionally able in monetary affairs, and that if he does not perform his new duties satisfactorily to the people, it will not be his fault.

We think that the recommendations to Congress which appear in the late report of the condition of the national finances are in the main wise, and should receive the serious consideration of the people's representatives. Among these recommendations, that of a revision of the tariff is particularly noteworthy. All forms of taxation which are oppressive should be abrogated as soon as their necessity no longer exists. Secretary Folger evidently appreciates this principle, as he favors the abolition of all internal taxes except those on whisky and tobacco. He also wishes the coinage of silver dollars suspended, and the retirement of the silver certificates, on the ground of their superfluity. Opinions will differ much upon the expediency of this course, but as regards the taxing of alcoholic liquors and tobacco we feel sure that all unprejudiced observers think that those articles should be the subjects of restrictive legislation.

FORGIVENESS.—A deaf and dumb person, being asked, "What is forgiveness?" took a pencil, and wrote a reply, containing both poetry and deep truth embodied in these few words: "It is the odor which flowers yield when trampled upon."

PLATO VERSUS EPICURUS.

A REVIEW OF THE CONFLICT BETWEEN SCIENCE AND PHILOSOPHY.—PART I.

MR. LEWES opens his "History of Philosophy"* with the startling statement that "science having vanquished theology, is destined to supersede metaphysical philosophy, and banish ontological speculation from the realm of human inquiry."

The assertion that theology has been vanquished by the revelations of objective scientists is respectfully relegated to the clergy. It is not my province nor my wish to discuss that question. The challenge hurled at the philosophers by this champion of atheistic materialism I accept, and in the name and spirit of all the great thinkers, from Plato to Emerson, shall attempt, in the best fashion I can, to meet the issue thus made.

Plato stands forth pre-eminently as the representative metaphysician and philosopher, the great subjective and deductive reasoner; Epicurus as the representative of materialistic atheism, based upon objective science. I anticipate the objection that Epicurus did not distinguish himself by observational research in any department of objective science.

I admit that he did not; I go farther, and assert that he was no true scientist. But he is all the more fit representative of the modern scientific school for that reason. He massed and generalized facts, and speculated about them and their relations.

Modern scientists individualize and specify facts, and then attempt to batter down all existing systems of metaphysical ethics based upon subjective reasoning, by hurling at them speculative dogmas and *ex parte* conclusions, based upon and derived from isolated phenomena. The two methods are substantially one in spirit and effect. But both are fundamentally faulty, logically absurd, and philosophically false, as I will attempt to

show. And the fundamental error will needs be analyzed at this point.

This consists in the total ignorance on the part of all scientists (ancient and modern) of the science of man. They have relegated to the philosophers the important duty and noble privilege of obeying the grandest Delphian oracle—
KNOW THYSELF.

Man is a complex being both in his physical construction and mental constitution. But while the different elements and organs of his body are in perfect sympathy, antagonism and conflict reign often in his mental nature. The reason for this is that some of his mental faculties are chiefly related to the earth-life and its sensual and sensuous joys, while others reach out after a higher and better life, and the pure happiness arising from "a feast of reason and flow of soul," the increase of wisdom and exchange of lofty sentiments, as well as the holy love of noble and generous spirits.

All men experience this conflict more or less; but while some are so firmly anchored to the earth, and so heavily ballasted with material freight as to get few and faint glimpses of the higher life, others dwell almost perpetually in the calm upper air, alternately casting a pitying glance down toward the turbulent sea of human passion, and a prayerful yet joyous one up toward the realm of the immortals.

Naturally these would differ in regard to duty and happiness. The first lives and moves and has his being in the realm of tangible facts, of which his physical senses can take cognizance, and he presently concludes that beyond these all is void, and to his mind darkness rests upon the great deep of the illimitable unknown. He first doubts, then dogmatizes, and lastly he sneers at those who profess to have penetrated the veil of materialism that envelopes *him*, and marked the whitening line of the coast of immortality.

* Read before the Liberal Club of New York in the lecture course of 1876-7.

He boasts of being a materialist, a positivist. He confines himself to facts. Physics absorbs his attention. Metaphysics is beneath—above—his notice; Ontology he despises; Philosophy is mere speculation; Theology a mass of superstition. This life is a fact, this world a reality, science the arcana of human research, the Medina of human aspiration, the Mecca of the divinest pilgrimage.

The second regards facts as incidental and transient, truth as primordial and eternal. Material forms are to him but visible and very evanescent representatives of eternal principles or entities. This is a world of shadows; that to which we journey, a world of realities. This earth is a birthplace, a nursery, a primary school. The one beyond is the home of the soul, the grand university wherein alone the higher branches are taught in perfection.

Science is the servant of philosophy. Its chief office is to construct a royal highway to the realm of reason. Its secondary mission is to alleviate the miseries and relieve the wants of humanity.

To the first, the pleasures of sense make up the sum of possible happiness. To the second, the pleasures of sense are contemptible in comparison with those of sentiment.

To the materialist, human existence being bounded by the horizon of the earth, human happiness is limited to appetential and passional pleasures, and social and intellectual intercourse on this plane.

The philosopher, while not despising the pleasures of sense, holds them in abeyance as inferior, while enjoying the *higher, purer*, ever-increasing, never-cloying joys arising from the contemplation of intellectual and moral subjects, and reaching to those glorious hopes—possible only to the philosopher—of an eternity of ever-increasing wisdom and happiness.

The one may be compared to the swine, which not only contentedly remains upon the surface of the earth, but never lifts its eyes above the range of its horizon. The other, like the eagle, pierces the

clouds and keeps his eye steadily fixed upon the central fountain of light and life.

Materialism was rife in Athens until Socrates walked her streets and confounded her sophists, and Plato, the god-like, met her scientists in the Lyceum. Socrates fell a victim to the stupid prejudice of his time. Plato was gathered to the gods, and none were left of all their disciples able to beat back with reason and logic the tide of skepticism that now swept over Greece and Rome, rotting out the very heart of their integrity.

The glory of Greece culminated in the days of Plato, and the fame of Athens, as the intellectual center of the ancient world, rests chiefly on his teachings. The decline of Greece and the disgrace of her proud capitol dates from the advent of Aristotle, with his dogmatic system of pseudo-science and false logic; and political, social, and moral anarchy followed quickly upon the acceptance of the materialistic doctrines and social heresies of Epicurus.

These facts accepted, I need offer no apology for briefly reviewing the systems of doctrine taught respectively by Plato and Epicurus.

The era of Greek philosophy dates its beginning 300 years back of Plato, but from Thales to Socrates little progress was made, either in metaphysical speculation or moral ethics. The labors of the older philosophers were confined almost entirely to the effort to solve the problems of life, duty, and destiny, by an acquaintance with the origin, nature, and office of objective phenomena.

They were scientists. Thales, being the first to attempt an explanation of the origin and nature of the universe, by natural science, and without reference to the mythologies, then current, is justly entitled to be called the founder of objective science. And his method of reasoning was substantially that of Tyndall and Huxley. He sought to discover the constitution of the universe by observation, and he maintained that the beginning of all things must be found in some element that could neither be de-

stroyed nor divided. Water was the only substance that seemed to him to possess invariable or unchangeable existence, hence he concluded that water was the original element, *the beginning* of things. His observations convinced him that this was a scientific fact, for while water was essential to all life, growth, and change, it remained unchanged. Even the gods were born of water. Indeed he had no notion of any universal spirit of intelligence or power back of or above this element.

Anaxagoras, a disciple of Thales, is credited with some vague notions concerning a creative intelligence, but he doubtless derived them from Hesiod's Theogony, and not from the philosophy of his master, Thales.

The most vigorous thinker after Thales, was unquestionably Anaximenes, who flourished in the fifth century before the Christian era. He pursued substantially the method of Thales, but his observation led him to the conclusion that air, and not water, was the original element.

He found himself surrounded by an invisible element, and not only surrounded, but permeated; he felt it within him, it seemed to move him, and to be the source of his life; he found by experience that he could not exist without it, yet this substance or element was so subtle that he could not see it, yet so powerful as not only to support life, but uproot trees, and produce the most fearful and ravaging phenomena; he therefore concluded that air, and not water, was the original element in nature; the *alpha* and *omega* of all things. It surrounded the entire world, and in his opinion all things rested upon it, lived in it, and existed by it.

But little improvement was made upon the ideas of Thales and Anaximenes until the advent of Socrates, who invented what is termed the subjective method of reasoning as opposed to the objective. He was the first to attempt a solution of the moral relations and obligations of humanity; he placed small store by objective phenomena, but exalted moral ethics to the first place in his system of

philosophy. This was a grand revolution from materialistic atheism to theistic philosophy. Ideas were everything, facts mere transient emblems of small significance. This world was but the birthplace and primary school of immortals; man, a prospective God, bounded and limited here by his physical relations, and in his physical aspects, free only in thought and aspiration, and capable of complete development and perfect happiness only in the life beyond. Wisdom, virtue, liberty, temperance: these were the fundamental principles of his ethical system, and the cultivation of these the chief duty of man and the hope of a grand eternal and happy immortality, based on God's immutable justice, the chief source of contentment and reward of virtue.

Socrates was succeeded by his most distinguished disciple, Plato, to whom we are indebted for the preservation of his master's ideas, as well as for the grand elaboration of the Socrato-Platonic philosophy, the grandest the world has known, and the fundamental principles of which will not only live, but be glorified and canonized in the hearts of the people, when Thales, Anaximenes, Aristotle, Epicurus, and even the modern scientists who affect to despise it, have passed out of history.

It is a significant fact that the inevitable tendency of all philosophies, based upon objective science is to exalt sensuous and sensual pleasures, and give peculiar importance to the affairs of this life not only, but to doubt, if not absolutely deny, the immortality of the soul, and to ignore the moral government of the universe; while the subjective and ethical systems of Plato and the schools, based upon the fundamental ideas of his system, promote moral and intellectual culture and the love of virtue, and all the nobler sentiments of humanity. It is a fact proven by history and sustained by observation, that correct principles of social science have their base in subjective philosophy, while all the heresies of politics, sociality, and of religion proper, cluster

about the materialistic doctrines of Epicurus, Bacon, Spencer, and Comte.

In making this statement, I wish it distinctly understood that I do not assert that these men were themselves immoral, though Pope says of Bacon, "He was the wisest and the meanest of mankind." Epicurus was a good man—there can be little room for doubt on that point. Even his foes admit that his life was pure as the life of the average Greek philosopher, and his friends represent him as chaste, temperate, modest, and self-sacrificing, in habit a moral man; yet, perhaps the modern world has not produced a man whose influence upon society has been so damaging as that of Epicurus. His school took the form of a sect, and so successful was he as a teacher, that his disciples increased rapidly, not only in Athens, but in other cities of Greece, and also in Rome.

The creed of Epicurus may be stated in brief, as follows:

1st. The universe consists of space and matter; 2d. Matter is composed of eternal indivisible atoms of various sorts; 3d. Every organic being, whether vegetable or animal, is composed entirely, soul and body, of this material substance, brought together by some accidental or fortuitous circumstance; 4th. All knowledge is derived from sensations, and all sensations are produced by images or emanations flowing from external objects; 5th. The gods live in a state of passionless repose, remote from this world, taking no interest in its affairs, but being indifferent alike to vice or virtue (Cicero is of the opinion that Epicurus had no faith in the existence of the gods, but that he did not dare to openly say so, lest he should share the fate of Socrates); 6th. As we know nothing of any life but this, we should make the most of our opportunities for happiness here, by gratifying our passions and appetites to the fullest extent consistent with temperance and moderation, to go beyond which is to defeat the object sought.

I am sure most of you are ready to say that this creed is in the main sound, and I admit that few creeds have been constructed that are less objectionable on their face. I further admit, that if it could be confined in its acceptance to men and women occupying the intellectual and moral plane of its author, this creed would do no hurt to society.

With such the closing sentence of the last article redeems the whole from grossness and the probability of abuse. Their passions and appetites are servants, standing back of the seat of reason, ready to do its bidding, waiting its commands. With the majority, however, reason and moral perception are subordinate to passion and appetite; and these, while excellent servants, are the worst possible masters. They are untamed beasts reveling in the freedom of license; wild studs, that if not constantly kept well in hand dash recklessly and furiously on to destruction.

Socrates, Plato, and their disciples taught the people that this life is but a stepping-stone to a higher; that the pleasures of sense, though not to be despised, are small as compared to the greater joys of the spiritual powers, and the nobler objects of a life that is endless. And their teachings had a wholesome influence upon society. They made men and women better, hence happier.

T. A. BLAND, M.D.

[*Conclusion in March.*]

DIFFERENCE BETWEEN RELIGION AND PHILOSOPHY.—Philosophy and religion are both useful, but the difference between them is similar to that of man and his Creator—the one is human, the other Divine. Philosophy cheers our brightest moments—religion our darkest. The one is a creature of time, the other of eternity. Philosophy may be termed the hope of life; religion is the life of hope.



THE APACHES.

THE name Apaches is a general designation given by ethnologists to a large family of Indians whose nomadic and predatory habits extend over a wide region of country, viz: New Mexico, Arizona, the northwestern part of Texas, and a part of northern Mexico. Their tribal divisions have been regarded as among the most conspicuous of American aborigines for their ferocity and roving proclivities. The early Spanish settlers in Mexico and California suffered terribly

from their raids and hostility, and all attempts to civilize and convert them failed. The country over which they roam is probably the most sterile in the Southwest; the rivers, owing to the broken and mountainous nature of the surface, contribute little fertility to the soil except in spots, and dry plains here and there stretch out for hundreds of miles like great lakes of sand.

"Among them, of the Western Indians," says Mr. H. H. Bancroft, "we first



meet with thieving as a profession. Like all savages, the Apache dislikes work, although he is not as lazy as some of his Northern fellow Indians, and so he presents the anomaly of uniting activity with barbarism, his thievish propensity being at the bottom of the activity." Leaving others to do the work, he cares not whom, the agriculturists of the river bottoms or the towns-people of the north, he turns Ishmaelite, pounces upon those near and more remote, and if pursued, retreats across the "journeys of death," as the Mexicans call them, and finds refuge

in the gorges, cañons, and other almost impregnable natural fortresses of the mountains.

The number of the Apaches, owing to the difficulty of estimating it, is variously stated from 7,500 to 25,000, the latter being the opinion of Mr. Cremony, who lived in their country eight years. In physique they are of medium stature, slim, ill proportioned, but very quick in movement, and remarkably tough and enduring. Their features are described as repulsive and expressionless, flat and approaching the Mongol type, while their

heads are covered with a mass of coarse, rusty black hair, which is permitted to grow as it will, excepting, however, that hanging over the forehead, which is cut square across above the brows.

In dress they are somewhat more pretentious than other neighboring tribes, and they wear more covering than formerly. Most are clothed with articles made of coarse cotton cloth, that material having for the most part taken the place of deer-skin, with a blanket and straw hat. On the feet they usually wear high moccasins of buckskin, and the smallness of the foot resulting from this long-continued practice has always distinguished their trail from that of other Indians.

The accompanying illustrations show

the general type of the Apaches, male and female, as secured by Mr. Conkling for his recent work on Arizona. Since the effort on the part of the Government to place these Indians upon reservations they have changed somewhat in disposition and habit, although they do not exhibit an encouraging tractability under any system of restraint thus far tried. The Pueblos, an allied family, have been partly reclaimed and are comparatively docile and industrious. This fact may warrant us in believing that a judicious and kindly employed means of civilization would subdue the more barbarous elements of the Apache character, and render the country over which this Indian roams more desirable to the white settler and miner.

THE HABITANT OF LOWER CANADA.

THE people of Lower Canada live much in the simple fashion of their forefathers, who early settled the country. An interesting description of them is contributed to the December *Atlantic*, from which we make an extract. There is much to be admired in the life and habits of these people, aside from their adherence to tobacco and liquor, although in their use of that they are examples of temperance when compared with the fast-going American :

"The habitant is a model of thrift. He grows his own tobacco, makes his own 'beef' moccasins, and manufactures his own whisky. His wife spins the wool out of which is made *l'etouffe du pays*, a kind of frieze, in which he clothes himself. His house is a picture of neatness. The outside is whitewashed at least twice a year; the inside is swept and garnished until it is as bright as a new pin. The floor of pine boards is scrubbed and sanded every day. The walls are hung with pictures, somewhat gaudy as to color, of the Pope, St. Cecilia, St. Joseph, and St. Anne, and photographs of the parish priest and of the children who are away in New England or Minnesota. Over the broad fire-

place, in which huge logs blaze in wintertime, hangs the family *fusil*, the old flint-lock a sire carried under Montcalm, and now used to kill an occasional bear, and to fire a *feu de joie* on St. Jean Baptiste day and other great occasions. Near it are medals brought from Rome by the priest or the bishop, and the rosary that has come down as an heirloom in the family. The house is decorated with sampler work of saints and angels, for which the women are famed. A crucifix hangs above the fusil, and in settlements near a church the house is always supplied with holy water. The patriarch of the family sits in the *ingle-neuk*, puffing blasts of smoke from his long pipe up the bellowing chimney, and sporting the *toque*, an old-fashioned red night-cap with a brilliant tassel, which his fathers before him wore under the *ancien regime*. The good wife, in *mantelet* of calico, skirt of homespun blue, and neat Norman cap, is at the spinning-wheel; the eldest daughter, soon to marry the honest husbandman in the next clearing, is weaving her linen outfit at a handloom. The pot in which the pea-soup, the staple dish, is made, is gurgling on the fire; a smaller pot contains the pork;

and in the Gulf parishes the *tiaude*, composed of alternate layers of pork and cod-fish, is still the *piece de resistance*. The bedrooms are furnished with old-fashioned bedsteads, covered with patch-work quilts of cunning and patient workmanship. Here, too, are pictures of the Madonna and St. Ignatius, and a small plaster figure of the great Napoleon, meditating with folded arms on the cliffs of St. Helena; a bough of palm blessed at Eastertide; holy water, a specific against lightning; and the snow-shoes on which the habitant visits his little kingdom of eighty or one hundred arpents in the long winter season. The housewife bottles an infinite variety of preserves in the fall, raspberries, blueberries, blackberries, huckleberries, and other wild fruits which the bush and the swamps yield in abundance; and in the spring the maples furnish a sweet harvest of sugar. When the *defricheur* comes in from the woods on a cold evening, he fortifies himself with a draught of the

mordant whisky; the blessing of God is asked on the more substantial repast, and he falls to, a valiant trenchman, with an appetite as keen as his axe. The *bon homme* gets out his rosin and his bow, the lads and lasses come in from the neighboring farm-houses, and, as Long-fellow has it of the Acadians in Evangeline:

“Gayly the old man sings to the vibrant sound of his fiddle,
Tous les Bourgeois de Chartres and Le Carillon de Dunkerque.”

“The dances of the olden time still hold their own in the country districts. The *cotillons*, the *gigues*, the *galopades*, the *menuets*, the *danses rondes*, and the ancient ballads, the Claire Fontaine and En Roulant, are ever new. At ten o'clock the grandfather puts away his fiddle, and reverently gives his blessing to the company, which now disperses, to be up and at work by the first peep of morning.”—*Atlantic Monthly*.

FACIAL HABITS.

A FACE is nothing without expression, and expression is worse than nothing unless it is good. Expression is capable of control, and control is the function of mind. Hence, mind makes the face. Transfiguration is from within. A noble soul fashions a noble face. Thought and feeling constitute every one an artist; the face is the canvas, and every part of it may be made to brim with expression.

But there is one fact always tending potentially to interfere with this capacity of changeful expression: it is *fixity* in the elements of the facial picture. The pigments of a canvas portrait, once dried, are incapable of variation; even thus, *facial habits* may become so established as to be unchangeable. Like molten metal, the features ultimately harden into unalterable forms and expressions.

What child has not been warned against contortions of countenance lest his face

should “freeze in that shape”? Habit is face-frost!

The cross eyes which the surgeon straightens may be cross in another sense, which no surgery but that of an amiable heart can regulate. A harelip may be corrected by an operation and the process of healing; but to how many evils the lips are *heir*, that only the long-continued operation of inward rightness can heal. The tonsorial art may wreath the forehead in tresses and ringlets; but there is another art, more dainty and delicate, by which the brow may be clouded with the mark of passion, or garlanded with a halo of almost divinity.

Facial habits, whether hideous or heavenly, are contracted so gradually that only the most sensitive souls are aware of their growth until the knots and gnarls are past remedy. Many a fair face has been utterly ruined by the unconscious outflow and incrustation of

some baneful fount within, and not unfrequently an ill-formed visage comes eventually to a loveliness surpassing description.

How apt the fable of the little maiden who longed to be beautiful, and was told by a fairy that if she would live a year without an evil thought or feeling, and then come and mirror her face in a certain mountain spring, she should have her wish. Earnestly she struggled, but at the end of the year had to confess to the occurrence of many an evil. Therefore her desire was not gained. Another year was granted, but this also was marred by a few mistakes. By more earnest endeavor the third year was crowned with almost perfect success. The fairy and the maiden met by the Elves' mountain spring. "Ah!" said the fairy, "thou hast no need of the magical mirror, thou hast made *thyself* lovely; look and see!" She looked, and lo! these years of pure and gentle moods had fulfilled her beautiful ideal and answered her longing.

The study of facial habits gives mingled pain and amusement; pain at the deformities, amusement at the drolleries. The *mouth*, to begin with, is a wonderful organ. Much of the world's history began between these jaws of fate, an invitation or a threat, a persuasion or a command. Many a hero, invincible on the battle-field, has surrendered to a pair of lips. Gates that would not yield to the stern assault have opened to the winning smile.

But in no respect is this feature more notorious than in its habitual grimaces and graces. Of how many persons might be written what an author says of Louis Napoleon: "His smile was fascinating, his frown horrible, and his face at rest insipid." A Houri would be spoiled by a pout, an Adonis by a contortion.

Grimaces are not "respecters of persons"; would that the same were true of the graces! An eminent American speaker made such mouths at his audiences that only his vigorous ideas saved him from being disgusting; another threw his head back after every sentence, turned his face

upward, and drew in his breath with a hissing sound, as if inhaling the next sentence from the heavens. Another, who began life as a tailor, had a habit, when using the shears, of opening and shutting his mouth at every dip as if chewing gum. And still another, of deserved eminence, by trade a shoemaker, often when most eloquent imitated in his gestures the motions of the lapstone and waxed-end. A popular actor was so in the habit, at one time, of opening and twisting his mouth, that for months he was obliged to wear strips of adhesive plaster to help him overcome the defect. A very prominent pulpit orator has a custom of smacking his lips at the close of nearly every sentence, so as to be heard distinctly across the largest church; his admirers say that his habit is proof that he loves the truth.

When writing, multitudes of persons have the absurd habit of following the pen with their lips; at a tall letter the lips are pushed out and upward, and at one dropping below the line they are drawn in and downward, while at wide or running letters the mouth is lengthened by drawing the corners toward the ears.

Perhaps the most laughable is what may be called the wonder mouth, or, as John B. Gough terms it, the "gawp" mouth. This habit has provoked a host of puns: "A fly-trap," "an open countenance," "estranged lips."

Facial habits, acquired in childhood, are often irrepensible, cropping out all through life and causing great chagrin. In his boyhood, the governor of one of the States was much accustomed to "making believe" smoke a cigar, puffing around like a miniature engine, and although he did not actually become a smoker, he never outgrew this habit. When he filled, most honorably, the first office in the Commonwealth, it was so noticeable that he was called "old puffer." But his good sense frequently turned the fault to advantage. He was a Sunday-school speaker, and thousands of youth have been indelibly impressed by his warnings against evil acquirements,

reference to his own giving emphasis to his words. But the mouth is no monopolist of facial habits. They climb to the summit of that more aspiring feature, the nose; cluster around the "windows of the soul," plant their feet along the brow, and, in fact, weave their incantations across the whole physiognomy. It is literally true that they *deface* the face of many a mortal.

The *eyes* are, perhaps, more subject to habitual defects than the mouth. While they are susceptible of the merry twinkle, the tender ray of innocence, the glow of love, and the flash of genius, yet how often do they squint, and scowl, and glare, seeming less like "windows of the soul," than the grated outlook of a maniac.

Take, for instance, the well-known sidewise leer of a full-fledged tramp; how vice and indolence have effected their mission by stamping the class-mark of vagrancy upon the visual organs.

But lamentable and ridiculous habits of the eyes are not always vagabond. One of the ablest lawyers of the Western bar, noted especially for power of exhaustive thought on difficult topics, sometimes throws the court into convulsions of laughter by his optical peculiarity. If the subject is unusually profound, he turns cross-eyed as he wades into its depths, the source of his mental acumen seeming to be the bridge of his nose. The gravity of judge and jury is utterly overturned, if, at some blunder of the opposing counsel, he exclaims, "Hold! let us look into this point"; and then, rolling his eyes in toward his nasal organ, begins a logical exposure of the mistake.

Said a legal punster, in such a scene as this, "Does Mr. Wright carry his books of reference where he turns his eyes?" To which Mr. Wright replied, "I might, if I had read and owned as few volumes as my inquiring friend."

It would be hard to tell why the name "crows' feet" is given to the mirth wrinkles diverging from the outer corners of the jolly man's eyes; bobo-

links' feet would be more apt. But, mounting to the "beetling *brows*," we find a wrinkled arch, or pair of arches, erected as if with the fond but often futile hope that some procession of triumphal thoughts might enter or emerge. The noble brow of a certain learned college professor was sadly marred by an excessive habit of this kind, and irreverent tyros in the classics called it the "Arch of Augustus." When, however, both brows arch regularly in equal curves, and not in excess, it is benignant rather than otherwise. But if the habit is one-sided and jerky, it completely spoils the architecture of the forehead.

A physician of note had an ungovernable fault, acquired, as he averred, by trying to sleep with one eye open. His brows seemed balanced on a teeter, and when he was nervous, churned up and down at a tremendous rate. The only effectual preventive was two pairs of spectacles worn at the same time, one for his eyes, the other for his brows, and for years he visited his patients and lectured his students in this plight.

The wrinkles of the forehead are termed furrows, and what other field has been so prolific of mighty harvests as this, furrowed by the plowshare of thought, and harrowed by the teeth of stern resolve.

A few years ago there lived in an inland town two persons, affording a vivid contrast of the effect of good and evil in rendering the countenance divine or satanic. One was a Scotch-woman, whose coarse natural features had been pitted by small-pox, tortured by neuralgia, and wrung by bitter trials. During the last years of her life she was a nurse to the sick, especially in contagious cases feared by other people, and her face, illumined by unselfish love, mellowed by pity, strengthened by the sense of duty, had become one of the loveliest and noblest I ever beheld. It seemed like a combination of my ideals of Stephen's at his death, and Paul's before Agrippa.

The other was a man, groping under

the ever-deepening disgrace of a hideously *self-deformed* visage. He belonged to a gifted family, one of whom was a distinguished general in the American army. He had been a beautiful little boy, and his talents were the pride of the village academy. But in an evil time he found out that he could gain applause and make the boys merry by contortions of his face. At first it was only "innocent mischief," so-called, but steadily it became the staple of his popularity with all who would laugh at it. His reputation in his studies waned, and was soon eclipsed by his notoriety as a grimacer. He was sought after by the noisy and vulgar, and graced (?) all occasions of low revelry. This sort of career sternly wrought its inevitable result. His morals were debased to the last degree, he became a debauched and helpless drunkard, and was necessarily debarred all decent society. And as he descended the scale his face was the especial record-page of his progress. Its light went out, its muscular contour and workings became fiendish, its expressions were all and only bad. Grimacing developed from a habit into a disease. The fair-browed youth became a creature of visual horror, until his mother, whose ideal of beauty had been realized in her princely babe,

died of a broken heart at his deformity and degradation. And through all his years he was the miserable buffoon of a base, whisky-drinking crew, the butt of their jokes, the shame of the community, receiving his rum and a paltry diet of crusts as the hire of his face-making. The writer never sees a youngster distorting his features without recalling, with an inexpressible pang and anxiety, the story of this poor old grimacer.

The study of facial habits is *suggestive*. It points a thousand mute but meaning fingers in the direction of the lower animals; hints which a certain school of naturalists have not been slow to take. It reveals with startling vividness the power of thought and feeling over form and expression, and emphasizes well-nigh almightily the value of right principle and holy example. It exhorts parent and teacher to the utmost care for child hearts and features, and preaches eloquently of the power of an even-tempered soul, enthroned, like a queen, behind a beautiful face. It affords a glimpse of the ideal and wondrous front which mankind may wear in the coming Sometime, when mental and moral culture shall have sculptured its completed glory on the "human face divine."

J. L. BEMAN.

THE YORKTOWN CELEBRATION AND MONUMENT.

THE centennial of the surrender of Lord Cornwallis with the army and stores which had sustained the vigorous siege of Yorktown, was celebrated on the 19th of October last on the old battle-ground. A large company was present, including several distinguished descendants and representatives of those French and German officers who contributed so much to Washington's success in the investment of the old Virginian town. The names of the Marquis de Rochambeau, the Count de Grasse, the Colonel von Steuben and others, remind us of those worthy allies who stood shoulder to shoulder with the

American patriots in one of the most trying hours of the Revolution. Our energetic contemporary, *The South*, of New York, very suitably alludes to the part performed by the French and German friends of the young and struggling nation:

"The fate of the day at Yorktown—so big with the fate of America and Civil Liberty—was largely due to our foreign friends and allies, and above all, to France and the French, fighting side by side with Americans in the cause of our country—then in the infancy of its autonomy, and yet then, and for years after, 'the last of the little family of Re-

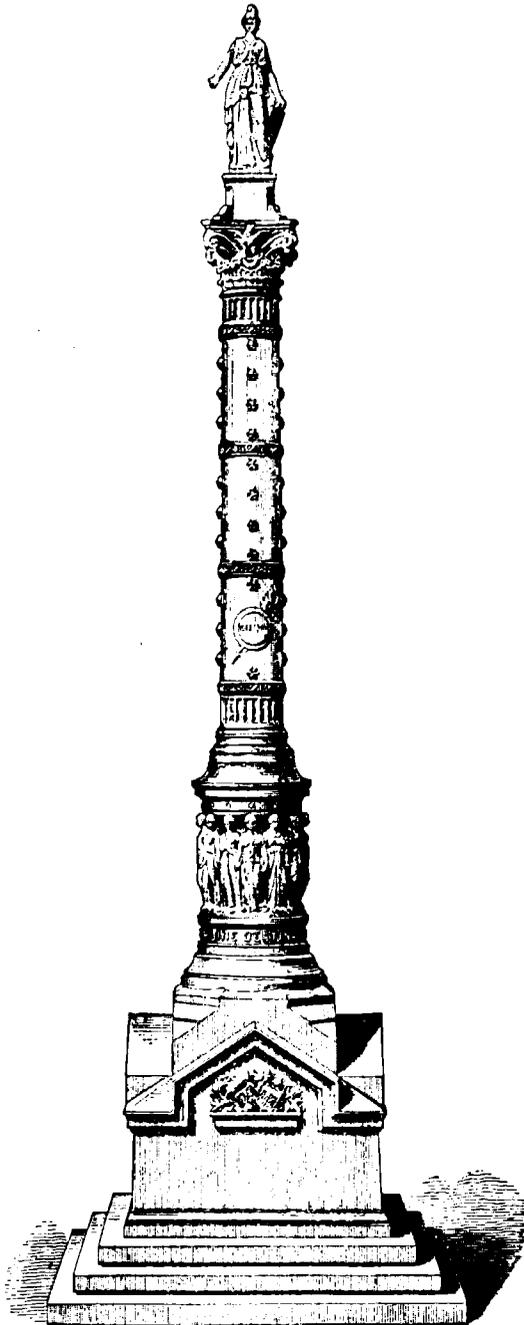
publics,' but born, as we may safely conclude, to become the head and example of a numerous household, and so to 'blot the era of oppression out, and let the universal freedom in.'

"Such an event and all those gallant and friendly aliens who, without thought of fee, reward, or reclamation contributed to it, deserve to be held in full and enduring remembrance by the American people, and the Federal and State governments. Hence the National, State, and local authorities, representing the American people, resolved to celebrate the centenary of Yorktown, by every appropriate display, military, naval, and civic; by erecting a monument to mark forever a spot sacred in our history; by calling together representatives of the people of every quarter of the country, to commemorate—once more and for all time in the laying of the foundations of the monument and rearing the symmetrical and beautiful column—the laying the foundations of the Union and rearing the majestic civil fabric in which all the States and people of the Union have a common interest and a common destiny."

The centennial celebration lasted several days, beginning with the 17th, and ending on the 21st of October; but the interest culminated on the 19th, when the exercises were participated in by President Arthur, Mr. Blaine, the Marquis de Rochambeau, Baron Steuben, Robert C. Winthrop, the French Minister at Washington, and others. The speech of the President was a graceful and dignified tribute to the memories of the day. We venture to reproduce it here, although it is quite likely the reader will find its phrases familiar after the wide publicity which was given to the whole affair by the American press:

"Upon this soil one hundred years ago our forefathers brought to a successful issue their heroic struggle for Independence. Here and then was established, and as we trust made secure upon this Continent for ages yet to come, that principle of government which is the very

fiber of our political system, the sovereignty of the people. The resentments which attended, and for a time survived the clash of arms, have long since ceased to animate our hearts. It is with



THE NEW MONUMENT AT YORKTOWN.

no feeling of exultation over a defeated foe that to-day we summon up a remembrance of those events which have made holy the ground whereon we tread. Surely no such unworthy sentiment could find harbor in our hearts, so profoundly thrilled with expressions of sorrow and sympathy which our national bereavement has evolved from the people of England and their august sovereign; but it is altogether fitting that we should gather here to refresh our souls with the contemplation of the unflinching patriotism, the steady zeal and sublime faith which achieved the results we now commemorate.

"For so, if we learn aright the lesson of the hour, shall we be incited to transmit to the generation which shall follow the precious legacy which our fathers left to us, the love of liberty protected by law. Of that historic scene which we here celebrate no feature is more prominent and none more touching than the participation of our gallant allies from across the sea. It was their presence which gave fresh and vigorous impulse to the hopes of our countrymen when well-nigh disheartened by a long series of disasters. It was that noble and generous aid, extended in the darkest period of the struggle, which sped the coming of our triumph, and made the capitulation at Yorktown possible a century ago. To their descendants and representatives who are here present as the honored guests of the nation it is my glad duty to offer cordial welcome. You have a right to share with us the associations which cluster about the day when your fathers fought side by side with our fathers in the cause which was here crowned with success, and none of the memories awakened by this anniversary are more grateful to us all than the reflection that the national friendships here so closely cemented have outlasted the mutations of a changeful century. God grant, my countrymen, that they may ever remain unshaken, and that ever henceforth with ourselves and with all the nations of the earth we may be at peace."

The illustration furnishes an excellent view of the monument, the dimensions of which are as follows: Base, 25 feet 8 inches; podium, 14 feet 4 inches; shaft, 35 feet 1 inch; capital, 5 feet 4 inches; pedestal, 3 feet 9 inches; figure, 11 feet 4 inches; making the total height from the bottom of the base, resting on the surface of the ground, to the top of the figure, 95 feet 6 inches. The bottom of the base covers a surface area of 945.56 feet. The area for inscriptions on each side of the base is 15,680 square inches. The greatest diameter of the podium is 9 feet 3 inches. The height of the thirteen figures surrounding the podium is 8 feet. The diameter of the shaft at the bottom, 5 feet 5 inches, and at the top 5 feet.

The inscriptions on the four sides of the base are:—On the north: "Erected in pursuance of a resolution of Congress, approved October 27, 1781, and one approved June 7, 1880, to commemorate the victory by which the Independence of the United States of America was achieved."

On the south: "At Yorktown, on October 19, 1781, after a siege of nineteen days, by 5,500 Americans, 7,000 French Infantry of the Line, 3,500 Militia, under command of Gov. Thomas Nelson, and 36 French Ships of Line, Earl Cornwallis, Commander of the British forces at Yorktown and Gloucester, surrendered the Army, 7,251 officers and men, 840 seamen, 244 cannon, and 24 standards, to his Excellency, George Washington, Commander-in-Chief of the combined forces of America and France; to his Excellency the Comte de Rochambeau, Commanding the Auxiliary troops of his Christian Majesty in America, and to his Excellency the Comte de Grasse, Commander-in-Chief of the Naval Army of France in Chesapeake."

On the west: "The treaty concluded February 6, 1778, between the United States of America and Louis XVI., King of France, declares the essential and direct end of the present defensive alliance, is to maintain effectively the Liberty, Sovereignty, and Independence,

absolute and unlimited, of the said United States, as well in matters of Government as of Commerce."

On the east: "The provisional articles of peace, concluded November 30, 1782, and the definite treaty of peace, concluded September 3, 1783, between the United States of America and George III., King of Great Britain and Ireland,

declares: His Britannic Majesty acknowledges the said United States, viz: New Hampshire, Massachusetts Bay, Rhode Island, and Providence Plantations, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, North Carolina, South Carolina, and Georgia, to be Free and Sovereign and Independent States."

PAUL BROCA,

THE EMINENT FRENCH PHYSIOLOGIST.

BY general consent of those who knew M. Paul Broca, the eminent French physiologist, he was an intense personification of zeal and industry. Whatever the work he undertook, he performed it with "exemplary exactness." This characterization suits the organism of the man as the portrait represents it. The large base of brain, very prominent in the forehead and full in the anterior side-head, indicates the possession of exceptional powers of perception, analysis, mechanical acumen, and executive efficiency. M. Broca was a natural investigator, gravitating toward the discovery of facts and the actual relation of parts; not a theorist, not a speculator. He had no pet "ideas"; he was not inclined to formulate assumptions and then look about for evidences of their plausibility or truth. The organ of Faith was weak in his brain, and Imitation was no stronger; hence he was not a man of easy conviction, not disposed to yield assent to any proposition without satisfactory evidences. He was, in fact, a natural doubter or skeptic. Having so moderate an endowment of Imitation rendered him independent in opinion, and disposed to examine for himself into things which interested him.

We suspect from the outline of the forehead that he rarely gave earnest attention to a second-hand judgment in scientific matters, while the rank and file of scientific men were ready to accept the dicta of M. Broca.

The portrait shows an excellent physical constitution, more than average vital stamina, but he died in July, 1880, when a little over fifty-six, the victim, we think, of excessive mental labors.

PAUL BROCA was born at Sainte-Foy-la-Grande, in the Gironde, on the 28th June, 1824, of an old Huguenot family. His father, who was a physician, had served in the Spanish wars, and contracted a deep hatred of the despotic spirit which had caused them and for which they were waged. Young Broca may therefore be said to have imbibed a constitutional dislike to anything savoring of political oppression or religious bigotry, and an earnest longing for liberty. He entered the Communal school at Sainte Foy when eight years old, and won the degree of Bachelor of Letters at sixteen. He had chosen the study of mathematics as his pursuit, but the death of his only sister led him to change his mind and to study medicine with the view to sharing his father's practice. His rapid advancement in the Faculty of

Medicine at Paris, however, made him an instructor there when but twenty-two. He lectured on surgery and operative medicine at the Practical school, and wrote papers on topics of pathology, in nearly all of which, according to Dr. Pozzi, he made at the first stroke a discovery of some value, while each bears

views which so alarmed the Society of Biology that he endeavored to organize a new society. He was hindered somewhat in the effort to obtain the proper official authority for holding meetings, because the Government inspectors were afraid of its name, fearing that the, to them, strange term, "anthropology,"



the mark of his originality in a marked degree.

Having been successful in a competition of theses, he was appointed surgeon to the hospitals, and for several years his work was entirely anatomical and surgical. Subsequent to 1859, Broca gave attention to studies related to anthropology, besides performing his regular medical duties. The early results of these studies were the announcement of

might cover some political or social scheme adverse to the existing régime.

When, however, the society was fairly under way it grew rapidly, and in three years it was recognized as an institution of public utility. M. Broca was the soul of it, and held the office of secretary till his death.

In 1861 he began his researches on the functions of the brain. In a series of four memoirs he gave reasons for be-

lieving that the brain was not "an undivided organ in which the different faculties have no determined seat," but that the fundamental convolutions of the hemispheres are distinct organs with distinct functions. A *post mortem* examination of the brain of a man who had been without the faculty of speech for twenty years, convinced him that the primary seat of his affection was in the third convolution of the left frontal lobe. Other observers of this affection, which is now known as aphasia, confirmed his view, and the part of the convolution he described as the speech center, is now generally called the "convolution of Broca."

Broca published two manuals as guides to the study of general anthropology and craniology. He insisted especially on the importance of accurate measurements, and of having conclusions supported by the averages of a large number of experimental cases. For these purposes he invented more than thirty simple, accurate, and convenient instruments of measurement. His anthropological memoirs are numerous, and pertain to all branches of the science, pre-historical, historical, ethnographical, and linguistic, and repeatedly illustrate the activity and encyclopedic comprehension of his intellect. He had begun to collect them in a series of volumes, of which three have been published and a fourth is in preparation. During the later years of his life he was chiefly interested in cerebral morphology; and he was engaged at the time of his death on a work on the morphology of the brain, which was to be a summary of the results of his studies. This valuable manuscript will be eventually published.

During the Franco-German war he served his country as one of the three directors of public assistance. There, by the exercise of prudence and tact, he saved the funds of the department, amounting to 75,000,000 francs (or \$15,000,000), from plunder by the Communists. He resumed his studies during the second siege, occupying himself in the formation of the collection of

cerebral models in the laboratory. He founded the "Revue d'Anthropologie" in January, 1872, and in the same year took part in the formation of the French Association for the Advancement of the Sciences, of which he became the leading spirit in the anthropological section.

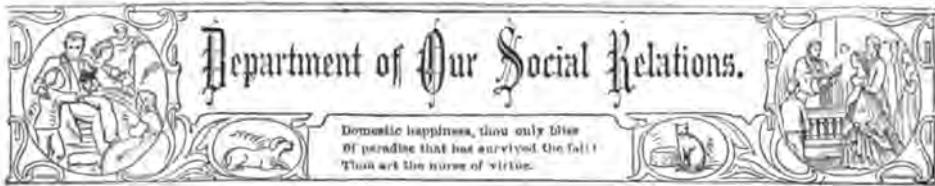
At the beginning of 1880 M. Broca was elected a Senator of France for life. Shortly afterward he wrote in reply to the congratulations of an English club over his new advancement: "In choosing their candidate for the first time from outside the political world, the 'Left' of the Senate have wished to manifest their good disposition toward the sciences; and, if I am happy in having been chosen on that ground, I am especially happy that anthropology should have acquired so much importance in public opinion as to be called to have its representative in the Senate." A banquet was given him by his friends in honor of his nomination, when he made a remark which had a singular bearing in connection with his sudden death: "My friends, I am too happy. . . . Yes, I am too happy. If I were superstitious, I should regard my nomination to the Senate as the presage of some great misfortune, perhaps as the presage of death." And so it turned out. On the 6th of July, 1880, he was seized with a fainting-fit while at his place in the Senate. He resumed his work on the two following days, but was attacked again at midnight on the 8th, and died in ten minutes. His organs were found to be all sound, and his death was attributed to nervous exhaustion.

For forty years Broca lived a life of persistent work. While still a student, he would pass his nights reading scientific works and journals, pen in hand, to note down what he found most interesting. For three years, although he was otherwise the busiest of the professors, he delivered his lectures twice a week, while his colleagues were satisfied to give a single lesson. He was accustomed to spend much time every day at the labo-

ratory, dissecting, drawing, or superintending the modeling and classification of new specimens; and he also devoted most of his evenings to anthropology. The pressure of his duties finally became so great that he could only afford one hour an evening for his favorite work, and he took from eleven o'clock till midnight, promising his family that he would not study later.

As a teacher, says M. Bertillon, he was clearness itself. His passion for truth spoke in his lectures, and he would never

leave a subject till he could see the understanding of it reflected in the face of every hearer. He was always ready to ignore the interests of his own ambition for the sake of those of science, and insisted on retiring from the presidency of the anthropological section of the French Association in 1876, so that the honor might be open to others. His style was simple and elegant, and combined the graces of the man of taste and the lover of poetry with the precision of the scientific student.



WOMEN AND SCIENCE.

I CAN imagine the smile, half-scornful and wholly incredulous, that passes over the masculine lips as the eye takes in the subject of this sketch, and yet, my dear sir, dare you deny that in the proudest scientific achievements of the past and present, a woman's name is often prominent—sometimes as the *real inventor*, and often as the *aider*? Are you skeptical of the possibility of a devotion to science for merely science's sake? Do our womanly garments shut us out of the Holy of Holies, debar us eternally from the sacred Arcana, think you? You men doubt woman's credentials for work like this, but your intellectual bigotry and monopoly already tremble before the weight of stern and positive results which women lay before you—data for your speculation—alms for your calculation. You sit in your easy-chair, and your eye takes in the contents of your daily paper; think you that you are indebted to a masculine mind for the *first* daily paper ever issued? If so, just let me inform you that "Mrs. Helen M. Cook, of the Women's Social Science Association, has brought out the fact that the *first* daily paper in the world

was started in 1772 in London by Elizabeth Mallet, and that her avowed object in entering the ranks of the profession was to *spare the public half the impertinences that papers usually contain.*" The same historian vouches for the statement that the first newspaper in Massachusetts, though founded by a man, was conducted for many years by his wife after his work had killed him. New York had a woman journalist—Mrs. Zunger—as early as 1748, and the newspaper was introduced in Rhode Island by a woman—Widow Annie Franklin—in 1732. In this instance the women had it all their own way, for the editor and her daughter set the type, and their maid-servant delivered the papers in the streets. It seems also that a woman published a paper as early as 1772 in Virginia, which was the first to print the Declaration of Independence; her name was Mrs. Clementine Reed. In glorious attestation of the truth of female capacity to grapple with some of the most recondite problems of science, stand the names of Caroline Herschel, Mary Somerville, Maria Mitchell, Emma Willard, Mrs. Phelps, and the proud compliment paid to Madame Lepante by Clairant and La-

lande, who, at the successful conclusion of their gigantic computations, declared: "The assistance rendered by her was such that, without her, we never should have dared to undertake the enormous labor in which it was necessary to calculate the distance of each of the two planets, Jupiter and Saturn, from the comet, separately for every degree, for one hundred and fifty years." We read recently an article, which contained some beautiful and grand thoughts, some soul-stirring exhortations to duty, but which also contained one sentence with which we could not agree. It was this: "Until woman is *man's physical equal*, she can not become *fully his mental equal*." Now, in our humble opinion, this is no criterion to go by, as we have known men of gigantic *physical* proportions who could perform a vast amount of manual labor, but who were *intellectually* far inferior to many women of frail form and delicate strength, whose minds were capable of great and noble work. We see no reason why, with proper education, a woman may not be *wholly man's equal mentally*. We are no "woman's *rights*" advocate, as people generally understand the meaning of this phrase. With the women who parade streets, and mount rostrums in a costume unladylike and unrefined, and a manner so boisterous as to bring ridicule and condemnation from sensible people, we have no patience at all; and we will admit too that many men disgrace any calling they undertake, yet it would be deemed unfair if we condemned all mankind because of their failures. So we say, do not condemn the *entire* woman-kind because there are some silly, weak-minded ones in it. And right here we would like to add a word to our male friends. From the verdict you pass upon womankind, we, of course, are able to judge of the class of women whom you have known and been associated with. Do not, therefore, disparage so lightly your mothers, your sisters, your sweethearts, or your wives, as to admit that, as a rule, woman is not the embodiment of purity and intelligence.

Woman is, of course, the queen of the home, yet many a woman is better fitted by her natural powers to argue the law, to expound the Scriptures, or to heal the sick, than to busy herself with domestic machinery, and we think that whatever a woman can do in *any sphere* of life for the welfare and benefit of society, without neglecting the sacred duties of her home life, it is her *duty* to do.

Madame de Staël's reply, when asked by Napoleon how he could improve the condition of France, was, "Educate the *mothers* of the French people"; but we would say, *educate the daughters*, for it is easier to bend a twig than a tree. The girls of our land should be taught every branch of household labor that is necessary to be performed, so that with skill and economy each may perform it herself, or direct others in its proper performance. But associated with this training there should be a strict discipline and education of the tastes and finer feelings. Parents should carefully consider the cravings of the human hearts confided to their care, and, so far as possible, gratify the tastes of each. While contact with illiterate and unprincipled persons is often unavoidable, it is a great safeguard for the young to have pure and intelligent associates. We have read of one, a brilliant lady of high standing in society, who had under her care an orphaned niece, and so anxious was this good lady to lay a true foundation for a grand and noble life, that she carefully guarded the girl's earlier years from all society that could tend in any way to lower her standard of purity and truth.

Her parlors were often filled with some of the most eminent characters in English society. There the young girl listened to pious divines of every Christian persuasion. There she gathered wisdom from real philosophers, and in the society of distinguished poets cherished an enthusiasm for all that is great and good. On these evenings this good lady's house would remind a guest of what he had read or imagined of the school of Athens, as he beheld not only sages, sol-

diers, statesmen, and poets, but intelligent and amiable women. And in this rare assembly did that beautiful young girl imbibe that steady reverence of virtue and talent, which no intermixture with the ephemeral of the day could ever after displace or impair. By having learned much, and thought more, she proved in her conduct that reflection is the alchemy which turns knowledge into wisdom. Now, while there are but few comparatively who can bring to their homes guests of such merit and distinction, yet in one sense nearly all may imitate this good lady, for we may all enjoy communion with great minds, though we may be denied their living presence, through their *books*; in the works of sci-

ence and art, they speak to us. Sisters, do not despair; for though we are clothed with a woman's nature (which we would not change if we could), there are inviting fields which *we may till and sow and reap*. Science, Art, and Literature stretch out inviting hands to us, and *if we will*, we may enter their sacred penetralia, and write our names with those of our fathers, husbands, and brothers, upon the scroll where lives are marked by *deeds*, not *words*.

With woman rests the solution of the heaviest problems of our civilization. When they attain the nobility of character possible to them, we may look for the dawn of the golden era—the millennial time.

MRS. ETTIE H. DAVIS.

THE PURITAN CHILD.

FROM the first I was a dainty child, as I believe Puritans are apt to be, partly from their habit of following the Mosaic injunctions as to what is admissible for food, and partly from a pure intellectualism, that forbade animal grossness. For instance, I never ate eggs cooked in the ordinary method of boil or fry, etc., till after I was a married woman. Mothers thought them improper eating for girls and boys. I never had a hankering for *pickles*, so common with girls, and have thought a not improbable theory might be evolved for this on the basis of Puritanic proclivities.

I ate little or no meat when a child, living mostly upon fruit, fresh and dried, nuts, raisins, milk, and what were called Medford crackers, a delicate, crisp kind of biscuit. I enjoyed these with an exquisite relish. The poets are fully justified in their laudation of the delicious aromas and luscious sweets of fruit and spice, and the more delicate instincts and finer sensuousness inherent in a sound and healthful organization. Milton makes the mouth water as he describes the dainty feast prepared by Eve for her angel guests, and Keats no less in spreading the mys-

tic board of the trembling lover on the eve of St. Agnes.

My mother, as may be inferred, was exact in the training of her family, not only in moral and religious ideas, but in polite manners. She had a little old book called "The School of Good Manners," which we read over and over again. It was the same as the one from which the mother of Washington taught her children. The regulations were hardly so primitive and minute as those left us by Erasmus, but were sufficiently elaborate to constitute a complete system.

MISSIONARIES.

When I was eight or nine years old New England people were deeply moved on the subject of missions, exercised thereto by the departure of Harriet Newell and the beautiful Anna Judson as missionaries to India. To convert the heathen Burmese became an absorbing subject to our people, few of whom knew anything about Buddha, but were familiar with the doings of the East India Company. Societies were organized; students planted fields, the produce of which was to go to the missionary fund.

We children all joined the *Cent Society*, one condition of which was that we should deny ourselves some luxury and put its value into the missionary box. My sisters and myself agreed to go without butter, and on Saturday afternoons we carried ten or more cents to the missionary box.

Suddenly it occurred to me that this was not exactly the truth on my part, and with some shame I told my mother I did not think I was doing the right thing, "For you know, ma, I do not care for butter, while I dearly like sugar; so I will deny myself sugar." This I did, which was indeed a sacrifice to a child having "a sweet tooth," as I had.

SOCIAL PROCLIVITIES.

I was troubled very early at seeing the social differences between those about me, and questioned whether it was right for me to dress as I did while so many children were denied not merely what was pretty, but what was essential to comfort also. It was not quite satisfactory when my mother shut me up by saying, "Little girls must wear what their mothers provide," etc. I vexed her by surmising that Christ would have us sell all and give to the poor. Persistent little Puritan that I was: supposing that if we were Christians we should practice what the great Founder taught.

I was visiting the family of a pious Friend where there were two girls a trifle older than myself, I being nine years old. I discussed this matter with them, saying often, "I do not think we ought to dress so much better than the other school children." I soon brought them over to my way of thinking, and one morning, on our way to the village school, we all three took off our nice stockings and slippers and hid them under a bush by the wayside.

We went on manfully through the dust and over stones that bruised our unaccustomed feet, and never shall I forget my amazement *when the little boys and girls pelted us with stones and followed our*

virtuous intents with jeers and laughter. We went solemnly and resolutely onward, however, when I unluckily stepped upon a *bumblebee*. The pain was intense, but I was disciplined in self-control, and "gave no sign." I simply told Julia, "I think a bee has stung me," but on reaching the school-house, I fainted away on the threshold.

Great was the commotion and outcry as I was carried home, followed by half the school, and covered with shame. I was, of course, reprimanded, but what set me most seriously to doubt and repine, was the being told that I "was punished for my willfulness and disobedience for not caring to dress like a little lady, but choosing to have my own way, and go like a little beggar." The defection of my young proselytes, Julia and Sally, caused me more pain than the sting of the bee, for they both said to me:

"You are a fool, Elizabeth; you'll never get us into such a scrape again."

How often I had been called a fool! But I quite broke down when a young collegian in the family inquiring into the merits of the case, burst into fits of laughter, but declared, "That's no fool of a child, I can tell you."

GETTING ON SLOWLY.

Notwithstanding my many defeats, failures, and mistakes, which seemed rather to increase as I got older, I was a favorite with children and grown people. Invited much to visit, my opinions gravely asked, and judgment submitted to, I found my way to perfection beset with thorns nevertheless, and many an out-of-the-way place became audible to my earnest prayers, and my no less earnest self-reproach. In all this I was silent and reserved in the presence of others, unless mentally called upon to express myself by way of rebuke or advice to my mates. Wednesday and Saturday afternoons were holidays at our school, and during these periods we were allowed to have the children of the neighborhood to play with us, and these play-times were often converted

into little prayer-meetings, which was not considered at all peculiar in those days of pervading religious feeling, and the children enjoyed them as much as doll-playing, swinging, etc. ; it was a feature of the prevailing Puritan blood.

When about nine years old, in searching for something to read, I found several papers entitled "Religious Experience of —." These were in the handwriting of several of my uncles, to be read preparatory to their public confession of faith as members of the Church, which they all joined. These papers were spotted with tears, the testimony of their sincerity. I read these documents, carefully written and religiously preserved, with a deep feeling of distress. These were all good men, who nevertheless spoke of themselves as the vilest of sinners. I rebelled against it all. It contrasted with my equally sincere belief in my own worthiness, and I saw somebody, one or many, must be in the wrong ; but I was fast growing less critical, as I was beginning more and more to see how impossible it was for me to be able to master the many questions that crowded upon my mind.

DRESS.

In this matter I regret to say I was not an agreeable child. Spring and autumn were serious periods in the family, when each member was fitted out with garments suited to the coming season. My sisters were full of childish delight over their new dresses, but I disliked the change ; I disliked to be fitted, and though not sullen in the matter, I made my mother see the whole thing was irksome to me, and when I one day seriously asked her to let me have a Quaker bonnet and plain dress, she was much hurt, saying, "I do not see where you ever got such notions, child."

And yet this was the natural outcome of the Christian reading and teaching which I had absorbed with my mother's milk.

SCHOOL LIFE.

I am now getting well on to a dozen years. I am not now discomfited at being called a pretty child, and when young gentlemen go out of their way to make me a bow, or bring me beautiful flowers, I am not displeased ; still I have great misgivings that I am on a retrograde track, and have great spirit questionings. I am now going to school to a most lovely, most estimable teacher, who understands me better than all others, and I am drawn to her by the tenderest cords. As I leave school Wednesdays and Saturdays, I pass several married ladies, each with books in hand, who enter the school-room as we children come out. This is a mystery which my mother explains to me in confidence. "These ladies are studying with Miss Folsom, because in early life their education had been neglected." This seemed eminently proper even to me ; seemed just what I would do under like circumstances.

I must say a more explicit word about this beloved teacher, a gentle, pale, thoughtful woman, who died early. There was something holy in her sweet face, and endearing in the slightest touch of her hand, that made me feel as if angelled. Scrupulously just, she treated all her pupils with equal kindness, but I felt she loved me best of all. Sometimes she would say :

"Elizabeth, stop after school, I have something to say to you."

This gave me great pleasure. I knew she would put her arm around my waist and draw me to her side, and caress my long curls and tell me my faults so sweetly that it was almost a pleasure to have them.

Every week "A Reward of Merit" was bestowed upon the pupils, which I received with something like shame, for they were obtained without effort on my part, while I saw other little girls studying hard, and trying in every way to deserve these testimonials. I had one day been requested to stay after school, when the following conversation ensued :

"Elizabeth, dear, do you know you talk too much in school hours, and laugh, which is not a good example?"

"I know I do, Miss Folsom; but I have so much to say."

"But you should wait till after school."

"Oh! I should forget the fun of it, and it isn't worth waiting for."

"But I want you to take the best prizes, and you can do so if you try."

"That is just what I want to speak about, Miss Folsom. I should try to do right if there were no prizes. I do not like to be hired to be good."

"But you wish to please me?"

My answer to this was a kiss, which she returned very gently; I went on.

"I will tell you how it is, Miss Folsom. Eleanor wants the first prize; she and other girls study hard, and do not break the rules of the school. They will deserve it more than I do, because they *try* to win it, and are not like me, for I do not want reward for goodness."

"You always have your lessons, and are a pleasant child, dear."

"That comes to me. I do not try for it as the girls do. Don't you think that those that try for a thing deserve most to have the reward?"

"But why not try?"

"I don't know. I think I am not very good. I want to learn, and want to please you, but somehow I do not want to be paid for it."

"Elizabeth, you would *strive* to do what is right?"

"I obey—I learn—I am never false!"

"Certainly, dear; you *strive* to do right."

"No, Miss Folsom, little good *ways* come to me, but I am afraid I do not understand what it means to be good. I am just what comes."

I remember the sweet, earnest look with which she regarded me; then she closed her eyes and laid her cheek to mine. She said nothing more, only kissed me tenderly.

The term closed. Parents and friends came to the examination, and the tempting prizes of beautiful books were spread

out before all eyes. *The highest prize for demeanor, excellence in study, and correct morals, was given to me.*

I took it with a burst of tears, and lingering till all were gone, besought my beloved teacher to erase my name and write therein the name of my good, pains-taking step-sister. She positively refused, and I carried the prize to my mother, with a sense of not having earned it, because I had made no effort; that feeling neutralized my triumph.

I had ere this learned that my severer virtues passed unnoticed, while they were the ones which cost the greater effort. I was praised for my neatness and orderly habits, and the readiness with which I learned the words of a lesson, while my unchildish casuistry subjected me to severe reprehension, and I saw, caused my mother much anxiety, and thus I early learned contempt for ordinary praise.

TEACHER OF A COLORED SUNDAY-SCHOOL.

When twelve years old, some young gentlemen of the higher class in the city, organized a Sunday-school for the blacks, who were, by public feeling, excluded from the white school. I was invited to take a class in this enterprise, which I did to the satisfaction of all. My pupils were greatly interested, and committed to memory an incredible number of verses from the Bible, often amounting to two hundred. As my class was large, and I wished to explain the meaning of what they learned, I was obliged to limit their recitations. For two years or more I continued to teach in this Sunday-school, and years afterward my pupils showed their appreciation of my efforts, most especially when the Anti-Slavery question assumed a preponderating influence.

THE LAST EFFORT OF THE PURITAN CHILD.

I was now twelve; delicate in make, but in good health, and beginning to attract attention in many ways. My mother no longer complained of my dreamy, far-

away look, but grew proud of my appearance, and the comments of those about me. I somehow felt as boatmen do who have struck the rapids and begin to feel the downward current.

I began to have dreams of the future, and was by no means content with my acquired knowledge. What I had learned was thoroughly learned, but it was so little, and I saw boys were sent to college, while the girls of a family of the same age were married, and that was the last of them. A second cousin of mine, then in college, read one day to me one of his compositions, which seemed poor to me, and had errors in grammar besides, which I pointed out to him.

The result was, I taught him Lindley Murray, and he read Virgil to me, and more, he vexed me by expressing the most extravagant admiration of me.

I told him "I was only a little girl, and had no thoughts that way, but my sister was much handsomer, and when she came home he would think no more of me."

This proved to be the case, and his attachment for her became a most unfortunate thing for him, as he left for Hayti, and there died.

I passed many an hour cogitating plans by which I might more fully educate myself, but hesitating to name them, as I could see my mother was planning to marry her daughters, and that while they were very young.

One night I slept with her, and with a timid voice told her I wanted to tell her a plan I had. She assented, and I went on as follows :

"Will you let me take some scholars and earn money? I will save it up till I get enough to pay one term in college, and then I will go down to Brunswick, and board with one of the professors, and learn all the lessons that the young men learn. I will work, and pay my own way, and when I know enough will keep a great school for girls. I will graduate just as my cousins mean to do, and then I shall not feel so ignorant as I now do."

She listened with an ominous silence, and when I closed, simply said :

"Go to sleep, child; no daughter of mine is going to be a school-ma'am."

And thus the dreams of the Puritan child came to a close, and thus down the rapids inclined my little barque. It was no sudden, irresistible descent. With a weird feeling of "what's the use," I felt myself impelled, and yet cast longing eyes toward idealisms, vast and undefined, which I was not permitted to grasp. I was Puritan, blood, bone, and soul; by long descent forced to question; by long descent trained to obedience. Filial obedience was no sentiment merely to the Puritan child. A parent was in the place of God, and an implied wish had the force of a command. I, a cautious little elephant, felt the platform shake beneath me, and there was nothing for me but to take to the water.

PROGENITORS.

As I recall the experience of my childhood, my struggle after perfection, my preparation for martyrdom, and those solitary midnight aspirations which were features with me while yet a child, who had not seen her first decade, I should imagine myself the reproduction of some remote ancestor, whose life was devoted to fastings and prayer, who died for the faith that was in him. I did not know that the Puritans were an austere people, and that religious speculation was the breath of life to them.

All my progenitors bore Bible names, and I was early in a muddle on this ground. Other little girls were called Angela and Julia and Josephine, while my darling sister was named Hephzibah, which was a trial to her. Often she would ask me to let her take my name for a day, as the prettier of the two, which I did, and our mother being duly informed of the arrangement, humored the tender little whim.

I had cousins named Deborah, Rachel, and Rebecca; we had no Uncle George, Henry, or Charles, but a plenty of Davids

and Pauls, Zenas, Elias, and Cornelius; a Bible patent of nobility, in fact. It must not be inferred that we were morose, taciturn, or bigoted from all this; on the contrary, despite of great order, diligence, and prayerfulness, there was a vein of humor pervading the stock, and my grandfather Prince, Pilgrim to the backbone, more than once relieved himself of his contempt for the narrow prejudices of the times and the Church by satirizing them in rhyme. He was not popular with the "minister," Rev. Mr. Smith, who was obliged to tolerate his Hopkins proclivities because of his wealth and influence in the community, while he naturally feared his superior intelligence.

THE PURITAN MAIDEN.

"I should be ashamed to hear a daughter of mine talk about falling in love. It is time enough to talk about love when she is properly married."

I heard this more than once said by my mother to persons who commented upon the attentions which my sister and I received. Could the experience of a young Puritan girl be plainly and honestly written out, it would be an interesting, lovely idyl, sweeter than anything to be found in any book.

The whole modern ideas of flirtation were unknown to her. Life was earnest, true, sacred, to her mind. Industry was a duty, not a disgrace. There were no lazy, disorderly, disobedient girls to be found anywhere with good Puritan blood in their veins. Mothers carefully put them in the way they should go, and they did not depart from it.

There was no talk about affinities in those days. Young men were trained to use all their faculties of body and mind to the best purpose, and the girls were not slow to observe their excellencies, as is apparent in the case of John Alden, where the smart girl says to him so pithily, "Prithee, John, why do you not speak for yourself?" It will be remembered that a friend, too foolishly bashful to present his own case, was so unwise as to send the handsome John Alden to do it

for him; the fatal result to him is a part of history, and so is the Puritan maiden's rejoinder.

These affinities consisted in a mutual sense of responsibility; in intelligent forecast; in decorous conduct toward men, and reverence toward God. Their manners might not be courtly, nor their tongues flippant in repartee, but they were all from a good stock, and therefore not boorish nor dull in speech. Both sexes conjoined themselves to the Church early in life, mostly from religious conviction, partly because the social and civil state of opinion required it of them. Without church membership there was no influence, and companionship was straitened. A hundred years ago the Church was the dominant power. Revivals, as they were called, came with the advent of each generation, but were orderly and quiet, for it was in the blood of the people to be religious, and every youth and maiden considered themselves, in the language of Jonathan Edwards, "held by a spider's thread over the flames of hell by the very hand of God, till they cried out for mercy." The population had become mixed by immigration when the preaching of Whitfield electrified the country. The old Pilgrim stock were safely housed in the ark of the Church early in life. Consequently the Puritan Child, when little over thirteen, became a church member, partly from invitation, and in part from a tender love for the Divine Teacher who had asked his followers to "do this in memory of me." It seemed a beautiful tribute of affection, for I certainly had none of that stress of seeking and finding described by others. Notwithstanding this, and my unconcealed repugnance to many dogmas, I suppose I was thought too much of a child to have any dissents worthy of consideration, for I was cordially received, and remained several years a member. But I was not satisfied with myself or others. My code was severe, and my questioning not to be stifled. Life began to press too heavily at this period upon my unmaturing judgment.

With my natural and acquired self-control, I kept much of this to myself. I think that for all these years I was wretched. I felt that my position was a false one in many ways, that my Puritanic proclivities did not harmonize with the

real about me. I was expected to be one thing, and felt I was another. I wanted study, thought, idealism, and saw that the poor, little scrutinizing elephant was propelled over the bridge, though she felt it shake beneath her.

ELIZABETH OAKES SMITH.

THE SEWING-GIRL.

WHERE the vast crowd with many feet,
Like a huge monster in the street,
Has it a human heart to beat

(With hope and pity?)
Creeps slowly on from rosy morn,
Until the moon has filled her horn;
There moved a maiden humble born
In the proud city.

This orphan earned her daily bread
With the swift needle and its thread;
Her cheeks grew pale, her eyes grew red
As sunset skies.

She stitched her life into the seams,
On silk more radiant than her dreams;
And late toil dimmed the soul-lit beams
Of her soft eyes.

Broidered with skill and beauty rare,
With silken lines, fine as her hair,
Were daffodils, and daisies fair,
And buds of snow.

The purple palpitating skeins,
That made the modest violet's veins,
Shriveled as though they felt the pains
Of want and woe.

How cheap her life, how dear her bread,
Oh, had you cut the pulsing thread,
It seems that then it must have bled
Like an artery.

On the rich figures worked by art,
The brittle thread spooled from the heart,
Will snap with overwork and part,
In sore agony.

GEORGE W. BUNGAY.

FOR THE GENTLEMEN.

I HAVE witnessed long enough with sorrowful heart, how these poor dear creatures are neglected in this all-important matter of dress. I can bear it no longer. In this article I shall, if possible, try to make amends to some extent. There is hardly a paper that does not, under the head of "For the Ladies," give most minute and delightful particulars regarding ladies' dresses; but how the gentlemen are to find out whether their pants should be gored before or behind; whether they should be plaited or ruffled; whether open half-way up the left side and closed with old gold or steel buttons on the right, or *vice versa*; whether to trim with velvet, silk, fringe, lace, or beads; whether they shall be *bouffant*, draped high or low, much or slightly; whether to have them trail, or just clear the ground; whether there shall be sixteen flying ends with a tassel on each, or one lone point, front and back; how the gentlemen are to find out

all these things without columns devoted especially to them, is a mystery to me.

It is too bad for them to be left in ignorance on such momentous questions, and finding in a fashionable paper some hints, which, with a little modification, will answer for the neglected sex, I have, in the sympathy of my heart, determined to fix them over for the gentlemen, hoping they may be induced to make the much-needed improvement in their dress which these hints suggest.

Hint first: "A dress that is so peculiar as to be striking, either from its brilliancy of color or any other cause, should be adopted only by a woman who has many changes of raiment, and so may wear it occasionally, or the sight of it becomes a bore, even if at first it is interesting from its novelty."

Excellent idea! You see from this, gentlemen, that if you can't afford a new suit once in three or four days, you

should buy a common sort of color, and not indulge in big, bright plaids.

Hint second: "A woman who has but one best gown can 'wear it with a difference.' Suppose it should be worn one day high in the neck, with collar and cuffs; on another day with the neck turned in, and a lace or muslin fichu, gracefully adjusted with bows or flowers, and a bit of lace at the wrists, a pair of long gloves, and a more elaborate dressing of the hair, it will be scarcely recognizable. But the dress must be of a very general character, like black silk, or some dark color, or the pleasure of the new impression is lost."

This also requires but slight change to fit it to the gentlemen. Just have your coats cut with collars that you can turn up or down; have them made of some dark color; wear your hair parted in the middle one day, on the left side another; have the ends of your mustache waxed into spikes at one time, and let it hang over your mouth at another, and so on; then folks will hardly know whether you have new clothes or not. But we come now to the greatest consideration of all.

Hint third: "There is certainly great economy in a woman's adopting for occasions of ceremony, one dress from which she never diverges. Such dress as this must of course lie within certain limits. Suppose it to be a black velvet; it would last, with care, at least five or six years. Suppose it to be a white cashmere—a dress of small cost—it could, with care, last two seasons; and then cleaned, last another season or two; and then dyed, be turned into a walking dress to last two seasons more."

Mark this, gentlemen, "with care." That's the point. You see, my impecunious young man, that "with care" you can dress on pretty nearly nothing, and probably you can find somebody willing to board you for nothing, or for a trifling consideration which nature has furnished you the means of allowing; so, why bother your head to learn a trade, a business, or profession? Just learn how to take "care" of your clothes, and no matter whether you know anything else or

not. If anybody suggests that you might better devote your talents to acquiring some useful occupation, you must loftily repudiate the suggestion. Nobly give your best endeavor, your whole soul, to this one single grand purpose—for you can not accomplish it at any less sacrifice—of keeping up a genteel appearance on the smallest possible means. So shall you aid the world's advance in purity, virtue, knowledge, and peace.

It isn't of any consequence to you whether Moses lived before Christ or Christ before Moses, or which of the two said, "The life is more than meat, and the body than raiment." You need not know whether our male or our female population is made a political nonentity by our Constitution.

Don't puzzle your brains over the problem of whether crime makes poverty or poverty crime, or whether interest-taking and dollar-snapping make both. Don't stoop to consider if our public schools are not teaching selfishness and undermining health and morals generally.

No, no! You can not do justice to the work in hand, if you allow your thoughts to be diverted by any of these minor considerations.

Perhaps before closing I ought to go into minutiae a little more, and would suggest that with your six-year black suit, or your two-year white one, you can make agreeable variations by wearing a pink shirt front and collar one day, a blue the next, green the next, and so on; but if you give your mind as strictly to this matter of dress as it merits, entirely relieving it from any other burdens, you will readily perceive other changes, so I need not particularize further.

Now, gentlemen, follow my advice as closely, as I have no doubt the women will, that from which it is taken, and if each of you does not succeed in putting yourself into a position where you will be constantly grumbling because you must "do the same work for less wages than a man," and bring on yourself the reproach of mental and physical inferiority and weakness, I won't charge you a cent for it. CELIA B. WHITEHEAD.

LOUISE OTTO PETERS,

THE JOURNALIST AND SOCIAL REFORMER.

THIS lady, to whom our Paris correspondent alludes in a sketch of the German Women's Congress, which appeared in the January PHRENOLOGICAL JOURNAL, is a lady whose history and character deserve special consideration. In organism she appears a thoroughly practical, clear-headed, strong-hearted woman. The portrait shows quick-

whole of Europe, Saxony had also its own private revolution, Prince Frederick August being made co-regent, and being obliged to sign a liberal constitution. When, in honor of this happy event, the town of Meissen was illuminated, Louise Otto, then ten years old, wrote her first poem, a *political* poem, celebrating the new era and attacking the Jesuits, who,



ness of impression, a very active spirit and intensity of feeling. She is a lady of purpose, decision, and great executive force. In the temporal region her head is evidently very full, indicating imaginative power, capacity to plan and organize her thought and her work. She is past sixty years of age, yet there are no indications of any abatement in the forces of her mentality. She looks and acts more like forty than sixty-two. A German correspondent of *Demorest's Magazine* supplies an appreciative sketch of Madame Peters, from which we glean the following:

"When the revolution of July shook the

it was claimed, had tried to poison the prince. Ever since, her lyre, though often attuned to other cords, has been true to its first melody.

"When Louise was sixteen she lost both her parents in the course of three months. After this sad event she and her three sisters remained alone in the large house with a maiden aunt, where she had abundance of time to dream, to study, and to poetize. In 1843 her first novel, 'Ludwig der Kellner' (Lewis the Waiter), appeared. This attacked old prejudices and false views of society, inculcating strongly Burns' creed,

“‘A man’s a man for a’ that.’

“In the preface she says: ‘If spring does not come to-day it will come soon; all those who, like myself, hold fast to this belief, I greet as my comrades.’ These words made a sensation, and gained for her many friends and admirers among aspiring German youth.

“From this time on Louise Otto became a contributor to many political papers, in which she first wrote under a masculine *nom de plume*; but, her articles being well received, she soon dropped the mask, and showed that a woman can take a lively and independent interest in political events.

“Her succeeding novels continued to treat of social and political questions, as ‘Die Freunde’ (The Friends), celebrating the Burschenschaften, or associations of students at the universities; ‘Schwarz, Roth, und Gold’ (Black, Red, and Yellow), the German colors, which were strictly prohibited in that time of reaction; ‘Schloss und Fabrick’ (Castle and Factory), a novel which pleaded for the poor factory-men of the Erzgebirge, and which, on that account, was confiscated, though afterward, upon her personal solicitation, released, and, after some changes, republished.

“This novel made her very popular among liberal men, and a deputation of the working-men of Leipsic went to thank her and request her to write for their special organ, *The Typographia*. This she promised to do if allowed to speak in the interest of the workwomen, as she had already done in other papers.

“The revolution of 1848 roused all her enthusiasm, though it also wrung from her the lament that she was but a ‘helpless, fettered woman!’ Yet she was not idle. Besides songs of glowing patriotism, she wrote an ‘Address of a German Woman to the Ministry, the Commissioners of Work, and all Working People,’ which concludes in this manner: ‘Do not think you can organize any system of labor without including the work of women. But, though all the world should forget them, so shall not I.’

“And she kept her word. She took part in the revolutionary agitation, in the elections, in the establishment of liberal newspapers; she founded herself the first *Woman’s Journal* in Germany, bearing the motto, almost untranslatable, ‘Dem Reich der Freiheit werb ich Bürgerinnen’ (For the kingdom of Liberty I seek free citizens [women]), in which she declared that those women should not be helped who would not help themselves.

“But the liberal movement was suppressed; her paper, among many others, was suspended; and as Louise Otto was thought to be a dangerous character, confiscations, interviews with detectives, and searchings of her house came to be every-day affairs with her. The Government knew well that among those who had been persecuted and exiled were many of her friends, and gave her to understand that any support offered even to their helpless families was an offense against the ‘powers that be.’

“Among those forced to leave their fatherland was one of her dearest friends, although up to that time they had met but once—August Peters. Being editor of a republican paper, he was threatened, persecuted, and fled to take part in the struggle in Baden, where he was made a prisoner. The friends found means of communicating with each other, and in 1851, when Peters was condemned to ten years’ imprisonment in Bruchsal, Louise Otto went to see him, and through the iron bars of the prison they exchanged vows of constancy.

“In 1856, an hour of deliverance came for the prisoner, and the heavily tried pair were united in marriage, and together established the *Mitteldutsche Volkszeitung*, a liberal paper, which continued until 1866. In the years which had passed many novels had appeared from Frau Otto’s ready pen, one of which, a historical novel, entitled ‘Nurnburg,’ has been highly praised.

“Dr. Peters died in 1864, leaving his widow in reduced circumstances, as most of her property had melted away in the cause of liberty. For many years the

courageous woman had a hard struggle with necessity, maintaining herself solely by her pen, until a legacy gave her again a firm footing in the world.

"In 1865, Frau Otto, in conjunction with several other women of like sympathies and aspirations, founded the 'Allgemeine deutsche Frauen-Verein,' an association having for its motto, 'Das Recht und die Ehre der Arbeit' (The Right and Honor of Work), and having for its aim the elevation of the position of woman, especially in Germany.

"The 'Verein' has its center at Leipzig, but its members are to be found all over Germany, and even beyond its boundaries, and many women's congresses have been held in different German towns, such as Brunswick, Cassel, Hanover, Heidelberg, Stuttgart, etc., all like the last ably presided over by Louise Otto, and all having the same result—the

establishment of local unions, adopting the same general principles as the mother union, and the proving their words by their works in the institution of all sorts of professional and practical schools for the development and elevation of the female sex.

"A journal, to be the organ of the new association, was established at the same time, called the *Neue Bahnen* (New Path), and has ever since been edited by Frau Otto, and her faithful coadjutor, Fräulein Auguste Schmidt. The productions of her pen from that period have been almost exclusively dedicated to the interests of women: 'Das Recht der Frauen auf Erwerb' (The right of women to earnings); 'The Trilogy, or The Genius of the House; The Genius of Mankind; The Genius of Nature,' and 'Frauenleben in deutschen Reiche.'"

PHRENOKEPHALE.

LOOKING from the tallest tree
Of the mental sphere, I see
Birds of various flecks and dyes,
Round their nidus tilt and rise;
Birds with gorgeous plumage spread,
Ribbed with rays from tall to head.

Fair's the surplice of the dove,
Circling near her organ, Love,
Nourishing her happy nest
At the lover's throbbing breast;
Darting rays from eye to eye,
That are nimbused with a sigh,
Which o'er the tide of lovers roll,
And fill love's canvas in the soul.

Raving in his frantic fits,
O'er the nest of Fury sits
The falcon, with his talons strong,
Thrilled with the melody of wrong.
With red battle in his eye,
And a wild, sulphuric cry,
O'er the empire of the brain
Terribly he holds his reign,
Till the frenzy of despair
Claims him as its dying heir.

High on the nest of Self-conceit
The peacock spreads his ample sheet
Of flowing tail and glowing spots,
And pride, which dazzles while it rots,

And through the music of its nose
Offensive to good taste it flows.

To jackanape 'twould be no boon
To raise the hand and pluck the moon,
And plant it, with an unctuous vow,
A diadem on his brazen brow.

On the nest of gibble-gabble
Clacks the magpie's foolish babble;
How she sets the mental air
Madly moving through the hair,
At her chatter-chitter-chatter,
At her polylogy clatter,
Till, at last, her thievish tongue,
Plundering the acoustic lung,
Clouds the power of peaceful thought,
And dies, unteaching and untaught.

On nest Wisdom sits the owl,
In his sober, monkish cowl,
With eyes as wide as widest thought,
By problems grave long overwrought.
In his jole and curving beak
Grasps of wisdom silent speak,—
Wisdom deep, which seems to dwell
On the doubts that measure hell;
Wisdom cold, which seems to say,
Peace for man is far away.

O'er the poet's womb of wit
Sings the mavis minims fit,

Soaring, as she thrills her song,
High above the ravished throng,
Passing in a flood of joy
O'er the heartstrings' sad alloy.

Oh, magnet music of the soul !
What gods thy seraph breath control !
Thine eye is like a spirit star,
Which leads me to the realms afar,
Sailing on celestial seas,
Wafted by celestial breeze !
Thy brow's a cadence browsed on dew
Of long, sweet echoes, rolling through
That vale of bliss where soul and mind
Are peopled with their spirit kind.
Thy face is like the rose's art,
Which sheds its essence from the heart ;
As one by one the rose-leaves fall,
The last is sweetest of them all ;
As one by one the glad notes die,
The last commands our dearest sigh.

In its phrenologic play,
Should each organ have its sway,
What a pandemonium dread,
With old Satan at its head !
But in Nature's ruling plan,
All their functions fit the man,
If each force, well trained to right,
Stand a guard to truth and light.

Rain's essential to the rose ;
Good instruction must give blows,
Blows of mental force and will,
Blows to cure, and not to kill.
Light to right from creeping wrong
To high faculties belong.

Birds of every name and feather
Should rule their realm well together,
And see that, by their mental drill,
Their reason never " panders will."

HUGH FARRAR McDERMOTT.

FORMATION OF CHARACTER. — The Rev. Phillips Brooks, in a recent sermon, used the following language, which is too true and too suggestive to be ignored in these columns :

"If somebody should give me a diamond to carry to Europe, I can know exactly how much would be lost to the world were I to drop it into the sea ; but if a seed should be given me, I can only regard it with awe as containing

concealed within it the food of untold generations. That is the difference between looking at truth as a diamond or as a seed—as final or germinal.

"In all training of character, continuity and economy must be supreme. The notion that character is spontaneous is held by most people in the earlier portion of their lives, and is wrong. When they discover this, nine-tenths change to the other extreme. This is wrong, too. Hosts of young men think that their character will form of itself, and that they will necessarily become better as they grow older. Hosts of old men believe that their character is fixed, and that it is impossible for them to become better. Such beliefs are foolish. People are also wrong in thinking that they can put off their bad traits and put on good traits. The old failures can not be thus transformed, but out of the old habits new can be formed. This is what many a poor creature needs to know. We must make what we are to be out of what we are already."

THE LAUGH OF WOMAN.—A woman has no natural gift more bewitching than a sweet laugh. It is like the sound of flutes on the water. It leaps from her in a clear, sparkling rill, and the heart that hears it feels as if bathed in the cool, exhilarating spring. Have you ever pursued a fugitive through trees, led on by a fairy laugh—now there, now lost, now found ? We have ; and we are pursuing that wandering voice to this day. Sometimes it comes to us in the midst of care or sorrow or irksome business, and then we turn away the evil spirit of mind. How much we owe to that sweet laugh ! It turns prose to poetry ; it brings sunshine to flowers, over the darkness of the wood in which we are traveling ; it touches with light even our sleep, which is no more than the image of death, but is consumed with dreams that are the shadows of immortality.



A NATURAL CURE.

AN ENGLISHMAN'S CONFESSION.

THE London season of 1880 was drawing to a close. The trees in the park were beginning to look yellow and dusty; the *beau-monde* more languid and tired than usual; the drive was less crowded; cabs were conveying innumerable pieces of luggage to the station—all signs of the coming exodus.

It was high time to make up one's mind where to go for the summer. Fashion and one's own tired-out frame oblige one to go somewhere. I felt I needed not only fresh air, but a regular treatment, if I wanted to return to town in September able to resume my professional duties. I never was a strong man; but now, after a most unusual ordeal of late suppers, heavy dinner-parties, and social gaslight, I became aware that my health was going fast. But—where was I to go? Dreadful question, most difficult to answer. I have a horror of English seaside places; it makes me yawn when I think of them—sand and children wherever you go. To an English water-cure establishment? I had no intention to be killed or to be made a lunatic. I once tried one of them, and I did not feel inclined to repeat the experiment. My friends suggested, "Why not ask your physician?" Ah, why? because I do not believe in doctors and physic. I have detected them wofully in the wrong too often.

Have you ever felt the torment of not being able to make up your mind? Then you will pity me. One day, in the Club, in want of some better occupation, I looked at some obscure newspaper, and found the following advertisement: "Waldesheim, near Düsseldorf, Germany—establishment for Curing by Natural Means—namely, Air, Water, Diet, and Exercise. Prospectus," etc. The brevity pleased me, especially the "natural means." It was a comfort to know you would not be expected to swallow mercury, arsenic, strychnine, and other objectionable poisons, with an amiable face and perfect confidence. I determined to write for fuller information. This turned out most satisfactory. Waldesheim was situated about an hour's distance from Düsseldorf, on the borders of a pine forest that covered miles and miles of ground. The terms were moderate—from five to nine marks (shillings) a day, and no extras for the treatment.

My arrangements were soon made; and after a most pleasant journey, I arrived at Waldesheim, very curious to make the acquaintance of the place and the "natural means." A venerable old lady, with white hair and a ruddy complexion, received me. I understood that she and her brother are the proprietors of the *Kuranstalt* (curing establishment). The house itself made the most favorable

impression on me; it was simple, but comfortable and well kept. It was nearly seven o'clock P.M.; the patients were at their evening meal, and I was invited to join them. I had no objection to this; for I had an excellent appetite after my travels. By a neat waiting-maid, I was ushered into the pretty, airy dining-room, which opened out on a garden-terrace. But imagine my feelings on beholding the scene before me. A narrow table stretched the whole length of the room; around it sat many ladies and gentlemen, most cheerfully partaking of milk, a kind of whole-meal bread, and raw or stewed fruit. It was one of the most dreadful moments of my life. I believe I should have turned into a statue with amazement, had not Miss Fellingner, the proprietress, advanced toward me and led me to the seat on her right hand. I felt I had been rash in coming to this place. My heart yearned for my excellent London dinners—for *potages*, *entrées*, and *rôties*. But it was necessary to make the best of the situation, and I began to take my sumptuous repast with as good a grace as I could muster. Strange to say, I did not find it so bad after all. I suppose that novelty seasoned it. The milk was excellent, the bread too, and the fruit delicious. When I had finished, I had to own to myself that I had seldom taken a meal with more relish.

Most of the guests were Germans. There were a few English, two or three French, and some Dutch. Miss Fellingner introduced me to the doctor and to some of the patients. Many of them were very ill indeed; they had come to Waldesheim as a last resource, after having swallowed a small druggist's-shop without being cured. They were all fully satisfied with the progress in health they had made since they came to the *Kuranstalt*. Everything I heard interested me so much that my resolve to quit this house of Spartan diet immediately became shaken; and when I was shown to my bedroom at nine o'clock I had made up my mind to stay for a week in order to get an idea of the system.

The windows of my apartment were only a few yards distant from a lovely pine forest; the evening air was deliciously scented, and refreshed my spirits. I had been told that it was the rule in the establishment to sleep with the window more or less open, and as I wanted to try the natural means in all their strictness, I conformed to the foregoing regulation.

At six o'clock A.M. the *Badediener* (bathing-servant) knocked at my door and inquired whether I wanted a bath. I felt so fresh and invigorated that, in spite of the unearthly hour, I consented. I was led down-stairs, where I found the most complete system of all kinds of baths I had ever seen. As the doctor had not yet prescribed for me, I took a simple bath *à l'Anglaise*—only, to my great astonishment, nearly tepid. When I expressed my surprise to the *Badediener*, he replied that it was according to the doctor's orders; that cold water was so injurious to the health that it wore out the constitution. When I was ready I was told to go directly for a walk in the pine forest, and not to return before eight o'clock, when breakfast would be served. I had made up my mind to implicit obedience, and so I went in spite of the rain. On the way I fell in with some of the patients I had talked to the night before. We went on together, and they showed me the sights of the place, when, to my great astonishment, we met a couple of patients barefooted and bareheaded. "Wonders never seem to cease in this place," said I to my companions. They laughed. "You will get accustomed to that in time, and do it yourself if the doctor orders it." "Never!" said I, and shuddered. "These gentlemen," they mildly replied, "suffer from congestion to the head, or from cold feet, and there is no such efficient cure for this as walking barefooted and bareheaded."

At eight o'clock there was breakfast, and I returned with such a healthy appetite that my frugal repast of milk, bread, and fruit seemed more delicious than the

most dainty London meal had ever done. Miss and Mr. Fellingner were most kind; they begged me to mention anything I should like to have; they would fulfill my wishes to the best of their ability.

After breakfast the doctor paid me his professional visit. His orders adhered strictly to natural means—baths and other water appliances most minutely and elaborately prescribed, a great deal of exercise, and very strict diet. In three or four days I was to leave off taking butcher-meat; no alcohol of any description, no tea, no coffee, no spices. In fact, to my idea, no anything. My obedience to the natural system was put to a severe test. No meat, no alcohol! It was terrible. And where, then, was the strength to come from to sustain me during this ordeal? Dire phantoms of my own self, emaciated and pale, rose before my terrified soul. I debated as to what I was to do. My first impulse was to fly from this starvation; but my curiosity stopped me. It would be interesting to see the results of this unheard-of cure. I felt I must be strong-minded and give it a fair chance.

This resolution once taken, I underwent like a lamb all that I was ordered to do. I must confess I was sometimes highly amused when I compared my London existence with my present life, and the extraordinary situations it involved. Can you picture to yourself a fashionable barrister in the undignified position of a wet-pack? I was grateful that my friends were not there to see the spectacle. I will confess the worst: I walked barefooted, and I even liked it. My diet became in time equally rigorous. Milk, brown bread, and fruit for breakfast; potatoes, vegetables, milk-pudding, and fruit for dinner; milk, bread, and fruit for supper. That was all.

Time wore on, and I remembered one day that I had already been for a whole week at Waldesheim, and that my first resolve had been not to stay longer. However, I did not feel inclined to go just yet. I felt better than I had done for many years. I had become attached

to the place, to the natural means, and my food, which, seasoned with a healthy appetite, seemed delicious. I thought it wise to give the Waldesheim system a longer chance. So I remained. Time went quickly. The days seemed to fly. The cure and open-air exercise kept the patients busy the whole day long. Besides, the social life of the establishment was very pleasant. Excursions into the woods were planned and pleasantly executed; in the evenings we had singing and music, sometimes dancing. Düsseldorf is within walking distance, and the Great Industrial Exhibition and the exhibitions of paintings in the town amused us on the rainy afternoons.

I began to love the place and its simple ways. Out of a weak, weary, dyspeptic, gouty man, I was fast growing into a strong, healthy one, full of spirits and energy. By degrees I also felt a mental regeneration. I saw before me most palpably demonstrated the fallacy of the argument that meat and alcohol give strength. I had *felt* the virtue of a simple vegetarian diet. A few days before me, a German lieutenant had come to Waldesheim so crippled by rheumatism that he could not take a step; he had to be carried about. He was now, after five weeks' stay, able to walk alone. I should hardly have believed such a cure possible, had I not seen it with my own eyes. This man, since the Franco-Prussian war, had tried one great medical authority after another. No one had helped him; he had only grown worse; and now he was on the high-road to recovery. I have heard since then that he is now quite restored to health.

Five weeks had elapsed since I had come to the *Kuranstalt*, when I received a telegram from an old friend, "Join me at Cologne, Hotel du Nord," etc. I went, as Cologne is reached in an hour's time from Düsseldorf. My friend was more than astonished. He could hardly believe it was myself when I shook hands with him, I looked so much stronger and younger. Jack was going to make the Rhine tour, and to take his

sister, Mrs. L., a young widow, to Schwalbach, to drink the waters, as she was weak and ailing.

So we agreed to take one of the large Rhine steamers the following morning at nine o'clock, and go down as far as Eltville, the station for Schwalbach. The weather was glorious. We glided up the majestic river, and admired the Drachenfels, Rolandseck, the Loreley, and all the other lovely and poetic places that adorn the banks of the Rhine. I had often seen these sights before, but I had never enjoyed them as I did now. I began to feel the truth of the assertion, "Health is the true key to happiness." Never had nature seemed so beautiful to me; never had I taken such interest in the scene around me. Who has not at least once witnessed the life on these Rhine steamers? Tourists of all nationalities enliven the deck in ever-varying groups; so we beguiled the time by looking on and by pleasant conversation. My friends wanted to know at which spring of health and youth I had been drinking. I gratified their curiosity, and gave them a true picture of my Waldesheim experience. I told them that water, exercise, and vegetarian diet had made me a new man. My enthusiasm was infectious. The curiosity of my friends was raised, and they determined to go and see my vegetarian Eldorado. I persuaded Mrs. L. to give up her intended Schwalbach cure, and try the natural one.

We traveled on as far as Mayence; and then we returned, enjoying all the lovely sights thoroughly; for the weather favored us. At each place of interest,

we left the boat and stayed there for a day or two. We rambled all over the country, my friends riding, I walking. I remained true to the Waldesheim principles. My daily fare was fruit, milk, and bread, to the never-ending wonder and amazement of waiters and travelers. I should have been very sensitive to that a year ago—I bore it now with perfect equanimity.

After a fortnight's absence, I returned to Waldesheim, accompanied by my friends. They soon fell into the ways of the place; and it was not long before they felt the same wonderful benefit from the treatment as I had done. We enjoyed the lovely woods, the splendid country, and our simple life, until the autumn tints reminded us that work had to begin again. We were sorry to part from our dear Waldesheim—Mrs. L. and I especially, as the place had now more than ordinary associations of happiness for us.

I returned to London, determined to remain true to the new ideas I had gathered—namely, that simple diet is the best healer that Nature has given us. My friends shake their heads in disapproval and prophesy speedy ruin to my constitution. I bear that wonderfully well, as I feel my physical and moral strength growing daily. One sweet face, however, always smiles approbation on me. Mrs. L. has become my wife. We live in Hampstead. "Waldesheim" is the name of our new abode. We called it so in gratitude to the place where we found health, happiness, and—each other.

CHAMBERS.

EVILS CONNECTED WITH HIGHER EDUCATION.

THE press of the country have from time to time taken occasion to discuss the merits and general utility of our higher educational system, and also the evils that result from it. I have been greatly interested in these discussions, for it has been my lot, for the past five years, to be a student among students,

and feel, as well as view, the things discussed by the various writers. I have not stood afar off and philosophized on the evils which exist, but with classmates have shared the bad and the good.

Among the great evils found are the ruined health and injured intellect of students. These are supposed to result

from what is generally termed the "cramming system," or the crowding of too much work into too short a space of time. This evil is found in nearly all schools, and the preservation in their fullness of the physical and intellectual powers of pupils when at school demands the immediate attention of the people. A few newspaper articles will not end in reform, but there must be a full investigation as to the causes and the finding of a remedy, the rousing of the people and an invincible determination formed that the evil must be stopped. But what is one of the real causes of the many enfeebled bodies and impaired minds? Is it the mental effort, or is it *excitement* that destroys? Is it the over-exertion of the purely mental powers, or is it violent emotions that bring the evil? I venture the opinion that if their mental work could be conducted without violent excitement, the number whose health would be injured would be reduced to a minimum. In other words, it is emotion and not pure mental effort that injures. A dispatch announcing the death of a parent or brother would destroy all desire for food, no matter how hungry one may be; but to solve a problem in algebra or geometry will produce no such result. To show this point more fully I shall illustrate by observed facts. When the writer first went away to school, his desire was to enter the second year of the course; and, to do this, it was necessary to pass an examination in all the studies of the first year. I have accomplished four times as much work in an equal time as was necessary to pass those examinations, and no unpleasant effects were felt; but in this case one whole year's work depended upon the success or failure of the effort, and the result, owing to my excitement, was that I was completely prostrated and did not fully recover for a month, while the effects from that loss of time were felt during the whole year. This incident convinced me that failure is better than ruined health, and, after all, it was knowledge and discipline, and not simply high per cents, that were to

be desired. That winter my room-mate kept himself in a constant state of excitement over his studies. Even when he would undertake some sort of a game for rest and recreation, he was continually fretting about his lessons. The nervous energy that should have been employed in promoting digestion that the system might not suffer from lack of nourishment, was spent in anxiety over a possible failure, and before half the year was out he had to return home to recuperate from a spell of sickness, and several weeks were lost. I have mingled with many hundred students during the years at school, and I can say that the cool-headed generally have good health, no matter how much they do, while those of the emotional type, who are ever fretting about their recitations and examinations, are almost sure to sicken, or, at least, to have their health impaired. It was the most emotional of my classmates who horrified us by blowing his brains out, not the quiet, self-possessed Mr. B., though the latter did as much mental work as the former.

Three different times I have passed through the ordeal of graduating examinations for as many different courses, and, as the time approached, the emotional students would wilt like mown grass in the June sun, while those who were self-possessed would go through with health unaffected. To make a direct attack upon the present system of class examinations is something I do not feel fully prepared to undertake, for, if the educators of the country considered me worth noticing, they would give me anything but a pleasing consideration; but I can not resist the conclusion that these examinations are the cause of three-fourths of the trouble. I think I can say positively an examination does not add one particle to the teacher's knowledge of his pupil's ability, for the class-room recitation shows this far more accurately than any examination can. I have seen students so excited while undergoing what seemed to them a crucial test of capacity, that they would make the wild-

est statements concerning topics upon which they were perfectly familiar; I have seen emotional students stand and wring their hands over simple problems that the veriest dolt in the class could easily solve when not excited. On the other hand, I have seen inferior students stand "head and shoulders" above their superiors during an examination, for the simple reason that they were not agitated.

If it is excitement rather than hard study that produces bad effects, let us not talk of the evils of the "cramming system," but send our shot at the real enemy. Let teachers find out what emotions injure the health and what are beneficial; what can be used as aids and what must be avoided, and then by taking advantage of the knowledge gained, these injurious results may be greatly diminished.

Another, and, if possible, greater evil connected with our system of higher education is the immoral character of very many of the students who attend. A bad apple placed in a barrel of good ones will eventually spoil the whole, and this is true, to a great extent, of bad classmates; and when evil is in the ascendency the chances of all those who are good remaining so are small. People will point to Garfield and tell us that he is a college graduate, but fail to tell that he was in college only two years, and not six, eight, or ten years; that he was twenty-three years of age when he entered, and so had attained to that maturity of judgment which can choose between good and evil; and, furthermore, he was there to learn, not to spend his time foolishly. Garfield was among the wicked, but not of them. A man in a rubber suit can go into the water without getting wet, and Mr. Garfield's earnest purpose was like a coat of mail.

The great value of a college education consists in the mental discipline which the higher studies give. Very little of the knowledge obtained at school is ever put to any practical use. The mental power evolved is what is really sought

and valued. But, after all, Garfield with his scholarship went no higher nor exhibited greater intellect than did Lincoln. Both are enshrined in the hearts of the American people. It is true that the proportion of graduates who rise to eminence is greater than that of the common people who do not take a college course. Of our eminent men, nearly half have had something of a higher education, yet scarcely one in a thousand of the people of this country are graduates. But this is readily explained, for all who have lofty aspirations desire to get an education if possible. All who desire to excel will secure every possible help to assist them. A college education will assist, and if it is possible it will be secured.

People are beginning to think for themselves and ask if it is not possible to secure the same benefits some other way and at the same time escape the evils that cluster round a collegiate education. Cities are trying to solve the problem, so that young men and women may pursue the higher branches and yet be under home influences, but the evil discussed in the first part of this article appears to receive little practical attention.

As a general thing Americans are very radical, but in educational matters they have been conservative, not as a deliberately chosen course, but because they have been too busy trying to hew out homes and fortunes in the wilderness to stop to think about newer and better systems of education, and so follow in the footsteps of their ancestors without asking if there are easier paths. This can not last. Reforms are bound to come. Just what the reforms will be can not be foreseen. There were many steps from the old sickle before the self-binder was reached, but at last it was attained. If a patient endeavor is made to find out all the evils of our educational system, and their remedies applied, I believe the practical educators of America will see to it that they are so applied that only good will result.

LOREN E. CHURCHILL.

THE SKIN.

THERE is a skin without and a skin within,
A covering skin and a lining skin ;
But the skin within is the skin without
Doubled inwards, and carried throughout.

The palate, the nostrils, the windpipe, the
throat,

Are all of them lined with this inner coat ;
Which through every part is made to extend—
Lungs, liver, and bowels from end to end.

The outside skin is a marvelous plan
For exuding the dregs of the flesh of man ;
While the inner extracts from the food and air
What is needed the waste in his flesh to repair.

While it goes well with the outside skin,
You may feel pretty sure all's right within ;
For if anything puts the inner skin out
Of order, it troubles the skin without.

The doctor, you know, examines your tongue
To see if your stomach or bowels are wrong ;
If he feels that your hand is hot and dry,
He is able to tell you the reason why.

Too much brandy, whisky, or gin
Is apt to disorder the skin within ;
While, if dirty or dry, the skin without
Refuses to let the sweat come out.

Good people, all ! have a care of your skin,
Both that without and that within ;
To the first you'll give plenty of water and soap,
To the last little else besides water, we'll hope:

But always be very particular where
You get your water, your food, and your air ;
For if these be tainted or rendered impure
It will have its effect on your blood—be sure.

The food which for you will ever be best
Is that you like most, and can soonest digest ;
All unripe fruit and decaying flesh
Beware of ; and fish that is not very fresh.

Your water, transparent and pure as you think it,
Had better be filter'd and boiled ere you drink it,
Unless you know surely that nothing unsound
Can have got to it, over or under the ground.

But of all things the most I would have you be-
ware

Of breathing the poison of ONCE-BREATHED air ;
When in bed, whether out or at home you may
be,

Always open your window, and let it go free.

With clothing and exercise keep yourself warm,
And change your clothes quickly if drenched in
a storm ;

For a cold caught by chilling the outside skin
Flies at once to the delicate lining within.

All of you who thus kindly take care of your
skin,

And attend to its wants without and within,
Need never of cholera feel any fears,
And your skin may last you one hundred years.

SIR ALERED POWER.

A BATH-TUB FOR THE FARM-HOUSE.

A LADY writes to the *Ohio Farmer* how
this healthful adjuvant was secured
for her household. Our farmer friends who
do not possess the convenience will see that
by following her suggestion they can have
it at little cost. She says :

"We have one in our house, and we have
a bath-room too. How many farmers can
say the same? Not one in a hundred, not
one in a thousand, perhaps. I don't know
of another farm-house in all this county
that has a bath-tub. Yet every man and
woman knows that frequent bathing is nec-
essary to good health. Our family bathe
three to four times a week in warm weather,
and once a week in cold weather. My
neighbor's wife told me the other day that
not one of her family had washed 'all over'
for a month. They had no bath-tub, and
had to use a wash-tub, or simply take a
towel or sponge-bath. A sponge-bath is

better than none, but can not half-way
come up to a good splash in a genuine
bath-tub.

"We got our bath-tub—the zinc part—
in town, and had a carpenter put it into a
small bedroom, which we henceforth dubbed
'the bath-room,' and used it for this pur-
pose only, except to hang clothes in. It
has a pipe leading outside into a large hole
or cesspool. Of course we have to carry
water to fill the tub, as we have no pipes to
carry water through the house, as in the
city. But our stove has a large heating res-
ervoir, which holds enough warm water
to bathe the whole family. We intend to
run a pipe from the cistern into the bath-
room, and have a pump that will pump
water directly into the tub. Our bath-room
as arranged only cost us ten dollars, and it
is worth one hundred dollars a year in health
and comfort."

KITCHEN LEAFLETS.

FROM time to time I have contributed a recipe or two from my own dietary to the columns of the PHRENOLOGICAL, and now am invited to furnish an installment of them monthly. I venture upon the task with diffidence, yet with the assurance that the housekeeper who will make a fair trial of the recipes which may appear in this department will succeed in producing articles for her table which will be found both palatable and wholesome. The aim which should be kept in view, that the principles taught in this department of the PHRENOLOGICAL JOURNAL shall not be forgotten, is to prescribe articles of food which shall be remarkable chiefly for their nutritive value, and for the facility of their preparation. The reader, therefore, must not look for complex or fanciful dishes here, but such forms of food mainly as will meet the demands of nature for materials—carbon, nitrogen, lime, phosphorus, etc.—to repair the wear and waste of tissues.

One of my friends lately asked me to write a cookery book, and on my replying that the market was already well stocked with a great variety of such literature, she said: "Oh, I know that, but I am quite tired with the recipes we usually find in them; they are so indefinite, so wanting in precise information. We want something that is trustworthy; something made up of recipes and directions that are practical and comparatively simple, and taken from the writer's own experience." This, indeed, is the sort of cookery book the wife who from choice or necessity looks after the affairs of her kitchen requires. I know what it is to be vexed by the vagueness of a direction to prepare a certain dish, feeling that to undertake it would be scarcely more than experimenting with materials which should not be destroyed, however inexpensive they may be. Hence, I shall endeavor to be specific and clear in what I write, and should any reader fail after a fair trial to produce any dish for which I have given

the rule, I should be glad to hear from her. Suggestions, indeed, from housekeepers and practical cooks will always be gratefully considered.

As we are now in the midst of the cold season, it is appropriate that our food should contain an abundance of heating substances, hence I have arranged the following preparations of Indian corn-meal as well suited to the winter dietary.

INDIAN CORN BREAD.—One quart of sour milk; one teaspoonful of bicarbonate of soda, dissolved in a little warm water and stirred in the milk; two eggs; two tablespoonfuls of granulated sugar.

Stir into the milk sifted corn-meal, of average fineness, until the mixture is about as thick as for griddle-cakes (about a pint of corn-meal will be found sufficient in this case). Then pour the batter into tin biscuit pans, which have been greased with a little good olive oil or sweet butter, and bake in a quick oven for forty minutes. Have the mixture in the pan about an inch thick. In baking it will rise to double this thickness. Corn bread can be made in the same way by substituting butter-milk for sour milk, and adding two tablespoonfuls of butter.

INDIAN PUDDING.—One quart of milk; one large cup of sifted yellow corn-meal; one large cup of sugar; eight medium-sized sour apples; (or half-cup of sugar; eight medium-sized sweet apples).

Put two-thirds of the milk on the stove to boil. Grease an earthen pudding dish well, one that will hold about two quarts. Put the meal into it, then add the sugar and salt, mix thoroughly. Peel and core the apples, chop them fine with a chopping-knife. When the milk has boiled pour it over the meal and sugar, and mix these together well. Now stir in the apples, and lastly add the remainder of the milk cold. Mix all the components thoroughly, and bake in a quick oven for one hour and a half.

CORN-MEAL MUSH.—Have the water boiling and the meal ready. The quantity of meal required to make the mush of the right consistency can only be judged by experience, as some grades absorb more water than others. For a family of five persons a pint would probably be sufficient. Sift the meal into the boiling water with the left hand while stirring the water with a spoon or pudding stick with the right, until meal enough is in. If the meal is fine the mixture should be made as thick as wanted when

done. If coarse, it may be made thinner, and will require longer cooking. Cover closely, and set the pot where it will simmer, or cook very slowly—for *two hours at least*; longer would improve it. Serve warm. What is not eaten can be sliced when cold, and browned on a griddle slightly oiled for a breakfast dish.

COTTAGE PUMPKIN OR SQUASH PIE.—One quart of milk; two Boston crackers (or five milk crackers), rolled fine; four tea-cups of strained pumpkin or squash; one cup of sugar; one teaspoonful of salt; two teaspoonfuls of cinnamon.

Put the milk on the stove to boil. When boiled, stir in the pulverized crackers, mixing well. Stir pumpkin, sugar, salt, and cinnamon together, add the boiled milk and crackers, and then mix all thoroughly. This will make two medium-sized pies. Grease both the pie-dishes well, and sift corn-meal on them to about the thickness of one-quarter of an inch, taking a blunt knife or the fingers to spread it evenly. Now put the mixture in carefully with a large spoon, so the meal will not be

disturbed. If the pans are not full enough add a very little milk. Bake in a quick oven one hour. Do not have the oven hot enough to brown them much.

INDIAN CORN GEMS.—Two cups of corn-meal; one pint of sweet milk; two eggs; two teaspoonfuls of Royal baking powder; one tablespoonful of sugar; one tablespoonful of butter.

Beat up the eggs thoroughly, then add the milk, sugar, and butter, stirring all together. Now mix the baking powder with the meal, and sift these into the mixture last. Bake in hot gem pans (the cast-iron forms are best) in a well-heated oven for thirty minutes. Try them with a broom whisk to see when they are done.

OLD-FASHIONED JOHNNY-CAKE.—Pour boiling water on as much corn-meal as is needed to make a stiff mixture, and let it stand until morning, then stir in a beaten egg. Mix well, and bake on a hot griddle in oval-shaped cakes or in tin rings. This is the way in which our grandmother made them. MIRA EATON.

NOTES IN SCIENCE AND AGRICULTURE.

The Egyptian Idea of Immortality.—The following curious theory of life after death, which influenced the ancient Egyptians in the construction of their tombs, is taken from an illustrated paper on "Oriental and Early Greek Sculpture," by Mrs. Lucy M. Mitchell, in the *January Century*:

"In Egypt, from the very earliest time, the tomb was of the greatest significance for sculpture. Of temple ruins on the Nile, from that hoariest past between the First and Eleventh Dynasties, there is scarcely a trace. How vivid the witness borne to the sepulchral art on the plains of Memphis, the capital of oldest Egypt! Along the margin of the desert stretches the vast Necropolis, with a hidden population of statues, sentinels by those stupendous royal tombs, the Pyramids. Where else have such preparations been made for the final rest of the dead as in this great *campo santo* of the ancient empire?"

"Though mingled with much that was naive and material, how vivid were the conceptions of that ancient people concerning the future world! They believed this life but an episode in an eternal existence. Death to them was the real life, only evil spirits being spoken of as dead. The coffin was called the 'chest of the living.' But to the ancient Egyptian the immortal part, even after death, was in some mysterious way dependent for its contented existence upon the preservation of the body; hence the importance of embalming, the care taken to keep the body as life-like as possible and secure from harm during the long period of the soul's probation. The 'eternal dwellings,' hewn in the solid rock, high above the

floods, were in strong contrast to the abodes of the living, built within reach of the swelling Nile, and of which scarcely a vestige remains.

"The massive chamber of this tomb where lies the mummy is pictureless, and its entrance is closed by solid masonry. From it a shaft leads up, which was at many places thirty meters deep, and was filled with a dense mass of earth and stone, making more inviolate the mummy's rest. Over the concealed entrance of this shaft there rises that other essential part of the tomb, the sacred chapel (*mastaba*), of equally solid construction. In a dark recess (*sorddb*), aside from this chapel, are found many statues walled up. These are usually twenty or more in number, and represent the deceased with great diversity. To what purpose are they here? Singular beliefs, prevalent among the Egyptians and read from the hieroglyphics by Maspero, furnish us the key to this problem.

"An immortal second-self, *ka*, somewhat resembling the 'eidolon' of the Greeks and the shade of the Romans, was believed to spring into being with every mortal, grow with his growth, and accompany him after death. So close was the relationship of this strange double *ka* to man's proper being, that it was of the greatest importance to provide it with a material and imperishable body which it should occupy after death, sharing with the mummy the security of the eternal dwelling.' It was believed that the shade *ka* could come out of this statue and perambulate among men in true ghostly fashion, returning to it at will. This stony body for the

dead man's *ka* was naturally made in his exact likeness; and also bore an inscription stating his name and qualities. But a single statue might perish, and future happiness be thus forfeited. Hence that most unique feature of Egyptian statuary, the multiplication of the portraits of the deceased in his tomb."

Exhaustion of Soil.—The following, from the pen of Dr. J. R. Lawes, a correspondent of the London *Agricultural Gazette*, is worthy of the attention of farmers in this country :

"It is now exactly forty years since we began to exhaust a portion of one of my fields by continuous unmanured wheat crops. It may be interesting to show the evidence we are in a position to bring forward upon the subject of exhaustion as regards the soil at Rothamstead. It would appear probable that the annual decline due to exhaustion may amount from one-quarter to one-third of a bushel of wheat per annum. If we take the smaller quantity and add to it the ordinary proportion of straw, the result would be equivalent to about forty pounds of produce; and there is but little doubt the bulk of the organic matter of the crop is obtained from the atmosphere the amount of matter annually taken from the soil by these forty pounds of produce (including the nitrogen it contained) would be between two and three pounds. The evidence derived from other experiments in the same field proves that the decline in produce is due to an absence of nitrogen as also that minerals are in excess, but the actual amounts of nitrogen that these forty pounds of produce would have contained would be less than one-half pound in weight! It will, I am afraid, appear to your agricultural readers something like an absurdity to suppose that one-half pound, more or less, of any substance upon an acre of ground could have an appreciable influence upon a crop. I may observe, however, that this annual decline of forty pounds of produce, small as it appears to be, amounts in forty years to ten bushels per acre.

"Analyses of the soil made at different times show that the nitrogen is declining, and as the free use of the minerals in an adjoining experiment does not prevent the decline of the crop, we can come to no other conclusion than that the gradual decline in the produce is due to the diminishing amount of nitrogen in the soil. As far as the wheat crop is concerned it would appear that the total amount of produce to be obtained from any soil must depend very much upon the stores of nitrogen already in the land. It is true that the soil obtains a certain amount of ammonia from the rain-fall, and it probably condenses more or less from the atmosphere; but, on the other hand, drainage carries away every year more or less nitrogen in the atmosphere supply, whatever it may amount to, does not suffice to prevent a decline of the crop; it is, therefore, evident that the source from which the forty crops

obtained their supply must have been the stores of nitrogen already existing in the soil when the experiment commenced."

Tin in Maine.—One of the most important developments in American mining interests has taken place in the State of Maine. The country has no lack of mines of gold, silver, copper, lead; but as regards tin the case is very different. For that valuable metal we are obliged to go abroad, chiefly to England; and so long as that country controls the market for tin there is little hope of our wresting from her the larger traffic in tin-plate. The development of tin mining at home to a degree sufficient to secure the practical independence of our vast industries employing tin and tinned iron would be worth much more to the country, indirectly if not directly, than any mine of gold or silver. Accordingly it may be safely said that the announcement of the discovery of promising deposits of tin ore in Maine is likely to awaken a heartier interest throughout the country than any other mining reports.

Indications of tin were discovered in Maine some ten years ago, but then it was the popular belief that Maine was not, nor ever could be, a mining State. Recent explorations in the town of Winslow, on the Kennebec, a few miles above the State capital, have discovered half a dozen metallic veins of rich tin ore, in a rock formation precisely like those in which tin is found in Cornwall, Germany, and New South Wales. As described by Prof. C. H. Hitchcock, the rock which encloses the tin ores of Winslow is a mica schist or killas, associated with somewhat calcareous layers, and adjacent to a hard quartzite band, called an *elvan* by miners. Thirty feet width of vertical sheets of killas shows twelve granite veins from half of one inch to three inches width, crossed, occasionally, by stragglers. These veins are full of crystals of tin ore (cassiterite) with the associated minerals: fluorspar, margarite, mispickel, beryl, lepidolite, etc. The mineral, geological, and physical feature of the Winslow mine are, Prof. Hitchcock adds, "identical with those common to the stanniferous districts of Europe," and "the ore seems to be sufficiently abundant to remunerate quite extensive outlays for mining operations."

Will Fruit Pay!—A farmer turns up his nose at "fruit growing," and says: "It's small business," and "hard on horses and wagons." Let us see about this "small business." He employs on an average through the entire year one unmarried man and one girl, thus giving means for support to two persons, besides his own family. We employ on an average 12 men, heads of families, and as many more single men and women, for almost eight months; in fact, the average number that we give employment to, including pickers, from April 1st to December 1st, is 35 to 40 persons, thus giving means for support to at least 75 or 100 per-

sons, besides our own family. He pays to help, say \$400 per year. We pay at least \$6,000 per year. He sells from his farm, say \$1,500 to \$1,800 yearly, gross. We \$15,000 to \$18,000 (which includes our plant trade). He plows, harrows, sows, reaps, draws into the barn, threshes, cleans, and draws to the market the product of an acre, say an average of fifteen bushels of wheat, for which he obtains gross, say \$20. We plow, harvest, plant, cultivate, hoe, gather, and market from an acre an average of fifty bushels of fruit, for which we obtain gross, say \$150, saying nothing of the plants sold from the same. He and his help work from 7 A.M. to 6 P.M. He tugs, lifts, and sweats. We don't. "Small business," isn't it, reader?—*Fruit Recorder*.

MODERN ENTERPRISE.

OUR butter's made of grease and fat
(It is a trick of trade);
The peanut gives us olive oil,
From rags is sugar made.

To color red the strawberry cream
They put in cochineal;
In terra alba or white earth
Confectioners now deal.

Champagne's distilled from kerosene,
And brandy's germ is mazy;
A use is found for everything,
E'en the neglected daisy.

Mrs. Shelton, of Santa Clara County, was the first to introduce bees into California, bringing two hives in 1853. The swarms of bees that now fly about the Pacific Coast are said to be the product of these two hives. She sold one of them for \$150.

Electric Light Good for the EYES.—According to a writer in the *Scientific American*, when electric light first began to be used in our shops, factories, and places of amusement, it was confidently asserted by its opponents that so dazzling a light must be injurious to the eye. It appears, however, from the experiments recently made by Professor Cohn, of Breslau, whose name is so familiar in connection with the investigation of color-blindness and other optical defects, that our eyes will be benefited rather than hurt by the new method of lighting, and it is obvious that with incandescent electric lighting the advantages will be still more marked. While testing the influence of electric light on visual perception and the sense of color, Dr. Cohn proved, he thinks, that letters, spots, and colors were perceived at a much greater distance under electric illumination than by gas-light, or even daylight. Compared with daylight, the electric light increased the sensation of yellow sixtyfold, red sixfold, and green and blue about twofold. Eyes that in daylight or gas-light could perceive and distinguish

colors only with difficulty, were much aided by the electric light, and the visual perception was much strengthened. In all cases of distant signaling, Dr. Cohn believes that the electric light will prove exceedingly and especially useful.

One Million Lines to the Inch.—

Mr. G. Fasoldt says, in a letter to the *American Journal of Microscopy*:

"I have ruled plates up to 1,000,000 lines to the inch, one of which was purchased by the United States Government at Washington. These plates show lines truly and fairly ruled, as far as lenses are able to resolve, and above this point the *spectral* appearance of the bands in regular succeeding colors (when examined as an opaque object) shows, beyond doubt, that each band contains fairly ruled lines up to the 1,000,000 band."

Raising Sweet Potatoes in New

ENGLAND.—There is a great difference of opinion among farmers in New England relative to the practicability of raising sweet potatoes in this latitude. Batatas, or sweet potato, is a native of the East Indies, and has been cultivated with success in the Carolinas, and to some extent as far north as New Jersey. Various experiments have been made by the farmers of the Connecticut valley to raise them, and success will, we think, result from their efforts. The most successful experiment in raising sweet potatoes in this latitude, has been made by Charles G. Lord, of Westfield, Mass. He commenced raising them some six years ago, and for the past two seasons they have produced more bountifully than the common Irish potato. In winter he keeps them in dry sand in his cellar, and has no difficulty in preserving them through the winter to use on the table, or to propagate tubers for spring planting. And the flavor of his potatoes is just as good as those raised in Delaware.

It is in accordance with the laws of propagation, that these potatoes, though natives of the East Indies, will, in time, become acclimated to this latitude, and although they may differ somewhat from the original stock, they can be raised successfully and with profit. Believing in this theory of acclimation, we obtained some tubers of Mr. Lord last spring, and planted them in a dry light soil, using hen manure and wood-ashes for a fertilizer, and the result was a fair crop, of fine quality.

There is a large tract of plain land in the valley of the Connecticut River which is now of but little value, that might be utilized by the cultivation of sweet potatoes. The same is probably true of large tracts of land on Long Island, which, with proper cultivation, might produce a sufficient quantity of this favorite edible to supply the wants of the inhabitants of New York and Brooklyn.

P. L. BUELL.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAVTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
FEBRUARY, 1882.

WHO IS TO BLAME?

ONE sunny afternoon in November last, we visited a neighboring city, and walked through a quarter which we had not seen for several years, and of which we had kept very pleasant recollections. We had known it in our boyhood, and in our early manhood as a bright, semi-rural neighborhood, where gentlemen of wealth or liberal incomes lived; their commodious mansions and neatly-kept grounds being set in large squares, fitly surrounded by broad streets. It was a quiet neighborhood, yet central and convenient of access, and its shady park-like character made it very attractive as a place for afternoon or evening promenade in pleasant weather.

But how changed we found it last November! how sadly changed! Who has seen a well-trained wistaria in full leaf and flower on a trim trellis, and later seen the same vine leafless and scraggy, clinging to the decayed and broken remnant of its once erect and graceful support, can imagine the transformation which that once beautiful and orderly quarter had undergone. The same mansions were there, but the most of them bore the too conspicuous evidences of

complete neglect in the weather-worn sides, broken blinds, shattered window-panes, decaying piazzas, and falling chimneys. A few inferior buildings of recent construction had been added to the number, but otherwise the old courtyards and grounds were there in a state of desolation corresponding with the houses. Gateless, zig-zag, shattered fences surrounded them, and children of various ages were careering in noisy glee over the bare and hardened remnant of what was once velvety lawn.

Ruin and decay reign where all should be fresh, vigorous, and beautiful. There is not a house in that whole neighborhood over forty years old, and the situation is of that elevated commanding character which would naturally invite men with means to build permanent homes there. But now it is evident that very few, if any, such men dwell there; they who could dispose of their property have doubtless done so and removed to other communities, glad to escape from social and political influences which had become intolerable.

What is the cause of this decay? do you ask, reader? The question is only too ready. Bad government. Fifteen years ago that neighboring city, like many another within a hundred miles of our desk, was in a high-tide of prosperity. Its numerous factories were running day and night, its merchants were busy, its engineers and builders and carpenters were erecting blocks of dwelling-houses, and its capitalists were investing their surplus in land which must, as they believed, greatly increase in value. The impression prevailed that the seeming prosperity of that day would continue. The great civil war had closed, and a new and glorious era of activity and growth had opened.

So people thought. There were a few who remembered that the war had been prosecuted only at great sacrifice and cost; that a debt of more than two thousand millions had been contracted by the central Government, and that nearly every loyal city and town had assumed a burden of debt, in addition to old obligations, and that to pay even the interest on this increased debt would prove irksome and severe to tax-payers. They remembered, also, that with the cessation of the Government's great demand for army supplies and war material, a reaction would ensue, and hundreds of industries would be compelled to suspend, thus throwing thousands out of employment. These few prudent ones knew that the high prices paid for labor, for the necessaries and luxuries of life, were the natural resultants of the broad distribution of the money borrowed by the central and local Governments for war purposes, and that, when that distribution was stopped and measures taken to restore the public finances to a condition consistent with economy and security, there would be an inevitable shrinkage in values, especially of everything non-essential to health and comfort.

The few are prudent and cautious in the use of money; the many disposed to more or less freedom and prodigality. Hence it was that extravagance and wastefulness in private and in public life characterized that day of abundant money and abundant work. Perhaps the reaction of the public mind had something to do with the general lack of economy. When relieved from the suspense of an anxious and sorrowful period, it is quite natural that the mind should rebound as it were, and sentiments long pent up

burst forth whose influence is just the reverse of the feelings which had before held sway over the conduct. Hence it may be that the enforced frugality and circumspection of four years gave way to the freedom and liberality of '65, '66, and '67.

Now we are of opinion that this lax spirit of economy was reflected upon municipal governments in such a manner that some of them set on foot large schemes of public improvement, with little practical regard to their cost and ultimate effect; and when the day of reckoning came, when affairs began to settle down, the eyes of the people were suddenly opened to the fact that the public treasury was empty and general bankruptcy stared them in the face. But in some cities deliberate and colossal plans were formed by corrupt men who had wriggled into the control of their government, for enriching themselves by wholesale at the expense of the people. The flush time of trade activity and abundant money was favorable to their villainous purposes, so they organized powerful leagues or "rings" among themselves, and went boldly to work. In one city they set on foot a great plan for grading and paving the streets; in another they commenced an immense public edifice, and organized several departments or bureaus, apparently to render the prosecution of official duty more expeditious, but really to create new places for petty politicians and to strengthen the influence of the "bosses" or ring-leaders; in the city to which our remarks have special reference, the ring despots contrived a great scheme for the drainage of a large section of territory, the details involving long lines of sewer excavated many feet deep in the solid rock, and the

grading and paving of many streets little frequented and irregular. The work was far from complete when the era of financial distress came on; but its wicked projectors had accumulated a great burden of bonded debt, and threatening municipal bankruptcy compelled public attention to its causes, with the natural result of arousing a storm of indignation which swept the ring out of existence and punished severely those of its members who were defiant enough to remain within reach of justice.

But the debt could not be swept away. It remains an incubus which financial boards and committees have vainly endeavored to reduce or convert into something less oppressive. The high valuation of real estate and high rates of taxation which this debt has compelled, are the chief causes of the decay we lament in that once charming neighborhood. The men who were an important acquisition to the community on account of their means, their liberality, and taste were vexed and discouraged by the severity of the demands made upon incomes which had been in most cases reduced to less than a moiety of what they were before the period of contraction, and one by one they felt compelled to seek a less expensive place of residence, thus leaving their beautiful homes to be occupied by that large and promiscuous class whose sense of responsibility is limited mainly to winning bread, and who care little practically for the surroundings of home, whether or not the woodwork is painted and fortified against the action of time and weather, the courtyard neatly kept and grassy, the fences whole, and the streets clean.

But with well-administered government would such a transformation as we have

depicted taken place? Despite the shrinkage in values and financial stringency, would prudent rulers have permitted a fair section of their city to become a ruin and disgrace to them? The questions are almost preposterous. A thousand times, no. Only greed, brutality, and vice could have brought about the change. Only brazen ignorance that is insensitive to remorse and contempt could permit what was a delight to the citizens to disappear, and filth and dilapidation to take its place. Oh, it is sad, sad, sad to contemplate the havoc of bad government in so many cities of our still youthful land. Surely there are good men, wise men, patriotic men in each of them. Why do they not rise in the might of their integrity and wisdom, and reform affairs? Why do they sit in apathetic contemplation while the wicked, armed with a show of authority wrested from the ignorant masses through a too open ballot-box, insolently drive their car of Juggernaut over all that is fair and sightly and attractive?

FREE MEDICINE.

THERE is a movement on foot in New York City to arrange a course of free lectures on Surgery, Hygiene, and Medicine, the aim being to instruct people in those methods and practices most essential to their safety in cases of accidental injury and sudden illness. We trust that the liberal sentiment which has suggested this undertaking will prevail to its complete accomplishment. There is nothing more needed by the people especially of our large cities than practical information on sanitary matters, and a little learning in this direction will not prove dangerous, as

our "conservative" (we might with propriety use a less complimentary term) medical friends are disposed to insist. We have for many years been doing our utmost to instruct the readers of the PHRENOLOGICAL in the more important principles of hygiene and physiology, and we know that hundreds have been led from utter darkness into light concerning what was proper for them in food and habit, in preventive and curative medicine. Hundreds, yea thousands, of our correspondents have acknowledged an experience of physical and mental benefit from putting into practice advice on personal or household matters which they have read in our pages. A single publication, with fifteen or twenty thousand readers, who are distributed over the globe, can not be expected to do much in a population of fifty millions; but we think it not presumptuous to believe that in some communities our magazine has been the means of directing public attention to needed sanitary reforms, with the result of a marked improvement in average health. One need not go back many years to find the time when the PHRENOLOGICAL JOURNAL was the only periodical in which the principles of physiology and hygiene were set forth in a plain and popular form. To-day there are several Health monthlies designed for the unscientific million, but they are not potential enough in spirit and circulation. Every large city should have its free annual course of lectures, with practical demonstrations in anatomy, and examples of the simple and frequent operations of surgery—such as recovering the drowned, setting ordinary fractures, stopping hemorrhages, dressing flesh wounds and burns, besides instruction in the care of the sick, proper

nursing, diet, habits of exercise, etc. Nothing will conduce more to the healthfulness of a community than a general dissemination of knowledge concerning the causes of sickness and disease, causes which, for the most part, may be easily understood by every householder, and as easily removed.

GUITEAU.

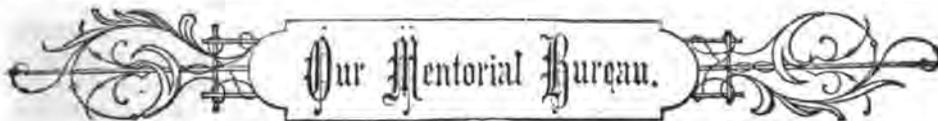
WE have been asked to give our opinion of Guiteau, and would say in reply that in the September Number we published, in connection with a short biographical account of the assassin, our views on his organization. His disgraceful conduct in the trial at Washington, permitted, if not actually encouraged by the court, confirms those views to the letter, while the statements of the majority of the witnesses who were summoned to testify as experts in mental unsoundness, are closely in accord with them. Two or three witnesses of this class were of the opinion that Guiteau is insane, and said that there existed a great inequality between the hemispheres of his brain, and that there were evidences of malformation. We have not had the opportunity to examine his head, but the photographs which we have seen do not show any greater irregularities of contour than we meet with every day in the heads of men regarded sound in mind and body. It is rare to find a perfect equality of development on both sides of the head; the left hemisphere usually predominates in correspondence with the larger and stronger right side of the body, to which it is chiefly related by the crossing of the cerebral fibers.

Guiteau owes his erratic character more to the unwise or negligent training of his

childhood and the irregular associations of his youth and maturity than to any conspicuous defects of original organism. Being naturally restless, impatient, and excitable, temperamentally he was permitted to live in such a way as to increase these qualities, until they obtained the mastery of his mental action; and his large Self-esteem, Caution, Approbativeness, and Destructiveness which, under discreet guidance, should have aided a really good intellect toward making his name respected and his vocation successful, were rendered elements of discord and perversion to the whole mental organism.

We suspect that Guiteau was a preco-

cious boy, and like too many "smart" children to-day, was encouraged in a career of flippant superficiality by admiring friends, until he had outgrown any effort on their weak parts to control him. As a man, his controversy with society lay chiefly in the unwillingness of people to let him have his own way. He is no moral imbecile, as Dr. Spitzka seems to think, but one whose moral impressions are in the main subordinate to his ambition to achieve notoriety. In the court-room and in the cell he has said and done things which clearly evidence a moral discrimination which can scarcely be reckoned feeble.



To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

LAZINESS—HUNTING.—J. H. T.—A lazy man may owe his disposition to organization or temperament. Usually such a temperament is largely vital, so that the mental and motive functions are subordinate, and the disposition lacks vigor, activity, and spirit. We usually find that lazy men are men wanting in active perceptive organs. There may be a good deal of back-head in the lazy man, but due to the largeness of the social organs, Combativeness being usually moderate, and Approbativeness not very influential.

One who is fond of hunting has a strong Motive temperament with large perceptive, and usually a large base of brain. There is no special organ which constitutes a man particularly nimrodic. One who is born and brought up in the country, where there are opportunities for hunting, may, if of an active disposition, readily acquire a taste for forest sports.

"A FEMININE HABIT."—*Question:* Why do women, more than men, when they read a paper look first at deaths and marriages?

Answer: Simply because of their stronger social organization, and, we may add, on account of their stronger sentimental feelings.

TROUBLESOME FEET.—S. W. Z.—By washing your feet frequently, say three or four times a week, using tepid water, you will improve their condition. Let the washing be thorough each time. A great many people, like yourself, are suffering the consequences of in-

discretion in wearing tight shoes. The feet, especially the toes, being cramped, they are practically deformed, and instead of having rounded sides and extremities, are square and angular, the angles being the points where the cuticle is altered in constitution, and more or less depraved. This, as it peels off, gives you the trouble.

STAMMERING.—J. M. A.—You will find in our premium book, entitled "Journal Miscellany," an article or two on the subject of stammering. The advice given therein is practical, and has been in several cases very helpful.

APPLES INJURIOUS.—J. W. P.—If you are satisfied that the eating of apples is injurious to you, giving a bad taste and destroying the organic functions in any respect, you would do well to refrain from them. We know that in some cases of stomachic derangement, fruit, if but slightly acid, produces a disagreeable excitement, and can not therefore be indulged in. Bland, sapid vegetables, well cooked, with no condiments or grease, should be acceptable to you. Such vegetables, for instance, as parsnips, cauliflower, turnips, celery, may be used, we think, with good effects in your case.

EYE-GLASSES.—E. R.—One whose vision is in any way defective should obtain glasses nicely adjusted to the eyes. Those which strain the eyes in any degree should be avoided. If after using them a short time there is any perceptible strain they should be thrown aside or exchanged for better. A great many people suffer much from the use of improper spectacles. One impropriety very commonly met with is the lack of correspondence of the pupil of the eye with the center of the lens. The glasses should be set in a frame fitted to the face so that their center will correspond with the centers or pupils of the eyes. The best form of glasses is circular, although they do not appear as well as the elliptical or oval. Those who use glasses should avoid as much as possible a great deal of reading or writing at night. Reading is more trying to the optic nerves than writing, except, however, copying, which is, if anything, more trying to the eyes than reading.

MILLS, THE SCULPTOR, AND PHRENOLOGY.—*Question:* Mr. Clark Mills, the sculptor, is said to have made a cast of the murderer Guiteau's head, and some accounts have been published in the newspapers of a phrenological description which he gave of it. Is Mr. Mills a phrenologist, and do you regard his views as trustworthy?

Answer: As an eminent sculptor, and, therefore, as a man whose business it has been for many years to study facial expression, we con-

sider Mr. Mills more worthy of confidence for what he may have to say regarding character as related to the face and head than the great majority of men. Mr. Mills has much faith in Phrenology, and rightly so, because it was owing to the advice of a phrenologist that he devoted himself to sculpture, and so made himself famous. So far as we know, Mr. Mills does not affect to be a scientific phrenologist, but his art has given him exceptional opportunities for the close study of heads, and the evidences he has found everywhere in confirmation of phrenological principles have made him a firm believer in their truth.



Communications are invited on any topic of interest: the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

MR. BURROUGHS' fresh and sprightly book, "Locusts and Wild Honey," abounds in suggestive reflections on scenes and life out-of-doors. In his chapter entitled "Sharp Eyes," he indicates a scientific vein, and speaks particularly on the discovery of rare and characteristic things. In the course of his carefully-penned thoughts occurs this: "The phrenologists do well to locate not only form, color, weight, etc., in the region of the eye, but a faculty which they call individuality—that which separates, discriminates, and sees in every object its essential character. This is just as necessary to the naturalist as to the artist or the poet. The sharp eye notes specific points and differences—it seizes upon and preserves the individuality of the thing."

SOME PEOPLE WE MEET.—In my yard stands a dwarf pear-tree with its limbs all gnarled, warped, and twisted among each other. Not for ornamental beauty and symmetry of form, but for its worth do I value it. Every year its crooked limbs are laden with large, handsome pears of most delicious flavor. Often have I thought how much like this tree is my neighbor just across the way: a deformed, aged woman, whom some strangers pronounced "the horrid-looking creature they ever saw." But those who know her best think of her only as being beautiful and good, because of her great beauty of mind and heart that the uncouth exterior can not hide. Many a hungry, erring, sorrowing soul has been fed and comforted by her words and works of love and wisdom. Will she not be beautiful in heaven? "By their fruits ye shall know them."

Some people are like a great cloud that shuts out the sunlight; a heavy, oppressive atmosphere surrounds them. Perhaps they have

cause for their scoldings and complainings, but how they think to mend the matter in this way we fail to comprehend. There are a few persons as bright and warm and sunshiny as the sunlight itself. They do not shine like the cold moon with a borrowed light. Whether their surroundings be dark or light, the sunshine comes from within and clothes them with a sort of halo; gloom and strife melt away in their presence. Such persons we welcome to our homes, our hearts. They cheer and gladden and make us better. Ofttimes sorrow and perplexing troubles cast their deep shadows about them: then a softened light pervades their atmosphere, and we only want to draw the nearer to them.

Nobody likes the pharisaical man who is well daubed with a coating of whitewash. His face looks so sanctified we grow suspicious and draw away from him, fearing that he is "righteous overmuch." Then there is our friend Bombast, like an inflated balloon. Let him brag and blow, it may serve to amuse you if you don't become disgusted. Letting off gas may sometimes avert an explosion.

There is the combative man; he may knock somebody over; but if you are careful in his presence you need not fear him; he is not very dangerous.

There are some brassy people in the world, no bogus about them; they are brass and only brass clear through. They make a huge glitter when the sun shines; they have their place in the world, and we take them for what they are worth.

Then there is Miss Sickly Sentimentalism simpering along through life, whimpering over a silly novel, screeching like a jackal at sight of a clean, innocent worm, or industrious spider. Two purely immaculate persons in the world she loves and adores, herself and—not that careworn mother bending and breaking down 'neath her load of household cares,—her darling, perfumed, silken-mustached Gustavus Adolphus. Perhaps her mother loves her. We don't.

Some people we meet are smooth, polished, glittering as a gilded, hardened ball of mud, very bright and dazzling on the outside; but let a few hard knocks of adversity and temptation strike upon them, and there is left only a pile of crumbled dirt, at which the bystanders gaze in amazement, yet straightway they varnish over some of their own dirtiness that would much better be scoured off.

Some people are solid nuggets of gold, yet contain a considerable mixture of dross. They can be depended upon for the true value that is in them; yet if they were purified, refined, and polished, and the rough edges smoothed off, we would like them all the better for it.

Sometimes we meet the disagreeable man. All pleasantness was left out of his composition; he

delights to domineer over, command, and snarl at people. We wonder if he has a family; wonder and pity—pity the poor wife and children of such a lump of niggardly meanness.

When the heart is sickened and almost soured by the evil, crossness, shams, and pretensions of the people we meet, to find a true man or true woman who is genuine, honorable, intelligent, sensible, good; who is the genuine metal, well refined, one who makes the most and the best of himself, we gain new courage, and thank Heaven that there are such people, and from them our thoughts are led upward to one in whom all fullness dwells—the Perfect One after whom we are to model our own lives. Yet we would not become chronic grumblers because everything is not full of grace, beauty, strength, and symmetry. The people we meet are too something or other, and we ourselves are not quite what we should be. Let not our minds dwell too much upon the evil, but look more at the good that is about us, and do the best we can for ourselves and others in whatever sphere placed by Providence.

MABEL BIRD.

ROBERT G. INGERSOLL'S PHRENOLOGY.

—The Cincinnati *Daily Enquirer*, of May 10, 1880, published a phrenological delineation of this celebrated opponent of Christianity, in which the following paragraph occurs:

"The organs of 'Approbativeness' and 'Self-esteem,' in the crown of the head, are also well developed, but not in excess. There is not enough of the former ever to manifest vanity, while the latter coalesces with 'Firmness,' giving steady self-reliance and dignity, without arrogance or imperativeness. 'Hope' is fairly developed, but subordinate to the intellect. The organ of 'Wonder,' or 'Credenciveness,' called by some phrenologists 'Spirituality,' is quite deficient, which allows the intellect to pass judgment upon everything of an extraordinary nature without any prejudice in its favor. Such a mind prefers to be guided by the pilot rather than by the inflated sails."

The reader will doubtless be surprised to find the statement of a phrenologist put in such a twisted shape as this, evidently made by an admirer of the man, and calculated to cover up the imperfections of the great opponent of religion. He says "Spirituality is quite deficient, which allows the intellect to pass judgment upon everything of an extraordinary nature without any prejudice in its favor"; in other words, the man who is "quite deficient" in the organ of "Spirituality," is more capable of passing judgment upon spiritual matters than one possessing it. Let us carry the idea still further: were this great reformer (?) about to found an orphan asylum, he would select as persons to take charge of the young, those "quite deficient" in the organs of "Kindness" and "Philoprogen-

liveness," that they might be more capable of managing the children "without any prejudice in their favor." If he were about to open a bank, he would select as cashier one "quite deficient" in "Calculation" and "Conscientiousness." Does he want a house built, he will call on an architect "quite deficient" in "Constructiveness"; and so we might go through the whole list of phrenological developments, and show the absurdity of such reasoning. Here is an unprofitable servant, to whom God has given great talents, and because he lacks but one or two, he buries the whole in the earth. Because he cannot comprehend anything spiritual, instead of asking God to kindle the latent spark into a flame (James i. 5), that he may thereby be perfect and able to comprehend the nature of spiritual things, he smothers its life in the filth of Materialism. Mr. Ingersoll would look with disgust upon the parent that would neglect or abuse a little child, and be able to comprehend the organic deficiency in the unnatural father or mother because of his own great love of children, and yet through the *development* of this organ "the intellect is allowed to pass judgment" upon such a sentiment, and not because of its "deficiency." He would become eloquently indignant at the man who was so cold in his nature as to be inappreciative of a companion's love; he ignores the wretch who, with large Acquisitiveness, makes gain his chief end, and turns the hungry child empty from his door, and why? His large cerebral "*development*" enables him to comprehend the meaning of "Love," not the "*deficiency*"; his "*deficiency*" in "Acquisitiveness" makes him unable to comprehend the desire of gain; his kindness and love of children would cause him to spurn the one who could be heartless and selfish toward a little child.

What wonderfully insignificant things sway the minds of men; here is one man leading thousands to destruction through his blindness to a single fact in science, and his followers doubtless swallow readily the philosophy of an illogical phrenologist. To understand the capability of Mr. Ingersoll's judgment in his deficient powers, it is only necessary to read any of his writings on religion. From the qualities in which he is "quite deficient," he passes judgment upon forms of worship by classifying them all under one head, or by attributing all heathen idolatry and the worship of the living God to one and the same source. Were Mr. Ingersoll not "spiritually" blind, he would know that to "love God with all your heart" is the exercise of the organs of Veneration and Spirituality, while the perversion of these is to bow to idols or mumble over unintelligible forms of service. He will look upon both the martyred President

and his assassin as *Christians*; he knows the difference in the character of the two and their influence upon society, yet from his deficiency he is unable to comprehend the difference in their spiritual natures. He thinks they are both worshippers of the same God, therefore he hates the God. He does not stop to consider that the one was trained up under proper religious influences from his youth, while the other was the son of a "fanatic," and reared under improper influences.

Mr. Ingersoll and his followers should study their own characters in connection with Phrenology, and they will learn that perfection is not found in any one character of the human race; that God must be considered only as the perfect type; that he is a God of wrath as well as a God of love, and that he will show justice as well as mercy.

"All run," but "to him that overcometh" is the crown of life to be given; to him that cultivates the qualities in which he is defective, and curbs those that need restraint, will the Lord make "ruler of many things." To him that makes life a constant "climb" and "denies himself" is the reward to be given, and not to those who, from their "deficiency," judge others and pervert their own natures. True Phrenology and genuine Christianity can not conflict, nor can true science and the Scriptures. It is "science falsely so called," and such Phrenology as the above that conflict, not only with Christianity, but with common-sense reasoning.

Mr. Ingersoll in his lecture on Humboldt says, "All facts are simply different aspects of a general fact," and he is certain in this or the next world to awaken to a realization of the truth of his own words, which might have been better put, in the language of the poet:

"All are but parts of one stupendous whole,
Of which, the body Nature is, and God the soul."

W. T. ALAN.

RELIGIOUS INTOLERANCE.—It should always be borne in mind that in all instances, before we proceed to arraign any for differing from us in regard to their moral or religious views or principles, we should pause for a moment and reflect upon what have been the early examples and tenets which these persons have imbibed, or which have been taught them in early life. If these have been tinged with error or enthusiasm (in our estimation), let us remember that the instructions which are inculcated in childhood and youth, assume (to them) a kind of sacredness which we may respect.

An inspired apostle has declared that, "as a man thinketh, so is he"; and it becomes us therefore, to be exceedingly cautious in *judging*

others, for their motives and principles may receive the approval of him "who seeth in secret."

Before we presume to form unfavorable opinions of persons in reference to the particular creed which we suppose they have adopted, let us in all cases endeavor to imitate the examples of Christ and his apostles, remembering that our all-wise and beneficent Creator ever deigns to bless the good and upright of every denomination. Whenever, therefore, we find a bitter or uncompromising spirit displayed, replete with sectarian feelings and animosities, we have then reason to fear that genuine charity does not actuate the heart, or control the lives of such persons. And whenever we meet with any who do not possess a good share of charity, which is "the bond of perfectness," we shall seek in vain for these amiable and lovely traits of character which should beautify and adorn the private and social life of every Christian.

Does not the prevalence of sectarian feelings deter many from bestowing that serious and earnest attention to the consideration of religious truth, which would otherwise be given? And too often, we think, there are instances that might be adduced, where persons are disgusted with the conduct and consciousness of *leading Christians* (so called), whose indiscreet zeal renders it a matter of speculation whether *any* religion may be genuine. While they observe the partisans of different sects berating or calumniating each other, they are induced, like Pilate, to exclaim, "What is truth?" The same want of a mild, conciliating, forbearing disposition, may be traced in the arena of political strife and party zeal. It grieves the hearts of all true followers of the Prince of Peace, whenever they meet with an exhibition of unkind or ungenerous feelings among those "who profess and call themselves Christians." * * *

A PHYSICIAN OF PENNSYLVANIA who has recently read the treatise on Phrenology, called "Brain and Mind," writes: "I have read through, with great pleasure and large profit, the book you sent me; after somewhat of a study of Phrenology, I would say that I believe it to be one of the most useful studies to those engaged in preaching the Gospel, and cultivating the mind of the people in the principles and practice of the Christian religion, that can engage their attention. I do not believe that any man with a logical mind can without prejudice read 'Brain and Mind,' and say he does not believe in Phrenology, or even assert that a knowledge of Phrenology will not make him a wiser, a better, and a more useful man, irrespective of occupation or profession.

A CORRESPONDENT writes from Slatterville, R. I.: "It is with no little pleasure that I once more remit my sub-

scription for another year to your esteemed and much appreciated journal. I can assure you that both my wife and I would be willing to make a considerable sacrifice before it should be dispensed with. J. H."

A LETTER from St. Louis, Mo., has the following: "This will begin my fourth year's subscription for the JOURNAL, and the longer I take it the better I like it. It grows upon me like a true friend, and I feel toward it as such. "H. S. J."

PERSONAL.

JON THORLAKSON, the poet and preacher, of Iceland, worked as a blacksmith, and tended cattle; but at the age of seventy he finished a translation of Milton's "Paradise Lost," having previously translated Pope's "Essay on Man" into Icelandic.

GEN. JUDSON KILPATRICK, late United States Minister to Chili, died at his post in Santiago on the 4th of Nov., 1881. He served in the late war, and was the youngest of the Northern generals who distinguished themselves in the late war. His home was in New Jersey.

HELEN FREDERICA AUGUSTA, Princess of Waldeck, the betrothed of Prince Leopold, of Great Britain, will be twenty years old next February. She is described as having been brought up in the midst of the patriarchal and simple life of her father's castle of Arolsen.

FREDERICK T. FRELINGHUYSEN, who has succeeded Mr. Blaine as Secretary of State, was born August 4, 1817, at Millstone, N. J. He is a nephew and adopted son of Theodore Frelinghuyesen; graduated from Rutgers College in 1836; in 1861 became Attorney-General of New Jersey; in 1866 he became United States Senator; in 1877 he left the Senate, and has since been in private life.

PROFESSOR JOHN WILLIAM DRAPER, M.D., LL.D., the eminent scientist and author, died suddenly on the 4th of Jan., at his home in Hastings-on-the-Hudson, in the seventy-first year of his age. He was born in England, but came to America in 1833, studied medicine and chemistry. In 1839 he became Professor of Chemistry in the University of New York, and remained in that relation till his death.

ELIZABETH MARY GILL, COBBLER.—A white canvas sign, with a red border, in a window at 278 Mulberry Street, reads as follows: "Mrs. Gill, Boot and Shoe Maker; Repairing Neatly Done." Mrs. Elizabeth Mary Gill was born in Northampton, England, and learned her father's trade. She married a cobbler also, and thirteen years ago came to this country. Since her husband's death she has supported her six children by her craft.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

No one is fatigued after the exercise of forbearance.

REST, recreation, consecration, are the three recipes for worry.

THE man who goes into business with the devil soon finds that his partner is sole proprietor.

EVERY man has three characters—that which he exhibits, that which he has, and that which he thinks he has.

THE virtue of prosperity is temperance; the virtue of adversity fortitude, which, in morals, is the more heroic virtue.—BACON.

THE great charm of conversation consists less in the display of one's own wit and intelligence than in the power to draw forth the resources of others.

KEEP up the habit of being respected, and do not attempt to be more amusing and agreeable than is consistent with the preservation of respect.—SIDNEY SMITH.

LUTHER quieted those who feared for the success of the Reformation, when its leaders should be taken away, by his memorable saying: "When God buries a workman, the work goes on."

THE pets of nature, who do not know what suffering is, and can not realize it, have a certain rawness, like foolish landmen who laugh at the terrors of the ocean because they have not experienced enough to know what those terrors are, nor brains enough to imagine them.—HAMERTON.

THE best part of man's life is in the world of his natural affections, and that realm has laws of its own that neither know nor heed king nor congresses, and are deaf even to the voices of shouting popular majorities, but heed and obey rather the gentle voice of woman, and the cry of helpless and feeble childhood.—BAYARD.

OVER and over again
The brook through the meadow flows,
And over and over again
The ponderous mill-wheel goes.
Once doing will not suffice,
Though doing be not in vain;
And a blessing failing us once or twice,
May come if we try again.

MIRTH.

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

"WIFE," said a father, as he looked at his son William's torn trousers, "do get that little Bill reseated." And she replied, "So I will."

HE had been telling her stories of himself, and when he had finished she kissed him and murmured, "This is a kiss for a blow."—Puck.

IT is singular how men who can not obtain a living from their own business understand so well just how their neighbors' business should be conducted.

SAID Brown, "Smith won't have so soft a thing as he has had." "I don't know why," replied Robinson; "he'll have a soft thing so long as he doesn't lose his head."

"SEE here," said an eccentric man to an office boy who had brought a doctor's bill to him; "tell your master that the items of medicine charged in this bill shall be paid, but as for the visits, why—I will return them."

GOOD and intelligent deacon about to manage a Sunday-school festival: "Yes, lemonade is sometimes made of lemons, but we don't know how it would do to use that kind at a Sunday-school affair. It is an experiment."

OCCUPATION GONE.—First burglar: "See here, Slippery Jim, are you in with us on this bank lay in Yankeetown?" Second ditto: "I aint; there's no money in it. Everything has been worked up by that bloomin' pal, the cashier."—*Buffalo Times*.

WHEN he returned to his seat in the theater and said he had just stepped out to see some one, she gravely responded: "It must have been the Evil One"; and when the young man asked, "if she saw the cloven foot," she turned up her pretty nose and said, "No, but I smell the cloven breath."

"A FUNNY man," at a lawn party, asked an old man who was passing by the grounds if he knew much about mud turtles. "Yes," said the old man, "a mud turtle can neither fly, gallop, jump, cry, sing, play croquet, or go blackberrying; and yet, if you let him alone, he gets on just about as well as a young man who tries to be funny at a lawn party."



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 and physiological science. We can usually supply any of those noticed.

REX RINGGOLD'S SCHOOL; or, the Imperial Club. By PITYN Steele Boyd, author of "Up and Down the Merrimac." 18mo, pp.

399. Cloth. Price, \$1.50. New York: National Temperance Society and Publication House.

The author draws a vivid picture of the average young men's club, in which tipping, smoking, and card-playing are the chief features, and he properly terms it a school, and a school of a most powerful character it is; only too influential in clouding and corrupting minds which in earlier years may have been enlightened by the pure and elevating instruction of anxious parents and cultivated teachers. The schools of vice have each a teacher in some bold and reckless man who takes the lead in all their miserable practices. Such a teacher was Rex Ringgold, whose reckless and unscrupulous character as a trainer of new members in all the tricks and games of the club is well delineated. The story of his conversion and the reform of his school is an ideal picture of possibilities in moral reform which we read with pleasure. It is the sort of moral story which every boy, and girl too, will read with a hearty interest.

STUDIES IN THE BOOK OF MARK: Critical, Exegetical, Homiletical, and Practical, for Teachers, Pastors, and Parents. By Rev. D. C. Hughes, A. M. 8vo, cloth. Paper, 60c.; cloth, \$1. I. K. Funk & Co., New York.

The distribution of the revised New Testament has stimulated Bible studies to a degree greater, we think, than was expected in so short a time after the publication of the work of the English and American Committees. Among our own publishers Messrs. Funk & Co. have shown a creditable diligence in meeting the demand for aids to Bible study, and the volume, as above entitled, is one which will be found a convenient aid to the adult reader and teacher. Briefly, the object of the compiler is: To furnish expositions that are terse and simple, accurate in scholarship, free from pedantry, and plain in style; to afford the S. S. worker abundance of biographical, historical, and geographical material for the unfolding of each lesson, together with careful treatment of such topics as miracles, parables, demoniacal possessions, and other difficult Bible questions; and to furnish for the family interesting reading on the S. S. Lessons, and for the pastor, superintendent, and teacher an organized and practical form of the lessons.

The volume is divided into forty-eight sections, corresponding with the forty-eight lessons of the International Series. Each section is carefully analyzed, its words and phrases critically explained, and its persons and places carefully described. Errors are pointed out, and rendering of recent revisions indicated—thus adapting the work to the wants of all readers and students of the Word of God.

THE PRIZE PAINTING BOOK—GOOD TIMES, by Misses Dora Wheeler and Candace Wheeler, is a small quarto volume of drawings,

in freehand style, of scenes very agreeable to young people, as they relate to out-of-door life in summer-time. The design of the authors is to provide attractive material for children and beginners in drawing and water-color painting. The subjects cover a variety of work, and will delight the legion of young people who find so much enjoyment in using the pencil and prepared paints furnished by the stationers. There is an element of business for juveniles in this book, as the publishers offer three prizes, \$75, \$50, and \$25, for the three books which shall be returned to them colored in the best manner, and they have selected very competent judges to decide which may be the best. Messrs. White & Stokes, of New York, are the publishers.

THE AFFECTIONS OF THE SOUL, published by M. A. Ziegler, of Passaic, N. J., are a series of fine photographic prints, representing the human face under the influence of the emotions and passions. The artist has, for the most part, reproduced the work of old masters of physiognomical design, but in a chaste and beautiful form. The expression of "surprise" on No. 2, of "joy" on No. 7, of "laughter" on No. 8, of "pain" on No. 10, of "compassion" on No. 13, of "contempt" on No. 14, of "hate" on No. 18, is in each case admirably wrought out, and impressive. Did we realize the effect of thought and feeling upon our features we would endeavor to cultivate high and ennobling sentiments, and Mr. Ziegler, in our opinion, has performed an excellent moral work by supplying a kind of mirror for us in which we may study the appearance of our faces when anger, jealousy, fear, covetousness, etc., possess our spirits. Such study doubtless would be useful to the most of us, and help toward the acquisition of a quiet, even-tempered, patient bearing. The price of the series of plates is but \$3.

TALKS TO BOYS AND GIRLS ABOUT Jesus. With Bible Links, to make a complete and Chronological Life of Christ for the Young. Edited by Rev. W. F. Crafts, author of "The Rescue of Child-soul," etc. 12mo, pp. 885, cloth. Price \$1.50. New York: I. K. Funk & Co.

The purpose of this volume is worthy, and in accordance with what seems to us plain duty on the part of Christian ministers, viz: to promote the exposition of Christian truth in sermons and addresses adapted to the intelligence of children. There are very few men in the American pulpit who have a natural talent for interesting the young in matters of religion. This ought not to be. The growth of the church is dependent upon the young, or as some one has happily expressed it, "the Sunday-school is the nursery of the church." The proportion of the young who grow up in and of the church, i. e., become permanently connected with it as earnest support-

ers, is painfully small, and we think that one clear reason for this is the want of ability in the average minister to interest and instruct the children. Mr. Crafts' volume is a well-constructed aid to ministers and Sunday-school teachers; it contains a good variety of sermons for boys and girls, with simple explanations and illustrations of lessons drawn from the life of Christ. It also provides a system of Bible reading for home practice, which parents can join in making pleasant to their children. The "Sermons" are for the most part brief and on subjects like "Flowers," "Snow," "Birds," etc., being suggested by the seasons or dally events which a boy or girl readily appreciates. The list of contributors is very respectable; in it we find the names of Dean Stanley, Bishop Coxe, John Ruskin, Dr. Abbott, Dr. Newton, Dr. John Todd, Dr. Alexander MacLeod. The illustrations are unexceptional pieces of artistic engraving.

PEN PORTRAITS OF ILLUSTRIOUS ABSTAINERS. By George W. Bungay, author of "Off-Hand Takings," "Crayon Sketches," etc. Vol. I. 12mo, cloth, pp. 275. Price, \$1.50. New York: National Temperance Society and Publication House.

Readers of the PHRENOLOGICAL JOURNAL are familiar with the name of the author of this new volume, as from time to time sketches of eminent men in different walks of life contributed by his pen have appeared in these columns. Mr. Bungay has made biographical delineation a kind of specialty, and it must be said that he excels in it. The present volume indicates an earnest purpose and a warm love for the great cause which it so richly illustrates. Mr. Bungay has been connected with temperance reform for many years, as a writer and platform speaker; he has in nearly every instance a personal acquaintance of the men who are sketched in the volume, so that it can not be said that he admires them highly at a distance. There are upward of fifty biographical outlines in the book, the treatment being in each case clear and comprehensive. There are thirty-two excellent portraits executed in superior style; among them those of Mr. Wm. E. Dodge, John B. Gough, Henry Wilson, Lyman Beecher, Dr. B. W. Richardson, De Witt Talmage, Horace Greeley, Father Matthew, Geo. B. Cheever, Neal Dow, and others. Our temperance friends will, of course, welcome the book: it is a galaxy of noble, earnest workers in the cause of truth and moral progress.

PUBLICATIONS RECEIVED.

J. S. OGILVIE & Co., publishers, of New York, have made the following additions to their "People's Library": **FOREVER ALONE.** By Nellie F. Haines. Price, 10 cts.—**BRENDA YORK.** By

Mary Cecil Hays, author of "Victor and Vanquished," etc. Price, 10 cts.—**LADY MANABOUT'S TROUBLES; OR, THE WORRIES OF A CHAPERON.** By Ouida, author of "The Little Earl." Price, 10 cts.—**OWEN'S HOBBY; OR, STRENGTH IN WEAKNESS.** By Elmer Burleigh. A prize series. Price, 20 cts.—**THAT BEAUTIFUL LADY.** By the author of "Dora Thorne." Price, 10 cts.—**THE FARMER'S DAUGHTER.** By the author of "A Great Mistake." Price, 10 cts.—**MACON MOORE, the Southern Detective.** By Judson R. Taylor. Price, 20 cts.—**MAJORIE'S TRIAL.** By the author of "A Cunning Woman." Price, 10 cts.—**RETURNED TO LIFE.** By Gerold Bruce. Price 10 cts.—**NUMA ROUMESTAN.** By Alfonse Daudet, translated by Jacob Barbanal. Price, 10 cts.—**THE SAD FORTUNES OF THE REV. AMOS BARTON.** By George Elliot. Price, 10 cts.—**HIS GREAT REVENGE.** Author anonymous. Price, 10 cts.

AMONG THE AGRICULTURAL WEEKLIES which are upon our exchange list, and which we welcome to our table, are the *Cultivator and Country Gentleman*, *Rural New-Yorker*, *New England Farmer*, and *Prairie Farmer*. These are valuable in a high degree to the farmers of the land, and well deserve their wide circulation.

THE *Scientific American* improves with age. We had the impression that when the *Scientific News* first came from the press of the same publishers, there might be a falling off in the *S. A.*, but the contrary appears to be the effect.

THE *Manufacturer and Builder* is worth the interest of mechanics, especially those whose vocations relate to machinery and construction.

A FEW years ago we mentioned an improved tone in the matter and general arrangement of *Lippincott's Magazine*, and predicted its advancement to a high position among American monthlies. The January Number for this year verifies our prediction. As a representative of American social literature, we feel warranted in saying that it has no superior.

POTTER'S AMERICAN MONTHLY opens the new year with a new cover, better paper and type, and a sheet or so of additional matter. The illustrations are numerous and of a class which suggest a possible rivalry of *Potter's* with those paragons of artistic beauty, *Harper* and the *Century*. John E. Potter & Co., Philadelphia, are the publishers.

WIDE AWAKE (J. D. Lothrop & Co., Publishers, Boston), for January must have pleased its large constituency of young readers. Its holiday illustrations are beautifully executed. We notice that the subscription price has been advanced to \$2.50, but considering the size and quality that is low enough.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 74. 1882

NUMBER 3.]

March, 1882.

[WHOLE No. 520.



REV. JOSEPH PARKER, D.D.,

THE PREACHER OF THE CITY TEMPLE, LONDON.

It has been our purpose for some time to present to the readers of the PHRENOLOGICAL an engraved sketch of the features of the man who divides with Mr. Spurgeon the distinction of being the most popular preacher of London.

If quotations from one's sermons in the religious and secular press be evidence of reputation, then is Joseph Parker first among English pulpit orators; for we meet with extracts from, and references to, his discourses in the current literature of Great Britain, more frequently than we do similar mention of any other clergyman. Prof. L. N. Fowler, who, by the way, is a member of the reverend gentleman's congregation, has supplied an extended delineation of Dr. Parker's head, of which the following is an abridgment :

Dr. Parker has a strong, vigorous organization, ample development of bone and muscle-power. He measures forty-one inches around the chest, and consequently has great vital stamina, and a strong hold on life, powerful lungs, and a lion-like voice. A man with such a powerful physical structure, with good digestive ability, and an ample amount of arterial blood, must work executively and carry all before him. He can not do child's play, but throws great force and strength into all his efforts, and clears all impediments from his track. He is fond of general, manly exercise, athletic sports, and of roughing it occasionally, by way of gratifying his executive nature and restless spirit. He is thoroughly a masculine man—feels strong within himself, and wants to do everything in a wholesale way, with as little assistance from others as possible. All his sympathies are with bold, strong measures. He would make for the gates of the city, strike the first blow, and take the city by storm rather than by stratagem; yet if stratagem is necessary, he would know how to resort to it effectually. He appreciates such men as Moses, Daniel, David, and Luther, who accomplish what they undertake and achieve mighty deeds.

His nervous system is distinctly developed. It renders him very susceptible to external influences, to enjoyments and suffering. He desires to have every-

thing adapted to, and in harmony with, the occasion; hence he often finds it necessary to arrange his own matters for himself, as he can work after his own plans much more advantageously than after those of other men. His sources of enjoyment are also peculiar to himself. He wants the essence of everything without a long introduction or many conclusions and inferences.

His brain-power is very great; his head measures twenty-four inches in circumference, while twenty-two is the average measurement of a medium-sized man. His head is well developed; all the faculties have more or less power, while some have amazing influence. His strong points are so strong, and he manifests them so plainly, that his special characteristics stand out boldly. He is a fine example of the phrenological doctrine, that size, all other things being equal, gives power. His mind, compared to that of an ordinary man, is like a cannon compared to a pocket-pistol, or like a man-of-war compared to a pilot-boat. Some of his leading qualities and attributes are comprehensiveness of mind; great depth and breadth of mental conception, amounting almost at times to mental extravagance; extended mental vision, and ability to take into account the whole of a subject, to see all its bearings, and to harmonize the greatest extremes, so as to produce a complete mental picture; power to use language which embodies abstruse thoughts and general ideas, and to make vivid and lifelike comparisons. He deals in magnificent ideas, and must work on a large scale if at all.

He has a great reverence for divine power, eternal things, and momentous consequences. All subjects that absorb his attention are handled in a comprehensive manner, for his mind is not adapted to the details of science, or the application of principles in the minutiae; but he grasps new ideas and fundamental principles almost at a glance, and he is able to enlarge upon, to simplify and embellish his own ideas with the greatest ease. His observations are directed to

particular objects for special purposes, but he is not a business-observer, nor a scientific experimenter. His memory of mere objects of sight or action, or of the common occurrences of the day, or of conversation, dates, or events, is not good; but if he is interested in a subject, he can commit to memory and remember retentively what he reads and understands. His reasoning faculties are larger than his perceptive faculties, hence his judgment of principles is better than his memory of facts, and he is more philosophical than scientific, and deals in thoughts more than in facts and details. His language in common social conversation is not great; at such times, his ideas are condensed into as few words as possible. It would be a difficult task for him to keep up a continuous conversation on the common social topics of the day; most of his sentences in conversation are short, and as much to the point as possible. In the pulpit he is much more at home than in the social circle, and is much more copious in the expression of his thoughts before an audience than in private life. In proportion as his subject will allow him to give vent to his imagination, is he copious in the use of words; but even then he is neither prolix nor verbose, for every sentence contains a condensed idea, and is not a string of useless words.

Constructiveness is large, which gives him great ingenuity in the construction of a sentence or an argument; Ideality and Sublimity are large; he is a great lover of general literature, is extravagantly fond of colors in flowers and foliage, of scenery, land and water, hill and dale, and of nature in every aspect.

His Imagination with his Constructiveness enables him to create imagery and embellish his subjects with vivid descriptions. Mirthfulness is very large and active. He has a keen and lively sense of wit and of the ludicrous, especially that kind of wit that is full of thought. He is affectionate in his feelings, domestic in his disposition, and likes the quiet of home and all its associations. He

does not care to go into general society unless there is ample entertainment, or a manifestation of skill and talent, in which all can participate, otherwise he would prefer to spend much of his time in his study.

He enjoys excitement and enthusiastic demonstrations on important occasions. The hardest work he has to do at such times is to keep himself in proper check. He is more like a rampant lion than a sleeping lamb; a roaring cataract than a bubbling spring. He values money highly, and wants much, because he has large desires and extended plans; but whether he has much or little, it will all be used, for he has not the hoarding spirit. He is high in the crown of the head. Approbativeness is large. He desires the approval of friends, is ambitious to excel, would like to immortalize himself, and is willing to make the exertion necessary to earn the fame he desires, yet he would labor as a student for the love of study without reference to the public result. He is not, naturally, so proud and dignified, as he is ambitious and sensitive, yet he has great love of freedom and liberty, can not bear to be under obligations to others, and has so much independence of character that he will acknowledge no man master. He feels that his place is at the head, where he can take the responsibility, and give directions to others, who must attend to the details and carry his plans into execution. He has really so much innate power, that he can not work after the plans of any one else, nor will he allow others to do his thinking for him, for he is conscious that he is capable of doing it for himself. He is positive in his opinions, in his likes and dislikes, and is very emphatic in the expression of his ideas. In fact, he is not a half-way man in anything—he is for or against, cold or hot—can be led, but can not be driven; gentle measures will influence him much more than force and compulsion.

He can preach an exhaustive sermon on a small text, or he can take the whole Bible for a text, and present the great

ideas of it in a nutshell, more easily than most men, and apparently without extra labor. He has a wonderful faculty to condense thoughts and ideas, and to say much in a little. Had he language equal to his ideas and imagination, he would become one of the most copious speakers

some of the other moral and religious faculties of the brain, but it is now more developed than it was several years ago. Benevolence, being his largest moral faculty, exerts a modifying influence on his theological opinions, and prompts him to adopt liberal views of theological



CITY TEMPLE, LONDON.

of the age. Ordinary people may think that his ideas are too comprehensive, that his plans are too large, and that his doctrines are too liberal; but one with such an organization is like an avalanche which moves with overwhelming force. Veneration was not so large naturally as

subjects, and, of the two, he gives pre-eminence to the attributes of mercy rather than of justice. His reasoning faculties being large, he prefers to have a good philosophical foundation or basis for his belief. He could not confine himself to a narrow, sectarian creed, but has

one which embraces broad and liberal ideas of God's government and man's relations to his Maker; as his faith is subject to his reason, so his hope is regulated by his experience.

Born in 1830, Dr. Parker is a man who has risen from the ranks of the English people, by "sheer force of inherent ability and determination." He received instruction as a boy in the classics and mathematics, and afterward studied logic and philosophy in University College, London. His early life gave him a leaning toward the ministry of the Independent or Congregational Church, and when ready to enter it, he soon found a pastorate in connection with the old Congregational Chapel of Banbury. In course of time, and that a not very long time, his method of treating religious subjects awakened unusual interest in the quiet, old-fashioned town, and the attendance upon his ministrations became too large for the chapel. A new building was erected, and prosperity continued the order of affairs. But the zealous pastor had become known to the church beyond the limits of Banbury. The people of Cavendish Street Chapel, Manchester, were in want of a minister, and turned to Banbury. Joseph Parker was invited to take their vacant pulpit. To a young minister such an opportunity to exchange a comparatively obscure place for one of high importance rarely occurs, and we may justly think that Mr. Parker was highly gratified by it, but he declined the flattering offer for the reason that he had promised to remain with the Banbury people, as long as any indebtedness remained on their new chapel. The Manchester congregation were only the more determined to secure the man; they paid off that indebtedness, and Mr. Parker was installed in their massive edifice on Cavendish Street. There his power became more marked. He filled the large church, and his influence as an exponent of moral and religious principles rapidly spread through the North of England.

He had been for ten years the pastor of the Manchester Chapel, when, in 1867, he was called to London to become minister of the old Poultry Chapel, Cheapside, which was "vacant" in more senses than one, a division having occurred among its supporters, and the majority having left with the old minister to organize a new church. Mr. Parker surrendered his flourishing charge in Cavendish Street, of the great cotton city of Britain, and cast his fortunes with the weak remnant of the Poultry Church. The result was an immediate revival of strength and numbers, and in a short time the old walls were too small for the audiences that crowded to hear the new man. The building was sold, and the stately edifice known as the City Temple erected on Holborn Viaduct. This building accommodates 3,000 persons, and it is usually filled to its utmost extent, not only on Sunday, but also on Thursday morning, when Dr. Parker conducts a service, which he introduced soon after his going to London. Such a fact as that of a very large building being well filled on a week-day, in the hours of business, is what a clergyman of the English Church may well call "a remarkable phenomenon," and evidences the presence of some unusual power in the pulpit.

Dr. Parker's sermons are delivered extemporaneously from a few notes, and being caught by the reporter's swift pencil, are published widely. Besides preaching, however, he has written not a little; even tales of fiction have sprung from his versatile pen, but we regret to say that the most of them do not sustain his reputation as an author in his better and truer sphere of theologian. He wrote the volume entitled "Ecce Deus," in answer to "Ecce Homo," which was warmly received by the Church at large, as a powerful antidote to the anti-orthodox sophistry of the latter. This was followed by "The Paraclete," "The Priesthood of Christ," "Ad Clerum," and others. He is most powerful in the pulpit, possessing a commanding presence, "a voice of great compass, resonance.

and musical tone; his delivery is remarkably clear, natural, and fascinating. Over-given to rant sometimes, and to tearing passion to tatters, his elocution is generally as perfect as that of the most finished tragedian. His pathos is frequently most tender and subduing, while perhaps in the same sermon he will trample down an adversary with the rough foot of an elephant." From one of his sermons as reported for *The Fountain*, a copy of which happens to be at our command, the following extract is made :

"The Christian preacher can never lose his vocation so long as men die. Truly, in many cases I should have but little hope of the propagation of a faith so intensely and infinitely pure as the Christian doctrine if it were not for death. Death gives us our chance. It is hard to laugh in the presence of death; death makes cowards of us all. There is a place for fear in a ministry of morals. Every man of us must go through the death scene, and who will stand by us most then? The men who have shared our laughter most furiously and joyously, the men who have taught us the grim art of mockery, the men who have taught us how to despoil our Sabbaths and contemn our Bibles and hold in contempt all holy ministries? I am not aware that history has recorded any act of supreme bravery on the part of these persons. We shall all have an interview with death—are we ready? Death!—pale, cold word. You have seen a great broad river on a snowy day; the snow, white, pure, has fallen on the rolling volume—and whitened it? No, no. The river has swallowed the snow, and blackened by what it has drunk. And so with this great cruel death-river. We throw into it our bribes, and it goes on, leaving us the poorer for our folly. Death—it chokes our rhetoric, and our poems it turns into mockery, as earnestness rebukes flattery. There is that quantity to be reckoned with called death. Who likes the touch of that ice? Ah, this February, with its covering of ice, is hot compared with the cold of death. I can never forget my

first touch of death. I touched it with my lips first. I kissed a friend's dead child, and, oh, the cold! I called the child 'My dear,' with many a petting name I accosted it; but, oh, the answer was an infinite chill! Every man of us has to face that solemn visitor. It makes the blood hasten back in pallid fright, as young feet fly when ghosts torment the moonless air. Death is uncompanionable, lonely, silent. It will have no feast, it will permit no musical instrument; it drinks blood, yet its livid lip never blushes crimson, no flush of satisfaction have I ever seen on the inhospitable snow of death.

"If death were occasional I should say nothing about it. Death is the one certainty, and its uncertainty is its power. Our summers dare hardly be green and flowery, lest they should be the more quickly killed, as if their joy made death jealous, and gave his cruelty a keener edge. Our children dare not laugh out all their gladness, lest death should punctuate their high delight with the stab of his unpitying spear, and they should be caught in a laugh. Who brought it? whose child is it? whose beast? It is ours, not God's. We opened Eden's gate to admit the foe; we put our life keys into its inexorable, relentless grip. There is no death in God; we must claim it, though we hate it with a hatred we dare only half express.

"And yet how curiously we treat death. We speak of it in many moods, now in terror, and now with weird delight, as the end, the way out, the hand that unfastens the bound burdens, and lets tired life lie down, though in the cold grave, to rot. In the heat of our worst agonies we laugh deliriously, and say, 'Thank God, death will see the fight out, and then the sword will rust.' Yes, we laugh and say, 'It can only be for a short time now; never mind'—a laugh with a lie in it, a laugh which we thought would disarm the monster we dreaded the most. But death can not be disarmed. What need we then? A gospel. And it is the peculiarity of this wonderful Christ that

he does not attend to little questions and small affairs only, but he deals with the profoundest problems that afflict our intelligence, and the darkest, blackest shadows that throw their gloom upon our wasting life. I heard a voice saying, 'Fear not: the Lion of the tribe of Judah will deal with the problem of death.' Many had tried it. There had been much calculation and prophecy; many a remedy had been suggested, many a pilgrimage had been undergone, many a philosopher had shut himself up in his sanctum that he might find the answer to death; and when a great sob, with one word in it—'No!'—had gone up to Heaven, I heard a voice saying, 'Fear not, the Lion of the tribe of Judah deals with great

questions, solves intricate problems—he will come and deal with death.' I heard a great voice behind me saying, 'Blessed are the dead that die in the Lord, for they shall . . . rest.' Dear little word, sweet syllable, thing beautiful as drop of dew on the eyelids of the morning—rest. An old word, old as Moses' history and new as the last speech of God to man. Our Saviour Jesus Christ hath abolished death. Death is now turned into a blessing; the great river has now shrunken into a little rill that a child can jump; the wilderness of shadow is now lost within the shade of a tiny lark's wing when it is hidden in the sun and pouring out its little heart in music."

CONSERVATIVE CURRICULUMS.

BECAUSE some things have been well done according to precedent, it by no means follows that a better way may not be discovered. But what if, guarded by authority, the force of the admission should be thrown against any attempt at improvement? What if it should say with all the force of common law, "The order of Providence and progress shall work thus or not at all"? In that case, we are inclined to think the tendency would be to a mummified humanity. The law of caste has assumed many forms, crushing genius and reform when not bearing the imprimature of the guild. If improvement entered the door with better things to come, it has been sent into a back closet to consult with the blind chamberlain of red tape. Talking about the coming man, it has looked for him in the beaten way of observation, not from Gilead, Bozrah, or Nazareth; not from the back-side of the desert or the humble sheep-fold.

Under its influence men forget all the teachings of the past taught by the Manger, the Cross, and the Sepulchre; the fishermen of Galilee, and Solomon's poor wise man who saved a city. It will have it that the kingdom comes through

the worldly-wise, through obedience to a cast-iron formula, or not at all. Had the question been put to its disciples, "Whence shall the Messiah come?" they would have answered, "From the Temple and the Sanhedrim." Had it been, "Whence shall he come, the myriad-minded man of Anglo-Saxondom, whose words shall be battalions of wisdom and beauty?" how incredulous to them would have been the reply, "His name shall be Shakespeare; a stranger to the universities; his first occupation a wool-stapler; his second, an inferior actor!" Had they been asked, "What shall be his antecedents, who shall write the most popular book in the English language?" they would have answered, "Even the shades of Oxford or Cambridge, where his familiarity with the classics shall give force to his English style." But to the true statement, "When of age he shall be taught by his wife to read; his trade shall be a tinker, and his calling a persecuted Non-conformist preacher," they would have put a veto. Yet these two men were graduates of no mean university; their Alma Mater was the creation; their study, the human heart; their books, all terrestrial and celestial phenomena; their

professors, natural and revealed religion; and their diplomas, the approval of the ages.

This conservatism of improvement has tended to keep its power of locomotion in Chinese compression. All its fresh approaches in unaccustomed ways are looked upon with suspicion, and voted as out of order. It would make all brains upon one model, and all thinking run in grooves. It rests not satisfied with accomplished good, but queries as to whence it came, by what road, and what stamp it bears. It would assume dictation to Providence as to the bestowment of its gifts, and be incredulous as to their existence beyond its own schooling; pronouncing dullness, profundity; inability, God's good pleasure; and failure, submission to His wise ordination. Ignoring the varied endowments of human nature: that men come into the world with capacities for certain callings, and that less machinery is needed to qualify some for chosen and loved pursuits than others; that aptness to teach, the poet, the orator, the musician, and the governors of men, are more generally born than made, it would put all through a common training; as if matriculation conveyed character, and diplomas ability against the protest of Nature.

The church of God, constructed on the idea of the priesthood of all believers, and affording a sphere for all varieties of talents and modes of operation, irrespective of sex or rank, has been resolved into a sacred club for the advantage of a few. Multitudes of highly-endowed men and women are kept from lifting a hand to save their fellows, from doing what they are amply qualified to perform, through discouragements and restrictions foreign to benevolence; while incompetents are kept in offices for which they have no calling by nature or grace. Men are rulers who would make poor subjects; ministers of religion who ought to be mechanics; and there are many mechanics who would make the Bunyans and Careys of the pulpit, had they been sought and welcomed.

The Romish Church has been wiser in the economy of its forces than her Protestant sister. She has found room within her folds for all orders of mind, degrees of culture, modes of operation, and for both sexes. Had the Puritans and Methodists been in accord with the doctrines of the Papal communion, as they were with those of the English Church, a separation would never have been necessary; but they would have been employed as zealous co-operators under the hierarchy. Any denomination of Christians, that for reasons of precedence or order neglects to furnish the work for which its various orders of mind and education are qualified, which employs the few to the exclusion of the many, and which surrounds its ardent souls with such restrictions as effectually debar them from coveted employments, will be left in the rear as the world's conqueror. Many of the churches of the Reformation, notably those on the continent of Europe, have sadly failed in consequence. Influenced by the universities, men were made presentable to the cure of souls only through college curriculums. Their error was not in the requirement of learning, but in the *kind* which they demanded; the training and qualification were not according to the profession. A knowledge of mathematics to a preacher would be an adornment; but a previous question would be, Has he the temperament, the gift of utterance, the power of original suggestion, the calling, for a sacred orator? A mariner might be just the man to discover new continents, and without a knowledge of Greek; and to forbid his setting out through an ignorance of the Iliad, would be a loss to humanity. The order of nature was set in abeyance to that of the school; and the fact was overlooked that sense, with little classical attainment and mathematical precision, might be more grandly successful as the fishers of men than a Porson or La Place. Let any impartial observer compare the learned ecclesiastics of Germany, Holland, or France, with the less pretentious ministry of the Methodists and Baptists.

and they seriously suffer in comparison in all the make-up of zealous and successful evangelism. The masses are but little reached. The priests are many, but the prophets are few; while conventionalism and formalism neutralize originality and enthusiasm. Theology and modes of Christian-working are stereotyped by the court and the college. A Bunyan, an Oliver, a Fuller, a Moody, a Howell Harris, and a John Nelson, became unknown factors in the dominant Church-life.

In our own land it is a matter of observation, that we have in the denominations most insisting on a learned ministry, hundreds of ministers possessing all the acquirements of the schools, who yet circulate from church to church, with a beggarly minority demanding their services. Mere learning has failed to make them preachers; they are not "apt to teach"; they do not draw. Wanting the oratorical temperament, unction, pathos, imagination filled with beautiful and original ideas, the power to render truth a burning influence, they move no hearers except to the door. Yet these men met all the requirements of their judicatories in examination; they were welcomed and recommended as qualified—in everything but ability to preach! Strong objections there would have been to candidates spiritually, intellectually, and naturally qualified for the sacred office, if with all these they were found wanting in a knowledge of Euclid and the dead languages. Yet where would be the greater deficiency, the scholastic without the natural and the spiritual, or the possessor of both minus the sheepskin of the faculty? This most unwise discrimination has, time out of mind, placed Rev. Somnolency in the pulpit of Hogarth's Sleeping Congregation, and relegated more than one Christmas Evans to the sheep-fold.

Suppose that a preliminary formula should be issued by our leading educational institutions, to the effect, that of all candidates for the honors of poetry, music, and painting, with those of inven-

tion, legislation, law, and oratory, none should be accredited in these departments but through the evidence of their diplomas, or equally satisfactory examinations; that it would be presumptuous to seek them but through the vestibule of the university. We confess to a feeling of amazement in view of the loss which human interests would suffer in consequence. It would be such a vandalism as no palace of arts or industry ever sustained. How many of the brightest records would it disqualify, how many of the most honored statues in the Temple of Fame would be broken? We may devoutly thank God that the order of the school has not been that of nature or Providence. Apply it to poetry, and Shakespeare and Burns become unknown. Try it on prose-authorship, and behold Bunyan, De Foe, Richardson, and Washington Irving are thrust into obscurity; make it irreversible as to oratory, and Patrick Henry, John B. Gough, and George Thompson are shorn of their laurels. How would it work in its application to mechanical invention? Sad enough; inasmuch as Arkwright, Stevenson, Watt, Fulton, Goodyear, and Edison would be unacknowledged factors in the world's activities. How would it bear on statesmanship? Very disastrously. Washington, Clay, Lincoln, and a numerous host would be ruled out of government. How would it bear on successful warfare? We should see Cromwell, Lord Clive, and Nelson declared incompetent. Try it on reform and philanthropy; and John Howard, Robert Raikes, Benjamin Lundy, and W. L. Garrison will be declared unworthy leaders in the reformation of mankind. How would discoverers and explorers succeed under it? Alas, we should be unable to find Columbus, Drake, Lander, and Captain Cook leading the way to unknown seas and lands. How would it bear on the editorial fraternity? We could not see Thurlow Weed, Horace Greeley, or Gordon Bennett with the most powerful magnifiers. The rule would apply no better in relation to sculpture, painting,

and music; there we should find many of the most illustrious names unknown to college catalogues, who yet entranced the world's dull ears and eyes.

Notwithstanding this, it would be a perversion of our meaning to represent it as disproving the value of our college systems. They have their honored place, and have done the grandest service. It is only when they would hold the keys of exclusion to the worthy in any department of usefulness, that they betray their cause. He who has proved his ability to his calling should be welcomed to his field. It is against the undue exaltation of the curriculum that practical life protests.

A man's fitness and success in his calling should be his diploma. The gifts vary with the individual. George Combe was a good moral philosopher, but he never could master the multiplication-table. The Rev. Charles Churchill was a good poet, but the dullest of all creatures, and a scandal to his profession. General Grant made a good soldier, but could never make a good speech. So there are hundreds of men in our theological seminaries who are taught everything but what they were sent there to acquire, the art of preaching; and who, after sustaining credible examinations in the routine of study, are no more qualified to preach than blackbirds are to sing. Yet all candid observers will admit that Bunyan was a mighty preacher without scholastic attainments; and that the pulpit celebrities of modern times, as Spurgeon, Parker, Beecher, Talmage, Chapin owe but little of their success to lingual or mathematical attainments, but immensely to their brilliant rhetoric and oratory. Dr. Nettleton was a poor student, but a mighty power in the pulpit. Charles G. Finney never studied in either college or theological seminary, yet he was the moving body of an awakening life to the churches. Moody is the evangelist of two worlds, yet ignorant of the vernacular of David and Paul. A workingman made the best speech in the late commemorative meeting of Dean Stanley,

for which he was warmly thanked by the Prince of Wales. The late Father Taylor, of Boston, knew almost nothing of English grammar, yet few could move the masses better than he on the great moral issues of the times. In our manufactories, in our stores, in our banks, in our marts of trade, there are slumbering agencies of the most needed character to elevate our neglected masses; to reach them and save them from ruining themselves and injuring the State. There are unknown Goughs, Father Taylors, Jerry MacAuleys, John Nelsons, and Andrew Fullers, who, if sought out and welcomed, as Wesley gathered around him his numerous co-laborers, would render the most efficient service. They would speak in a language untaught in the schools, but well understood by the common people. On this principle the author of "Ecce Homo" truly says, "A flourishing church requires a vast and complicated organization, which should afford a place for every one who is ready to work in the service of humanity. The enthusiasm should not be allowed to die out in any one for the want of the occupation best calculated to keep it alive." That denomination of Christians that understands this, and zealously works it out, will gather in the neglected classes and become the church of the people, while that neglecting it will remain the sect of the few.

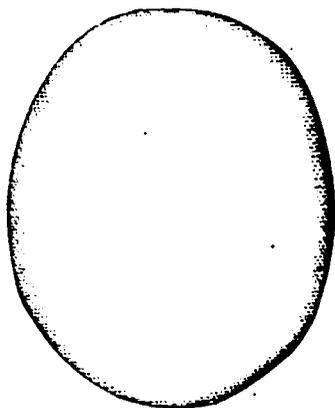
We do not undervalue the work of our Alma Mater. Our theological institutions are doing a good service, but they must not seek the monopoly of the highest labor. We think that if the Teacher of all souls were moving among us, he would say, "Educate to the utmost, but ever use the best you have. There are diversities of operations, but judge of the fitness of the worker by his works. The fields are ripe for the harvest, and be careful that you receive, those whom I send; reading the men more carefully than their diplomas, ever seeing the seals of their apostleship in the works performed in my name."

REV. JOHN WAUGH.

UNSYMMETRICAL HEADS.—WHO HAVE THEM?

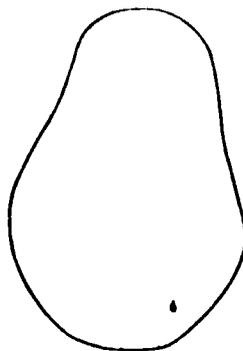
HAD the counsel for the prosecution summoned a practical hatter to testify with regard to the form of the human head as met with in our average

form of the head indicates an abnormal brain and an unbalanced mind is a statement which is altogether unfounded. To accept it would be to declare the great



GUITEAU.

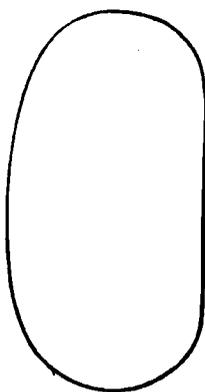
population, we think that he could have given a more intelligent account of the relation of cranial contour to character than many of the "experts" who endeavored to air their views on insanity during the Guiteau trial. Irregularity of cranial form was assumed to indicate a phase of abnormality in brain development, and abnormality in the disposition of cerebral substance was stated to be a fundamental cause of mental disturbance.



MARBLE.

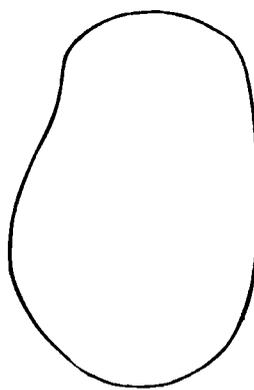
majority of people, especially those who are the leaders of thought, in all its phases, to be more or less demented. Had a practical hatter been called into the court-room at Washington, and been required to produce drawings of the horizontal profiles of his customers' heads just as that convenient instrument he uses (the conformator) shows them to be, he would probably have given judge, jury, counsel, "experts," and the irrepressible prisoner an instructive lecture.

From a large number of diagrams rep-



GILMORE.

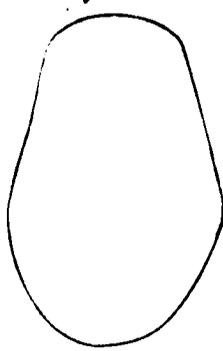
It can not be disputed that abnormality of brain structure is usually associated with constitutional insanity, but that irregularity or want of symmetry in the



BARBOUR.

representing the horizontal outlines of the heads of eminent men who have submitted to the close embrace of the hatter's conformator, the accompanying have

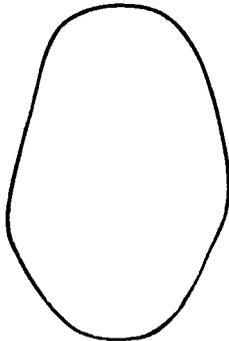
been selected for the purpose of enabling the reader to compare them with the outline of Guiteau's head as taken from the cast made by Mr. Clark Mills.



♦ HAYES.

It will be seen at the first glance that American society countenances certain persons as worthily representing its upper arenas of literature, art, morality, politics, science, and industry, notwithstanding the fact that their heads are not so near a graceful oval as Guiteau's.

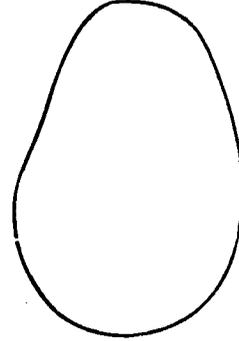
As shown in the second of our engravings, the bandmaster Mr. Gilmore has a fairly symmetrical head of the long, narrow type, but the eminent jurist, Judge Barbour; the cultured journalist, Mr. Marble; the rector of Trinity Church, New York, Dr. Dix; ex-President Hayes, and Mr. Pullman, of railway comfort fame, carry very one-sided brain-



DIX.

boxes. The college professor, whose walk and conversation should be ever steady and consistent to command the lasting respect of his classes, shows in

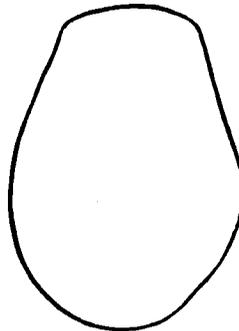
the diagrams not only a considerable want of harmony, but the possession of more than the average amount of impulse and energy. Dr. Dix, too, is by no means



PULLMAN.

deficient in the propelling forces and executive strength; while Mr. Pullman has combative spirit enough to be a stubborn, undaunted warrior in any field of controversy.*

What do these irregularities mean? we are asked. In general terms they indicate the partial education, culture, and mental activity of the day. Instead of the whole mind being trained and devel-



DOCHARTY.

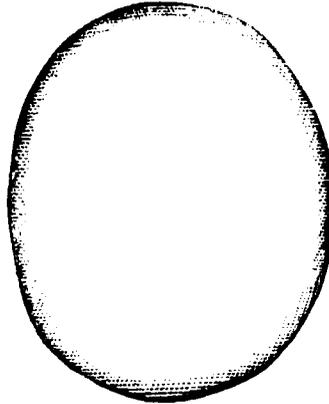
oped, attention is given to certain of its faculties, and, in correspondence with their exercise and strength, is the

* It should be said that the small bit of paper which is set in the conformator can not be taken as indicating by its perforated outline the exact contours of a head, unless it be of the circular or oval class. If the head be of the long or narrow type, it tends to exaggerate its irregularities somewhat. The outlines as taken from the instrument, nevertheless show positively that irregularities of form and proportion exist in a greater or less degree.—ED. P. J.

growth or development of the brain-organs or centers which correspond to those faculties. Each hemisphere is a complete brain, so far as parts or organs are concerned, just as each arm or leg is a complete limb; and that one which is mostly exercised in the mentality of life must receive the greater supply of blood, the greater nourishment, and consequently tend to the greater development. How often we meet with men who have devoted themselves to a special study or work, and who, although great in their specialty, exhibit an almost childish ignorance or simplicity with reference to matters outside of it! Examine the head of such a man, and it will be found that the organs related to his chosen sphere of thought are highly developed, while those which have been neglected are comparatively small, or in the condition of juvenescence.

The last diagram is the outline of the cast of the head of Deane, a notorious English criminal, who was executed for murder. It is quite symmetrical, to be sure, but approximates a circle, showing a great development of the propensities, especially in the region of the ear. An examina-

tion of the plaster cast itself shows this fact in a remarkable degree, as the great mass of Deane's brain lay in the base, there being little elevation to it. He was, therefore, organically deficient in the moral and religious nature, and



DEANE.

could properly be called a moral imbecile. What intellect he possessed was not developed by any education worthy of the name, and its exercise was under domination of his selfish feelings and grosser passions.

ORGANIZATION AND CRIME.

THE State or the nation is the enlargement of the circle of brotherhood. This fraternal principle is always present wherever there may be found together two or more human beings. Its violation is the result of temperament. In studying human character, the first and the last thing to be considered is the proportions that are found to exist in its elements. The number is the same in each mind. Nor is it conceivable that any one constituent element of the human mind can be either added to or annihilated. In the vegetable kingdom each "seed is in itself found yielding fruit after its kind." And the quality of fruit is manifest without regard to its shape, or color, or weight. The knife cuts according to its temper, not its size. And the human disposition

is apparent, without regard to age, or the size of the brain. The breeders of animals recognize the difference in the temperament of horses and fowls. This is true of every living organism. Its quality, its disposition, its conduct, comes from its "make-up," from the manner in which the chemical, the physiological, the nervous, the psychological elements are proportioned. It would be true to say, that the whole of human conduct depends on the temperament. The mind is composed of a variety of faculties, or functions. And of these organs, these conditions are to be considered: that when an organ or a class of organs is not duly proportioned in its normal development, one faculty or set of faculties is so very strong that others in proportion to it are weak. When organs,

from any cause or causes, become diseased, their healthy action is interfered with, the harmony is destroyed. When, from ignorance, or any other cause, the mind forms factitious relations between itself and others, an element of disorder is introduced into its operations. All these conditions may exist without any crime. But their combination makes that condition of mind over which the opportunity becomes a temptation.

The power which deflects the mind in its action is the opportunity. It is the opportunity that makes the thief. The opportunity to steal a million, more or less, determines as to how much tempta-

tion any given case can bear without yielding. The mind is also bent and influenced by education. Children are taught from the pulpit that if they sin they will not be punished, provided they repent and ask to be forgiven. And criminal classes are taught by the logic of events that condign punishment does not invariably fall upon the head of the offender. Thus the expositors of civil government and even some forms of theology teach the criminal to hope for a long period between him and his punishment, while it is doubtful whether he may not escape punishment altogether.

L. R. S.

GEORGE J. BRUSH,

THE EMINENT MINERALOGIST.

THE engraving shows a head of unusual symmetry in its profile and general contour. The anterior lobes of the brain have a marked predominance—observe how great the length of the line from the ear to the root of the nose, and also to the center of the forehead. The region of Comparison is especially full, and there seems to be a related fullness of development diverging downward to the center of the eyebrows. This caste of intellect indicates capability in analytical lines of thought and observation. Prof. Brush should be, in this respect, a critic of the finer, closer sort, one who can discuss topics on the philosophical side. Most scientific men look at Nature merely from the side of its actual being. An insect, a bird, a tree, a rock is constituted in such and such a manner, and subserves such and such a purpose; and, when we have acquired practical data bearing upon these two points, there is little more to be ascertained or worth the labor of investigation. But a mind organized as Prof. Brush's demands more; would look into the relations of one thing with another—animal

with plant, plant with inorganic substance—and bring to bear the resources of philosophy and imagination. The study of physics to such a mind is fascinating, and the results of its study are much more than dry details.

The development of Human Nature is very marked in the portrait. Prof. Brush should be known for the quickness of his impressions and the promptness of his judgment, especially with reference to the character of others. He is a natural mind-reader. He should also be known for kindness and sympathy, while, at the same time, he is not wanting in decision and self-poise. The following sketch of his life is derived from an article by Prof. Lounsbury, in the *Popular Science Monthly*. It is an interesting story of a man who has won a successful place among the learned, not because of brilliant talents, but because of steady and industrious energy in the sphere he chose as a calling.

GEORGE JARVIS BRUSH was born in Brooklyn, New York, on the 15th of De-

cember, 1831. His father was a merchant in that city, but in 1835, retiring from business, took up his residence in Danbury, Connecticut. There the family remained till 1841, when they returned to Brooklyn; and in the schools of these two places Mr. Brush received his early education. It was

a taste for them. Young Brush was at this place only six months, yet long enough to acquire a fondness for scientific study, which in the end resulted in changing his course in life. He intended to pursue a business career; and, accordingly, on leaving the school at West Cornwall, entered the count-



not, however, until 1846, when he was sent to a school in West Cornwall, Connecticut, that he had an opportunity to pay any special attention to science. This school was kept by Mr. Theodore S. Gold, an enthusiastic student of mineralogy, botany, and other departments of natural science; he gave instructions to his pupils in these subjects, and succeeded in inspiring them with

ing house of a merchant in New York City. There he remained for nearly two years, but the taste for scientific study did not desert him. He took advantage of every opportunity that came in his way to go on mineralogical excursions. In 1848, owing to a severe illness, he decided to take up the life of a farmer, and repaired to New Haven to attend a course of lectures on agriculture,

as a method of preparation. This event changed his career. He remained two years as a student of chemistry and mineralogy. In October, 1850, he went to Louisville, Kentucky, as assistant to Benjamin Silliman, Jr., who had been elected Professor of Chemistry in the university of that city. There he remained the following winter, and in March, 1851, made one of the party who accompanied the elder Silliman on a somewhat extended tour in Europe. Returning to Louisville in the autumn of that year, he continued acting in his old capacity until the spring of 1852. Then he returned to New Haven, where, after undergoing a satisfactory examination, received, with six others, at the commencement of 1852, the degree of Ph.B., the first time it was given by the college.

The academic year 1852-53 was spent by him at the University of Virginia, where he was employed as assistant in the chemical department. Here he was associated with Prof. J. Lawrence Smith in a series of special studies, the object of which was to re-examine a number of American minerals which had been described as new species. The results of their joint investigations were published in the fifteenth and sixteenth volumes of the *American Journal of Science*, second series. At the end of the academic year Prof. Brush went to New York, where he was associated with Prof. Silliman, Jr., in charge of the mining and mineral departments of the Universal Exposition held that year in the city. But he now began to feel the necessity of pursuing his studies to an extent which he was not able to do in this country, especially at that time. Accordingly, in 1853, he sailed for Europe, and, during one year at the University of Munich, devoted himself to chemistry and mineralogy under Liebig, Von Kobell, and Pettenkofer. The year following—that of 1854-55—he spent at the Royal Mining Academy in Freiburg, Saxony.

Just about this time an effort was being made at New Haven to put the scientific department of Yale College in a more satisfactory position than it had previously held. To the building of it up Prof. Norton had

sacrificed time and money, and, at last, his life; and, after the loss it sustained in his early death, it for a while continued to exist rather than to live. Outside of a very small circle, nobody cared for it, and it might at any moment have dropped entirely out of being, and the larger portion of the academic world would not have known enough of it even to regret its death.

Still, the necessity of doing something more than had been done was beginning to be felt; and in a feeble way efforts were put forth to prepare for what the blindest could not fail to see was the inevitable. In 1854 an attempt was made at organization. The scattered instruction given by individual professors was brought together in the catalogue, though nowhere else; and an institution under the name of the Yale Scientific School existed at least on paper. At the commencement of 1855 Mr. Brush was elected to a professorship.

He was first offered the chair of mining and metallurgy; but this he declined as embracing too much, and the title was limited to that of metallurgy alone. This, several years after, was exchanged for that of mineralogy. To qualify himself for the position, the newly-elected professor went, in the autumn of 1855, to London, where he pursued his studies in the Royal School of Mines. The following year he made an extended tour through the mines and smelting-works of England, Scotland, Wales, Belgium, Germany, and Austria. In December, 1856, he returned to this country, and entered upon the duties of his professorship.

From this time on the history of Prof. Brush has been the history of the special scientific department of Yale College, which, in 1860, owing to the liberality of Mr. Joseph E. Sheffield, received the name of the Sheffield Scientific School. He came to it while it was not only without reputation, but without appreciation or expectation. It exhibited, indeed, a good deal of life in the college catalogue, but beyond that its vitality did not extend. There was vigor enough in certain of its departments, especially in that of civil engineering, under the charge of Prof. William A. Norton; but in

such cases it was a vigor due to the energy of the individual instructor, and therefore almost certain to disappear whenever he disappeared. To bring these scattered units into an organic whole, to build up a complete and consistent scheme of scientific education, which should train men thoroughly in scientific methods, and which should continue to exist by its own inherent vitality after the men who established it should have passed away—all this became by degrees a main work of Prof. Brush's life. His energy, his judgment, his executive capacity, and his devotion, soon gave him the leading direction in the affairs of the institution. He was for a long period its secretary; he has always been its treasurer; and when, in 1872, a more formal organization of its faculty was felt to be desirable, he was elected as its presiding officer, a position which he still retains.

Prof. Brush has not been idle in his special work, in spite of the demands made upon his time and thought by the management of the Sheffield Scientific School. The series of investigations made by him on American minerals, in conjunction with Prof. J. Lawrence Smith, has already been mentioned. He co-operated with Prof. Dana in the preparation of the fifth edition of his treatise on "Descriptive Mineralogy," published in 1868, and an account of his special services in connection with that

work will be found stated in the author's preface. To the two editions preceding, as well as to this one, he contributed analyses of minerals. He also edited the eighth, ninth, and tenth supplements to this fifth edition, as well as the appendix to it published in 1872. In 1875 he brought out also a "Manual of Determinative Mineralogy and Blowpipe Analysis." In addition to these he has been a contributor to the *American Journal of Science*.

In 1878 a new and remarkable mineral locality at Branchville, Fairfield County, Connecticut, was discovered; and, in connection with Prof. Edward S. Dana, Prof. Brush produced a series of papers on the new minerals there found.

In 1862 Prof. Brush was made a corresponding member of the Royal Bavarian Academy of Sciences; in 1866 a member of the Imperial Mineralogical Society of St. Petersburg; and in 1877 a foreign correspondent of the Geological Society of London. He is also a member of the American Philosophical Society, of the National Academy of Sciences, and of various other scientific bodies in this country. In 1880, at the meeting of the American Association for the Advancement of Science, held at Boston, he was elected its president for the following year, and in that capacity presided over the meeting held in August, 1881, at Cincinnati.

PLATO VERSUS EPICURUS.

A REVIEW OF THE CONFLICT BETWEEN SCIENCE AND PHILOSOPHY.—PART II.

[Conclusion.]

EPICURUS said the object and use of life is Pleasure. "Let us eat, drink, and be merry, for to-morrow we die." And in response to this bugle call of Pleasure, Passion came from his lair, shaking his sensual mane; Appetite awoke and came forth sniffing the odors of the banquet as they were wafted to his sensuous nostrils; Avarice smiled a smile that resembled a grin, and his thievish fingers twitched with devilish anticipation; and Ambition girded his loins anew for conquest through slaughter.

If this picture be not true, then is his-

tory a lie, observation a delusion, and experience a false teacher. Under the influence of the lofty teachings of the true philosophers, the stern and noble virtues had such rootage in the political and social life of Greece as to yield such harvests of honor, integrity, and liberty as the world had not known before.

Dating from the time that Epicureanism became popular, the decline of virtue, art, literature, and liberty was by rapid stages. Epicurus said wealth is the basis of happiness; the acquisition of property, therefore, is the chief object

of life. He sustained slavery and encouraged land monopoly, as the following quotation from his teachings shows:

"Man is himself the most valuable property that man can possess. Next to slaves, land is the most desirable property to possess. He who owns a reasonably broad estate and slaves to work it, is in a good condition to enjoy life. Wealth is not to be despised, but the superfluity of wealth becomes a burthen by multiplying cares. So of pleasure, it should never be carried to excess, for that is weakening to the powers upon which it depends. Present enjoyment should not be purchased at the expense of future pain; as in eating or drinking to excess we blunt sensibility and bring on disease. For myself," he adds, "I prefer to keep appetite whetted by abstemiousness, rather than surfeited by gluttony."

What shall we say of such a teacher, but that he unchains passion and appetite, and then mildly exhorts them to keep within bounds? He may be compared to him who would loose a menagerie of savage beasts in a crowd, and then calmly advise them not to rend the people.

It is a significant fact that Epicurus had few disciples among the men of prominence. The more talented and cultured were Platonists or stoics. They drew their lofty inspirations from the Grove of Academus or the Portico of the Temple, not from the Garden of Pleasure. His followers were chiefly of the class who would be sure to give his doctrines the grossest possible interpretation, and rush to the maddest excess in the basest pursuit of pleasure. He lived to deplore the vices practiced in the name of his philosophy. But the thistles had been sown, and it were an endless task to root them out of the soil.

Beginning in Greece, these fatal heresies spread throughout Europe and have been transplanted to the soil of America, where they flourish with a luxuriance heretofore unknown, and unless they are weeded out, and that speedily, the history of Greece in her decline is but a prophecy of the fate of America. Our

commercial, political, and social life are being corrupted by it at an alarming rate. Commercial integrity, political honesty, and social purity are all alarmingly on the decline; whereas, if this land of Columbia is to develop the model Republic of the world, the people must advance to and occupy a higher plane than has been attained by people of any other nation.

There is a legend to the effect that on a certain occasion Zeno the stoic, on observing Epicurus in the midst of the crowd that thronged the Portico to hear his lectures, addressed him in the following eloquent and touching manner. I leave my audience to judge if the gloomy horoscope he paints for Greece has any significance in our own time and our beloved country:

"Son of Neacles," said the grand old stoic, "methinks I cast a prophet's eye on the map of futurity, and I see the Gargettian standing on the pinnacle of fame with a world at his feet. The world is prepared for this. The Macedonian, when he marched our legions to the conquest of Persia, struck the death blow at Greece. Persian luxury and Persian effeminacy, which before crept, now comes with strides upon us. Our youth, dawdled in the lap of indulgence, shall turn with sickened ears from the serene morality of Zeno and greedily suck in the honeyed philosophy of Epicurus. You tell me you also teach virtue. It may be so; but I do not conceive how there can be two virtues, nor yet two roads to the same. This I shall not argue. I will grant that in your system, as shown in your practice, there may be something to admire and much to love; but when your practice shall be dead and your system alone shall survive, where then shall be the security of its innocence—where the antidote to its poison? Think not men shall take the good and not the evil; rather will they take the evil and leave the good. They shall do more: they shall pervert the very nature of the good and make of the whole evil un-mixed. Soon in the shelter of your houses all that is vicious shall find a ref-

uge. Effeminacy shall steal in under the name of ease; sensuality and debauchery in the place of innocence and refinement; the pleasures of the body instead of those of the mind. Whatever your virtues may be, they are but the virtues of temperament—not of discipline; and such of your followers as shall be like you in temperament, may be like you in practice. But let them have boiling passions and urgent appetites, and your doctrines shall set no force against the torrent—shall ring no alarm to the offender. I said that with the eye of a prophet I saw your future fame; but such fame as I see can but ill satisfy the ambition of a sage.

“Your garden shall be crowded, but it shall be disgraced; your name shall be in every mouth, but every mouth shall be unworthy of it; nations shall have you in honor, but ere it is so they shall be in ruins; our degenerate country shall worship you and expire at your feet. Zeno meantime may be neglected, but he shall never be slandered; the Portico may be forsaken, but shall never be disgraced; its doctrines may be discarded, but never misconstrued. I am not deceived by my present popularity. There is no school now in such repute as mine, but I know this will not last. The iron and the golden ages are run, youth and manhood are departed, and the weakness of old age steals upon the world. But, O son of Neacles! in this gloomy prospect a proud comfort is mine. I have raised the last trial-mark to the fainting virtue of man and the departing glory of nations. I have done more. When the virtue and glory of nations shall be dead, and when amid the depraved generations some souls born for better things shall see and mourn the vices around them, here in the abandoned Portico will they find a refuge; here steeled in fortitude shall they look down in majesty on the slaves and the tyrants of earth. Epicurus—eloquent son of Neacles, high-priest of the temple of pleasure—when thou canst say this for the Garden, then, and not till then, call thyself a sage, a philosopher, a friend of virtue.”

Science can not promote morality, for science is simply knowledge. Wisdom alone can do that. Knowledge without wisdom may enable its possessor to become a political ring thief or a stock operator, who would otherwise have been a pickpocket or a burglar. Knowledge, governed by a correct code of moral ethics such as Plato's philosophy presents, is capable of redeeming the world—a feat which neither dogmatic denominationalism nor objective science can ever accomplish.

“Let the cobbler stick to his last” is an adage full of suggestion. Let the scientist confine himself to facts and leave philosophy to the metaphysician. The scientist is an observer, not a thinker. He is a specialist, and in his department eminently valuable; but when he assumes that God is a myth, because neither the telescope nor microscope has brought him within the range of his vision; that belief in immortality is a superstition, demonstrated to be such by anatomical and physiological facts, and all ethical principles mere sentimentalities; and that the law of nature is the survival of the fittest (strongest)—in plain words, might makes right—we demur, and ask that his opinions be set aside. I would not rob science of a whit of its glory—and its triumphs *are* glorious, and still more glorious as the ages roll on.

The scientist is entitled to the gratitude of the race for his beneficent discoveries, which are multifarious and vast in every department of physics. But it was Plato, and not Aristotle or Epicurus, who gave us correct ideas of government and moral and social ethics. It is rather to Spinoza, and not Tyndall, to whom we should look for a correct theory of God, his character and attributes, and our relations to him. It is moral philosophy, and not science, that is to solve the problem of society and reorganize it upon principles of justice and fraternity. Do you think I assume this proposition without sufficient ground? Allow me to ask your attention to some obvious facts.

Through discoveries in science, material wealth has been increased an hun-

dred-fold; but so has the list of paupers. Along with improvements in agriculture, horticulture, and the arts, has gone the "art of grab," popularly known as commercial science; and as the necessaries, comforts, and luxuries of life increase through discoveries in the one branch of science, they are monopolized by experts of another. And I say it deliberately, the world is not in the aggregate benefited, nor will it be until the wisdom of a true philosophy shall supplement and crown the knowledge of science.

The invention of the cotton gin strengthened American slavery by increasing the profits of cotton-growing; and the direct effect of labor-saving machinery of almost all sorts is to enrich the capitalists at the expense of the laboring classes; and this will continue as an ugly and stubborn fact until the *scientific* doctrine of the survival of the strongest shall give place to the philosophy of fraternity—until society shall accept the idea that civilization is brotherhood: that it is the duty of the wise to teach and guide the ignorant; of the strong to protect and assist the weak.

Until social scientists learn that speculation is gambling, and gambling is theft, that the American system of finance is a stupendous fraud, the railway corporations highway robbers, and the wage system of this country and Europe practical slavery, science is simply the sum of what is known of objective phenomena. It can not by any possible means assume the functions of philosophy; and to claim, as some do, that it is destined to vanquish religion and supersede metaphysics, is to abandon reason in favor of egotistic dogmatism.

Philosophy is the sum of subjective truth. It is the grandest and holiest revelation of God to man, made, through the medium of the great thinkers, the only true prophets and just law-givers. Its propositions are never sustained by authority—for philosophy is never dogmatic—but are proven by inductive or deductive reasoning. Science is destined to expose the absurd pretensions of all dogmatic systems of *pseudo* relig-

ion, which are founded upon legends and myths, and inaugurate an era of skepticism, from which divine philosophy alone can redeem the world.

Do you answer that science has already achieved more triumphs than philosophy? I reply, the facts of science come within the range of the mental vision of the masses of people, but few of whom are capable of appreciatively comprehending an abstract truth.

I have already said that the philosopher is a prophet. He must be prepared for a limited acceptance of the truth he discovers and presents. He believes in the progress of the race, and he accepts

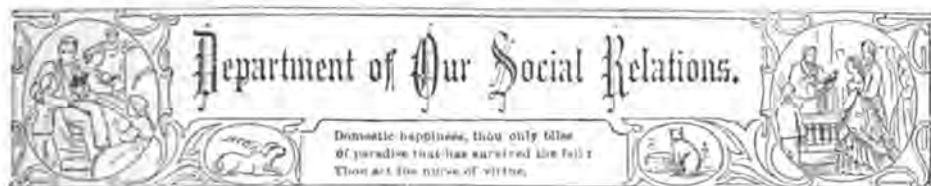
"The maxim of the ancient sages,
That no noble human thought,
However buried by the dust of ages,
Can ever come to naught."

He recognizes the fact that God is not in a hurry; that it took him centuries of ages to create the first reptile, ages on ages more to make a monkey, another immense period to make a man of the lowest type, and thousands upon thousands of years to develop the race of man until it was capable of producing a Plato, an Aristotle, a Bacon, a Spinoza, a Tyndall, or an Emerson—one truly great man to the billion of commonplace characters and dunces.

In the light of these facts, he confidently looks forward to a time when the intellectual altitude of the average man will tower far above the alpine exceptions who gild the pages of history and brighten the records of this age with the glory of their mental achievements.

Nor is this prophetic thought the richest jewel that glitters in the tiara that crowns the brow of his inspiration. No, his deductions lead him to the firm conviction that man is immortal, earth life but an incipient stage of his existence, a brief era in his career; death a common incident in the history of man as an individual—an apotheosis through which he reaches a higher plane of life than the terrestrial—a realm of thought and action broader and grander than earth affords.

T. A. BLAND, M.D.



FALLING IN LOVE.

"WHAT has common sense to do with love?" a well-known writer who ought to have known better inquires. Certainly very little with the mawkish sentimentality passing current as love, but everything with the genuine article.

"I wouldn't give much for a heart that is governed by the head," a lady once remarked to the writer.

"Why not?"

"Oh! I can't bear the people who cut and dry everything before they make up their minds," was the reply. "I like folks who are generous and impulsive, and come to conclusions without the fuss of thinking."

It was no use to say to this illogical young lady, who was even then breaking her mother's heart by her willfulness, that it could not have been an accident that placed the head at the top; in other words, that gave reason the seat of honor; for she knew little, and cared less, about such subjects.

The fact was, the girl was "in love," as she herself was not slow to admit. Now, let us look at this case, and the writer is sorry to say that it is by no means an isolated one, and see what it means. This young lady was the idolized daughter of wealthy and indulgent parents. As her mother in her great trouble admitted, "Ella had never been crossed in her life," a statement which proves these loving parents to have been very active promoters of their own misery. This young lady at seventeen imagines herself in love with a man who has literally nothing to recommend him to the favorable notice of any sensible human being. He was not only not attractive in person, but was coarse to vulgarity in speech and manner, and so wretchedly ungrammati-

cal as to make him a very uncomfortable companion for any one who respected the teachings of Lindley Murray. He could dance, however, and sing a comic song to a banjo accompaniment, and was well versed in theatrical lore; but in everything that makes a man manly this man was utterly lacking.

The girl's parents naturally disapproved of their daughter's choice. And as this was the first time they had ever placed themselves in opposition to her wishes, there was nothing to be gained by it now. At last, it came to the mother's ear that her daughter had really yielded to the persuasions of her so-called lover, and had promised to marry him privately, if her parents did not give an immediate consent to a more respectable ceremony.

In a free country, among free institutions, of which marriage is certainly the freest, and most disastrous, it would hardly do to turn the key on a young lady, even though she were determined on this one certainly sure to compass her own destruction. So it came to pass that these parents, as many others have done, and many more will do, gave their child, in whom their fondest hopes were centered, to the care of a man with whom they would not be willing to trust the family silver. A short time, and Ella wakes up, if not to the crime she has committed, at least to the foolishness of the step she has taken, and a few months find her again under the parental roof, driven to it by the brutality of her husband.

Now, why was it that the advice and judgment of this girl's parents were so willfully disregarded?—or to put it in another way, how was it possible that a girl

born of refined parents, and living in an atmosphere of refinement, could stoop to such a vulgar fellow?

Scientific students talk about magnetism in such cases, and it may be that the subtle something is sometimes responsible for the mischievous sentiment, and its diabolical results. We know that unprincipled men are often the most polished, and given good looks, good manners, and apparent nobility of character, it is not hard to understand how a trusting woman may be imposed upon. But when these are all conspicuous by their absence, as in the case just cited, there seems no way of accounting for the infatuation.

Ella's mother would think it very hard, as well as unjust, to be charged with the calamity that has wrecked her own life as well as her daughter's; but Ella's discipline should have commenced in early youth.

Indiscriminate novel-reading, to the exclusion of all that was earnest and practical, was one prolific cause of the final result. The mother knew that this was most pernicious, but rather than seem unkind or unindulgent, she allowed it to go on, trusting to a sense of right which she believed to be innate, to bring her out unscathed and uncontaminated. The truth is, if this young woman had been properly instructed, there would have been no more danger of her imagining herself in love with this coarse villain, than there would have been of her committing suicide. The subjects which should be carefully discussed with girls are usually avoided by mothers. "Time enough for them to wake up to the wickedness of the world," says one. "By and by my daughter will have her own experiences, and I prefer to let her dream on till they come," says another. It is impossible to conceive of greater foolishness. Intuitions which would be keen and reliable if properly set to work, are by such means rendered worse than useless. This is the way it stands in plain English.

"I have had my trials, and I know my daughter will have hers, but rather than violate any principle of modesty, or prematurely brush the down from the peach,

I will not hear of any preparation to meet those trials. I will not turn to this and that page of my youthful history, which might benefit my child to read, because she would find out too soon that 'all is not gold that glitters.'" This leaf might be called a Ruined Castle, this one a Folly, which but for—God knows what—you are sure you can't remember—might have ended in destruction. And all this is a sealed book to your daughter.

It seems, on looking back, as if you had been preserved from a great disaster only by a fortunate accident, and yet you do not warn your child of these dangerous places. It is your daughter's right to know the truth and the whole truth, as far as you know it yourself. She should be instructed that while—Heaven be thanked!—there are many good men in society, there are also many bad ones, and that it often requires great penetration to tell the difference. If the proper confidence exists between a mother and her daughter, and the mother's experiences have taught her to distinguish between the false and the true, she will perfectly understand what hints to give her child. A girl should be taught that a woman who falls in love usually falls out with equal celerity. She should be made to understand that her head is given her to use, and that no sentiment or even affection which reason does not approve, should be allowed to dominate her. She should be taught to appreciate the danger as well as the blessing of magnetic attraction.

Given nobility of character, and that subtle something which makes even goodness more attractive, and the poetry of existence is added to the eloquent prose. Given this fascinating quality without the other qualities to make it valuable, and heart-ache and disappointment—if nothing more—are the sure results to the one who has trusted in it.

Knowledge is power in our daughter's hands, as well as in the statesman's, and woe betide the parent who keeps back any information that can be of possible service.

"ELEANOR KIRKE."

FROM THE DANISH.

BILLOW, when thou flowest by me,
 So transparent, beaming, clear,
 Only thou Heaven's color wearest,
 Thou hast never Heaven near.
 Not the Heaven, her image only,
 In thy breast its shadow leaves ;
 Never filled, thy longing lonely,
 Like thy want, eternal is.

Billow, when thou flowest by me
 Heaven is glowing on thy breast,
 But thy longing sigh reminds me
 Joy is but a shadow guest.
 Longing heart, oh, never pine thee,
 Thou and Nature long the same,
 Happy thou, if left behind thee
 Heavenly memory and name.

LYDIA M. MILLARD.

TOO MANY NURSES.

THE baby had arrived. An every-day occurrence, to be sure—but not in our family. The mother lay with a world of mother-love dawning in her pale face. The nurse smiled complacently, and handled the little bundle of flannel and embroidery so deftly as to awaken the wonder and envy of the new aunties, who were allowed to tip-toe in, to take their first view of the new baby, and to declare, with sundry wise looks and nods, that the little wrinkled red face was a “perfect beauty, and the image of both father and mother.” Telegrams flew hither to Mrs. Fitch, the new baby's new grandma on the mother's side, and to Mrs. Allen, the new grandma on the father's side, to announce that the baby had arrived. The new papa walked down the street to the telegraph office with such a satisfied smirk on his countenance, that passers-by could not fail to question as to what good fortune had befallen the man.

Next morning came a telegram from Grandma Fitch, saying that she had started for the Allen mansion, and should be with them by afternoon; and in the afternoon came a telegram from Grandma Allen that she was en route for the same destination, and would reach there the next morning, and by the following evening both grandmas sat in state at either side of baby's cradle, impatiently waiting for the first appearance of their grandson's waking to catch him up and renew their almost lost art of baby-tending. If Grandma Fitch was so fortunate as to get possession first, she immediately

wandered off into reminiscences of the babyhood of her daughter, and compared the present habits, looks, etc., of the new baby, to that period of her daughter's life. Or, if the favor fell to Mrs. Allen, it was quite wonderful how many characteristics the child had like its father at the same stage of life.

Under the care of the much-respected nurse, both mother and child thrive. But there came a day when another new baby was expected in another family, and after many kisses, and rules for the future welfare of her “darling cherub,” nurse and her capacious carpet-bag took their departure for new scenes and new triumphs.

“My dear,” said mother Fitch as the door closed upon the departing nurse, “I did not like to find fault with your nurse, but I can't say I altogether liked her treatment of baby, and now she's gone will soon have things different. I'll go put on my afternoon cap and then I can take him when he wakens.”

“I'm really glad that nurse is away at last,” mused Mrs. Allen as she peeped from her chamber window; “I never saw a woman with so many new-fangled notions, and Lizzie's mother is no better. I only thought to stay a week or so, but it's my duty to stop and get the child into regular habits. There's everything in starting right, and it sha'n't be my fault if my son's child isn't brought up in the way it should go.”

“I never put a baby in the bath-tub till it is at least six months old,” said

Grandma Allen, as the young mother was preparing her baby's morning bath, "a sponge-bath does just as much good."

"I always put my babies right into the water, almost from the first month. There's nothing like getting them used to it, and it strengthens their little limbs so much," and Grandma Fitch nodded her head in a mildly emphatic manner.

"Oh, yes," chimed in mamma, "I just long for the time when baby will splash around. He really seems to enjoy it now, and fairly screamed when nurse took him out of the water yesterday."

"Screamed with cold more likely. Poor little thing. If I had my way, that bath-tub would be lugged up to the attic for four months yet."

"But nurse said that baby slept better after his bath, and that the more he slept the stronger he grew; and he seems always as warm as toast."

"Nurses don't know everything. I've brought up seven of my own, and I don't believe babies can be kept too warm."

"And I think most babies are kept altogether too warm. They are taken out to ride muffled up to the nose, with a heavy worsted veil over the rest of their face; and when the wraps are taken off, they are in such a profuse perspiration, ten chances to one they do not take cold, and pave the way for catarrh, and weak lungs. I think the habits of toasting a baby by a hot stove, and of covering their heads when asleep, most pernicious ones. I hope Lizzie won't be afraid to give her boy plenty of water and fresh air."

The battle once begun, knew no wavering. Grandma Allen, firm in her own conviction of what was for the welfare of her grandson, yielded not one jot; while Grandma Fitch, whose old heart was tender yet, and who loved the baby with a love born of such tenderness, worried, and fretted, and tried in a mild way to gather some comfort for the babe in this uncomfortable world. If baby was going for an airing, grandma number one muffled it up till hardly a square inch of flesh was visible, while grandma number two slipped out the side gate, and as soon as

the door closed, hurriedly removed a blanket or two, and walking back to the sitting-room, took up her knitting so demurely that no suspicion was aroused. Did the baby cry, Mrs. Fitch "knew the baby was hungry and it must be fed."

"I never fed a baby oftener than once in three hours. Half the babies cry because they are overfed."

"Why, I fed Lizzie herself every two hours, and there never was a healthier infant. I think myself if mothers had fewer rules and more patience, there'd be fewer fretting babies." Or was the screaming more protracted:

"The little darling's got wind colic. I'll make a little catnip tea right off," and off trots number one to the kitchen for hot water.

"Colic! the child's stomach is overloaded. A good dose of castor oil's the thing. I've got a bottle in my trunk," and away flew number two, each hurrying for fear the other will get at the seat of action first.

At breakfast it was, "I could not sleep last night, that baby fretted so much," from the tired mamma.

"Oh, they always begin sooner or later. You just let him cry it out once, and you won't be troubled again. You should never lift him after you once lay him down for the night. It's just nothing but clear temper. I had just one fight with every one of my babies, and they soon found out that six o'clock meant bedtime, and bedtime meant go to sleep."

"Well, for my part, I don't believe a baby ever cries for nothing. I've seen the time myself when I was so tired and nervous that I couldn't sleep, and to get out of bed for five minutes was a rest and a comfortable change, and if my babies seemed restless, I just took them up for a while. They can't be babies but once, and they soon grow too big for mother's arms, so I just give them all the comfort I can, and get all the comfort I can with them."

"Fudge! A good shaking would rest them more than anything; and if it was

my child it would get it at the start, and save lots of trouble by and by."

Mother Fitch folded her hands, and shook her head in mild indignation.

But one morning the baby seemed really sick. His little head was hot and feverish, and his eyes heavy.

"That child's going to have the measles. They always begin just so."

"Shouldn't wonder if he was coming down with whooping-cough. He hasn't looked right for a week."

"I've seen enough children with measles to know them when I see them. A good hot bath and a dose of castor-oil will bring them out by to-morrow," and away goes number one to prepare her remedy.

"My dear," says number two, "I don't see a symptom of the measles, and castor-oil is a barbarous medicine. Don't you use it. A little saffron tea would be the thing."

"I think the safest plan will be to send for the doctor, and do as he says," said the much puzzled mother. And to the great indignation of the offended grand-mas the physician was sent for.

On his arrival, each hastened to de-

scribe the symptoms and then waited in suppressed excitement for their judgment to be confirmed. But the doctor said nothing. There was an amused twinkle in his eye as he prescribed a medicine with a long Latin name that fairly startled the old ladies, and then under pretence of taking up his hat and cane, surreptitiously beckoned the young mother to the hall.

"My dear," he said, as soon as they were alone, "I am an old man, and you will excuse me for speaking plain. There is nothing serious the matter with your baby, only a little disarrangement of the stomach, and—too many nurses. Could you not dispense with two?" and with a genial laugh he was off.

That evening there was a quiet conversation between husband and wife, and ere another week, both mothers were on their homeward way. But so pleasantly and considerately had the matter been arranged that each guest imagined her departure was of her own free will and desire, and each assured their children that they "would come again as soon as possible."

SIN SAXON.

THE EDELWEISS.

AMONG the simple wild flowers of the meadow and mountain, which have a special place in the warm affections of civilized man, is the Edelweiss. Its native home is particularly favorable for reputation, the slopes of the Alps which are the scene of so much that is interesting to the traveler, the poet, the historian, the romancer. A writer in *Vick's Monthly*, from which the excellent engraving of the plant is taken, says that this plant is likely to become known to most floriculturists and plant-lovers. "With its whitish velvety surface it can not be called beautiful, but it probably owes its charm to the fact that it luxuriates most freely in those mountainous regions which other vegetation has nearly deserted, and in those circumstances it appeals not only to the senses, but to the imagination, and

we invest it with the moral qualities of purity, bravery, fortitude, and fidelity, to



correspond to its physical qualities of hardiness and endurance. Its culture has

only recently been attempted, but now is becoming somewhat common and quite successful. Plants are to be seen growing in pots, as shown in the engraving. Almost every returning traveler from the mountains brings home a branch of these flowers, and, as they are everlasting, may be kept for several years as a memento of pleasant mountain travel. It is said that in Tyrol and German Switzerland this

flower is taken as an emblem of purity and virtue, and every lover offers it to his sweetheart. In some places it is the pride of the bridegroom to gather from the rocks with his own hands the flowers that the bride wears in her wedding-dress."

It loves lime and sunshine, and must be exposed to the sun and grow in a limestone soil, otherwise its propagation will not be successful.

THE STANDARD-BEARER.

[The last connected sentence uttered by Lucretia Mort was this: "Lord, let this little standard-bearer go!"]

LORD, let me go, the mists are gathering fast,
The twilight deepens and the glory fades,
Life's glowing sunset hour for me is past;
Lord, let me rest amid the gathering shades.

Lord, let me go, the work of life is done,
Truth's standard I am weak henceforth to bear;
Have I not striven till life's goal is won,
May I not yield the burden and the care!"

"Yes," was the Master's answer, as He sent
Death's calm, bright angel then to whisper
peace,
To give new glory as the veil was rent,
And from her cares to give her long release.

She was a standard-bearer firm and true.
Though small in stature, yet giant in soul;
Frail as a lily, yet as spotless too,
And mighty in a moral self-control.

God called her to proclaim His word divine,
To preach deliverance to the captive slave,
To speak the true word when the sun should
shine,
And when opposing thunders loud should roll.

Why should we hold her longer on the earth,
Why keep her from the rest so nobly won?
God's love was shown in that immortal birth,
Her rest came when that new life was begun.

We sorrow not as those whose hope is dead,
We know the life beyond with bliss was full,
That angels gathered round her dying bed
To greet, with joy, her liberated soul.

And yet we miss her in the gathering-place
Where souls in reverent waiting lowly bow,
We miss the beauty of her soulful face
On which with joy the crowned are gazing now.

We miss the word that came with holy power,
Yet the sweet echoes linger with us still,

And bid us fill with use each earthly hour,
In calmness wait, and bravely do God's will.

We know that standard-bearer bravely stood
Before the foes of righteousness in days
When error swept the land, a mighty flood,
And slavery sadly darkened human ways.

That "little standard-bearer," she might say,
In deep humility. Oh, saintly soul!
Grand in thy meekness, and with power to sway
By truth's great might the hearts thou wouldst
control.

We could not call thee less than angel-size—
Archangels are thy peers where thou art gone;
O holy standard-bearer! may we rise
To that far height whence thou beheld the
dawn,

And in like stainless purity of life,
Like courage of speech and liberty of thought,
May we bear on thy banner in the strife,
And teach the world as we by thee were
taught!

REV. PHEBE A. HANAFORD.

PUBLIC NEGLECT.—It is by no means an agreeable reflection that the memorials of most of the five Presidents given by Virginia to the United States, in the shape of the estates they once owned, have been suffered to fall into decay. The grave of John Tyler is unmarked by monument or headstone. A few months ago the homestead estate of James Madison, at Montpelier, near Charlottesville, was sold for only a little more than its value as a farm. Jefferson's stately mansion at Monticello is in a dilapidated con-

dition; Monroe's house receives no care, save for its remaining use as a dwelling; and the home and tomb of Washington might long ago have fallen in ruins had it not been for the efforts of an association

of ladies who collected funds in the North to purchase and preserve them. Virginia is proud of her past, but her people evidently take small pains to save its relics and monuments.

OLD SUE HUBBERTY AND HER SIX APPLE-TREES.

FOUNDED ON FACTS.

ON the outskirts of the little village of H— stands an old house, where once had lived a poor, harmless, crazy woman, known as "Sue Hubberty," or, as she was familiarly called, "Aunt Susy." The house is fast crumbling to ruins, the chimney fallen down, windows broken in, and the shingles rotted and torn away, leaving here and there great holes in the wall, where the children on their way to school stop and peep in, half afraid that old Susy may still be there; although, poor soul, she was carried to her long home many a year ago.

Adjoining the house is a few rods of land that old Susy had fenced in for a garden; this land was in the highway, and belonged to the town, but Susy firmly believed it had been willed to her by her great-grandfather; a person who had never stepped foot in this country, and never owned an acre of land here in his life. But as Aunt Susy could not be convinced of the fact, and as she was quite happy and contented with her fortune, she was left in peaceful possession of the property. In this garden stand the six apple-trees, like "four-and-twenty black-birds all in a row." These trees were planted by Aunt Susy's own hands, from the seed of her favorite apples; and many is the "noggin" of water she has brought from the spring in the meadow below, with which to water them; and when the moon was at its full, she would always cover them over with a cloth, as she insisted upon it "that the moon was making faces at her trees, and wanted to kill them." She called these trees her children, and had a name for each one of them. One was little "Russet," another

"Red-Coat," "Baby Pippin," etc., and she would sit for hours talking and singing to them. The following is one of her songs:

"Ho! little Red-Coat, shut your eyes up,
Ho! little Red-Coat go to sleep;
Gee-gee, bungo—bungo—bungo,
Gee-gee, bungo—bungo—gee!
Grow little Russet, grow up taller,
Grow little Pippin, grow up too;
Grow up, grow up, taller, taller—
Till you reach the great blue-sky.
Gee-gee, bungo—bungo—bungo,
Gee-gee, bungo—bungo—gee!"

Then she would stop singing and tenderly pat the leaves, or smooth the ground around the roots, whispering very slyly to them all the while. Sometimes she would talk and laugh very loud to her baby trees, as if she was having a great frolic with them; then again she would scold, and walk round and round them in high dudgeon, beating the ground with her cane while muttering these words:

"Cease, and condemn every part of the globe; lay waste ninety million apple-trees found back in the wilderness, ninety million more, ninety million more, lay waste ninety million thrown back in the wilderness, fire all around, shake the airth under my feet! Cease, and condemn every apple and apple-tree from Deacon Miller's to Isaac Satterly's, from Isaac Satterly's to the mill-dam; give up all the conceals of murder, dead, or alive, hedges and ditches, woods and swamps, old Zip Cory, his wife and sixteen children; eighteen old Red-Coats and their twelve youngest children, all lie buried here."

Then she would pound away on the ground with all her might, and if any

children happened to be passing by, they would run home for their lives; although poor old Susy was never known to hurt even a kitten.

She was dreadfully afraid of a flock of geese which often strayed along the roadside, while picking the fresh green grass; sometimes they would steal into her garden, and one day while Aunt Susy was sitting on the ground quietly talking to her baby trees, the old gander suddenly sprang upon her shoulders, flapped his great wings, and with his bill pulled the cap from off her head. Poor Aunt Susy was most frightened out of what little wit she had left; but she gave him a pretty sound "pummeling," which he certainly deserved for such rude behavior, and he was glad to make good his escape.

The neighbors were very kind to Aunt Susy, providing her with all the food and clothing that she needed; even the children would often stop and give her a part of their dinner, for which she would sing some of her funny songs; and when the farmers carted their wood home for the winter, they always dumped a load or two on Aunt Susy's wood-pile. Sometimes she would go round among the neighbors begging for food, no matter if she had abundance at home; she would put on a very sad

face, and in a most dolorous tone keep repeating: "I want—I want my dinner again." After it was given to her, if asked "if she had enough," she would reply, "Yes, such as it is." If asked if it was not good enough, she would answer, "Yes, what there is of it." "Well, isn't there enough of it?" "Yes," she would say, "such as it was"; and so on as long as the questions were asked.

Sometimes she was quite industrious, and would do many little odd jobs for her neighbors. It is said she knit a pair of stockings for General Washington, and presented them to him in person, at his headquarters in Hamilton. This she always told with a great deal of pride, and no stranger was ever in her presence half an hour without being informed of the fact.

Poor Aunt Susy lived to be very old, and was found dead in her bed one morning after a short illness. Her friends buried her in the grave-yard on the hill, and no doubt she is as rich and happy now as many of her neighbors who lay by her side.

The old house is fast crumbling into ruins, but if the apple-trees are left to grow undisturbed, they will tell of poor old Sue Hubberty for many a day to come.

S. E. DONMALL.

THE PIANO.

SCANT grace or beauty in my form 'tis true,
I stand here waiting, Sir, or Ma'am, for you;
I stand here waiting, with my ivory tongues,
I stand here waiting, with my curious lungs,

For you to press me with
Your rosy finger-tips,
Which serve me in the place
Of tuneful, living lips!

So that I breathe forth some melodious sound,
With which the air shall vibrate all around!

I would my varied notes
Pour forth upon the air,
Before the damp and rust
My vigorous powers impair.

O tender being, with the soul-lit brow!
O soulful, rosy fingers, come—come now!
I would some glowing, glorious strains emit
And of my destiny myself acquit!

Now swiftly let your fingers fly—
The while my tone and power you try;
Ah! rosy fingers, now beware!

Ah! tuneful soul, touch gently there!
New press upon the ivory tongues—
The air is coursing through my lungs!
'Twere easy now to rouse, or still
The haughtiest bosom at my will!

I can sigh with those who sigh,
I can smile with those who smile;
And the weariest soul that suffers,
I can of his care beguile.

I can cheer the little lad,
Leaving home to brave the seas;—
And re-echo in his soul,
Through the fitful stormy breeze!

I can soothe the soldier's heart,
From the fields of battle gory,—

When from out my chords you bring
Mystic sounds which tell of glory.

I can warm the coldest heart—
I can melt the hardest frown !
Till the penitential cry
Surgus from the bed of down !

I can make the proud old man
Again a youthful lover
Of a modest, girlish face,—
With the brown curls drooping over.

But now, a loftier theme swells forth from me ;
It is a song of praise unto the Deity ;
I feel it throbbing thro' my iron lungs,
I feel it trembling on my Ivory tongues.

To all your purest, highest self, I now appeal !
Almost the Holiest Holy, I reveal !

Am I but matter—dull, inert, and dim—
Who sound sublimest praises unto him ?

And many other tones I have in store,
As pride, and joy, and fear, and hate—and more !
But now, the fingers still more swiftly fly ;
And now—oh ! suddenly—my notes—they die !
While you who stand around,
Whisper—Good-bye—Good-bye !
And my last sounds seem like a smothered sigh,
As though I struggled to respond
A low and hushed Good-bye.

And now, again, in loneliness
With my sweet, Ivory tongues, I stand ;
Till some one else, who loves me, come,
Who all my latent powers shall move
With tuneful soul and skilful hand.

GRACE H. HARR.

HUMAN HAMMERS.

WE call them hammers because their words and actions seem to be pounding us, and we wish we had some shield like the knights of old to ward off the blows.

Storm and tempest are something from which all nature shrinks away ; while buds and blossoms expand and bloom beneath the gladsome, cheering beams of sunlight. True, loving words, like sunbeams, cause the growth and bloom of choice flowers of goodness in the human heart. Storms and threats and scoldings will never make this earth a paradise ; although they may toughen and harden things somewhat. Nature usually acts on the defensive and leaves coarse rudeness to defeat its own object. Our feelings are tender, yet hardy things ; they get battered and bruised, yet maintain an exquisite sensitiveness, cowering from harsh and slanderous blows, beneath a covering of reticence it may be, like an oyster trembling in its shell.

All have heard the fable of the wind making a wager with the sun that it possessed much the greater power ; then began to batter the traveler with its fierce blasts to make him remove his heavy cloak, which he only drew the closer about him ; while the warm sun caused him soon to throw it aside and rest himself under a shady tree.

There are some ministers of the Gospel who seem to think they can use force enough to remove the whole cloak of sin from the world by their stormy preaching, but the cloak is sometimes only drawn the tighter, with, perhaps, another over it. There is a kind of sledge-hammer style, that is continually pounding away, and the pounder is wonder-stricken at his hardened subjects ; he considers them hard and cold as an iceberg, but apparently does not know that an iceberg may be beaten to atoms, yet each particle be just as much ice as before. Men's hearts are not going to be melted in that way. There is a sort of kind, common-sense sunshine that more surely and softly melts away the hardness.

We have seen husbands, and wives too, who seem to think they can conquer all things by their sledge-hammer voice and manner ; they succeed hugely in making their home a bedlam. We have also been unfortunate enough to hear the unpleasant pounding of the smaller hammer of whining complaint, that keeps up a constant activity, but never strikes with enough force to drive in a tack ; yet its persistent hammering is enough to wear away the largest spikes. This is successful only in knocking all happiness out of the family, or wherever it is in the habit of pounding. Such persons would not strike a

hard blow—oh, no; they are conscientious martyrs, and would not do wrong. They have an idea that weakness is goodness. Some people are thought to do no harm in the world, and are, therefore, accounted good. A stump is full of the same kind of goodness.

There is a kind of passive goodness, good because it is considered harmless; and there is a positive, active good, as well as a positive, active bad; and a whole-hearted goodness, that is kind, firm, and strong; not dead, but alive. Kindness is not lazy, indulgent weakness. It tenderly and surely guides the skillful surgeon's knife in amputating a diseased limb, as well as brings words and works of comfort to the sufferer. It does not slash in with a purpose to wound, but only that it may eventually heal and do good. "Faithful are the wounds of a friend," repeat some, while they wound all they can; but we would prefer to have them sometimes manifest their faithful friendship in a more agreeable way. Indulgence is often the greatest wrong. But a wise, firm, gentle, cheerful kindness that is always courageous enough to act the right is what wins and does the good. And only with an understanding of themselves and others, such as practical phrenology gives, can men do the greatest amount of good, whether in the secluded home, or out in the world mingling with the throng in the business of life. Manner is not all, yet it is much. By a man's actions we judge him. And very much is the joy or sadness, good or ill of life affected by what is manifested in people's manners.

SARAH M. BIDDLE.

"EFFEN UYT."—These Flemish words are on an old monument of whitish marble, in New Church, Amsterdam, on which is also engraven a pair of slippers of a very singular kind. "Effen Uyt" means "exactly." The story is, that a man, tolerably rich, took it into his head that he was to live a certain number of years, and no longer. He counted that, if he spent so much a year, his estate and his life would expire together. It happened that

he was not deceived in either of these particulars. He died precisely at the time he had foreseen, and then had so far exhausted his fortune that, after paying his debts, he had nothing left but a pair of slippers. His relations buried him in a decent manner, and caused the slippers to be carved on his tomb with the above words.

TOO LATE.

HAD he come when the first wild rose
Filled all the woods with wonder,
And the snowdrops waked to life
In the hedgerow growing under;

HAD he come when the oriole
Flew northward in its roaming,
And the apple-blossoms sweet
Grew sweeter at its coming;

Then—then, in the golden days
When my heart to him was calling;
Had he come! But he came "too late,"
And the Autumn leaves are falling.

ANNA CLEAVES.

DR. TALMAGE ON CIGARS.—In one of his lectures Dr. Talmage gave the following bit of personal experience in the use of tobacco: "There are ministers of religion to-day indulging in narcotics, dying by inches, and they do not know what is the matter with them. I might in a word give my own experience. It took ten cigars to make a sermon. I got very nervous. One day I awakened to the outrage I was inflicting upon myself. I was about to change settlements, and a generous wholesale tobacconist in Philadelphia said if I would only come to Philadelphia, he would, all the rest of my life, provide me with cigars free of charge. I said to myself, If in these war times, when cigars are so costly, and my salary is small, I smoke more than I ought to, what would I do if I had a gratuitous and illimitable supply? And then and there, twenty years ago, I quit once and forever. It made a new man of me, and though I have since then done as much hard work as any one, I think I have had the best health God ever blessed a man with. A minister of religion can not afford to smoke."



TEETOTALISM AND VEGETARIANISM.—II.

IT would appear as if the theory put forward in our first article, forbid invidiously one of the most substantial enjoyments of life. But in reality this is not so, unless the dietaries are not brought upon an harmonious footing; for total abstinence is a deprivation only to those who belong to the carnivorous part of mankind. All herbivores, that is to say, those who are fed according to sound vegetarian principles, naturally and quite involuntarily abhor alcoholic drinks; they do not experience any temptation whatever to spirituous beverages, and whoever wants to become a convert to teetotalism can do it without any appreciable effort of will, by adopting the habit of vegetarian food. This, however, the carnivorous will imagine to be a still greater deprivation. I thought so once myself. But by and by I found that vegetarianism refines the palate. The whole sensual perception of the gustatory nerve becomes as it were keener. It grows very sensitive as to culinary blunders, but getting the right dishes carefully prepared from the vegetarian material, it enjoys them a great deal more than it did formerly the most artistically finished dishes of meat. It is, therefore, by no means a paradox to say that one can make up for the deprivation of alcoholic drinks by not eating meat.

Now then, the carnivores among men will ask, how can a human creature in a civilized state do without meat? I was

myself formerly apprehensive of jeopardizing by it the vigor of my body, fearing imminent danger of flaccidity of muscles. But the very contrary ensued, and those who are afraid of the peril of weakening their constitution by vegetarianism are taking an altogether antiquated hygienic view. Fortunately, at least in this region of the globe, it is not the taking in, but the giving out which has become paramount, and we feel pretty sure that, if the science of hygiene and the art of healing, as to the physiological giving out, are well taken care of, unless perverse habits prevail, the taking in will readily take care of itself. In this particular, a single human constitution closely resembles the economical condition of a whole community. We need no special public contrivances to get Washington Market supplied every day; the desire of making money regulates this business better than it could be done by any public contrivances. As to the sewerage, however, street-cleaning and so forth, on the contrary, earnest public intervention and skillful administrative expedients are needed, all insufficiency and negligence in this regard being dangerous.

Quite similar is the case in dietetics. The pleasure of eating is a reliable source of supply, and if we only look out for good sewerage in the organic economy of the body, we need not trouble ourselves much about the rest.

Your beef-eaters do not argue in this

way—their stand-point is an absolute one ; instead of putting the question, which food is the best relatively to our power of giving out ? they merely put the question, which food does absolutely contain the most nutriment ? Consequently the most frequent diseases are diseases of indigestion, dyspepsia, diarrhœa, costiveness, and general nervous irritability. Even diphtheria, typhoid fever, erysipelas, and small-pox ; especially gout and rheumatism must be counted among them, for all zymotic diseases are the consequence of an insufficient sewerage of the human body, the cases of direct poisoning only excepted.

A vegetarian is not exempt from the danger of over-feeding. But he is not exposed to it to the same degree as the beef-eater. The mild quality of his food will not so easily cause a disorder. The vegetarian system is, as it were, adapted to the stage of development we have arrived at, viz, that of mental pursuits. The beef-eating system is adapted to Indian hunters or to Esquimaux. A person working at the treadmill will excrete 2,926 grs. of carbonic acid an hour, and a person in a sitting posture only 491 grs. ; and if an Esquimau is able to stow away in his interior twenty pounds of meat and blubber at a sitting, it is the severe cold he is exposed to by which we have to account for his immunity from the fatal consequences of such a gigantic feat of gluttony. We for more than one reason may not take after him.

Adult life requires even less nitrogenous matter, which is the substance the beef-eaters have in view, than infancy and childhood ; the proportion of the need of nitrogenous and carbonaceous food relatively to the weight of the body being as follows :

	CARB.	NITRO.
(per pound weight)	grs.	grs.
Infancy,	69	6.78
Ten years of age,	48	2.81
Sixteen years,	30	2.16
Adult life,	23	1.04
Middle age,	25	1.13

For the child nitrogenous matter is necessary for the building up of the

growing body. For the adult it is only necessary for the wear and tear of tissue, and over and above this requirement all supply is an over-abundance, which, undergoing decomposition in the body, will here act as poison, causing the large number of blood-diseases meat-eating persons are subject to.

It is an experience made time and again that vegetarians will scarcely ever be affected by contagious diseases. What is the cause of that ? No doubt the better quality of their blood, its less affinity, as it were, for the decomposed matter which acts as poison. There is a universal law of evolution which says that the metabolic action of the animal kingdom is a breaking down of organic compounds, while the metabolic action of the vegetative kingdom is its building up. Thus when man uses animal food for his nutrition, he eats his physiological like, that is to say, a substance which is already on the road of the retrograde metamorphosis it is further to undergo in his own system. Naturally it will in this be the more subject to putrefaction, and it is by no means surprising that all other things being alike in cases of epidemics, the meat-eating part of the population is much more exposed to contagion than the vegetarian part.

The worst condition naturally prevails with those classes that are not only carnivorous, but buy the lowest-priced meat in the market. The retrograde metamorphosis of their nourishment is thus closely allied to putrefaction, and this, together with the ultra habits of uncleanness that are usually found with these classes, renders these before all others the ready victims of zymotic diseases ; they foment these sicknesses, and they die by them.

Nothing short of a perversion of instinct could place man among the omnivores, the prototype of which is the hog. For if we survey the kind of animals man uses for food, we find that the herbivores are the most palatable. The meat of omnivores is not considered a dainty dish. Jews may not eat it at all, nor any other Orientalists. And a fashionable

menu will not contain any but perhaps the head of a wild boar. Rats, cats, foxes, tigers, and lions are not eaten, or birds of prey either. Only the honey-eating bear is considered stylish. But cattle, game, and poultry are falling broadly into the range of the beasts toward which man exhibits a rapacity to which, as shown in the voracious animals,

he feels repugnance himself. Therefore we believe that the meat-eating habit is to be considered a relic of old cannibalism, and that a further advancement in culture will lead us back to the class to which our anatomical condition and physiological as well as psychological propensities predestined us, the fruit-eaters or frugivores.

DR. LINDORME.

PRIMITIVE VEGETARIANS.

VEGETARIANS, or people who discard flesh of all sorts from their diet, are regarded by society as peculiar, or radical, or "cranky"; but in what class shall we place a family that resides in California, the members of which have returned to primitive ways of eating, indeed, since besides being vegetarians of the strictest order, they take no cooked food?

The *San Francisco Call* lately published the report of a visit made by one of that newspaper's reporters at the home of this family, and as the subject of diet is, like the weather, always in order, a good part of the report is here reproduced.

The name of the family is Hinde—their residence near Anaheim. Mr. George R. Hinde said with reference to the peculiar food-habits which they had adopted:

"Since September, 1878, we have used neither fish, flesh, nor fowl; nor do we partake of eggs, milk, butter, sugar, honey, syrup, salt, or condiments of any kind. We use no bread, nor anything that has been subjected to the action of fire; therefore, vegetables that can not be eaten raw are also discarded."

"Do you consider all these articles hurtful?" asked the visitor.

"Not absolutely; they are nourishing to the physical part of our nature, but we believe that for this purpose sufficient nourishment can be obtained in fruit and other food in its natural state. Fire burns out the spirit of food, rendering it mere dead matter, fit only for the sub-

stance of the animal nature, leaving the spiritual to starve."

"But what do you eat?"

"Fruit, mainly; with nuts, berries, raisins, and the cracked kernels of grain softened in water."

"That can not give you much variety."

"Oh, yes. There are many kinds of vegetables we can use raw, and they are more palatable, when you become accustomed to their use, in their natural state. Your craving for cooked food is because your system has become habituated to its use. The taste for food, as nature provides it, soon becomes fixed by habit. We eat uncooked green corn, peas, beans, etc., with more relish than we once did the same articles cooked. We would as soon think of cooking a radish as a turnip."

"What about potatoes?"

"We are not partial to any vegetable that grows under ground, though we do sometimes eat onions and turnips, which grow near the surface, exposed to the sun and air."

"How do you manage in the winter—say from December to April?"

"The variety is not so great as in summer; but oranges are then in their prime, while nuts and raisins never fail, and cracked wheat and oaten grits are as plentiful in January as in July. In this climate there is no time when fresh fruit of some kind is not attainable. In fact, it may be plucked from the tree during every month of the year. In a climate where Northern fruits will grow, and yet

such delicate plants as tomato-vines are seldom touched by frost, there must be great variety and abundance of production. Strawberries may be gathered here from January to December; green peas and beans, tomatoes and vegetables grow the year round. Oranges begin to ripen in December, and remain on the tree till June; then figs, peaches, pears, plums, apricots, apples, nectarines, grapes, etc., follow — a never-ending supply, until January, with its golden fruits, comes again."

The house in which the Hindes live is described as a large, square building, surmounted by a tower. The internal arrangement is convenient, though without much regard to economy of space. There are several bath-rooms, a multiplicity of closets, and a wide hall which winds around through the interior as if looking for more vacant space to occupy. It is a costly house, and the expense, to an ordinary observer, appears out of proportion to the advantages gained by its peculiar construction.

The reporter partook of several meals with the family, which consisted of oatmeal, rye meal, and cracked wheat softened in water—all uncooked. There were no condiments, not even salt. Of fruits he was offered figs, raisins, dried peaches soaked in water, apples, nuts, tomatoes, and oranges.

In the storehouse there were bushels of peanuts, raised on the place, and tomatoes, which had been dried in the sun.

Lemons and limes are used to some extent, though not freely, as no sugar is allowed to modify the acid. Honey is considered a greater abomination than sugar. Cold water is the only drink, and but little of that, as the moisture of fresh fruit is usually sufficient to satisfy thirst. In summer they have melons in abundance.

The real estate of "Fraternia," as the place is called, originally consisted of twenty-four acres, but a plat of six acres was sold, and eight acres of the remainder deeded to a lawyer for defending suits, so that only ten acres remain.

It is spoken of as a remarkable fact, that there has been no sickness in this family since the members became habituated to the use of dried-fruit diet. Even contagious diseases, which usually attack children, are not taken, notwithstanding repeated exposures. For several weeks after adopting the diet, one loses flesh and spirits, but soon regains weight and vigor. Any relapse into former dietetic habits brings on illness. For this reason it was first found necessary to prohibit the children from taking cooked food offered them at the neighbors, but now the little ones are as tenacious in their adherence to a fruit diet as are the adults. The mother and several of the children do not appear to be very rugged, but Mr. Hinde and one of his daughters are pictures of health. Prior to the adoption of a fruit diet, Mrs. Hinde and two or three of the children had been "ailing" for years.

A HYGIENIC TOWN.

THAT hygienic reform is making progress in our population seems demonstrated by the actual existence of an enterprise in Illinois, set on foot by one of our most powerful manufacturing corporations, for the purpose of establishing a community in which the principles of temperance and hygiene are to be practically illustrated. The Pullman Palace Car Company is building up a manufacturing town near Chicago, called Pullman,

in which thousands of mechanics are employed building that company's cars. It is a wholly new town, and about two million dollars have been expended upon its workshops, dwellings, and public buildings. As much thought is apparently being given to the comfort of the workmen in their homes as to the efficiency of their work. Pullman is to be a model hygienic town. The dwellings are handsome brick structures with

stone trimmings and slate roofs, supplied with perfect sewerage, running water, gas, baths, marble fireplaces, and many other features of elegance and comfort. There is a beautiful park and a charming artificial lake. The railway station is an elegant gothic structure. There are also being built a large hotel, a model market-house, and an arcade building to contain a public library, an art gallery, association rooms, and some fifty stores and business offices. One of the leading educators of the country has been employed to organize and conduct a model school system. The town thus laid

out covers an area of 3,500 acres, upon which not a drinking saloon or a place of vicious amusement will be tolerated. Everything to elevate and refine the workingman will be done, yet not as a charity. He is expected to pay reasonably for his superior privileges, and will appreciate them vastly more because he does pay for them.

Something akin to the imaginary town of Dr. Richardson is here contemplated, and we wish that to such a physician as Dr. Richardson the sanitary arrangements of the place were entrusted.

ARTISTIC DISPOSITION OF THE BODY.

A SUGGESTION.

THE disposition of bodies after death has given the world, and especially the civilized world, much concern. Various methods have been in use. Various methods tried by the different civilizations of the world have had their day, and still the world is not yet settled as to what disposition to make of the mortal part of man. Thousands of years ago the different nationalities and religions of the world established their methods. For the want of communication with each other, whereby the world enjoys an interchange of thought, each isolated nationality or race thought its method the only one. In after years when peoples began to invade each other's territory they began to see that there were other methods than their own. Interment—"ashes to ashes, dust to dust"—however, has been the most universal practice, though burial itself has been of different kinds; and where there was a high state of culture, as in Egypt, embalming became a common adjunct to it. In this process, although the body was buried, it was not put into the ground, but into some tomb or enclosure of masonry where it was kept aloof from mother earth. We know not what were the ideas of the people, who, like the Egyptians,

practiced embalming so extensively, yet the only solution of the problem seems to us to be that they believed fully in the idea of the actual resurrection of the body, and it seems to have been a part of their strong religious belief and trust to keep that body in the best preservation possible against the day of judgment. Could some of these old Egyptians come forth to-day and see poor Egypt, the once mighty power of the earth, now dead to the world, and see how the new Christian civilizations of the West have stolen in upon her and committed depredations upon her sacred tombs, and even taken from thence the bodies therein embalmed, and, on account of their superior combustible properties, used them to generate steam to drive the modern engine; or, for their chemical properties, transported them for the purpose of enriching the soil of countries thousands of miles away; could the old Egyptian see this, it would be apt to disgust him with the civilization that permits it. And yet in this very thing there is a great moral lesson which teaches us the insignificance of the human body after what we call "life" has departed from it. It prompts us to ask, What is this thing "Life"? The wealth of the

universe could not purchase life. The body with that power present in it is beyond price. This power removed and the poor body is of little material value. This inestimable power seems like a cipher, although it has such a mighty value it seems to occupy no space, and yet it is the most potent thing we come in contact with; and in death we realize the fact that the *invisible* is of value beyond price, while the *visible*, the body, which seems so important in our eyes, is itself the cipher.

The mummies of Egypt are in every land as curiosities, and they reveal to us the surroundings of their day; and more, they teach us the insignificance of the body, the value of what we term life, and the important truth that the *invisible* is of far more importance and real than the *visible*. The *visible* in all that individualizes the body is transient and for the day, while the *invisible* is for eternity. How can this be? is the question with many, and many may doubt it, yet it would seem that they would have to admit that this life principle which gives so much and even all the value there is to the body can not be a mere cipher. It gives far too much value to the body to be cast aside as a nonentity, and reveals to us the fact that there dwells within us a power or spirit which alone gives value to our material form. In this life nothing can, on a scientific basis, be proved in this matter, yet here are facts presented to us: All recognize the body by itself to have no value. The "life" or "soul" that is in that body gives it all the value that it has. The great question therefore is, Can such a property be a mere cipher and have no existence beyond the mere material body? All are permitted to believe as they may, and some, we know, differ from this view of the matter, yet the more we study nature and enter into her various departments, and familiarize ourselves with her laws, we discover that after all the *real* is the *unreal*, and the *unreal* is the *real*. The outward eye can only see that which to it is real, yet the spirit within can, by its own process, advance beyond this, and if it can not

clothe in material form the spiritual or unseen, it can, through the higher senses, realize that the unseen is infinitely more powerful and real than that which the eye doth see. The eye is the mere agent of the mind—the mind can see more than the eye can reveal, and even the hard practical sense of man can realize that the *unseen*, as in life and the body, is infinitely of far more value than the *seen*. That which is *seen*, separated from the *unseen*, has very little value, and the separation destroys its value beyond a mere material rate, while the *unseen* retains its value, and can not be deteriorated by any separation—it is the "higher power," therefore independent, and all-powerful by itself—it can give value to the material, but the material can not detract from it, for it is the all-in-all—the giver and maintainer of life—the great I Am of the universe.

Such are some of the thoughts that hover around life and death. The aim of advanced civilization has been to make the transition from life to death the most pleasant. The material body may have a horror for the grave, but the spiritual part never, for it does not enter it. As the years go by the æsthetic part of our nature seems more and more to be at work to propitiate the material sense in man. More and more those connected with the disposition of the body after death are exerting themselves to throw a charm about the burial of men, and to many people it is the event of the existence of the body on earth.

Various methods are in vogue throughout the world. The world seems always desirous for a change. In this Yankee land of ours we all have the right to suggest changes. We would not, however, force them upon society. In the spirit of novelty the following is respectfully suggested. It may not be any better—it certainly would be no worse than any other plan known to man, and, for some occasions, it might be better. It might suit some persons while no other plan would. If so, then certainly there would be some gain:

After the body is prepared for burial and sufficient time has elapsed to be sure that life is extinct, cover it all over well with a coating of plaster-of-paris. The thickness would depend somewhat on circumstances, and would have to be determined by practice. On the outside of this, in order to make it proof against moisture, it would be well to apply a thin coating of cement, and a coating of fire-clay if it is to be enclosed in cast-metal, iron, or bronze, and, outside of all, fasten a few rods and bands of metal in order to facilitate handling—to keep it firmly together. After the body is once prepared in this way it is ready for the next and final process, that of enclosing it in cast-metal or stone—cast-iron, natural or artificial stone—and ornamented to suit the taste of those having it in charge.

By this process the bodies could be kept hermetically tight, and thereby well preserved. In the cremation process the insurance companies object to burning on account of its destroying all evidence of poisoning that might be of value to them. They could not object to this process on that account, for it would preserve a body probably longer than the old Egyptian process of embalming; so if it were necessary to ascertain if a man were poisoned five thousand years or more from the time he died it could easily be done; or if it were desirable to ascertain any other fact in relation to the body of the man, say to settle any scientific question—for instance, it might be very desirable to the scientific world to know just what was the shape of the man's skull. How much the world would give to know certain things in relation to some of the old philosophers who lived thousands of years ago!

On this account this process would seem quite desirable, as it would preserve the bodies for a great length of time. As for its artistic properties, nothing could be more advantageous in this respect, as the coverings could be worked up so as to form monuments, or parts of monuments, as highly ornamental as one pleased, to be within enclosures or to

stand out in the open fields or grounds, as do monuments and head-stones in general. They might even be deposited in such public buildings as the Westminster Abbey in England, or our Capitol at Washington, without giving offence or generating disease, and be dressed up in such artistic form as to be quite attractive, indeed as attractive as any monument. Or they might be made so that a number of them would form a grand family monument. Only think what a monument the Smiths would have! In time it might rival the very pyramids themselves. In the casting process the name of the individual within should be formed on the outside on a shield or scroll prepared for it. The individual figures might even be furnished with wheels like safes in order to facilitate any desirable transportation.

The phrase, "the corner-stone" or "pillar" of any institution might no longer be a mere figure of speech. When a good man died who had founded an institution his body could be made a genuine corner-stone of the material structure, as his name or wealth is of the spiritual or financial part; or what would probably be better, would be to have him after death as a genuine pillar of the church material. Only think of a double row of good deacons really supporting the firmament that covers the little congregation with which they had associated in life—all worked up, for example, in the form of handsome caryatides, the faces in likeness of the good deacons themselves. If these are done in cast-iron it would be well to have them galvanized as a better preservative, and under some circumstances it might add to their artistic finish. But then it somewhat depends upon where they are to be located. If indoors, as pillars of the church, they might simply be painted.

At present stained-glass windows are put in churches in memory of the departed; but in this case the pillar might receive the honor. And, by the way, there seems to be no reason why a column in a church should not, with pro-

priety, be dedicated to the departed as well as a window, at least when the windows are all appropriated they could fall back on the columns. People who are adverse to having their bodies destroyed or mutilated and scattered could, by this process, secure them intact.

At first this plan may be thought to be very expensive. When we think that it does away with a costly coffin and all that, and that when means are established for doing the work systematically, the expense would depend upon the vanity of parties. The undertaker might grumble a little, but then its introduction would be so gradual that by the time it got well in vogue a new generation of undertakers would grow up who could easily accustom themselves to the new process. They would have no need to change their name, for their present name does not signify that they *bury* people. We do not see what is to hinder them from *undertaking* any process that their inclination may prompt, or the public call for, so long as it is not barbarous or detrimental to public health.

Such a process may not suit all, or even many. In this life, however, there are all sorts of people and all sorts of notions. There may be some peculiar people who are dissatisfied with the

present known plans of disposition of the body after death, and our plan may just suit them.

In such things it is not well to force people, but, so far as we are able, it is well to humor our fellow-men, if what they request or demand is not detrimental to the rest of mankind, and surely such a process as this would not be.

Scientifically there may be a value attached to this that we at present may not fully appreciate. I do not think there is an intelligent person but who is glad the old Egyptians carried their embalming process to such a degree of perfection that their bodies have stood the test of time, and that we have been permitted to see them. We would that as fine specimens of the old Greeks and Romans and other great nationalities had been as well preserved. It may be well to pass down some of the Yankee type to the coming generations. In three or four thousand years from now the people upon the earth may be even more interested in this subject than we. It would seem to be appropriate in us to do at least a little for them in this line.

Those having ample means might try the experiment; certainly nothing ill can come from it, and perhaps there might result much good. ISAAC P. NOYES.

HEALTH HINTS.

DRINKING AT MEALS.—Do not drink large quantities of fluid at your meals. It dilutes the gastric juice and weakens its solvent powers. Warm drinks are better than cold.

ALCOHOL AND DYSPEPSIA.—Many persons are under the impression that alcoholic drinks are beneficial in dyspepsia, but the truth is that alcohol precipitates the pepsin of the stomach and interferes with digestion, hence dyspepsia is a common symptom in habitual drinkers.

PRURITUS OR ITCHING.—This is often a very distressing malady, especially when occurring in females. Water ap-

plied quite *hot* will frequently allay the most terrible itching, and the patient will soon fall asleep. A mixture of equal parts of essence of peppermint and glycerine applied with a soft brush is also an excellent remedy. Warm milk applied to the parts is sometimes productive of immediate relief.

SICK STOMACH.—A wine-glassful of water drunk as hot as it can be borne will frequently arrest a very distressing vomiting, but it should be *hot*, not warm. Good strong vinegar sipped at pleasure is another prompt and safe remedy.

EARWIGS.—When earwigs get into the

ear (which is very seldom), they may be destroyed by injecting oil and warm water into the ear, even melted lard will answer.

CHAPPED HANDS.—Wash them well with castile soap before retiring, then rub them over with a teaspoonful of honey, and sleep in your gloves. Repeat for a few nights.

CORNS.—A good coat of gum arabic mucilage applied every night just before retiring will cure most corns in a few weeks.

FRECKLES.—Muriate of ammonia, 1 drachm; cologne, 2 drachms; water, 7 ounces; mix; use as a lotion night and morning. This will remove freckles, and is perfectly harmless. Most of the washes sold for this purpose contain corrosive sublimate, a deadly poison.

FELON.—When a felon is first felt to be forming, its progress may be arrested as follows: Mix soft lye-soap and corn meal with a case knife until of the consistency of a salve, and apply to the painful part, taking care that it adheres snugly to the inflamed spot. Renew every twelve hours until all signs of the felon have disappeared.

BOILS.—If the skin be superficially

scraped with a small knife, so that a drop or two of blood may be pressed through the epidermis, as soon as the peculiar stabbing or pricking sensation and slight hardening of the part announces the commencement of a boil, its progress will be arrested. Boils should never be poulticed, as the warmth and moisture of a poultice lengthens the duration of the existing boil, and tends to cause the formation of new ones.

SCIATICA.—This is neuralgia extending from the hip down the leg, and causes most terrible suffering. I have found mullein leaves dipped in warm vinegar, applied along the course of the sciatic nerve and around the joints of the affected limb, to relieve the pain, and effect a permanent cure in many cases.

HEADACHE.—I frequently see going the rounds of the press something recommended as a cure for all forms of headache. This displays gross ignorance, for there are fully twenty different kinds of headaches, and what might benefit one variety would prove injurious in another. Headache is merely a symptom of some other disorder, and to be successful in treatment it is essential that the *cause* be ascertained and removed.

L. H. WASHINGTON, M.D.

KITCHEN LEAFLETS.—NO. 2.

OATMEAL-BREAD, GEMS, ETC.

GENERALLY there is too much haste on the part of housekeepers or cooks in the preparation of food, and this is especially shown in getting up soups, stews, mushes, etc., which require boiling or steaming. To do anything well we must take *all* the time necessary to do it. And in cooking, we can not hurry matters and have a really excellent result. Time is required to make a thoroughly palatable and digestible dish, of say cracked wheat or oatmeal porridge. I have found that the slower the process of cooking the better the result.

Since the introduction of the so-called

farina boilers or double-kettle, perfection seems to have been reached in preparing the farinacea; and mushes of wheat, oats, barley, corn, etc., which before were apparently looked upon with contempt, are now the favorite food of a large proportion of the community.

The old method of cooking produced in most households a half-raw mass, which demanded a good deal of hygienic principle in one to attempt its mastication; now a well-cooked dish of the meal furnished us by the recently improved methods of grinding, or crushing, tempts any appetite which has the seasoning of hunger.

Rapid boiling does not cook as quickly

or as well as slow. The pot of water with its interior compartment or kettle, containing the cereal, set on the back of the stove or range, and covered closely to keep the steam in, may merely simmer there, but it is doing the work well. The steam as it rises condenses on the cover and sides of the inner vessel, and assists the process in a way which no other known system can, and the work is done by nature, almost unassisted, for little stirring is necessary, and if the pot be left a half hour longer on the stove than is customary, no harm is done.

The recipes given this time are for oatmeal. I do not think it necessary to say anything about the selection of this or other grains, unless the reader asks for particulars. Nowadays the demand for cereal foods is such that every grocer who keeps a store worthy of patronage, supplies a variety of the most approved brands.

OATMEAL GEMS.

One large cup of boiled oatmeal mashed fine.
One quart of wheat flour.
One pint of milk.
One egg.

Two and one-half teaspoonfuls of Royal baking powder. Mix the oatmeal, milk, and egg well together; stir the baking powder in the flour, and sift it in the mixture, in the same manner as for wheat bread. Bake in hot gem-pans in a very hot oven, from forty to sixty minutes. This quantity of material will make about twenty-eight of the gems.

OATMEAL RAISED BREAD.

Take a pint bowl half filled with oatmeal mush; fill up the bowl with warm-water; put the mixture in the bread bowl, and stir in wheat flour enough to make the dough into a stiff paste. Stir in one-quarter of a good yeast cake, and let the dough rise overnight. In the morning, add flour enough to mould it up, and bake.

OATMEAL BREAKFAST-CAKE.

This is made of No. 2 oatmeal, with water enough to saturate it, and with little or no salt, according to taste. Pour the meal into a baking tin or dish, half an inch or three-quarters deep, shaking it down level, so that the bottom of the pan is covered to the depth of about one-eighth of an inch. Then pour in water until it is so wet that the water runs freely on the surface. Let the pan stand all night, and in the morning

add hot water enough to have a little on the surface. Place in a quick oven, and bake twenty-five minutes. Eat warm with good New Orleans molasses, honey, or any fruit sauce. A delicious dish for children.

OATMEAL PIE-CRUST.

Scald two parts of fine oatmeal with one part of hot water; mix well, and roll thin. As this bakes very quickly, fruit which requires much cooking must be cooked first, before making the pie. This crust is very tender, and possesses all the desirable qualities of shortened pie-crusts, without their injurious effects.

OATMEAL GRUEL.

One tea-cup of coarse oatmeal.

One quart of boiling water.

Boil briskly about half an hour. Then stir well, and put where it will cook slowly, for about two hours. For a drink, rub the gruel through a sieve and then return it to the fire, and boil once more.

OATMEAL AND APPLE BREAKFAST-CAKE.

Stew and sweeten good solid apples, as for ordinary apple-sauce, and strain through a colander. Take about one pint of apple-sauce and a quart of fine oatmeal (Schumacher's A); mix well, spread out on an oiled tin half an inch deep, and bake half an hour in a quick oven. Serve warm.

OATMEAL MUSH.

Two tea-cups of coarse oatmeal.

Stir the meal into two quarts of cold water, and cook in a double boiler from three to four hours. Stir occasionally.

OATMEAL AND POTATO SCONES.

Cold or warm potatoes, peeled or mashed, are worked up with fine oatmeal, until the mixture can be moulded with the hand into small thin cakes. Then bake on an oiled griddle, or on a pan in the oven. These scones can also be moulded with Graham flour instead of oatmeal.

MIRA EATON.

ADVICE WITH REASONS.—Beware of salves, beware of plasters, beware of eye-waters, beware of washes refining the skin, beware of toilet powders, and be careful in the use of scented soaps. Why? Salves make and keep the skin sore, plasters prevent wounds from healing, eye-waters do often more injury than good, most hair-dyes produce sore eyes, beautifying washes are often poisonous, ditto toilet powders, while scented soaps are usually too sharp with free alkali.

NOTES IN SCIENCE AND AGRICULTURE.

Fresh European Enterprises.—

The St. Gothard tunnel and railway are finished, and opened to general traffic and mail. It is probable that direct railway connection will be established with Venice. Besides this a leading engineer of Milan proposes to establish a line of steamers from Lago Maggiore to Venice, and thus make the connection direct and easy to the Queen of the Adriatic. To this end the river Po, the canal of Paola, the Cavour Canal, and the Ticino River will be used. The rail now comes to Mogadino, at the upper end of the Lago Maggiore. It is affirmed that the necessary capital has been supplied by a syndicate of bankers of Turin. A model steamer is being constructed in England that will enter the French canals on the channel and find its way to Marseilles, and thence creep along the coast of the Mediterranean and Adriatic to Venice. If the navigation can be made a success, freight can be brought to the Adriatic for half the figure required to get it to Genoa, and the question will thus be settled in favor of Venice, and the tide of trade may thus revive a city that was once famous for its merchants, but which has long been in a state of mercantile decay.

Post-office Business.—According to the late report of the Postmaster-General, during the past year there passed through the United States mail, of domestic matter, 2,215,168,124 pieces, divided as follows:

Letters.....	866,593,572
Postal cards.....	276,449,716
Newspapers.....	695,173,624
Magazines.....	53,472,276
Books, circulars, etc.....	300,845,480
Articles of merchandise.....	22,634,456

Which was an average of 44 3-5 pieces to each person in the country. The aggregate expense of conducting the department was \$22,255,984; number of post-offices, 42,989, whole number of persons employed, 60,479. The revenue of the department lacked \$3,500,000 of defraying the expenses, which deficiency was paid from the General Treasury of the United States.

Out of the 866,593,572 letters mailed, 3,957,141, or one in every 283, went to the dead letter office. This number, compared with former years, is proportionately very small, owing to a late rule of the department, that when the writer of any unpaid or misdirected matter is known, it is at once returned for correction, thus saving delay, miscarriage, or its ultimately being sent to the dead letter office.

The causes through which mail matter goes astray or to the dead letter office are somewhat numerous, and are summarized in the post-office report as follows: From being unclaimed at office of destination, 2,560,402; for non-payment of postage, 284,503; imperfect address, 201,899, of which 9,107 were

no superscription whatever; many, if not most, of the unclaimed mail was so from some fault of its superscription.

Out of 6,996,513 registered letters and parcels mailed during the year only 7,445 went to the dead letter office, and of these, 7,016 were restored to the owners, thus leaving less than 450 out of nearly 7,000,000 packages unaccounted for—one in about 17,000.

All mail matter containing articles of value or money was returned to the owner if he could be found, otherwise the money was paid into the United States Treasury and the valuables sold and the proceeds deposited therein. The money not returned amounted to \$2,751; the proceeds of the articles sold were \$3,465.

Losses by Fire.—Statistics show that every seventh dollar of the nation's annual increase in wealth is burned up, chiefly through gross carelessness; also, that "we burn up a Chicago every two years." The great Chicago fire destroyed \$160,000,000, and the average fire loss of the United States and Canada is \$80,000,000 a year, so that were the Chicago calamity which shocked the country in 1871 to be repeated once in two years, it would annihilate no more property than that now consumed by the numerous fires of every two years. The fire loss of the last five years in the United States and Canada is \$405,269,700. It would appear from the insurance statistics that liquor stores (which we can well afford to lose) are most apt to burn, and groceries and hotels follow closely after, there being twice as many fires in these classes of buildings as in saw-mills and drug-stores, which come next in the list.

An Octogenarian's Views on the PHRENOLOGICAL JOURNAL AND BEES-WAX.—

CIRCLEVILLE, TEXAS, *January 9, 1882.*

DEAR SIR: I am under obligations to you for sending me the PHRENOLOGICAL JOURNAL. It is one of the best publications in the United States. I have been a reader from its first publication, over forty years ago. I am now in my eighty-fifth year. I have not used coffee, and but few fashionable knickknacks for about forty years; used one chew of tobacco about sixty years ago.

In the January No. of the JOURNAL, page 22, you say: "The pollen of flowers is also manufactured by the bees into wax-cells for honey." This is the general opinion of the largest portion of men. Nevertheless, it is a mistake. The wax that composes the comb for the reception of honey, is a natural production of the bee, growing between the scales or rings, of the bee. But it is said that they gather it from flowers, and carry it on their legs to the hive. This is not wax; it is also stored in the comb, and by apiers is called

"Bee-bread." When a swarm comes off in the evening, they are generally hived near where they settle, and sometimes are not carried to the stand until the next morning. On the place where the hive stood there is always more or less scales of clear white wax, which they could not use. This is particularly the case when a swarm has been hived several days in succession. The wax scales grow too thick, so that the bees can not use them in making cells. Apiers can test these things by examining closely the points I have named.

Your premium book for 1882 ought to induce all who love to read to become subscribers. According to the contents it has the right title, "Phrenological Miscellany." I hope I shall get to read it. Our part of the country is thinly populated, and but few that care anything for books.

WILLIAM CRAWFORD.

Uses of Insects.—Many people may shake their heads when we say it, but it is none the less true, that only a very small portion of the insect world is noxious; the others are engaged in good works for man—some engaged in warring against the same insect foes that we war against, and the others in clearing away dead and injurious matters. An English scientific paper says: "Insects are useful in destroying dead vegetable substances, which are even more pernicious to man than animals in the same condition; and not only the soft and succulent portions, but even the solid wood is destroyed by them. In the immense forests of the tropics, the ground would be covered, and new shoots choked up, by the ruins of trees which had fallen by accident or age, and which it would require ages to disperse without the aid of insects. But no sooner is a tree fallen than one tribe of animals cuts its bark to pieces, another bores holes in it in all directions; so the moisture from dew or rain may stand, decompose, and soften. Others come in to eat off the portions that are softened, and so on, until it is entirely broken up and scattered; and this is done with such expedition that they will, in a few weeks, destroy and carry away the trunks of large trees, without leaving a particle behind; and in places where, two or three years before, there was a populous town, if the inhabitants, as is frequently the case, have chosen to abandon it, there will be a very thick wood, and not a vestige of post to be seen."

The Specific Gravity of Brains.

—Two Italian physicians, Drs. Colombi and Pizzi, have carefully examined the specific gravity of the brain in seventy post-mortems. They find it 1.023 for men, and 1.018 for women; but these figures also vary considerably according to age, the average (for both sexes) being 1.019 up to fifteen years of age, 1.026 between fifteen and forty-five, and 1.017 afterward. The brains of insane patients

vary considerably on either side of these figures, the lowest they have observed being 1.013: the highest, in one containing many nodules of sclerosis, 1.044.

How to Set Grafts.—The season for grafting may be said to be from the first of April to June, the time when the forces of nature are impelling the upward flow of sap in the tree. An expert says in the *German-town Telegraph*:

"We have set grafts the last day of May with as much success as at any other time, and we have known of grafting being done up to the 20th of June. When understood—and it ought to be an easy thing to learn—any one can do his own grafting. Yet due care must be taken in all the details to insure growing.

"Stocks or limbs to be grafted, not over two inches in diameter, should be cut off at the distance of four inches. A fine saw should be used. Incline the saw so that the stump will shed the rain. The bark must be uninjured. With a sharp knife smooth off the sawed stump. Take a case knife, which is as good as any, place it across the heart of the stock, and force it down with a wooden mallet. We use a very narrow screw-driver for keeping open the split. Shape the scion wedge fashion both ways, keeping the bark intact. We make a shoulder as far up as the scion is shaved; it is not so strong, but better insures growth. The inside of the bark of both scion and stock must meet or cross, in order that the sap of the two may commingle. Set the scion at a slight angle spreading from each other. When the stock is small and only one scion inserted, place a piece of wood on the opposite side of corresponding thickness. If the slit does not close up sufficiently, tie round a cotton string to keep it tight upon the graft. Cover with wax every part of the cut wood and slit. In three weeks' time go over the grafts and re-wax if needed. It is air and rain getting in that destroy. Where the limb to be grafted is from two to four inches over, it should be cut say six inches from the tree, and from four to six scions may be inserted."

Some Fruit-factories order their tin from Wales. It requires about 1,217 boxes of tin to make 26,000 standard cans.

On Youthful Prodigies.—The *Theosophist*, that Bombay monthly which is devoted to the occult and marvelous phenomena of human life, makes a good point or two in a brief paragraph like the following:

"Phenomenal children solving on the spot mathematical and arithmetical problems, are likely to find themselves at a discount, if we can believe German papers. Young Master Moritz Frankl, the 'arithmetical wonder of the age,' is the prodigy to whose 'miraculous' gift press and public have been paying their homage for over a year, and who must have made, by this time, the fortune of his Teu-

tonic 'Barnum,' Dr. Gonig. And now little Frankl has found a rival: not in any especially gifted 'prodigy,' but in any moderately intelligent boy chosen among a dozen of other school-boys, whom a Dr. Ilenbürger chooses to select, and to impart to him his newly-discovered secret. The Doctor is a Leipzig savant and an eminent mathematician. He offered to bet with Dr. Gonig, Frankl's *impresario*, that he had discovered the key to his secret, and would undertake to initiate into it any clever school-boy in one hour's time by teaching him how to extract the cube root from any given seven or more figures. Dr. Gonig accepted the bet, proposing as a stake of 100,000 *gulden*, that it could not be done. Dr. Ilenbürger, we are told, made his claim good by forthwith selecting an ordinary boy whom he had never seen, but who was proposed to him as one having a certain capacity for arithmetic. Shutting himself closely with him in a room, he explained to the boy his system, which consists of only twelve figures. The result was that this newly taught boy entered on the same evening into a most successful competition with the little 'prodigy,' solving instantaneously the most difficult problems, and making a slight mistake in but one instance. If true, then the discovery is likely to affect not only the pockets of various speculators in 'children prodigies,' but likewise the hearts of a great number of Spiritualists. There is no end of such marvelous 'infant mediums' in America whose gifts are believed by them to be due to the direct control, intervention, and agency of the 'departed spirits,' of great mathematicians, musicians, and other like invisible savants and artists furnished through mediums with 'return tickets' from the angel world, and what if the key to the secret of each of such achievements be discovered one day? We have heard of an Oriental brotherhood which possesses such a key. But—oh thrice cruel science! Wilt thou not leave a single shred of the 'miraculous' and the 'supernatural' to those hungering after both?"

The Valley of Death.—The Valley of Death, a spot almost as terrible as the prophet's valley of dry bones, lies just north of the old Mormon road to California—a region thirty miles long by thirty broad, and surrounded, except at two points, by inaccessible mountains. It is totally devoid of water and vegetation, and the shadow of a bird or wild beast never darkens its white, glaring sands. The Kansas Pacific Railroad engineers discovered it, and some papers, which show the fate of the "lost Montgomery train," which came south from Salt Lake in 1850, guided by a Mormon. When near Death Valley, some came to the conclusion that the Mormon knew nothing of the country, so they appointed one of their number a leader, and broke off from their party. The leader turned due west, and so, with the people and wagons and the flocks, he traveled three days, and then descended into the broad valley, whose treacherous mirage promised

water. They reached the center, but only the white sands, bounded by scorching peaks, met their gaze. And around the valley they wandered, and one by one the men died, and the panting flocks stretched themselves in death under the hot sun. The children, crying for water, died at their mother's breasts, and with swollen tongues and burning vitals, the mothers followed. Wagon after wagon was abandoned, and strong men tottered and raved and died. After a week's wandering, a dozen survivors found some water in the hollow of a mountain. It lasted but a short time, when all perished but two, who escaped out of the valley and followed the trail of their former companions. Eighty-seven families, with hundreds of animals, perished here, and now, after twenty-two years, the wagons stand still complete, the iron works and tires are bright, and the shriveled skeletons lie side by side.

Germination of the Cotton Seed.

—A writer in the Boston *Journal of Commerce* says: "A singular discovery has been made by accident in connection with some experiments upon cotton seed, which may have a widely extended influence upon agricultural operations. With a view to ascertain the situation of the oil cells in the cotton seed, Professor Thomas Taylor, the microscopist, was requested to make an investigation, and he found that one row of these cells constitutes a protection to the germinating point. The Professor resolved further to ascertain how far these defenses protected the embryo from agents usually destructive of all organic life. In using sulphuric acid he found that one result was completely to remove the adherent cotton, so leaving the brown shell of the seed clean, without being visibly affected. Some of the seed that had been thus treated was sown, and, to the surprise of every one, it came up five days earlier than the seed in its natural state. Several experiments were subsequently made, which confirmed the fact that the treatment with sulphuric acid stimulated the vitality of the seed. The gain of five or six days' start, in the avoidance of early frosts, or in the raising of early cotton, for which premiums are offered in some of the Southern States, can not be overestimated. Another advantage is that, owing to the cotton hitherto adherent to the seed, the sowing has had to be broadcast, which has been very wasteful. Now the clean seed can be sown by means of a drill, with the result of producing a regularity of growth which will tend greatly to facilitate the subsequent cultivation."

Plant Growth.—When the earth in which a plant grows is much warmer than the air, the plant grows very thick, ceases almost altogether to increase in height, and finally shows deep, transverse rifts which make farther growth an impossibility. These effects were produced by M. Prillieux, who used a large dish of earth, in which he planted the seeds, and kept the earth ten degrees warmer than the moist air of the room.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
MARCH, 1882.

APPARENT INCONGRUITIES IN CONSCIENTIOUSNESS.

CABINET COLLOQUY NO. 13.

"I THINK," remarked a visitor, "that you phrenologists do not receive all the credit you deserve because of your support of the ethical view of Conscience, or, as you term it, Conscientiousness."

What do you mean by the ethical view, if we may ask?

"I mean the opinion that conscience is an original, inherent faculty of the human mind—and not an intellectual product. While many of the more eminent metaphysicians have disputed concerning its nature, some, like Hobbes and Paley, imputing virtuous conduct to self-love, or self-interest; others, like Brown, making the appreciation of utility synonymous with conscience, and others, like Adam Smith, proposing sympathy as a standard for moral judgment, the phrenologist points to an endowment in brain and mind which constitutes man a responsible being, because its special office is to discern between right and wrong. Thus a scientific or physical basis is furnished religion which

could be made a very powerful adjuvant in the conflict with infidelity."

We think, sir, that the religionist is eager to avail himself of all the aids at his command in that conflict, but hesitates to accept the proffered support of phrenology because of its physical basis; that has, to him, a *quasi* materialistic aspect, and its open embrace might involve him in a mesh of inconsistency and error. A moment's consideration will show you the delicacy of such a step, and how easily the unscrupulous sophists of infidelity would make a handle of it for gibe and lampoon, which go so much farther with the masses than serious fact and argument.

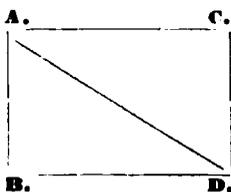
"I can readily see now," replied our visitor, "the strength of the reason you propound. The two sides arrayed in the conflict fight with antipodal weapons—the religionist's are spiritual, or premises and arguments drawn from the Bible and moral evidences; the materialist's are physical, or conclusions derived from the observation of natural phenomena. For the former, then, to take up a cudgel proffered by a class of scientific observers, would be interpreted by the infidel as inconsistency and a confession of weakness, and I can well understand how the cause of Christianity might lose in the ranks of the unreflecting. Nevertheless, I insist that an intelligent use of the phrenological argument would prove a very valuable auxiliary, since it would make a cross issue, combine the spiritual with the physical, attribute moral functions to nervous organs, and point directly to phenomena, which would command the respectful attention of the true scientist. I have read enough in mental science, as formulated by Spurzheim and Combe, to be impressed that they have

set up no false lights in defining the organ and function of Conscientiousness, but I must confess that I am puzzled sometimes by the action of the faculty. I have known persons in whom the organ appeared large to act in a manner seemingly quite the reverse to what duty and obligation required."

Will you cite an instance? It by no means follows that because Conscientiousness is large in his brain that a man will *always* be true and just in his dealings; but when we carefully analyze the apparently inconsistent conduct of such a man we find that it was the reasonable consequence of several faculties acting in combination.

"I have in my mind's eye a shrewd, energetic man, who is slow in meeting his engagements to pay money. If he owe a bill it is difficult to collect it—although in the end he pays up. But whoever owes him is promptly asked to settle, and expected to do it or risk a lawsuit. He has a large, well-developed crown. I do not claim to be an expert, but I think any one who knows about the shape of the head would say that his Conscientiousness is large. If so, why does it not prompt him to deal in strict fairness with others?"

In natural philosophy there is an important principle known as the Composition of forces. You are aware of it, I suppose. I draw a parallelogram thus,



with diagonal line through it, and letter it as you see. Now, let us suppose that a movable object is at A, and that it is

acted upon at the same time by two equal forces, one moving in the direction of the line A C, the other moving at right angles to A C, or in the direction A B. The body thus acted upon will not take the direction of either force, but move in an intermediate direction, say that of A D. If the forces differ, the moving body will be impelled in a direction nearer to that of the greater, in proportion to its superior impact. Now, apply this principle to the man you mention. He has large Conscientiousness, but also large and more active Acquisitiveness. He is a good business man, you say?

"Yes, decidedly so."

That shows that his intellect is by no means weak, and its practical deductions govern in a great degree the expression of his sense of duty. He can not be termed dishonest, yet the apparent indifference he shows to his creditors may sometimes lead you to think that the line is very narrow in his conduct between honesty and dishonesty. Should you reproach him for want of principle in his dealings, we warrant that he would fling back the imputation with scorn, and challenge you to show that his credit was not good in his business circle.

"But do you think that the man feels the sense of obligation strongly, as might be inferred from the development of his Conscientiousness?"

We certainly do, yet in a subordinate way. He recognizes clearly whatever obligation rests upon him. Between him and a creditor who knows his sharp, scrutinizing business method, there is rarely any dispute over an account, and what has been once settled upon he never questions, and he is as fully determined to pay a debt as he is slow to pay it. His large Acquisitiveness, influencing his

practical judgment, points to the probable gains of using in new investments the money which he owes to a creditor; his self-confidence assures him that he will be able to discharge the obligation whenever it becomes necessary; hence his sense of duty is quieted or kept in a sort of abeyance—and, like the body, acted upon by two or more forces; instead of operating in the simple direction peculiar to its own moral inertia, it is deflected into an intermediate course.

“The operation of the mind in this case becomes now quite clear to me, sir. I have, however, another illustration in my thought, which I should like to hear you dissect also. I know a person whose development of Conscientiousness appears to me small, and I have heard him make statements which confirm the impression that his sense of duty is not high. Yet I do not know a more punctual man in paying bills and meeting appointments. He is in a profession with a good income, but has not the business capacity of the other man I instanced, although credited with being a sound adviser in general matters.”

I take it that this man has more of the philosophical or reflective cast of intellect than the other?

“Yes.”

And no great endowment of Acquisitiveness or Secretiveness, while he has large Approbativeness, and a generous degree of the social nature. I think you will find that such is the case. Now, applying our principle of the composition of forces—his Approbativeness inclines him to seek the approval of his friends and society; his cultivated intellect shows him that human interests are promoted by a balance of relations; that a debtor scarcely stands on an even footing with

his creditor; his social nature leads him to wish for the companionship and interest of others, and as a friend and acquaintance, he desires (through Approbativeness) to feel himself at least an equal with every one he knows. The natural outcome of these influences is the punctual man you observe. There is no powerful Secretiveness to inspire cunning and artifice, no strong Acquisitiveness to incline him to temporize, defer, and cheapen. He is just and honorable in his conduct because he sees clearly such qualities win esteem everywhere, while injustice and want of self-respect have their rational effect in making people despise the one who shows them in his actions.

“Then I may infer from your remarks that the intellect may determine a man’s course as regards the doing of right or wrong.”

You may to a degree. The well-endowed and well-trained intellect may be trusted so far as prescribing a rational, consistent course, but the degree or completeness of a man’s action in pursuing that course must depend upon the influence of the sentiments which relate to it. A man may decide intellectually with respect to the propriety of endowing an institution for a charitable purpose, but the extent of his contribution in money and personal effort will depend chiefly upon the strength of his Benevolence. There is a satisfaction in carrying into effect the judgment of the intellect, but the highest enjoyment experienced by man is in following the bent of his moral and affectional feelings. Conscientiousness is gratified when a man does what is fair. If it, among the sentiments, were only consulted by the intellect when a man was called upon to aid

in a certain undertaking, it would be satisfied by his doing just so much as should be deemed consistent with his relation to the matter. There would be no profuse munificence on his part. But were a strong Benevolence let in, then to the sense of duty would be added that of kindness and sympathy, and the result would be a spontaneous, uncalculating generosity.

SLIGHTLY INCONSISTENT I

A GREAT deal of excitement prevails throughout the North, Central, and Eastern States, on account of the existence of small-pox in a form bordering on the epidemic. Its ravages are mainly confined to the large cities, and in spite of the measures of health boards and local authorities for vaccination by wholesale, the number of cases reported show an increase—this being particularly the case in New York, Jersey City, and Chicago.

We know that a peculiar dread of small-pox lies at the bottom of the popular excitement with reference to it—a dread which can not be so much inspired by its fatality as by its possible impairment of one's good looks. The inscription on Jenner's tomb certainly carries this idea, as it ends thus :

"And radiant beauty, drop one greatful tear,
For beauty's truest friend lies buried here."

View it on the really more horrible side of fatality, and small-pox sustains a feeble comparison with several other maladies, which are always on the mortuary reports, and about which the community at large expresses little concern. For instance: pneumonia, diphtheria, typhus fever, scarlatina, and measles slay thousands of all classes, while to the account of small-pox a few score are credited, and

the cases in the great majority belong to the class that crowds the tenements in close and noisome quarters. The report of the Health Board of New York City for the week ending January 28th, furnishes the following items: The number of cases of diphtheria during the week was 225; of measles, 196, and of scarlet fever, 359; 38 new cases of small-pox were reported.

Why is there not a hue and cry made about the frightful devastations of scarlatina, diphtheria, and measles? Why are not rigid measures set on foot for their prevention? Everybody with any claim to intelligence knows the necessity of removing all filthy accumulations, of keeping the channels of drainage clear and of destroying all morbid gases, if a community would be freed from the causes of our most malignant diseases. Then why is a state of things permitted in most of our cities, towns, and large villages, which must in a season of constant atmospheric changes like our present winter, or when spring or autumn dampness and mist prevail, be productive of abounding sickness, and yield rich returns to the undertaker?

We don't altogether object to the fear of the public with respect to small-pox, if it have a wholesome effect in precautions which will suppress the disease; but we think that this fear is largely misplaced, a heritage of past generations probably, but none the less illogical, when the far greater destructiveness of other maladies is considered.

THE STRANGER IN SCOTLAND.

"THE Scotchman is close-listed enough, I can tell you, and the stranger who happens to be 'hard up'

in his country doesn't find much sympathy."

This was the remark made by one of a group of gentlemen within my hearing, and it so clashed with my own opinion and experience of Scottish character that I immediately declared my dissent, and gave the following incidents which occurred during a few days' visit in the "land o' cakes."

While in Edinburgh in the summer of '79, I ordered a pair of trousers to be made by a tailor who kept a small shop on Chambers Street, and whose goods seemed of better quality than was consistent with the small display he made of them. As I had to leave town about 2 P.M. on the following day, it was agreed that the garment should be delivered positively by 10 o'clock in the morning, when the balance due, about \$4.00, would be paid to the messenger.

The order was given about 11 o'clock A.M., and the remainder of the day was devoted to sight-seeing in the Athens of Britain. I did not return to my hotel until about nine that night, and while lighting me to my room Boots said, "There's a bundle in the office for you, sir."

"A bundle for me, what is it?"

"I think it's trousers, sir."

After laying aside my overcoat and umbrella, for the weather was wet and cool, I descended to the office and found to my surprise that the tailor had indeed sent the "unmentionables," finished to a nicety, and the cashier had paid the bill, although he had no deposit of mine, and knew nothing whatever about me beyond the mere impression that the exchange of half a dozen remarks had given him.

Two days later found me in Glasgow. I engaged a room in one of those well-conducted and usually well-located tem-

perance hotels, called "Waverly," but was informed that on account of the pressure of guests, I might expect to share my quarters with another. As the room assigned me had two beds, I offered no objection. The first night I was called upon to open the door to receive a companion, who announced himself a school teacher from Dumfries, come to stay a week or so in Glasgow, and as he appeared on first sight a genial fellow, I bade him welcome to the entertainment of No. 43. The next day at breakfast Mr. S— volunteered his services as guide in a round of Glasgow sight-seeing, and nothing loth, I accepted the kind tender. In the course of the afternoon we found ourselves in one of the principal business streets—Argyle, I think—of the great Scottish center of commercial enterprise, and concluded to look through one of the shops most famous for its size and the variety of its stock. On entering a salesman met us, and very courteously offered to conduct us through the different departments. In one of these I was struck by the beauty and softness of a number of blankets, and remarked to my new acquaintance, "I should like to carry one of those to America. It would come into use very conveniently on the steamer on a cool, breezy day."

"Well," returned he, "why not buy one? I judge that a couple of guineas would pay for it."

"Cheap enough certainly," I returned, "but to be frank I can not spare the money; I did not expect to come to Scotland, and on account of the difficulty in obtaining a steamer I have been detained longer on this side of the ocean than I expected. Consequently, you know—"

"Oh," replied he quickly, "that's it; it would give me great pleasure to accom-

modate you with a sovereign or two." Suiting the action to the word, he drew out his wallet and pressed the money upon me—and it was with real difficulty that I avoided both taking it and wounding his feelings.

For the above reasons I can not feel any sympathy with the man who speaks disparagingly of the Scottish character, especially intimating that it is lacking in generous impulse. I know the contrary. D.

Our Mentorial Bureau.

To Our Correspondents.

QUESTIONS OF "GENERAL INTEREST" ONLY will be answered in this department. But one question at a time, and that clearly stated, must be proposed, 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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

THE \$2.50 MILL.—D. W. T.—We have received good accounts of this mill. It is strongly made, and adapted to grinding or crushing wheat, corn, barley, and other grains for mushes, porridge, and coarse bread or cake. If your grain be well cleaned before grinding, the product will be good, and the average dyspeptic will find it to his advantage to eat the food prepared from it.

ORGANIZATION OF A PHYSICIAN.—J. C. C.—A physician needs especially to be able

in diagnosis, i. e., the discovery of the nature of the disease affecting a patient and its effects upon the vital functions. Large perceptive organs are essential to good diagnosis. Individuality, especially, should be well developed. From your description of yourself, we think you would do better as a chemist.

GRAVEL—PILES.—A. G.—In the disease called gravel the deposits may be composed of uric acid or phosphatic or calcareous matter. Red sediment in the urine usually indicates the presence of uric acid. White deposits, the phosphatic or calcareous. An excessive use of flesh meat is the frequent cause of the first-named deposits; while the second may be due to impairment of the digestive function, and resultant nervous disorders, or to irregular habits, dissipation, etc., which weaken the constitution. The cure is found mainly in modified habits of diet and life; the avoidance of abnormal stimulants; abundant use of farinaceous food of the most nutritive sorts, and fruits, and in applications of water in the way of baths, fomentations, etc.

Piles are, in the great majority of cases, caused by indigestion. Good dietetic habits and a course of life which is consistent with health will do most toward promoting their cure.

APPROPRIATE GIFTS.—A. F.—For the reading of young people who are entering into maturity, we can suggest books like the following: "Hopes and Helps for the Young," by Rev. G. S. Weaver, price \$1.25; "Aims and Aids; or, the Duties of Life," by the same author, \$1.25; "Light in Dark Places," a practical and entertaining story, by the Editor of the JOURNAL, \$1.25; "Life at Home," \$1.50, by Rev. Wm. Aikman, a pleasant essay on the relations of home-life. Any of these supplied by Fowler & Wells.

PERVERSION OF FACULTIES.—J. R. D.—The perversion of a faculty consists in its abuse, or exercising it in improper ways. Those faculties most subject to abuse are the strongly developed, and evil associations and unwise training are among the chief influences which

tend to pervert them. The manifestations of character show most clearly the degree of abuse, although a long course of improper and vicious conduct will so impress an organization originally of excellent mould that its balance of development will be lost. For instance, one who persists in a career of selfishness and gross impurity will, in time, show a predominance of the propensities at the base of the brain, and a material shrinkage of the organs in the upper or moral department.

A PHRENOLOGICAL SKETCH.—Sub.—We have never seen a portrait of the Senator you mention, or the gentleman himself, hence could not venture the merest opinion of his mental fabric.

CORRESPONDENCE BETWEEN SKULL AND BRAIN.—McL.—Have you not read the articles on Comparative Phrenology, which have been published during the past year? In them you will find evidence culled from all departments of vertebral life, in proof that not only in man, but also in the lower animals, there is more or less of correspondence between the exterior of the cranium and the surface of the brain.

HIS EMPLOYMENT.—*Question:* Can you inform me, through the columns of the JOURNAL, what employment would be most profitable, where Human Nature, Comparison, and Firmness are very large, and Eventuality and Acquisitiveness only full? H. C.

Answer: Your data are very scanty for the consideration of so important a matter as a vocation. We must know your temperament, bodily condition, extent of education, and the general organization as well, in order to form an opinion which will be at all trustworthy. In general terms, we could only venture to say that you are probably fitted for an active business, and not for a sedentary calling.

MAGNETISM IN DISEASE.—*Question:* What is your opinion of magnetism as a curative agent in the treatment of disease as practiced by many so-called magnetic doctors or healers by the laying on of hands or personal magnetism? W. B.

Answer: We regard magnetic treatment, when applied by an intelligent, instructed person, as of great efficacy in certain maladies, especially those which affect the nervous system. We know of cases in which the results following such treatment were marvelous. The newspapers frequently contain accounts of wonderful recoveries from maladies of long standing which had defied all the skill of eclectic, allopathic, and homoeopathic physicians, the final treatment being a little manipulation.

Several answers must be deferred to the next Number.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

IGNORANCE AND CARELESSNESS.—Not long since I heard a farmer say, "My boys know enough to work the farm, and that's enough." I felt like saying, "Sir, are you sure of that? Are they developing into thorough agriculturists? Do they know how to arrange their work systematically so that each day shall count? Do they understand their own physical needs, so that they can best husband and increase their health and strength? Do they even understand the nature and needs of the animal world with which they will be so intimately connected? If they do not, are you thoroughly prepared to carry on their home education? Can you give them suitable advice as they advance step by step? Can you help them to overcome the difficulties that environ the pathway of even a plain farmer? If you are not, then, sir, you are doing your boys an unpardonable injury, when you keep them from the influence and instruction of master minds who have made these subjects matters of close and careful investigation for years." A farmer who possesses even a common education is better fitted to till the soil than an illiterate one; how much more so, then, one who thoroughly understands the scientific management of a farm, the physical nature and demands of his family and stock? If he knows the necessity of pure air to health, he will naturally avoid the evils that arise from neglect of these. The thorough and proper ventilation of house and barn, and all other out-buildings, and the proper drainage of the same, is a subject not to be despised, for upon it depends in a great measure the longevity and well-being of man and beast. Some men view only the money side of questions. "What will it pay in cash?" is the first they ask, and we will admit that it is a very important one; and we would like to ask, Which costs the most (other things being equal), a cow or horse that consumes large quantities of feed, and yet does not contribute for the dairy, and in work, enough to pay for their keeping, or one that with less food will perform a greater amount of labor, and afford better milk and butter in quality and quantity? Of course you will readily answer, the latter; and we contend that a cow or horse that stands in a warm, yet carefully ventilated stable, will not only present a more pleasing appearance to the eye, but will be far more healthy and profitable in every other respect than one that is exposed to chilling blasts and storms, and, as a general rule, will not require half as much care and food, consequently

the cash gain is greater. The same may be said also of fowls and swine. Man and beast instinctively seek protection from our changeable and often severe climate, and man generally has the privilege of providing shelter for himself; but the poor beast that performs nearly all of his heavy work and provides for him the comforts as well as the necessaries of life, is entirely at his mercy. If man is humane and intelligent enough to will that good, comfortable shelter be provided, so it will be; but, if not, the neglect will surely be repaid upon his own head, for while the dumb beast suffers from the cold, the master must suffer loss in every pecuniary point. The animal will eat more feed, but have less flesh and supply less milk, butter, etc., and have less market value. In connection with comfortable shelter, we would also add that kind and gentle treatment of animals will insure a far greater amount of labor than rough and brutal usage. This we saw forcibly, yet laughably, illustrated a short time since. Before a fine young pair of oxen stood a great, burly fellow, vigorously plying the whip over head and shoulders, and loudly vociferating at the top of his voice, "Ho, gee, haw! Ho, gee, haw!" while the poor cattle stood trembling and dumfounded, not knowing which way to turn, or what was the will of the driver, who had become very angry and excited. Presently the farmer, who had been quietly looking on for a few moments, took the whip in his own hand, then, gently stroking the heads of his oxen for a moment, he gave a gentle though distinct command, and they started off briskly at his bidding.

Several cases of sickness and death have occurred under our own observation, which we regard as purely the result of ignorance or carelessness, two or three of which we will briefly narrate. At the time of the great freshet, a few years since, a portion of a beautiful village was inundated by the water, which, when it went down, left all sorts of rubbish upon the land. This was not removed, but was left to become a decayed mass of corruption, notwithstanding an academy, with its learned professors and teachers passing in and out daily, stood very near the debris, and among the citizens were many wise men, who could discuss very volubly the general questions of the day, but shook their heads in solemn wonder as to "where the malaria came from," as one after another of the teachers and pupils became victims to the fever and ague. Some years after this, in another town, there resided three large families, each of which were afflicted at different periods with fevers. Several members of the first family were taken very ill, one of whom died, after which the physicians made a thorough examination of the premises, and discovered in and around the well from which water had been obtained for family uses,

several snakes, some of which had died and were partially decomposed. They decided that the sickness and death resulted from the poisoned water, though the family were loth to admit it.

The second family was taken dangerously ill, and three members died within a short space of time; the father and son-in-law only recovered. Several physicians made careful examinations of the place, and, after much searching, discovered the drainage and aqueducts connected with the house in an imperfect condition, and clogged with refuse matter, which, when discovered, was of course instantly removed, and the sewers thoroughly cleansed; but too late came the careful insight and renovation. It did not bring back to that lonely husband and father their lost household treasures.

In the third family none died, though several were dangerously ill for some time, and there was finally found upon an adjoining field, where large numbers of swine were kept and fattened, a great deal of decaying matter, and a little further on was discovered an unburied horse and other carcasses. This field was more elevated than the place where the illness broke out, and it seemed a reasonable supposition that impurities were carried down in the water that caused the sickness.

In most cases the course of disease might be stayed, if not altogether prevented, by a thorough understanding and a close observance of the laws of absolute purity and cleanliness, of proper and thorough ventilation, and an abundance of good water. Certainly, when (as at the present time) knowledge of this character is so easily obtained, it seems almost a sin to remain in ignorance, and we fully agree with the homely old adage that "an ounce of prevention is better than a pound of cure."

MRS. ETTIE H. DAVIS.

MUTUAL IMPROVEMENT IN PRACTICE.

—*Answer to F. O. F.*: It happened that five young ladies met at the home of two girls. After a very pleasant chat together, the question was asked, "Why can we not meet every two weeks and enjoy ourselves as we have to-night?" Then we, in answer, made the arrangement to meet and invite all that we desired to attend every fortnight, just for social and pleasant intercourse. Several came at the appointed hour, and the time was spent in conversation, gossip being voted out, and in doing just what fancy-work we had on hand. But this proved not sufficient, so we took up a course of study, that of Latin, and two of us, who knew something about it, made excellent teachers. We devoted every other fortnight to the Latin, while the other was given to readings, etc. We eventually gave two literary entertainments, and delighted the neighborhood, as well as ourselves, with our success. Twice a year we invite the young men, and give

a supper. They enjoy it exceedingly, to all appearances. We also have accomplished some missionary work in connection with our meetings, having sent clothes and bedding to the Michigan sufferers, and contributed to other worthy objects. We find a great amount of interest taken in us, and if the company of ladies under the charge of F. O. F. form a similar society, we should be delighted to communicate with them.

C. A. F.

A NEEDED ASYLUM.—A lady asks: "Why is it that worn-out and sick men of the medical profession have no resource in an emergency? Among all the benevolent institutions there is not one for poor, worthy physicians; neither is there a relief fund for a physician's widow or family when left destitute to draw from. Surely a doctor of medicine is just as worthy of assistance in adversity as a doctor of divinity! I know two or three cases in which physicians have sacrificed themselves in a noble devotion to help others; and, while they have enjoyed the esteem and confidence of the community, they did not salt down dollars enough to make their declining years comfortable, and so have really suffered for the common comforts of life."

A PHYSICIAN'S WIFE.

FROM A MEDICAL STUDENT.—I'm not willing to ever be without the best of all journals—the PHRENOLOGICAL. I have taken and read it with renewed interest for a number of years, and you may count me a life-long subscriber, or as long as you make it as good as it is now. I'm a medical student, and every step I take only verifies to me more and more the great truths of Phrenology; and it seems the greatest wonder why the majority of medical men refuse to investigate the great science of Phrenology. I believe that Phrenology will aid the physician in the diagnosis and treatment of many diseases. Tons of medicine are given by physicians who are ignorant of the mental constitution of their patients, and injury rather than benefit is the result.

W. E. H.

AN "OLD RELIABLE" SPEAKS.—FOWLER & WELLS—*Gentlemen*: You can guess whether I appreciate the good old JOURNAL or not. I would not be without it for twice its price; have been reading it for twenty-five years, and the more I read it the better I like it. This time I send you five subscribers, and would ask your other patrons to do likewise, as the more they work for it the more it will do for them.

W. H. PHILLIPS.

THE MAGAZINE (PHRENOLOGICAL JOURNAL) is conducted with spirit, and filled with good and wholesome articles of life, manners, religion, health, and economy in all departments of life.—*Episcopal Recorder*.

PERSONAL.

JERSEY CITY, that metropolis of railroads and factories, of rings and mixed politics, has one official, at least, who is not blind to one of the chief causes of crime and misery, and he is no less than the Chief of Police. In his late annual report to the Common Council, he says: "I would call the attention of your honorable body to the alarming increase of drunkenness among the boys of this city. The difficulty has its origin in the too free license of irresponsible parties who are allowed to keep saloons where the game of 'pool for drinks' is permitted. The State has no law governing this game of sufficient force to hold the parties accused, and I recommend that some action be taken to provide a law. It is an every-day occurrence to see boys going through the public streets intoxicated from these saloons. A knowledge of the surety of punishment on conviction is the best preventive against the commission of a crime, and some adequate law is needed to put a check on this startling and alarming vice."

BENJAMIN HARRIS BREWSTER, the new Attorney-General, is badly scarred in the face, having been terribly burned when a child. He is, however, a large, portly man of striking appearance. In dress he is peculiar. "His coats," says the *Philadelphia Times*, "are almost invariably light-colored; his vests are of velvet, and, being cut low, expose a shirt front of the finest cambric ruffles. His pantaloons, be they neutral-tinted checks or somber blacks, are models of the tailor's art, and his gaiter-tops are invariably the whitest of white. He wears standing collars, a black stock, ruffled cuffs, and an old-fashioned fob chain with a heavy gold seal. So much for person and wardrobe—what he is mentally time will tell."

LEWIS H. MORGAN, the anthropologist, died at his home in Rochester, New York, December 17th, of a complication of disorders, from which he had suffered for several months. He was sixty-three.

ALEXANDER H. STEVENS, the much-killed man, journalistically, said, in reply to an inquiry about his health: "Oh, I am not dead yet, and my general health is pretty good, may be a little better than it has been for the last three years. I have read my obituary three times, but I now weigh ninety-four pounds. I have been down to seventy-three. I am up and down by turns, but on the whole have no ground for complaint."

MR. TENNYSON, who is now seventy-three, grows more indifferent to all sorts of society as time goes on. Occasionally he goes over to Oxford and stays a few days with Mr. Jowett, and sometimes visits Mr. Gladstone. Last year he was awhile in London, and gave a few dinner

parties at his town house. His principal companion, however, is his pipe, and as to what goes on in "society" he is utterly indifferent, and, may it not be said, with reason?

WM. E. DODGE, who represents a New York business firm employing two thousand persons, distributed in seven manufacturing villages, told the Congressional Labor Committee that it was a rule to employ none who would not agree to abstain from intoxicants. The business has prospered in spite of the depression, and there has been a remarkable absence of crime and disorder among its employées.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

VIRTUS has many preachers, but few martyrs.
—HELVETIUS.

SELF-RESPECT is the early form in which greatness appears.—EMERSON.

EVERY body drags its shadow and every mind its doubt.—VICTOR HUGO.

NOR the enjoyment of happiness, but the fulfillment of duty, is the object of our existence on earth.

YOU can not cultivate a man's acquaintance by continually harrowing his feelings.

THE phrenologist is a man who can not do his work well unless he feels right.

WHAT men want is not talent, it is purpose; not the power to achieve, but the will to labor.
—BULWER LYTTON.

FEW men, I believe, are much worth loving, in whom there is not something well worth laughing at.—JULIUS HARE.

THE talent of success is doing nothing more than what you can do well without a thought of fame.—LONGFELLOW.

THE good things which belong to prosperity are to be wished, but the good things which belong to adversity are to be admired.—BACON.

DIOSGENES, on one occasion entering Plato's house while he was entertaining some friends, said: "Thus I trample on Plato's pride." To which Plato replied: "With no less pride."

Is thou art worn and hard-beset
With sorrows, that thou wouldst forget,
If thou wouldst read a lesson, that will keep
Thy heart from fainting and thy soul from sleep,
Go to the woods and hills! No tears
Dim t' a sweet look that Nature wears.

—LONGFELLOW.

THE smallest man may be complete if he confine his activity within the natural range of his capabilities and dexterities; but even superior

talents will be obscured, defeated, and destroyed if this indispensable instinct of self-limitation be wanting. Mistakes arising from this defect will come more and more to the front in modern times; for who shall be able to satisfy the demands, of an old age, living under the stimulus of a constant high pressure and the excitement of a hot-spurred progression?—GOETHE.

MIRTH.

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

A TIE vote is generally the result of a knotty question.

"ARE you feeling very ill?" asked the physician; "let me see your tongue, please." "It's no use, doctor," replied the patient; "no tongue can tell how bad I feel."

"WHAT colored dishes will you have, ma'am?" said the polite clerk to the boarding-house keeper. "Oh, most any color that won't show dirt," was the reply.

A MINISTER once asked a condemned criminal in a Paris jail, "What kind of a conscience have you?" "It's as good as new," replied the prisoner, "for I have never used it."

A KROOK man says he takes his boot off to hear his cornstalk. This is because his cornfield's bad. But that is too much trouble; plant your corn in the ear.

SOMEWHAT MIXED.—Two little girls, aged four and six years, had just had new dresses, and were on their way to Sunday-school. Said Etta, the elder, "Oh, I have forgotten my verse!" "I haven't forgotten mine," replied the other; "it is, 'Blessed are the dressmakers.'"—*Boston Transcript*.

As a lazy tramp came down the street
With free and easy gait,
This welcome sign his eyes did greet:
"Free chop to those who wait."
"Now here," he said, "I'll get some food,
Without the slightest tax;"
But they led him to a pile of wood,
And handed him an axe.

"Now, little Marie," said a French godmother as they passed a confectioner's shop in which a wealth of sweetmeats was displayed, "shall I give you Faith, Hope, and Charity in chocolate?" Marie reflected for a moment, and then rose to the occasion: "*Merçi, chère marraine*, but I should like the Twelve Apostles, because they will be more to eat!"

A GALVESTON negro, on returning disgusted from an incursion into the interior of Texas, was asked: "Didn't you receive any offers to pick cotton?" to which he replied, "Yes, sich as dey was. A man offered me one-third ob de amount I picked, an' when I looked at de field I seed plain for myself dat when it was all picked it wouldn't amount to a third, and so I jus' lef' for home."



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 and physiological science. We can usually supply any of those noticed.

ANTHROPOLOGY: An Introduction to the Study of Man and Civilization. By Edward B. Tylor, D.C.L., F.R.S. With Illustrations. pp. 448. New York: D. Appleton & Co.

The study of man and his relations is the broadest of the studies which engage the attention of the scholar and observer. When Pope wrote, "The proper study of mankind is man," he doubtless little thought of the far-reaching expanses which that study opens to the earnest inquirer. He probably had in mind its metaphysical or psychological relations, and dreamed not of the wonderful extent of physical exploration which a few years later would be opened up. It is quite probable that Pope and his contemporaries had not heard of the term Anthropology, but relegated the natural history of man to a few topics of minor importance. To-day there are so many divisions belonging to human science, and so many observers and thinkers in each of them, that it is an exceptionally difficult task for a writer to present in a single volume of less than five hundred pages the results and bearings of their study. A perusal of Dr. Tylor's work has convinced us that he has successfully done this in by far the greater part; that he has made a succinct *résumé* of the facts of human history on the physical side; and, furthermore, that he has done this in such a manner as to render a study which, to the average reader, appears dry and encumbered with heavy detail, full of the most lively interest. The youth whose mind is not bent upon giddy pleasure can scarcely read half a dozen pages of this volume without being impressed that it will be a pleasure to read on. Yet Dr. Tylor is no Jules Verne; he does not romance, but in a very pleasing style, and in an always simple manner, spreads his en-

tertainment of substantial facts before his reader's eye. We can scarcely conceive of any work of fiction being more attractive to a healthy intellect than the chapters on Language, while those on the Arts of Life are scarcely less fascinating. To all who are disposed to the study of human nature, and especially to those who devote much time to it, the book is commended. To the professional phrenologist it will serve an excellent purpose, furnishing him with appropriate illustrations for every-day use, and suggesting lines of observation which will enrich his mind with practical data. We would add that, unless the publishers object, we shall probably draw on the book ere long for topics and material to illustrate our magazine's pages.

THE CYCLOPEDIA OF PRACTICAL QUOTATIONS, English and Latin, with an Appendix containing Proverbs from the Latin and Modern Foreign Languages, Law and Ecclesiastical Terms and Significations, Names, Dates, and Nationalities of quoted Authors, etc., with Copious Indexes. 8vo, pp. 890. Price in cloth \$5. J. K. Hoyt and Anna L. Ward. New York: I. K. Funk & Co., Publishers.

A work of reference which covers a field of science or literature must be faithfully prepared to be trustworthy, and its faithful preparation involves a careful, laborious, and often vexatious examination of every author whose relation to that field is a degree above the commonplace. To compile such a work as the one under notice, then, is no chance undertaking, especially in this day of voluminous indexes and concordances. It must be patiently, honestly, thoroughly done, or the arrows of criticism will lay bare the errors and negligence of the volume and the unfitness of the compiler. We note an element of daring in the title of the book; the term "practical" carries with it the significance of honest editorship and a challenge to the public on that score. Such examination as we are able to give it impresses us that the editors may be proud of their work; that they have not given years of patient research to its compilation in vain, but have added to our stock of convenient library aids one that possesses an enduring value—indeed, a value which, in not a few important respects, outranks any similar work in print. There is a completeness in the arrangement which impresses us that an experienced hand has had much to do with that, and in Mr. Hoyt we note that hand, while in the fidelity of the quotations we note a worker whose culture, taste, and love of literary studies enabled her to compass the drudgery which exactness demanded, to say nothing of the nice discrimination which has been shown in culling the gems of poetry and prose which may have a practical application in the thought and work of the writer and speaker. The publishers have done

their work very creditably. In paper, printing, and binding, it is all that could be desired. It is bound in various styles to suit purchasers.

ESAU HARDERY: A novel of American Life. By William Osborn Stoddard, author of "The Heart of It," etc. 12mo, pp. 406. Price \$1.50. New York: White & Stokes.

A very tastefully bound book, this. Its side stamp of ferns and grasses, with the title in a gilt scroll, is as "aesthetic" as one could wish—and not only "aesthetic," but really elegant in design and finish. The story concerns a doctor by the name of Edgerton, who is settled in a town designated as Pekin Four Corners; but more particularly his daughter, who is beautiful, accomplished, etc., with the poetical name, Veronica. It also concerns, according to the same chapter, a Mrs. Camilla Ramier and her husband, John Ramier, who has just been revealed as a bank defaulter, and has run away to parts unknown. This Mrs. Camilla, like the famous lady of the French drama, has a terrible secret, which drives her to passionate frenzy at times, in private. Of this secret the departed husband is in possession. The person who gives the title to the book is a kind of nondescript, vagabondish, yet hard-working fellow, who comes into the story as a buyer of a bit of waste land, and settles down upon it to the astonishment of the community. He is finally revealed as the lost John Ramier of splendid presence, character, and so on, and in the finale marries the peerless Veronica. The book covers a diversity of character, generally well depicted, but almost too wide in diversity to be kept well in hand.

A READING DIARY OF MODERN FICTION, Containing a Representative List of the Novels of the Nineteenth Century. Price, paper 25c.; cloth, 50c.—**THE BOOKS OF ALL TIME: A Guide for the Purchase of Books.** Compiled by F. Leyoldt and Lynds E. Jones.

These two convenient little books will serve a good purpose to the book-dealer and the general reader. They are the gleanings of a vast catalogue of publications, and on that account must prove valuable to the seller and user of books. As the title of the first indicates, it is intended to include all novels and tales that are considered worth reading, and the publisher has inserted blank pages for notes and comments, and also given practical suggestions with reference to the selection of novels.

The second little brochure is a short but well-digested catalogue of standard authors. We might except to a few of the titles, and suggest the addition of some which we deem worthy a thoughtful reader's attention; but we would not be regarded as captious. Opinions will differ. The editors have produced a really valuable list, and it can be warmly commended. F. Leyoldt, New York, Publisher.

PUBLICATIONS RECEIVED.

"VOCOPHY," THE NEW PROFESSION. A system enabling the person to name the calling or vocation one is best suited to follow. By Lysander Salmon Richards. This seems to be an attempt to introduce in an intelligent fashion some ideas which the author entertains with respect to the examination of character and temperament. He claims that his views are more practical than the system of phrenology, and lays down a series of rules or propositions embracing physical conditions, mainly, we infer, for the purpose of making a diagnosis not altogether unlike that of the medicist, and upon it basing an opinion with reference to the pursuit. Can the author be ignorant of the fact that the skilled phrenologist is also a physician, and that he studies the physical conditions of his subject often more carefully than mere cranial and cerebral organism? Mr. Richards gives some good suggestions semi-casually, but we are far from thinking that his work is comparable with the treatises of experienced phrenologists.

MUSIC. *Idalia, Mazourka Caprice.* By Wm. Adrian Smith. Price, 50 cents. *Repentance—Prayer.* Words by George F. Rogers; music by Wm. A. Smith. Price, 30 cents. *Bonnie Brown Hand.* By Wm. A. Smith. Price, 30 cents. Published by Wm. A. Smith, New York.

THE SPECTATOR is the title of a new weekly paper published in Washington, D. C., by T. A. Bland, M.D. It is an independent publication, mainly purposed to discuss questions of public policy, especially socialism and finance. The editor may be deemed an ultra radical, who is keen in criticism, well informed, and uses language in a way that the reader is never at a loss to understand his meaning.

THE NEW NORTHWEST, of Portland, Oregon, of which the chief editor is Mrs. A. S. Duniway, has lately been enlarged and generally improved in arrangement. We are pleased to note this evidence of progress in that far-off northwest region.

THE LADY OF HAZEL PLACE. By George Man-vill Fenn. Price, 10 cents. *His Phantom Bride.* By the author of "The Ice Carnival." Price, 10 cents. *Mr. Shum's Property.* By George Man-vill Fenn. A Desperate Lover. By E. Saunders. *The Fair Recluse.* By E. Kirk. Price for the three, 10 cents. *Misjudged; or, the Troubles of a City Man.* By the author of "His only Enemy." Price, 10 cents. J. S. Ogilvie & Co., Publishers, New York.

THE ATLANTIC MONTHLY for February, while sustaining the high literary character which it has so long exhibited, has two or three articles of interest extending beyond the limits of the

literary circle which is supposed to read it. For instance: A very practical plea in behalf of the national bank system; a well-digested sketch of Daniel Webster, and a candid pen portraiture of Bismarck, by Mr. Whipple. Mr. Whittier contributes a sweetly pathetic poem, entitled "The Bay of Seven Islands."

ARCHITECTURAL DESIGNS and general description of the Memorial Hall and Sunday-school rooms, Archdeacon Lane, Leicester, England. (Printed for private circulation).

This handsome pamphlet describes a noble work of charity and education, set on foot by Mr. Thomas Cook as a memorial of his beloved and accomplished daughter, Annie E. Cook, whose sudden death was mentioned in our columns not long ago. We hope that our dear friend will succeed in his purpose to establish so grand and worthy a work in behalf of morality and truth.

In the February Number of *The North American Review*, three or four names well known to the American reading public figure. As the gentlemen who own the names discuss topics in which they are generally supposed to be personally interested, their articles are worth the time necessary for careful reading. For instance: Mr. Andrew White treats on the old political shibboleth, "To the Victor Belong the Spoils." Mr. Henry Bergh looks into "The Lancet and the Law." Senator J. W. Johnston has some thoughts on "Repudiation in Virginia." Prof. Fisher's article on "The Christian Religion" is of exceptional ability. It is whispered that the editor of *The North American* is a favorite of fortune, being legatee to a very handsome sum. Doubtless he will be more independent now than ever of publishers for the marketing of his review.

THE JOURNAL OF COMPARATIVE MEDICINE AND SURGERY for January is a voluminous issue of a well-edited quarterly. Its original communications, editorials, and briefs supply a variety of information to the veterinary surgeon.

RESCUE THE DRUNKARD, by Rev. J. A. Davis, contains seven new temperance dialogues adapted to all sorts of occasions. Price, 15 cents. J. N. Stearns, Publishing Agent, 58 Reade Street, New York.

THE SUNDAY-SCHOOL CONCERT. A collection of twenty-six exercises and dialogues for the use of Sunday-schools, Bands of Hope, and other juvenile and temperance organizations. 16mo, pp. 224. Price, paper, 25 cents; cloth, 50 cents. This is one of the best collections of this kind which we have seen. Published by the National Temperance Society, J. N. Stearns, Agent, N. Y.

WINE. A temperance concert exercise for Sunday-schools, Reform Clubs, etc. In four

parts. By Hope Hazel. A Bible temperance exercise for the use of Sunday-schools, Reform Clubs, etc. By Rev. Benjamin A. Dean. Published by the National Temperance Society, N. Y.

THE GENERAL LAW OF PARTNERSHIP, AS APPLIED TO COMMERCIAL AND BUSINESS LIABILITIES, compiled from the common law and workings of many legal assets, by Charles P. Button, is a convenient digest of the law of partnership for the use of the man of business. It contains, in seventeen pages, the essentials of its subject. Price, 20 cents. Published by the author, New York.

THE MEDICAL TRIBUNE makes its regular visits to our table, and continues bravely on its course of liberal thought and critical review. We wish for it a wide circulation on account of its unsparing treatment of many fallacies which only exist by reason of the fossil conservatism in medical practice.

THE QUESTION OF THE HOUR. What is money? Answered from opposing stand-points by representative men of the two great parties—Republican and Democratic: Robert G. Ingersoll and Thomas A. Bland. Originally published in the *National Review and Republican*, T. A. Bland, Publisher, Washington, D. C.

ANNUAL REPORT OF THE MISSION under the management of the Missionary, Mrs. M. Laidlaw, and the supervision of Rev. J. B. Wetherly.

AN ILLINOIS CORRESPONDENT says in a letter recently received: "I have been a careful reader of your valuable JOURNAL for over seven years, and feel that I can not do without it. I would not take a fortune and do without the information I have gained through its noble pages."

"M. W."

A NEW PROPHECY.

WHEN lawyers fail to take a fee,
And juries never disagree;
When politicians are content,
And landlords don't collect their rent;
When parties smash all the machines,
And Boston folks give up their beans;
When naughty children all die young,
And girls are born without a tongue;
When ladies don't take time to hop,
And office-holders never flop;
When preachers cut their sermons short,
And all folks to the church resort;
When back subscribers all have paid,
And editors have fortunes made;
Such happiness will sure portend
This world must soon come to an end.

—N. Y. Express.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 74. 1882

NUMBER 4]

April, 1882.

[WHOLE No. 521.



WENDELL PHILLIPS,

THE ORATOR, AGITATOR, REFORMER.

WENDELL PHILLIPS is now, in this blessed year 1882, and he has been more than forty years, one of the most polished, graceful, and eloquent orators in the United States. Doctor Lord, the historical lecturer, said that Cicero, the famous Roman, was (in his judgment) personally, and in his intellect-

ual make-up, somewhat like Wendell Phillips. He has been compared with Gladstone, the leader of advanced statesmanship in England. They were both "well-born" (all who are born well are well-born); both well trained in the best universities; both have had the best opportunities for reading, study, culture, and the practice of public speaking; both are men of fine physical development and of handsome presence; they are both brave enough to announce their sentiments in the teeth and eyes of an adverse public opinion. What they say is considered of sufficient importance to command the attention of two continents, and to be carried on the electric wires under the sea, across the continent, and around the civilized world.

To multitudes this gifted and famous man is known only as an anti-slavery agitator, a labor reformer, and a radical on all questions touching human rights. They never hear or see him with æsthetic eyes. Without attempting to defend his views and "notions," some of which are indefensible, I shall refer "to the brightness of the sun of his fame, and not attempt to analyze its spots." Men are educated and influenced in part by their surroundings and associations; I may add, they are inspired by the atmosphere and scenery that surrounds them, and their souls, so to speak, are sculptured into shape by the institutions which environ them. England made Cromwell, and he made his motto: "Put your trust in God, and keep your powder dry." He was the son of a brewer, but he was not indebted to any movement or fermentation in the vats for his rise in the world. Recent events show that the passage from the mash-tub to the House of Peers is a short one. Cromwell strided from the common people to the court and to the throne, and stood in proud defiance among the crowned heads—a democratic ruler, with John Milton, the poet, for his private secretary. Bacon, the philosopher, Shakespeare, the dramatist, Bunyan, the dreamer, Newton, the astronomer, were the products of dear old England, the "mother of

mighty men." Von Humboldt was born in Germany, and he seems to have been imbued with the spirit of his native land. O'Connell was alive with Irish fire; John Knox was hard and rough as the hills of Scotland. Phillips represents New England, the Scotia of this continent. "Blood will tell," not blue blood alone, for that may be poisoned with the "king's evil." When you find an orator, a poet, an artist, an inventor, a mountainous man, in the church, in college, or in Congress or elsewhere, you will be sure to find that his environments, his associations, his surroundings have aided vastly in his development. Some men are so large that the whole country is needed for the scaffolding on which events are the artists that sculpture them into useful form and attractive symmetry. As a rule, behind such men—it may be, many generations back of them—you will see the dim shadow of a father or mother pointing toward them. Theodore Parker said: "The spirit that sent the ancestors of Phillips in the *Mayflower* to Plymouth, flames out in his electric speeches. A pilgrim in England points to him as the impulsive son of a stubborn sire."

The Puritan pluck is manifested in his maiden speech in Faneuil Hall, November 7th, 1837. The Rev. E. P. Lovejoy had been murdered by a mob at Alton, Illinois, when he was defending his printing press—a machine dreaded and hated by selfish, corrupt, and villainous men. Dr. Channing called an indignation meeting in the "old cradle of liberty." James T. Austin, the Attorney-General of the State of Massachusetts, apologized for the bloody deed of the mob, and said that Lovejoy was presumptuous and imprudent, and that "he died as the fool dieth." Wendell Phillips, then a young man fresh from college, replied to the vindicator of mob violence. I can only give sparkles from his speech. "Fellow citizens," said he, "is this Faneuil Hall doctrine? The mob at Alton were met to wrest from a citizen his just rights—met to resist the laws. We have been told that our fathers did the same, and

the glorious mantle of revolutionary precedent has been thrown over the mobs of our day! Sir, when I heard the gentleman lay down principles which place the murderers of Alton side by side with Otis and Hancock, with Quincy and Adams, I thought those pictured lips (pointing to the portraits in the hall) would have broken into voice to rebuke the recreant American, the slanderer of the dead. (Great sensation and applause). The gentleman said that he should sink into insignificance if he dared to gainsay the principles of these resolutions. Sir, for the sentiments he has uttered on soil consecrated by the prayers of Puritans and the blood of patriots, the earth should have yawned and swallowed him. James Otis thundered in this hall, when the king did but touch his pocket. Imagine, if you can, his indignant eloquence had England offered to put a gag upon his lips." The writer was living in the city of Boston, at the time of the surrender of the fugitive slave Sims to his Southern master. He saw the chain around the court-house, and the judge who stooped and crept under it to order the execution of the infamous deed of sending the unfortunate negro from freedom back to bondage. He saw Theodore Parker and Wendell Phillips, arm-in-arm, at the door of the court of justice, importuning for the rights of man, and protesting against the insult to liberty. Speaking of Justice Shaw, some time after the cruel event of returning the fugitive to his master, our orator said: "Did he not know that he was making history that hour, when the Chief Justice of the Commonwealth entered his own court bowing down like a criminal, beneath a chain four feet from the soil?" In the same speech, he said of Robert Rantoul: "I know not how erect he may stand hereafter, but I am willing to give him good credit in the future, so well paid has been this, his first bill of exchange. He has done at least his duty to the constituency he represented. He looked North for his instructions. The time has been when no Massachusetts representative looked North;

we only saw their backs. They have always looked to the Southern Cross; they never turned their eyes to the North Star."

This prince of orators has just passed his seventieth year, but he retains the fire of his meridian splendor, and holds the throne that lifts him above every political speaker in this country. In a recent speech delivered before the *elite* and *literati* of Cambridge and Boston, in Harvard University, he made those classic halls ring with golden speech. His unpopular pets were arrayed in all the splendid diction at his command. He was listened to with mingled feelings of delight, astonishment, surprise, and anger, while he forged his thunderbolts and hurled them at the opponents of woman's rights, of an inflated currency, of labor reform, and of Irish agitations, etc., etc. He pours new wine into old bottles on purpose to bring about an explosion, and patches worn-out garments with new cloth of many colors, to make them ridiculous when worn by the sages of conservatism. This sort of work could not be continued with success by an ill-looking, ignorant, and coarse man.

Mr. Phillips is a scholar and a man of great talent—shall I say genius? He has a pleasant voice, which rings out like a trumpet when played upon by his varied thought and feeling. He has also a fine face, a good figure, and he is master of the most graceful elocution. Even when we do not like the tune we are charmed by the beauty and sound of the instrument. I should add here that he has a brave and fiery spirit—that he is the Hotspur of rebellion against many of the old customs enthroned in society. He is an iconoclast who spares no image that hinders him in his progressive march. He seems to have a "cranky" wish to be prominent on the losing side of a cause or a controversy. His sympathies are not only with the "under dog in the fight," but he would shelter the dog that is mad. He loves "a shining mark," and, being a good shot, he is pretty sure to hit the "bull's-eye." His target may be

the administration, or a political organization, or the church, or some moral reform. When he goes a-hunting for human game he attempts to bring down some of the tallest men, and would not be satisfied if he did not bag a president, a major-general, or a cabinet minister. He makes war with the judiciary, the police, the army, the navy, the city corporation, the legislature, the club—and any head lifted above the crowd stands the risk of getting a black eye or a mashed nose.

Mr. Phillips is a native of Boston, the "American Athens." Some one said that a man born in Boston need not be born again, and it has been hinted that a graduate of Harvard needs no additional intelligence, but the silver-tongued hero of this brief and imperfect sketch has the gift which universities can not bestow, the current coin of true eloquence, that no one can counterfeit and pass off as genuine in the presence of a discriminating public. "He does not go to the lamp of the old schools to light his torch, but dips it into the sun," which shines for all and fills the common atmosphere with light and heat. He is tall and symmetrical. His face shows earnestness, refinement, and culture; head large, with a fine front; eyes of a bluish-gray color; hair, once auburn, now white. He has the air, look, and carriage of a gentleman. Before an audience he has the self-poise and steadiness of nerve which arise not from self-esteem, but from calm courage and long experience as a public speaker, and, perhaps I should add, from a thorough knowledge of his side of the question, for he prepares his speeches carefully, although when he airs them they have not the "smell of the lamp, nor the haziness of its smoke."

James Russell Lowell, who is about ten years the junior of Wendell Phillips, pays him this lasting compliment:

"He stood upon the world's broad threshold; wide
The din of battle and of slaughter rose;
He saw God stand upon the weaker side,
That sank in seeming loss before its foes.
Many there were who made great haste and sold
Unto the cunning enemy their swords.

He scorned their gifts of fame, and power, and gold,
And underneath their soft and flowery words
Heard the cold serpent hiss; therefore he went
And humbly joined him to the weaker part,
Fanatic name and fool, yet well content
So he could be the nearer to God's heart,
And feel its solemn pulses sending blood
Through all the wide-spread veins of endless good."

An heir of wealth, he has, nevertheless, for forty years been most of the time on the unpopular side of the great questions of the day. He has been hooted at in the street and at conventions as a fanatic. Mobs, whose arguments are usually unmerchanted eggs and paving-stones, have shown their hatred of him by their hisses and sulphury speech. The press, while acknowledging his power as a speaker, and his skill in the use of logic and eloquence, has, with rare exceptions, denounced him as a chronic fault-finder and scold. A few years ago the writer met him at a convention in the city of Albany, and urged him not to go to a "certain" city to keep an appointment—a woman's rights meeting. I think it was—because a mob had been organized to give him a hostile reception; "O, I shall go," said he; "such a greeting as you refer to would be refreshing; it is a long time since I have enjoyed the honor of being entertained by a mob."

It seems to me that Mr. Phillips' obstinate opposition to the best efforts of some of our best men in the church and out of it has hindered his usefulness. Without sacrificing his principles, or even modifying his hatred of oppression, he might have used the expediency of Luther and made himself the master and leader of a great political or social party.

A few words in closing with reference to his birth and accomplishments. He was born in Boston, November 29th, 1811, and graduated at Harvard University in 1831, at the law school in 1833, and was admitted to the bar the following year. In 1836 he united with the abolitionists, and from the first was its most eloquent exponent. From a disinclination to observe the oath of fealty to the federal Constitution, he relinquished

the practice of law in 1839. Until 1861, he advocated disunion as the most effective plan to secure the freedom of the slaves of the Southern States. At the breaking out of the rebellion he sustained the Government with the same object in view. In 1863-4 he advocated, with great force, the arming, educating, and enfranchising the freedmen, and, for the two last-named purposes, he continued the organization of the Anti-Slavery Society till after the adoption of the fifteenth amendment in 1869. In 1870 he was the temperance and labor reform candidate for governor of Massachusetts, receiving about 20,000 votes. In 1875 he made old Faneuil Hall ring with a speech in defense of the Louisiana policy of Gen. Grant.

He is very much opposed to capital punishment, and considers that the hang-

ing of the assassin Guiteau would be a crime.

I have lately seen a portrait of Mr. Phillips, as he appeared in his prime. One looking at his amiable face, lit as it is with smiling eyes, would not dream that he could say bitter words that could bite and sting long after they had been uttered. The face is handsome, but it covers a volcanic nature, and the pleasant lips easily break into invectives of wrath against vice and oppression. His countenance shows culture and refinement. His Firmness looms up into stubbornness, and he has Ideality enough to stock half a dozen minor poets with imagery and illustration. He will be remembered as the champion of human liberty and the right to call oppressors to an account at the bar of public opinion.

CAUSES AND CURE OF INSANITY.

In other days, in many lands and among many people, Insanity was considered a mysterious manifestation of fiendish power, or a visitation of Divine wrath. Very slowly some truth has become known in regard to the cause of mental alienation. The state of most insane persons when taken care of by friends, or when made a public charge, was formerly one of terror and horror to those about them, and consequently they were neglected or ill-treated. They were commonly subject to solitary confinement in some dark and fetid corner. Christian philanthropy has fortunately changed the condition of the prisoner and the madman.

All intelligent people now understand that mental disturbance is the result of physical ill, or disease affecting the brain and nervous system. And it is more strange that there are so few insane than surprising that there are so many. Dr. Macdonald, of Ward's Island Hospital, gives the proportion of insane to sane, throughout the United States, as one to every thousand. In New York State, one to 800; in New York city, one to 500; in England, one to 500. The strife, strug-

gle, turmoil, anxiety, competition, and worry of modern life have so vastly increased that the wonder is that all brains are not unbalanced to some degree.

From the first month of babyhood, the child which should be kept quiet, calm, and tranquil in every way, is whirled hither and thither in baby-wagon, carriage, or steam-car, with little more regard to its real comfort and well-being than if it were a kitten. Its delicate, untrained nerves are subjected to all the noise that renders hideous modern life.

Few buildings are so constructed that outside noises are excluded, and almost every sound may be heard from room to room throughout a house. How much this constant noise wears old and young we can only partially conjecture; it is a constant source of detriment to the nervous system. Scarcely any provision has been made, for deadening or preventing the clatter, rush and roar with which modern ingenuity tortures the ear of humanity. When will some genius more mighty than Edison arise, who shall oil the wheels of this mighty tumult. and let life flow again with only

the soft hum of the ancient spindle, or the dull thud of the pounded flax and threshing-floor?

Before the child has comprehended anything beyond the simplest wishes for food and toys, it is taught to babble rhymes, Bible verses, mottoes, etc., straining its memory and powers of attention to grasp and retain a certain arrangement of sounds, for the little creature perceives nothing else in its task.

Then comes school, where a young person, without a shadow of experience or knowledge of the true nature of mind and its proper development, has full liberty to force into the young brain a medley of knowledge without any regard to its being received pleurably, and made a living force within the mind. Day after day, month following month, year in and out, the youthful martyr is crammed with ill-comprehended words, phrases, rules, exceptions, recitations, formulas—everything and nothing. It would be ludicrous, were it not so pitiable, so grievously pitiable, this conning of programmes, which men call education.

Then this youth, so mentally distorted by his training, begins to smoke, begins to understand slang, begins to drink liquor, begins to learn and practice nameless vices. He reads libraries of wild stories of passion, suicide, murder, and the nameless horrors that the newspapers retail. He lives perchance in a city where he is constantly excited by the roar and rush of city streets. He is employed in some business that keeps him without open-air exercise through the day; at night he dissipates in gaslit, heated theatres, where passions are inflamed to madness; or he drinks hell among gamblers and their boon companions.

On the other hand, if the man remain staid and temperate, he is devoured by ambition to be something great in his profession. He burrows all day in libraries over abstruse treatises and writes late of nights. He longs to be the greatest politician or professor, lawyer or physician,

editor or orator, novelist or artist, or poet that the world has ever known. He wants rank, fame, wealth, and only by brain-toil can he win them. So year after year, utterly regardless of health, he draws, reads, studies, writes, preaches, till, some day, he staggers at his work, reels, falls dead, or paralyzed, or goes mad.

This has been the history of thousands, and will be the history of yet untold thousands more, unless some radical change is made in our modes of life. Men must set their minds to solve the problem of running carriages and machinery with less noise; quiet days must return to mankind. The secluded, hamlet life must have more social activity and sweetness; there must be less drudgery. Tales of crime must not be so related as to whet other appetites for other criminal deeds. Passion-rousing stories and novels must be suppressed. The greed of wealth and office must be felt as ignoble and fall into contempt. Hand-work must be known as only another form of brain-work, and made less exhaustive and more honorable. Fashionable social life must be simplified, and its hours reconciled with those of nature. There must be for all more home and heart festivals. Food must be pure, more exactly fitted to the separate natures, more exactly prepared, and taken more correctly as to time, physical condition, and quantity.

Childhood must be quiet and unexciting, and mental efforts made natural, pleasant, and only mildly stimulating. There should be a less number of studies, and less hours of mental application. Grown men and women could with difficulty bear the mental effort their young children, with their immature strength, make. As society is now organized, nearly half the world are struggling for the necessities of life; nearly all the other half are toiling to take care of their possessions; while the stragglers from each party are plotting to make, by their cunning, a livelihood from others, and a large number are a dead burden upon society because of illness, imbecility, or madness.

It behooves those who are toilers to take care in forming the laws that they shield not, and help not, those who are the locusts and army-worms of society, foraging upon the labor of the upright and industrious. Our law-makers ought to put away that one great cause of crime and insanity—constant temptation to liquor-drinking, which makes, either directly or indirectly, one-half the insane. The brain of mankind could bear, almost with impunity, the strife of life were it not constantly weakened, either through heredity or through the direct use of intoxicants. There is more madness in the "flowing bowl" than comes through any other cause.

The torture many endure through the misdeeds, neglect, ill-treatment, or open abuse of relatives is another great source of insanity. This is so well known that physicians of the insane dislike to have relatives visit their patients freely, as such visits often retard or prevent recovery. Those who best know our failings, faults, peculiarities, and sins are the very ones who can most try, agonize, and torture us. Life, at its best, is full of care, toil, sorrow, and despair, and we continually make it more sad, grievous, and desperate by our conduct toward those we profess to honor and to love.

Every heart needs the cheering, consoling, uplifting influence of love surrounding its life, entering like the air into every part of its being, giving buoyancy, freshness, and beauty to life. Dark and cheerless is that life, though passed amidst elegance and wealth, if it have not love beside its festal board, within its decorated walls. Love lightens labor, soothes the care-worn, warms and invigorates weakness and poverty. And tender, watchful love might often avert or prevent insanity in relatives.

Unjust detraction and slander is another cause to which much insanity may be attributed. Every one ought to make it a rule of life neither to originate, nor even to repeat, evil of any person, unless absolutely certain they are speaking only truth; even then it must be done only

to warn, and thus prevent others from falling into evil.

Envious and malicious feelings often unbalance the mind. Any person who is conscious of such feelings in his heart must struggle valiantly against them; trying by prayer and kindly offices to those who have ill-treated him to conquer the evil feeling, lest, like a wild beast of prey, it turn against and rend its possessor. No heart can nourish evil thoughts of any kind with impunity.

Excessive, monotonous labor is a fruitful source of insanity among women, especially among women in the country. Another trouble is the irritation caused by feeling that, however diligently and faithfully they work, they still must ask, even beg, for every shilling they wish to use, instead of having a fund constantly appropriated to themselves. The feeling of being held inferior, of being in subjection, that almost all married women have, is a constant wear, often ending in insanity.

So-called religious excitement, which is usually the struggle of a soul against the fearful doctrines of unforgivable sin and eternal punishment—the struggle of a soul into which fear and terror of a God of anger and wrath has entered and taken full possession—is another cause of mental alienation. Alas! that such fearful views of God should so long have ruled mankind, generated, as they were, in the imaginations of men who could not comprehend the idea of a God so superior to mankind that he knows neither anger nor wrath in any human sense—of a God whose love is boundless as his bounty, strong as his power, endless as his being; who loves the sinner while he hates the sin; who can not harbor revenge or animosity against the creatures he has made. any more than a tender father can harbor anger against his oft-offending child. As the race passes its childhood, it will learn to understand and love God, and instead of a monster made a divinity, it will receive a father.

Having seen how insanity is often produced, we turn to the means of preven-

tion and cure. First, the mind of the expectant mother should be kept calm and tranquil, free from gnawing cares and anxieties, from excessive labor, from heart-loneliness, and from every sort of strife, discord, and anger. Then when the infant has entered life, gentleness, quiet, air, light, and moderate exercise should be its only stimulants. No attempt should be made to urge mental action, and all it learns for three years should be learned without effort. From three years of age to six, its powers of observation should be sedulously cultivated; this will give the child an easy and unfailing source of knowledge without mental strain.

The youth may now learn reading by the word-method, counting from objects, drawing of lines and their simple combinations, printing upon the slate, and simple addition and subtraction. At the age of seven, primary arithmetic may be taken, and more advanced reading, spelling, and lessons from outline maps in geography. The teacher must be sweet and pleasant, the school-room attractive with plants and pictures. Strict obedience must be enjoined from the first, that all conflict of spirit and will may be avoided. The child must be continually surrounded with an atmosphere of love, truth, justice, and honorable feeling.

Thus gradually the pliant mind should be developed, taking care not to load the memory with discordant or undigested knowledge. Subjects of study should, so far as possible, be connected, as history with biography, languages with literature, botany and geology with geography, so that the facts of one may help to keep the facts and principles of another. The conflicts of school will prepare the youth for the conflicts of life. Now, if the bodily health be sedulously guarded, the young man or woman may enter into life's business, struggle, and labor with a sound brain, a cheerful spirit, and unimpaired strength.

The cure of insanity is a subject that has engaged many eminent minds. The methods now in use are a great advance

upon those prevalent fifty years ago, and yet much is to be desired in the way of improved methods and greater certainty of restoration. Prompt treatment is of the first importance. The sentiment of society has been such that insanity was held a thing disgraceful, and patients and their friends have deferred treatment, concealing the growing disease until the chance of recovery was reduced to a minimum, and concealment was no longer possible. This is a great mistake. Treatment should commence with the earliest symptoms of mental alienation. Diversion, travel, new pursuits, and new surroundings, rest, or recreation, according to the conditions, must be allowed, and all disagreeable subjects and persons rigidly excluded.

Gentle and soothing music might be employed with good effect with many patients. Soft and sweet songs, the tones of the flute, or a sweet-toned piano gently played would be beneficial to many minds. And all attendants should be mild-speaking, gentle-mannered persons, with gentle hearts, too, and unbounded patience. Flowers and pleasant pictures should fill the rooms, and every harmless pleasure should be freely accorded. Any person or thing that irritates must be carefully excluded, and life made as sunny, kind, and tender as possible. With healthful food, adequate exercise, proper physical treatment, the best results may be hoped with a large class of the insane.

AMELIE V. PETIT.

PESSIMISTS are largely made up of the discontented, the discouraged, and the disconsolate; hopers who have lost hope in losing youth, fortune, ambition, affection; dreamers tired of wandering blindly among truths undemonstrable; men who have lost themselves in scenes of misery not to be relieved by charity; men shipwrecked on a monotonous continent of ignorance; men of exceptional sensibilities; men of abnormal tenderness of spirit; men whose hearts are over-swollen with excessive sympathies.

TOOLS AND INSTRUMENTS OF ANCIENT MAN.

THE arts by which man defends and maintains himself, and by which he controls the affairs of the world, depend as much upon his ability to use the tools and instruments which he has invented as upon any other capability. Some account, then, of these tools and instruments, from their earliest and rudest forms, will be interesting.

It is instructive, in the first place, to observe how the higher apes indicate the rudiments of the tool-using power. They defend themselves with missiles. The orang-outangs, in the Durian forests, pelt passers-by with the thorny fruit. The chimpanzee, in his native wild, is said to

him the "tool-maker" than the "tool-user."

When we scrutinize the tools and instruments in common use we find that there is a close relation running all through from the rudest forms to the most intricate and refined. They appear to have grown from one form to another by small successive changes. The instrument which at first did several kinds of work roughly, afterward varied off in different ways to suit particular purposes, and the result is several different instruments. A Zulu seen scraping the stick that is to be the shaft of his assegai, with the iron head that is to be fixed on it,



Fig. 1.—LATER STONE AGE IMPLEMENTS.

crack nuts with a stone. And we know that apes are easily taught many things deemed peculiar to man, and that they retain the teaching.

The lowest order of implements is those which Nature provides ready-made, or merely wanting a finish, such as pebbles for slinging or hammering, sharp splinters of stone for cutting or scraping, branches of trees for clubs and spears, thorns or teeth to pierce with. These are found in use among savages, yet in the civilized world they have their applications, as when a stick is caught up to kill a rat or snake. In the South of France women shell almonds with a smooth pebble. The higher implements used by mankind are in most cases improvements on some natural object, so that it may be deemed a better definition of man to call

may give an idea of what early tool-making was like before men clearly understood that the pattern of instrument spoken of—the iron head—was not the best for cutting and scraping. We should be horrified by a blacksmith proposing to extract an aching tooth with his pincers, yet our forefathers knew no better way. The dentist's forceps are but a modified form of the smith's tool—a special variety for a special purpose.

On going back to the early history of instruments we find there but little or no distinction between the weapon of the hunter and of the soldier, and in several cases it will be seen that both tool and weapon had their origin in some instrument that served alike to break skulls and cocoanuts, or to hack at the limbs of men and trees. The thick stick, or cud-

gel, which, when heavier or knobbed, passes into the club, is among the simplest weapons. In the old mythological pict-

old stone remains in the very word hammer, which is from the old Scandinavian *hamarr*, meaning both rock and hammer.

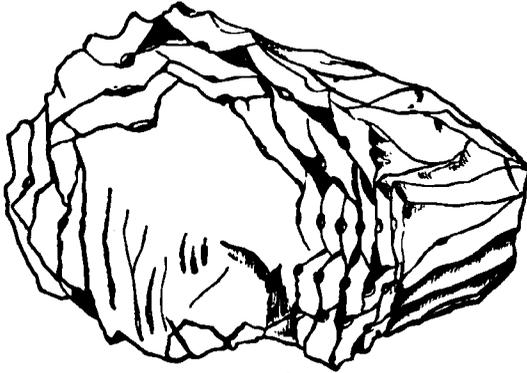


Fig. 2.—GUN-FLINT MAKER'S CORE AND FLAKES.

ures Hercules is represented carrying a gnarled club upon his shoulder. The South Sea islanders of to-day have clubs elegantly shaped and carved. From savage through barbaric times the war-club lasted on into the middle ages of Europe, the heavy mace of mailed knights being but a variety of it. Now and then it appears in the peaceful arts, as in the ribbed clubs with which the Polynesian women beat out bark cloth.

One curious feature in the study of primitive weapons is the way in which the rudest of them, after their serious use in war, have come to serve as a symbol of power; for instance, the mace in England is carried as an emblem of royal authority, and laid on the table during the sitting of Parliament or of the Royal Society.

The hammer has been generally an implement. Its history begins with the smooth heavy pebble held in the hand, such as the African blacksmiths to this day forge their iron with—a smooth stone serving for an anvil. It was a great improvement to fasten the stone hammer on a handle. This was done in very ancient times. Fig. 1 shows stone heads grooved or bored for the purpose of securing them to the handles. Although the iron hammer has superseded these, a trace of the

Fig. 2 shows a gun-flint maker's core, with the flakes replaced where he has knocked them off, and the mark of the blow is seen which detached each flake. Those made by the stone age men may be three-sided, and like the Australian flake in Fig. 3, *b*; but the more convenient flat-backed shape, Fig. 3, *a*, has been used from the earliest known times. The flint-core, Fig. 1, *f*, with the flakes, *e*, *e*, taken from it, shows how, by previous flaking or trimming, it was prepared for the new flake to come off with a suitable back. The finest are those not struck off,

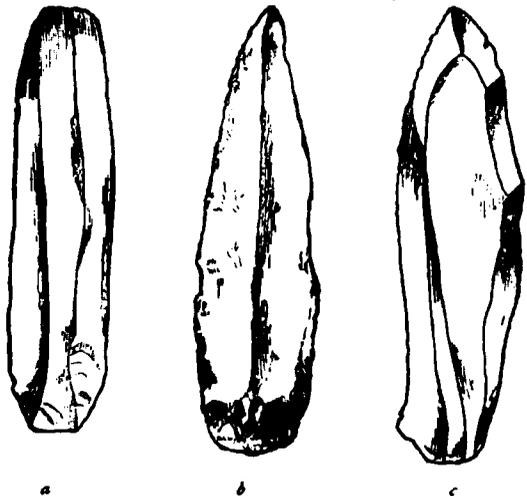


Fig. 3.—STONE FLAKES.

but forced by pressure with a tool of wood or horn.

The Danish flake, Fig. 3, *c*, was made

so, doubtless, and the still more beautiful sharp flakes of obsidian, with which the native barbers of Mexico used to shave,

In the later stone age we find neatly shaped and sharp-edged ground celts, as in Figs. 1 and 5. The word *celt*, taken



Fig. 4.—EARLIER STONE AGE FLINT PICKS OR HATCHETS.

to the great astonishment of Cortez's soldiers. A stone flake just struck off may be fit for use as a knife or as a spear-head, like that in Fig. 1, *a*, by further flaking. It may be made into a scraper, arrow-head, or awl, as *c*, *d*, *g*, in Fig. 1.

In the drift gravels of the quaternary period, or age of mammoths, rough flakes, like Fig. 3, *a*, and stone implements such as are represented in Fig. 4, are found chipped to an edge. They may have served with the pointed end as picks, with the broad end as hatchets. It is not clear that any of them were fixed in handles, but there are specimens found which have only one end chipped to a point, the other end being left smooth,

from the Latin *cellus*, meaning a chisel, is applied to the various chisel-like instruments of rude and ancient tribes, but has nothing to do with the name of the people called Celts or Kelts. The stone celt only requires a handle to convert it into a hatchet. This was done very simply by the Indians of Brazil, who would pick up a suitable water-worn pebble, rub one end down to an edge, and bind it in a twig, as in Fig. 5, *b*. Another rude way of mounting a celt was to stick it into a club, forming a woodman's or warrior's axe. That at *c* shows one that was dug out of a bog in Ireland. The most advanced method was to drill a hole through the stone blade, in which a

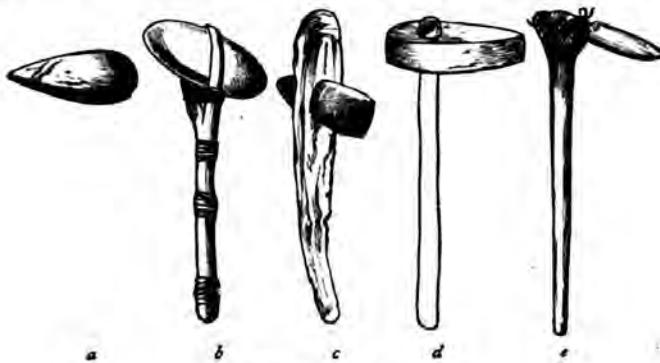


Fig. 5.—STONE AXES, ETC.

so that it would appear they were grasped in the hand to hack with. There is nothing to show that the men of the drift period ever ground a stone to an edge.

handle could be fixed, as at *d*. When the stone blade is fixed with the edge across or at right angles to the handle, the tool becomes a carpenter's adze, as *e*, such as

the instrument used by the canoe-building Polynesians.

Turning our attention to metallic forms

the tough metal it answers perfectly. These transformed hatchets probably led to the making of several most important

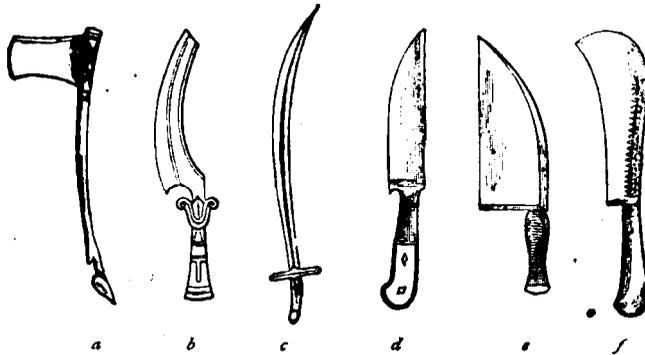


Fig. 6.—METALLIC WEAPONS OF WAR, OLD STYLES.

of knives, axes, swords, etc., we find how closely the old stone implements are imitated in copper, bronze, or iron, although the patterns were of course lightened and otherwise improved to suit the better material. The use of metal brought in forms to which stone was not suited. An idea of these changes is obtained by an examination of a series of metal-cutting instruments. In Fig. 6 there is the Egyptian bronze battle-axe *a*, not very far altered from the stone hatchet; *b*, a bronze falchion, also of the Egyptian warrior, was a sort of axe-blade with the handle shaped down. This convenient

classes of weapons and tools, where a blade with a stout back and front edge, fixed to a handle below, is fit for chopping, slashing, or cutting; hence the various forms of the saber or the scimitar are ordinary knives and cleavers. Nor does the development stop here, for the group of instruments to which the English bill-hook belongs is made with a concave edge, as in the Hindoo form, *f*, this leading to the still more curved forms of the sickle and scythe.

From the early stone spear-heads another set of weapons seem to have gradually arisen, as shown in Fig. 7. The spear, *a*, from the Admiralty Islands, becomes a dagger when the shaft is broken off short. It can not be told whether the flint blades of shapes like *b*, which are dug up in Europe, are intended for mounting as spears or as daggers. The brittleness of stone was against the use of stone blades more than a few inches long, but when metal came in, the blades could be made long, tapering, and sharp. In the old Egyptian pictures soldiers are seen armed with spear and dagger, the two weapons having blades of similar shape. It seems as though the metal dagger, by further lengthening, passed into the two-edged sword, a weapon impossible in stone.

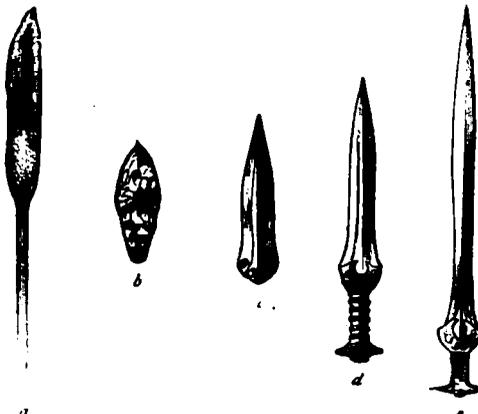


Fig. 7.—STONE SPEAR AND DAGGER HEADS, WITH COMPLEMENTARY WEAPONS IN BRONZE, AND SWORD.

alteration could not have been made in the stone hatchet; it would have broken in the shank at the first blow, while in

Fig. 7 shows three specimens from the bronze period of Northern Europe, in which it is seen how the spear-head, *c*,

may have been lengthened into the dagger, *d*, and that again into the leaf-like sword, *e*. Thorns, pointed splinters of bone or flint-flakes, worked to a point, served the early tribes as borers. The saw probably invented itself from a jagged flint-flake, which afterward became the more artificial flint-saw in Fig. 1, *h*.

Thus the men of the stone age period had, in rude and early forms, some of the principal tools which were improved upon in the ages of the metals. It is interesting to look into Wilkinson's "Ancient Egypt" at the contents of the carpenter's tool-basket, where the bronze-edged saw, chisels, etc., show traces of likeness to the old stone implements; and, on the other hand, this Egyptian set of tools, and still more those of the ancient Greek and Roman carpenters resemble those we are using at this day. The ancient carpenter, however, never got beyond nails. The idea of screws, which are so essential to modern construction, and to the tools founded upon the screw, as the auger and gimlet, was never seized by the ancient artisan.

How far back in the history of man the use of the lever and the inclined plane may be said to have been discovered, can not be determined. The ancient Egyptians used wedges to split off very huge blocks of stone. One wonders, knowing the pulley as they did, that it never appears in the rigging of their ships. A draw-well, with a pulley, is to be seen in the Assyrian sculptures, where also a huge winged bull is moved along with levers dragged on a sled with rollers beneath the wheel carriage. One of the most important machines must have been invented in the ages before history. In looking for some hint as to how wheel carriages came to be invented, it is of little use to judge from the skilled work that was turned out by the Egyptians and the Roman carpentarii. There were rude contrivances, to be sure, which look as though they belong to the early ages of invention, such as the plastrum, or farm cart. It had for wheels two solid wooden drums near a foot thick, made from a

tree-trunk, and fixed to the axle, which was kept in place by wooden pegs, or passed through rings at the bottom of the cart. But fully as coarse constructions may be met with in rural neighborhoods to-day.

Another ancient machine is the mill. The rudest tribes of savages had a simple yet effective means for powdering charcoal and ocher to paint themselves with, and for the more useful work of bruising wild seeds for food. The apparatus consisted of a round stone held in the hand, and a larger hollowed stone for a bed. It is curious to notice how our pestle and mortar keep to this primitive type. When people took to agriculture, and grain became a chief part of their food, and mealing it the woman's heavy work, a form of mealing-stone came into use, suited not



Fig. 8.—CORN-CRUSHER, (STANLEY).

for pounding, but for grinding only, and doing this better. An example may be seen in Fig. 8 of an ancient corn-crusher as dug up in Anglesey, the stone muller or roller having its sides hollowed for the hands of the grinder, who worked it backward and forward. The perfection of such a corn-crusher may be seen in the "metate," with its neatly shaped bed and rolling-pin of lava, with which the Mexican women crush the maize for their corn-cakes. The modern mill is but an improvement of this.

The *quern*, or hand-mill, of the ancient world consisted of two circular flat mill-stones, the upper being turned by a handle while the grain was poured in through a hole in the centre, and it came out as meal, or around the edge. This early hand-mill has lasted on into the modern world, and Fig. 9 shows "Two women

grinding at the mill." They might be seen in the Hebrides in the last century. The quern is still used in the North of Scotland and the islands.



Fig. 9.—HEBRIDES WOMEN GRINDING MEAL, (PENNANT).

Another group of revolving tools and machines begins with the drill. The simplest mode of twirling the boring-stick between the hands was that in fire-making. In this clumsy way rude tribes bored holes through hard stone by patiently twirling a reed or stick with sharp sand and water. This primitive tool was improved, both for making fire and boring holes, by winding around the stick a thorn or cord, which, being pulled backward and forward, worked the drill, as the ancient shipwrights are described in

the Odyssey to do when boring timbers. The ingenious plan of using a bow with its string to drive the drill was known in the old Egyptian workshops, but the still more perfect Archimedean drill is modern.

The turning lathe, doubtless, had its origin in the drill. The foot-lathe, with its crank and continuous revolution, is a great advance upon the old-fashioned bowl-lathe with which the turner used to shape his wooden bowls and chair-legs.

No one knows exactly when and how that wonderful mechanical contrivance, the screw, appeared. It was familiar to the Greek mathematicians, and the screw linen press and oil press of classical times are almost modern in their construction.

In that period, when men began to appreciate the effect of invention to ease manual labor, then the greatest changes occurred in the instruments and tools in common use. Within the last century or so, the invention of the steam-engine has been the most potent accessory in this respect, and more than ever man seeks to change the laborious part he played in the early ages for the higher duty of director or controller of the world's forces.*

* For the illustrations of the above article we are indebted to Messrs. D. Appleton & Co., publishers of Tyler's "Anthropology," from which the subject matter is mainly derived.

PHRENOLOGICAL COMMENTATOR.—NO. V.

FAITH—A SENSE.

"He endured as seeing him who is invisible."—HEBREWS xi. 27.

IT has been so long customary to speak of Faith as an act, one of trust, or rest, upon the word of some one, but especially of God, that the Sense of Faith may seem strange. Still, it is clearly shown to be such in the Bible, particularly in our text, and the "eye of Faith" is quite popular in our pulpits and prayer

meetings. I hope to demonstrate in this article that Faith is a sense compound in its powers and operations. Phrenology is the inciter of this new definition; but it has providentially given us a term that obscures by its very use. Marvelousness, like Mirthfulness, is an inappropriate name for the organ it professes to define.

All nomenclature should be based on fundamental distinctions; but it is not so with either of these terms. They both represent surface extremes. It requires ratiocination to learn that Mirthfulness is the misnomer for the analytical faculty. It demands much experience to discover under the old name of marvelousness, sober and sublime Faith. These partial names are based on abnormalities—one provoking mirth; the other a sneer. In reading "Brain and Mind," the influence of this nomenclature of the earlier Phrenologist is still apparent, as all the illustrative cases are those of so-called enthusiasts and fanatics, who are quoted as *thinking* they saw some person of the Deity, or "a vision of angels." If Faith, as a proper and inherent sense of man, had been known and the five low senses of the body had not been considered his only ones, this slighting name would not have been given to the noblest of the seven, and the first kind, or God-sense.

Our text has always been quoted as the highest expression of the faith-life. "The pure in heart shall see God," is its companion. The word used in the original is the root of the only words used for "vision" in all the New Testament. It is a word clearly distinguished by the Saviour himself from any expressing merely fleshly sight of him, in those passages of declared revelation: John xvi. 16: "A little while and ye shall not see me (with the eyes), and again, a little while, and ye shall *see* me, because I go to my Father!" Here making a plain distinction between physical and spiritual sight, and giving promise of visions. The words in their general usage mark the same differences. The word "seeing" of our text is the distinctive word for visional sight. Marvelousness, as the name for this high organical sight, would compel us to say visionary sight; but I repudiate any such narrow compulsion, and propose to show that not even sight is a term full enough to define this noble sense of the Unseen.

The grade of man's faculties is powers, organs, and members. A sense is a per-

ceptive power, and initiates conception of its object, which is always substantial. It may be by self, an organ, or a member. As all mediums obscure, the strongest sense must be consciousness, or the self-sense. Then comes this one of faith, which has only a phrenal organ, and not a bodily member as well. The differentia of the dignity of a sense must be its object. The Conscious sense is like Touch, called a Sense, but with no particular organ, or member, in which it is wholly located. I do not know enough of "Individuality" to speak clearly; but think it may hold the same relation to Consciousness that the fingers, or other *extremities* do to Touch! So the instrumental mode of action gives us three grades of sense, and soul, body, and spirit give us seven senses, with self, an organ, and five members as the factors.

When Faith is called a trust the whole attention is called to judgments, not to perceptions. Reason, which produces judgments, is the important factor. A perceptive power deals with phenomena, and is distinctively scientific; while a rational power deals with conclusions drawn from the data gathered, and is distinctively philosophic. The latter deals with the mode, and the former with the entity objective, or subjective. Also, as the distinct function of Faith is to conceive of person, not of individual or thing, it deals with the very being of its Object, and not with his words only, and the union between the Seer and the Seen is real and effective.—(Gr. of John xii. 36.) There is no room nor time for ratiocination, because the contact between the reasoner and the idea, which is the aim of the process, is complete without such delay. For instance, in temptation, a man has an argument commenced immediately on the presentation of it to his lust. A mandate of the conscience is met by a counter presentation of an inducement, or, if the man is seeking pardon, a promise contends with the sense of guilt, and reasoning follows. Present now the highest defense against the inducement or offer against the fear, the Conquering Person,

or Sufficient Saviour, The Christ. and there is no process unto a conclusion, or an act of repulsion; but an immediate displacement of the temptation or fear by that Saviour Person. It is not a trust, but a grasping by Vision of a Higher, and the Holy One. Trust implies Hope, and so begets delay, and so patience; but this Faith is the "substance of things hoped for." There is no gap, no imaginable or computable separation between the Seer and the Seen.

This gives us another proof of "Faith—a Sense," because it has initiative, instantaneous power; it produces action or delay. But what makes it so act is its cognizance of substance. For example, we pass along a crowded thoroughfare, and swiftly change our course to adapt ourselves to obstructions. There is no ratiocination, but simply action, called automatic, but really sensitive. So this Faith *acts*. It perceives and acts; not perceives, reasons, and acts. It is sensitive to the Person, with whom it deals, and the Seer's action is conformable.

Again, perception is higher than reason for all purposes of action; reason, than perception for all purposes of habit. Faith is essentially wedded to action. Hear every pulpit in the land! and equally hear that the faith of the audience does not so express itself, because it is a trust, and not a vision. The pulpit, and not the pew, is to blame. An inherent inconsistency, whether recognized or not, is the most potent obstructor! There is a process declared as inherent in faith, but what is it? Love! "Faith energizes in love," says St. Paul. But the common characteristics of faith and love lie in their promptness to see and embrace. A philosopher in love is a "Hamlet with Hamlet left out." It's a just conclusion that the greater and more influential the act of perception, the quicker and more effectual the action. This does not deny that Faith deals with individuals as well as things, and so with Revelation as in the Scriptures, and so is a trust; but that Trust is the more human, and less Divine mode of it, and is to Faith what reason is

to any other sense. Or, to be more particular, Trust is the memory of Faith. Its department is history, not vision. "I will remember thee from the *Hill Mizar*," etc., says David. It may be thus our experience, or that of others, be they God or our fellows. If the trust be in what is to come, instead of what has come, it is in Scripture searched more than in the One to whom testimony is given.

It ought now to be confessed by every student of Christian experience that there are two classes of Christians "who walk by faith," and two kinds of Christian life: the even-tenor men, who seem simply to grow by the word, and whose lives are only those of the highest moralists; and those who "walk with God"—very wide awake to him who is "the Way, the Truth, and the Life." Visional Christians are distinct from the moral Christians. Of the second class are the highest style of Christians, the great wonder-worker Christians, and those who, on the other hand, have many Pisgah views of Canaan's sanctification in the desert of life, and who go far back. The ideal is very high; it is often reached; it is with many long maintained, and, like all mountain climbing, must have many failures and braggarts in its train. This only demonstrates the existence of what I claim, for it is necessarily implied that the conditions must be very high if all things are to be equal.

It is also philosophically recognized that the two most marked and distinct elements in Christianity are spirituality and morality—it is only Christ and Moses over again; "For the law was given by Moses; grace and truth came by Jesus Christ." Phrenology makes this distinction scientifically and necessarily existent, and shows the possibility of that abnormality, a religiously immoral man, and a very devout thief, murderer, etc. When the two great elements are equally joined, or the first preponderates, the impulse to the life is "Christ for me to live"—the high ideal New-Testament life, instead of the burdensome Old-Testament life. In the Old Testament the Seers are

marked and prominent, because few, like mountain peaks; while New-Testament life is like a plateau, even but lofty, and as the plateaus—called parks and valleys—in the mountains of the new, are loftier than the highest snow-capped peaks in the older States of our Union, so is the high, even visional faith-life of the New Testament. And of it—the Christ now is more real, near, and vivid than when on earth. All, we confess or maintain, points in the direction of faith—a sense beatific.

If we consider now the scope of this Sense, it will help us to this enlarged view. The distinctive states of spirit and body are unity and diversity, while their common quality is divisibility; so that Spirit is potentially many as well as essentially one. Atomic theories of matter and of body have affected definitions of spirit, and have confounded many with diversity. The retreat of a cowardly consistency has been the word person—forgetting that its best definition is “mask!” But when we “walk wide awake with Truth,” it is evident that Person and Spirit are synonyms: to say there are three Persons in Godhead is simply saying, ignorantly, there are three Spirits. The differentia of person as distinct from individual, whose differentia is soul, and from thing, whose differentia is body, is Spirit. Things equal to the same thing are equal to each other, and so are persons or individuals. The real mystery of Godhead is that the *Adorable Being* is only three, not more nor less; and the greatest mystery of the three is that that person, inclosed in individual and thing, is of the adorable, as is the Incarnate One. The only explanation of this last is that the adoration is based on delegated power, and plainly ends on Resurrection day! when the unutterable Mystery of Love in Deity under law, will again be a fact, and forever, evermore!—1. Corinthians xv. 24-28.

In the sphere of the organ of “Marvelousness” we encounter all the heresy of the world and the cause of error in its phrenological description. There is nothing so apparent as that one set of organs,

or one dominant organ, influences either the exercise of another set of organs or another dominant organ. Just as clear is it that education used by the “semi-intellectual” group, or the imaginative organs, will particularly color the instructive power of any organ. All false revelations and enthusiastic or fanatic pretensions, where sincere, have arisen from one or both of these causes. Ann Lee is a case illustrating the first class, a woman of wonderfully large “Marvelousness,” and yet with a most remarkable development of “Amativeness.” In the battle between these, Spirit and flesh, the former gained the victory, and one most cruelly used, so that to her the highest religious state and duty were the denial of the proper exercise of the legitimately physical, having the seal of God’s *first* command to man! Joseph Smith is a case well illustrating the second class, to any one knowing the character of his mother. All really sincere enthusiasts or false fanatics have this organ large. She had it, and so had he. All our fortune-tellers who make any success in their trade have it. The “wise” women and men of the past, or of retired regions, the prophets of the Old and the Apostles of the New Testament, all great gossellers nowadays, also, are so blessed, as well as all inventors and discoverers. Scotland and New England are the chief sources of the inventive ones of earth, but there dwell the Levitical tribes of today. Now, in all these there is the one power of seeing the unseen of the physical eyes, but how varied their revelations! The only conclusion is that the variety must come from the diversity of body, and the falsehoods from that diversity made sin. A man taught that God the Father, or Spirit, could be seen, and, believing it, would say in revelations that he had seen one or the other, when it is clearly revealed that only One of the Three can be seen—the Father never, and the Spirit not now, as he reveals the Son only, as the Son revealed in himself the Father; but the Son ever, especially now, since he became the

materialized One, that is, the Great Soul Mediator) between the Spirit-God and the Body, the Creature.

Beyond the direct revelation of the fact that Christ is the Great Revealable, we have Scripture for the revelation of angels and "demons" (Original of 1 Tim. iv. 1), that is, the dead. Christ and these latter are permanently materialized, he with his being complete as Spirit, Soul and Body made One; they with their souls and spirits. They can all be seen, but there is one necessary safeguard to be raised to bound the sphere of this vision. The Sense of him must always be from the volition of the One seen, not from that of the Seer! Otherwise there comes all heresy and fanatic error, not to mention all falsehoods of so-called mediums. The only exception to this is the command of 1 Cor. i. 7, to "see that ye come behind in no gift; looking for the revelation of our Lord Jesus Christ." There is no revelation of this as to others, and no true experience contradicts it; they are all subject only to their own will within the brief time of the process of death or immediately thereafter, and ever to the will of the Revealed One. They never have appeared at the sole behest of any medium on earth. The case of Samuel at the call of the "Witch of Endor" is no exception. God sent him, and she was as surprised as Saul at the reality. She saw him, though Saul did not. May be he could not, though she could, having Marvelousness large.

No pure Spirit, unclothed in soul or body, can be seen, or it is the physical seeing the spiritual, an impossibility. The great law of seeing because we are like—1 John iii. 2—must ever prevail; and the power given a Christian, as above described, to see Christ is on the fact that as Christ is God incarnate, every visional Christian is so far Christ incarnate. For an unregenerate man to claim a vision of Christ bears on its face a lie! as all others who claim power to call up the dead at will. Also, the specially Revealed One has put a curse on any man who claims to get anything as of Divine au-

thority not revealed in the word of God. (Revelations, last chapter.) But I do not doubt but what the devil, knowing the law of likeness as necessary to revelation, can cheat imaginations innumerable with the semblances of their own brain, not to mention the natural result of an abnormal Self-esteem. "Most mad-men are proud," says "Wallenstein," and I know the egotistic is a very prolific class of liars!

The fact of angel mediation and ministry is revealed, as well as devil possession; but the form of their presentation is more tactual than visual, if visual now at all. It would seem that they may be heard also. But both of these cases demonstrate the Sense of Faith as inclusive of the lower senses, because so fine as to microphonically reveal some power in them common to it. The "sleep" of the dead forbids their presence any time after going to their other state—that other state called a "sleep," not because gone to the grave, but as one in common with our nightly sleep;—a cessation of bodily life. Only soul and spirit activity are possible in sleep. The Spirit may leave the body, producing a trance, and soul may cause embryonic growth, called generally rest, or dreams. If soul leaves the body death ensues. See Jairus' daughter and the son of the widow of Zarephath. She was in a trance; he was dead. The distinction is made very clear.

The real difficulty to me is not the appearance unto us of the departing or of the "Departed One," but the manner of the appearance. That is very varied, and is proof of my proposition, and especially of my opening on the sphere. Cases of which I am cognizant show it to depend upon our habit and custom of former sight and memory. It depends, as to clearness of revelation, upon the general spiritual development. Some will be disturbed, depressed, or uneasy, because there is no awakened spiritual sense to cognize the presence. Others are aware of a presence. Others see a form. One man during a time of such spiritual activity that his head in the Coronial region

raised half an inch in six months, saw to all intents the very person—dress, bonnet, smile, etc. He is also a great inventor, and his conversion came by voice, driving him from sin to conviction. But the attire described was not such as his child wore at the time of her death in Nebraska; but with such as he had been accustomed to see her enclodhed. There was no attention on his part to such matter as visions when she came the moment of her death, from Nebraska to Texas, and revealed herself. But I am positive no "demon" ever made such an ass of himself as by knocking doors, windows, tables, etc., or went back on the good record of the past! Men get honest in the borderland!

It may be said truly that there is one thing common in the manner of these visions to that great Vision—the Word of God. The description is no higher, if true, than the intellectual and spiritual development and knowledge of the Seer; and that a law of vision is that a revelation shall be comprehensible by the Seer. By comprehensible, I mean such as is appropriate to the person receiving the revelation; but this is only another way of saying likeness is necessary; and right here I may say comes in danger of deception when it is accepted that any one can will his visions present. I think all true and honest Seers naturally hesitate to trench upon such holy ground volitionally. The very preciousness and truth of the sight demand that they be rare, and any one who would trade in it is a son of Judas selling his Lord. The sight of the Christ being the commanded exception which sanctifies and glorifies a man.

There is but one more teaching of its sphere, and it must begin with a question: What relation has the sight of the Invisible with invention and hunger for the new, the ground on which is based the definition "Marvelousness," showing plainly that the originators of the term had no idea of the organ as a God-perception? One strikes me as apparent. The whole teaching of this commentation is that in Spirit is unity, no matter

how numerous may be the expressions or existences thereof, and when this common ground is reached the control of diversity is broken to this unit view, and the inventor sees things that are equal to the same thing, and things that *work together*. How universal is the comment on all truly valuable and executive inventions—"How simple!" This simplicity in its compound of application gives the definition of this sense. The spiritual is fundamental, of course, and is a fountain of being and life, from which reach out streamers applying its life in diverse fruitfulness. The very character of the sense makes it inventive, the great characteristic of an invention being its radiating character from some principle.

In discovery caused by a yearning for the new, an impulse from faith's communing with God, we find the instinct of this organ. The spiritual seen awakens the latent creative in us. The true discoverer is confessedly born of a religious race. No other races are noted as discoverers. There are two classes of discoverers—the vagabonds, who discover new lands simply as a result of a love of wandering, and those who go forth impelled by the creative impulse to make some thing, or land, or person as they feel they ought to be—like themselves or their ideals. This religious idea teaches where discoverers belong—among the saviors and makers.

So we need to consider Faith in a wider sphere, doing, doing all the time, because a perception more than a judgment, a vision more than a trust. The Omniscient in one sense is such because the Omnipresent, and the divinest mental act is perception. The infidel should no longer be called the original man. They "that *separate* themselves" are the "twice dead"—"soulish, not having a Spirit," as the Greek of Jude xix. 19, says. Diverse false theories are to be expected from scientists who "walk in the flesh," not "in the Spirit on the *Lord's* day" that now is. My soul lifts up its seven toil-worn powers like hands out of the darkness, and I cry for the millennial time,

when for a thousand years all left on earth shall be sanctified! A millennium of discovery, invention, and God vision! How the grand nineteenth century of invention grows little, and the many that now run to and fro seem a corporal's

guard when we think of the knowledge of Jehovah—the ever New—as covering the earth as the waters cover the deep! What a telescope is Phrenology to view the Biblical stars of promise!

ALEXANDER M. DARLEY.

A CITY OF THE NEW NORTHWEST.

AMERICANS who have been born and bred on the Atlantic coast, and have not traveled in the regions beyond the Mississippi, can scarcely imagine the rapid increase of settlements and population there. California is regarded as having had a special opportunity for development because of the attraction of her gold mines; but when Oregon and Washington Territory are mentioned, vast areas of wilderness and mountain are conjured up, with an aspect of inhospitable repulsion. One who has not within a few years visited those far-off adjuncts of the Pacific can not realize how much has been done by the immigrant and commercial enterprise toward bringing them within the sphere of civilization. One of the most remarkable examples of the capabilities of human enterprise in the way of building up a city in a far-off, isolated region, and giving it, within a few years, many of the more attractive features of an old Atlantic city, is furnished by Portland, Oregon, an engraving of which accompanies this sketch. From a graphic description of this prosperous business and social center, published in the *Mining and Scientific Press*, we extract the following:

“Approaching Portland on board a steamer from San Francisco, at the present time, one's first impression of the place is usually of a decidedly unfavorable character, owing to the long line of dingy-looking docks that obstruct the view. However, on landing and passing from street to street, a city of peculiar beauty is opened to the view, and one is surprised at the massiveness of the buildings and general thrift displayed in all branches of business. However, one blot

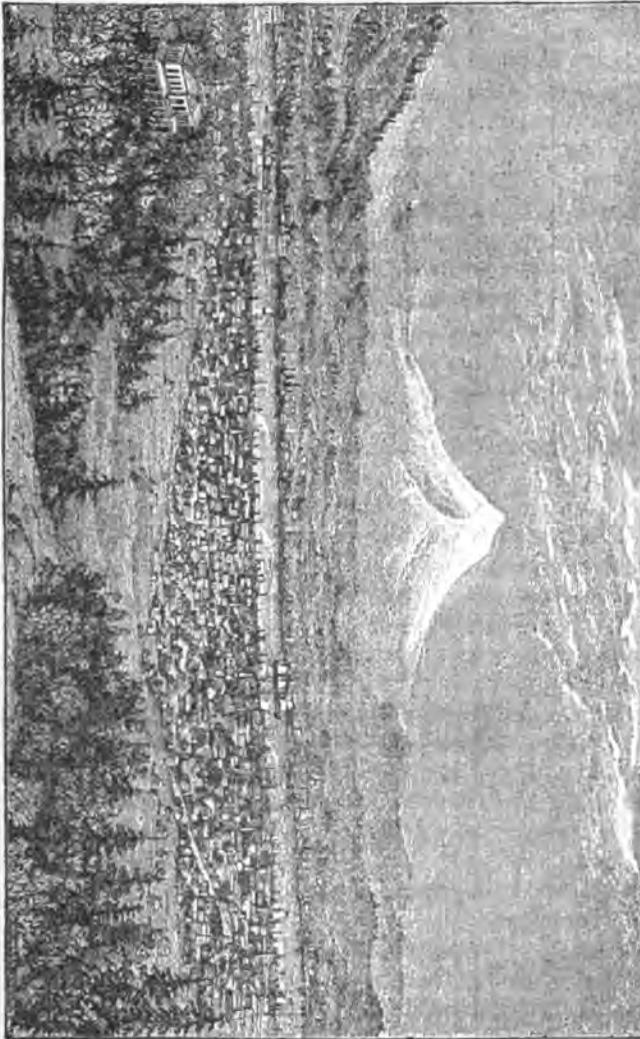
on the otherwise unsoiled picture consists in the narrowness of the streets, most of which are but sixty feet in width. This defect, however, is soon lost sight of as we move from place to place and see on all sides unmistakable signs of wealth and comfort. Then from the summit of the hills in the suburbs, a scene of simple grandeur is unfolded. Away to the north the whole face of the country is dark with timber, through which the silvery water of the Willamette is plainly visible until it empties into the great Columbia, twelve miles distant.

“From far up the Columbia, the bright water may be seen as it moves steadily onward to the sea, and it is only lost to sight in the dim distance far to the west. Slightly east of north, and beyond the Columbia, the quiet little village of Vancouver is plainly visible, while, overlooking the river to the east of it may be seen the Government reserve with its barracks and parade-ground, while in the latter a tall mast supports the stars and stripes as they proudly wave in the free air of heaven. To the right of this, and far off in the north, the pure white summit of St. Helena may be seen reaching above the surrounding mountains, standing 9,579 feet above the level of the sea; behind it Rainier shows its cap of perpetual snow looming up in the heavens for 14,444 feet. Two other snow-capped mountains are seen to the right, but to grand old Hood, ‘the pride of Oregon,’ is ascribed the honor of capping the climax, as it sits in its silent glory, 11,255 feet high, off in the mountains to the east, perfectly formed, symmetrical and beautiful.

“Of Mt. Hood, as it sometimes appears from Portland, a writer in the *Telegram*

says: 'The day had been cloudy, but the clouds parted just before night so as to send the rays of the sun, as if concentrated for that special purpose, upon the distant Mt. Hood. The effect was to make the snow-capped king of the Cas-

cadates appear to lose the sixty miles be-
whitest snow at our very doors. It is indeed surprising the variations in the appearance which our beautiful mountain presents to the people of this city, and the whole State, in the different shades of light thrown upon it from different directions as the sun moves over



PORTLAND, OREGON.

tween us and its great snow-white sides, so that the rough contour was brought out by light and shade with such distinctness, that it appeared as if drawn within a few feet of us; so while we were enjoying a warm, sunshiny evening, with rich, green hills surrounding our city, there stood an enormous pile of the purest and

in his daily rounds. Never twice alike, we are always seeing new beauties in the everlasting hills, and especially the great white-capped mountains seen from this city, Mounts Hood, St. Helena, Rainier, and Adams.'

"The city of Portland embraces a population of about 25,000 of all nationalities.

(Vera Cruz, Mexico, although four hundred years old, has but 17,000). It is pleasantly located on the west bank of the Willamette River, about thirteen miles above the junction of the Columbia, and about 110 miles—by the river course—from the Pacific Ocean. Its site is a plateau, which gradually increases in height as it recedes from the river, until it forms a range of hills at the western extremity of the city. It is the first city in point of wealth, proportionally to size, in the Union. Practically, all phases of life, except extreme poverty, and all occupations to be seen in any American city, are observable here. The tone is higher, as the prosperity of sober, industrious labor is greater. It may truthfully be said that Portland is the market-place for the north Pacific coast, the granary of Oregon and Washington, and the treasure vault of the whole Northwest country.

"The engraving takes in a section of the Willamette valley, which is the most famous agricultural region of Oregon. The valley is about 200 miles in length and has several important towns, besides the villages and hamlets which occur at short intervals. Farm-houses abound, and orchards; and meadow-lands stretch away into little valleys. Level prairies are encountered here, billowy hillocks there, and dark green forests yonder, diversified occasionally by dense groves of undergrowth. The timber in the valley is principally oak and fir, the latter predominating."

The Willamette valley is famous for its moist climate, its dripping skies being a by-word through the outside world. But it seems that the dwellers there rather enjoy it. In fact, some local writers would have us believe that the inhabitants get so used to rain that they cry for it. We quote as follows :

"The resident will grow to like the humid atmosphere, and, as his years advance, will learn to long for rain when lowering weather ceases. He will learn by gratified experience, that the rainy seasons, of which the temporary visitor

to the Willamette valley usually complains to the outside world, are not the terror he has been led to imagine. And yet the climate is excessively humid in winter along the coast, and also in the great valleys between the coast and Cascade mountain ranges. There is rain enough to make the unmade roads of a new country very muddy and disagreeable, and to keep them so till the summer sunshine comes to the rescue. But the same humidity that spoils the roads bathes the mountains in perpetual green, and so fructifies the valleys that crops never fail, and all the abundant and varied products of the soil are of the very best quality."

THE PROSPECT FROM THE BROOKLYN BRIDGE.—One who has ascended the towers says: "No finer view of New York is to be had than from the top of this bridge. The East and Hudson Rivers, the Sound beyond Port Morris, Brooklyn, and Long Island as far as Coney Island, the Narrows, Staten Island, Jersey City, Hoboken, and the Palisades beyond, the whole of New York from Castle Garden to Central Park—all this lies under the eye like a panorama. The sight-seer is exactly seventy-five feet higher than the top of Trinity steeple. Every eddy in the Bay is visible. I can see the glitter of sails in the sunlight beyond the line of Coney Island on one side, and the Orange Mountains on the other, the Navesink Highlands to the South, and Washington Heights to the North, with the water-tower at High Bridge a little to the East. Altogether, the eye roams over some six hundred square miles of territory. Although the bridge at present looks like an unfinished road, the pictures of the finished structure show what marble railings, city lamps, thousands of vehicles and passengers moving back and forth, and the life of a miniature Broadway, will make of it. And yet the roadway is sufficiently complete to make it apparent that there is really a bridge between New York and Brooklyn."



A WELL-BALANCED WOMAN.

"What a woman is, no one knows, not even herself."—PROF. ADLER.

HUMAN beings should be perfect prisms; the mental, moral, and physical sides should be equally broad, so that the face of each might make a base for the whole structure to rest upon.

But woman has not been accustomed to systematic development; and instead of resting upon a broad base, which would be a firm support, she is constantly trying to balance herself upon edges, and so topples one way and another in her ineffectual efforts to maintain an equilibrium.

Psychologically, there should be a perfect trinity of principles developed in equal proportions—the physical, or sensitive, that which feels; the mental, or reflective, that which thinks; and the moral, or affective, that which loves or hates.

You may know of one woman with whom this development has been uniform, and you may recall half a dozen names as you look down the pages of history.

The sensitive principle has been fostered in woman until she has thrown out feelers in all directions, and these coming in contact with rude and discordant elements, give her excruciating pain.

It is her sympathy, coupled with her love, which makes her a good nurse, a careful mother, a devoted wife. Let feeling be devoted to the utmost, but the remaining members of the psychologic organization should have equal opportunity. How often is the sensitive so abnormally fostered that the mental is completely overshadowed! In Carlyle we had an instance of the development of the mental at the expense of the other

faculties; but it is difficult to find such a woman.

Co-education of the sexes, so successfully carried out in some of our best schools, puts men and women on a mental balance; and it is found that mutual incentive to mental excellence is favorable to both sexes.

The studies which woman has neglected are those which she most needs to make her equipoised.

Let her learn logic, and she will use her reasoning powers, and reach conclusions by cool judgments rather than by darting intuitions; political economy, when in these days the rich so suddenly become poor, and the conflict between labor and capital is ever raging; the science of government, and particularly the study of our civil polity; enough of law to understand what relates especially to the settlement of estates and matters of business; mathematics, not only that she know that two and two make four, but that she may have the discipline which the acquisition of such knowledge gives.

The evenly educated woman will not, perhaps, be satisfied with being a hewer of wood and drawer of water, but her brain may plan the hewing and the drawing, while other hands perform the labor. The moral or affective principle loves and hates; and this is intensely developed in woman, being often an abnormal growth fed by the sensitive, while the mental is not allowed to advise or chide.

With the moral principle rightly developed, woman is honest, just, and magnanimous. Lacking this, she cuts down the wages of her seamstress, taking her

own time to pay for the work; maligns her neighbors, and indulges in deadly hatred toward her rivals.

In moral courage women are often found superior to men. They have courage when all the heavens are inky, and do not in the day of adversity cowardly and selfishly commit suicide, leaving their loved ones to struggle on in the world alone. Sudden exigencies develop noble qualities in women. Who has not seen a wife who before seemed weak and powerless, take the reins when trouble comes, and rise superior to her husband in courage and judgment?

In the psychological development necessary to make the perfect woman, the trinity of functions—the visceral, which regulates digestion, nutrition, and generation; the circulatory, which manages the arterial, venous, and respiratorial economy; and the nervous, which impels—must have their normal scope and growth. Improper food will impede digestion and prevent nutrition. The circulatory functions must have the free use of the organs of respiration; hence every article which contracts these, tampers with the health and life of the individual. The sensible woman will neither contract her lungs with close-fitting gar-

ments, nor fill the pores with poisonous powders.

She will be superior to tricks of art for personal adornment, and will teach her daughters by precept and example that a healthy body and a serene mind will do more toward enhancing beauty than all the artificial means ever devised.

The assimilation of things mental, moral, and physical gives the side of character, and here we act according to conscious knowledge and unconscious influence.

Thorough discipline will show self-poise and equanimity of manner. How many American girls can look calmly into the face of the person with whom they are conversing, and not pat the foot, work the fingers, sway the body, or nervously move the lips?

Let the young woman be taught to stand still, and look straight into the eye of the man who wants to marry her; and if he is a knave or a coward, she may read it there, and avoid the terrible experience of learning it after marriage.

Training our daughters thus harmoniously in the mental, moral, and physical trinity of their natures, we shall have the "perfect woman nobly planned."

ANNA RANDALL-DIEHL.

FOUND, BUT NOT SOUGHT.

"THIS isn't really the way a young minister ought to live; you should have a home of your own," said the senior deacon, who had dropped into that part of the young dominie's rather cramped quarters he called his study, for a quiet talk.

The senior deacon had grown-up daughters, and that well-known fact recurred to the new pastor's mind when he replied that he thought himself very well off for the present, and again, after his caller's departure, as he went out into the street for a quiet stroll.

Yes, he needed a home of his own, and fully intended to have one; but where

was he to find the mate, without which a real home was an impossibility? Not at the fine residence of his senior deacon, he was sure. He had an ideal home in his mind: A sitting-room that should be half parlor, half library; not a *show* room, but a *home* room, with an open fire, a hanging lamp, and a rocking-chair, with an ideal woman, a quiet, womanly woman—not a society butterfly—in it, and a work-basket—and the woman's name should be *Milicent*. This must be the room of his home. Perhaps she had not been christened by that name, but he had always been sure that name was what he should call his wife.

He had never seen such a room, but he had the belief they must be plenty enough, could he only get into them. He had the *entrée* into homes by the score, but he could only get into the outer court of parlor and state dining-room. He was sure there must be in every home a room that was the heart of home. He once asked Miss Bright, with whom he almost had a flirtation in his college days, if he should never be taken into the family sitting-room, and she replied, in apparent surprise, that such an apartment was now considered old-fashioned; that their family were seldom together, except at meals, or in the parlor when there was company, and she was evidently annoyed over his supposition that they should have in their elegant house a common "sitting-room."

Walking on, he glanced up at an unfamiliar corner and saw "Stevens street" on the lamp-post. "Stevens street?" "Stevens street?" he repeated. "It has a familiar sound. Oh, I know. Mr. Ruggles, the old lawyer, who comes to hear me preach now and then, lives here. He asked me to drop in and see him some evening at No. 20, and here I am." Running up the steps impulsively, and ringing the bell, the door was opened by a very neat colored woman, in a very stiff white apron and an ample turban, and he was ushered into a bright, warm, cheerful hall.

"Oh, yes," she said, "Mr. Ruggles is at home, and is always glad to see a friend in the evening." He did not give his name, and she did not ask it, but took him into an apartment that was the very counterpart of the ideal room he had so long carried in his heart. The revelation almost took away his breath. At first he thought it was unoccupied save by the young woman in a sewing-chair under the hanging lamp. But when the waitress said, "Mr. Ruggles, a gentleman," that personage made himself visible, coming up by degrees from the depths of a cretonne-covered armchair, which was so near the color of his oriental dressing-gown that it seemed a part of it.

He took his young visitor cordially by the hand, and, after a hearty welcome, said, "My granddaughter, Mr. Hathaway, come to pay me her annual winter visit, and brighten me up, and sew on my buttons, and mend my stockings, and make me night-caps and wristlets and hop pillows, and turn my den into a home once more. Not but what Mrs. Clark, my good housekeeper, makes me comfortable; but Milicent here, makes me happy. Eh, my dear?"

"That is just it," thought the young man as he bowed before the rather tall, rather plain-looking, yet decidedly attractive young woman. "That is just it. I have always been 'comfortable' enough, but I have never been happy among my temporal comforts."

Milicent gracefully acknowledged the introduction, made some pleasant remark, cast an appreciative smile at her grandfather, and the young dominic thought he must have stepped into another world. She seated herself, and continued her sewing, without making any excuses whatever, and he decided at once that she was the wife of the old gentleman's grandson, who had just sailed to England on a business trip, and he wondered how he could go and leave such a charming wife behind him. As he went on chatting with her grandfather, she threw in a bright remark now and then, showing herself to be intelligently interested.

The young man was thankful for the sewing that engaged her attention. It gave him an opportunity to look at her, to study her. He had seen attractive and graceful young women at archery, at tennis, rowing, and horseback, at the piano, playing the French horn and the violin, gathering wild flowers, picking up shells, sketching, bathing, at lunch, but he couldn't recall ever seeing before a woman, young or old, sitting down quietly and chatting sensibly while her hands were busy with the needle. They were beautiful hands, too. She was decidedly a plain-faced young woman, but he was sure no one could think of that, with the

long lashes of the white, trembling eyelids shading her cheeks—and those beautiful hands! While the old gentleman talked he listened mechanically and thought. "Useful hands," "faithful hands," "graceful hands," "soft hands," "helpful hands," "clinging hands." He had never before thought of hands having so many attributes. He wondered was she what would be called "stylish"? But he decided she was rather what he should call womanly. She was certainly charmingly graceful, and he remembered saying a good many times that he should not object to a plain-faced wife, but that he could never abide an awkward one.

The city's school system was under discussion. There was a strong, vigorous, intelligent editorial on the subject in one of the local dailies that morning. "A very able and thoughtful article," said the young dominie. "There are fresh ideas in it, but I can not quite accept the scope of it. It has the flavor of being written outside of the editorial office, by some specialist—one of our practicing physicians, for instance."

"Milly, there, wrote it," announced the old gentleman proudly.

The young man looked at the lady opposite in surprise and with increasing interest. Was it because her tastes were literary that she was so different from other young women? Decidedly no, for he had known literary women, and they did not sit down quietly and sew as if they enjoyed it. And now she kept on sewing, and did not laugh immoderately, nor blush, nor exclaim, "Oh, grandpa!" She simply threaded her needle and said, as if in defense of her article:

"It is a new idea to many people that women are not wholly mind and hands. Many women even do not wish to acknowledge it. Many men do not seem capable of understanding it. Because women in barbarous countries perform the heavier kinds of labor, they think our own women are capable of just as much endurance as are our men. This is not so, and the race must suffer for generations to come to make up for this

foolish fashion now running rampant which insists that women shall be able to support themselves to obviate the necessity of marriage. Marriage was never intended to be considered a *necessity*. Men and women are expected to marry, as a matter of course. That is a part of God's great plan. I know of a large New England village where, in nearly every house, there are old maids, and every one of them has taught school—many of them very poor schools. These girls sacrificed their hearts to their pride. There is too much romance in these days. Women expect too much of show, blind to the desirableness of real happiness. This seems a hard thing to say, but it is true. In my native town a minister's home was broken up by an ignorant, pretty girl who boarded in the family. She taught the village school, because she was too lazy and too proud to do her father's housework. The husband and wife are separated, the children are with strangers, and the girl's reputation is smirched for all time. Had she, in her teens, accepted the offer of a poor, industrious young man of her own station, and of equal mental caliber, all that wretched scandal might have been saved, and she a respected wife to-day."

She paused, and the old gentleman rubbed his hands gleefully, and said: "Milly believes there must be a good deal of plain writing, and talking, and preaching in order to set these things right. Perhaps she will give you a text."

"It surprises me to hear these views advocated by a lady," said the young dominie, "and I am, indeed, greatly interested."

"It is only because I am not the conventional, modern young woman. I don't believe in this craze for decorative art that makes the girls leave the table dishes half washed while they proceed to daub an old disused blacking-bottle; that neglects the family sewing to do senseless embroidery, and sacrifices home comfort in general to style. Too many of our young women are wasting their time in such employments, as well as wasting the

public money in teaching while they are waiting, hoping to make fine matches, and to begin life in style, instead of being satisfied to begin in a small way and work their way up. Indeed there is sometimes seen the disgusting spectacle of one of these so-called pretty, useless, indolent, youngish old-maids giving her hand in marriage to some ninny of a gray-beard, with a little money, and old enough to be her grandfather. I believe it is a conceded fact in political economy that the more real homes there are, small and unpretentious they may be, the better for the country. Good homes make good citizens. Boarding-houses and hotel life ruin women and children, as well as men. It is bad for any one to be continually on exhibition. It is good for a woman, if such is her station, to reckon ways and means as she sits in her plain home toilet over a mending basket. It is good for the children to wear out their clothes. People get accustomed to hotel life, of course, but it keeps them at high pressure after all, and it is not a normal way of living. Grandfather and I, now, would not live out half our days had we not home nests where we could settle down and be quiet after our occasional jaunts out into the gay world."

The young dominie did not reply at once. He was regarding Milicent attentively, trying to realize the struggle it must have cost her husband to part with her for his foreign tour.

"You like this hotel life, I suppose, Mr. Hathaway," said the old gentleman anxiously, "since you do not seek to change it?"

Milicent gave a little start and dropped her thimble. The fact that their visitor boarded at a hotel was new to her. Indeed, she knew nothing whatever of his circumstances. Fearful lest the young dominie should infer that she had been talking at him, she could ill conceal a momentary show of vexation.

Mr. Hathaway rightly interpreted the quick flush that passed over her fair face, and replied: "I have never known any other life, sir. I was brought up in a

hotel. My mother was an invalid, and, all things considered, there seemed to be no other way for us to live. Immediately after my parents died I was sent to a public school, and then to college. During all my vacations, including my seminary course, I lived at hotels. I have no sister, nor girl cousins, and I have been thinking while sitting here that it is the first time I ever saw a lady engaged in needle-work, as we read of them, but I will confess I have often dreamed of seeing them."

"Just think of that!" said the old gentleman, with a sigh, while Milicent laid her sewing down and looked at Mr. Hathaway in surprised incredulity for a moment, and then said simply, "Sewing is old-fashioned."

"If your will pardon me for saying it," he said presently, "I suppose it is because the girl of to-day is never still long enough to sew. Our girls all seem to me to be like humming-birds, in a state of restless activity. I can not liken them to flowers, unless one can imagine an animated flower-garden. To be sure, I have seen statuesque beauties now and then, but a statue could not sew, of course, even if at home. Like the typical man you refer to in your article this morning, as to his opinion and treatment of women teachers, I have always advocated woman's rights. Yet when I analyze my real feelings as to that subject, I find that I particularly advocate her right to wifehood, to motherhood, to be the mistress of a home. I believe all men, away down in their hearts, admire, yes, almost worship women of domestic tastes and inclination, and that it grates against the purest sensibilities of their nature to see women in stores and in counting-rooms, and in many of the public positions they fill at present. A mannish woman, and a womanish man, are alike reproachful terms, and rightly so.

"Still begging your pardon," continued the young dominie, with warmth, "if some men believe women capable of enduring hard manual labor, it is because so many women are straining the last nerve to

make men accept that belief by asserting loudly that they have no 'domestic tastes,' and by continually crowding themselves into places that should be filled by men. I have always believed in the quiet, womanly girl, such a girl as a man would wish his sister to be, if he had one. But it has been my unhappy lot never to have met a young woman who would talk upon any subject honestly and sensibly. I never met one who did not smirk at me, and, I pray you be not offended, the young married women I have met in society have furnished no exception. I think you are the first woman who ever spoke to me as if I was a rational being. Some of them metaphorically pat me on the head, as if I were a child, and ask me are my feet cold? Some commiserate my lonely condition, and introduce me to their daughters—more of them talk nonsense altogether."

Milicent laughed frankly and honestly, a laugh that was good to see and hear, and then the tears welled up and threatened to overflow the blue eyes. "How little you know of women!" she said. "I am not married, as I suppose you think must be the case on account of my plain speaking. I am simply a girl who is so fortunate as to have a grandfather, a father, and brothers (all very precious in my eyes), to care and look out for, which obviates the necessity of throwing myself out upon the world to scramble for my 'rights' with men who by their very superior physical power would get the better of me in the race. I must have received a different education from the young women you have chanced to meet. I am an anomaly by no means, neither is my prototype to be found only within the covers of a story-book. It has been the custom in my native town for the girls to be womanly, and never to lose sight of the old traditional New England gentlewoman, whose domestic lore and virtues were happily combined with true refinement and solid learning, who was competent to take charge of a household, to be mistress of a home, who could darn and knit and sew, and who could work

for the poor, walking in all the ways that a high and Christian duty pointed out. They did not believe that it was woman's place to dress herself up and put herself in the world's bazar to catch a husband, but that a woman's real life is as beautiful as a thought of God while it is kept in its own sphere, not attempting to encroach upon the rough highways, where men's feet may fitly tread. I talk thus frankly, Mr. Hathaway, because your experience seems to be so unfortunate. You have been brought into contact with the butterflies of society, and now it will be your own fault if you do not often find your ideal woman. You will not do your duty if you do not now let the butterfly women know (many of them being true at heart, having put on their gaudy attire for effect), that there is an imperative call for the quiet, modest, ladylike, healthy, industrious American girl, to be the wives of young working, business, and professional men, who want to settle down in homes within their means, and be happy with their own particular home angel."

The young dominie sat silent for a little, gazing into the fire, and Milicent wondered was he shocked or vexed. When he looked up she was putting the finishing touches upon the red-flannel night-cap. Her cheeks burned with the earnest truth of her words, but she looked good and true, and not at all as if she thought of retreating from her position.

"You have a rare faculty for pointing out the 'path of duty,'" he said. "It is the fault of my bringing up, of course, that this particular path is especially difficult for me to find. I myself am 'old-fashioned' enough to believe in special providences, and I think the Lord directed my steps hither to-night, and led me here to find my wife—and—and I believe I have found her. I implore pardon for my abruptness. I think you are too honest to deny my request that I may come again and pursue this to me happy and gracious acquaintance."

"Hold, hold!" cried Grandfather Ruggles from the depths of his easy-chair. "I am awake; I haven't been asleep. I

thought I would let you youngsters have this out, but you, sir, are going on beyond all precedent. I have other granddaughters, my young friend, and there are plenty of other girls of 'domestic tastes,' and who can 'sew,' if you will only look them up."

"Your granddaughter here is too just to dismiss me without a hearing, I am sure," said the young dominic, rising and standing with his hands on the back of his chair.

Milicent rose, also. She was paler than her wont, but she did not say, "Such a climax as this never entered my head"; she knew he knew it had not. What she did say was simply this: "I

should like to see you again, Mr. Hathaway. I think we are sure to be friends, and should mutual esteem and friendship end in love, I should believe, with you, that our paths were destined to meet, that, indeed, a higher power directed your steps."

"Ah, well—all true matches are made in heaven," said Grandfather Ruggles, rubbing his hands.

"Dat young master done gone foun' a fortin," said Julia, the black waitress, as she came back from locking the hall door after the visitor. "I 'clar', how his face shoned when he went out! My! when he come in he looked like a cloudy day in de fall ob de yeah!"

MRS. ANNIE A. PRESTON.

LOUISE MICHEL,

THE FRENCH SOCIALIST.

THE name in the title will doubtless remind the reader of those dark and terrible days in Paris, when the city, besieged by Prussian batteries, which occupied every hill commanding a view of it, was almost given over to a more bloodthirsty foe, sprung from the masses of her own citizens, the Commune. Prominent among the extreme actors in that fanatical organization was Louise Michel. It is probable that some of the stories coupled with her name are more romantic than true, but her later history has shown the same spirit of antagonism to existing social and political conditions which characterized her in the dramatic ending of the "Second Empire."

She was born about 1830, of good family on her father's side, in the Department of Haute Morne, and early showed more than average intelligence and some talent as an artist. She was something of a musician, and composed verses which have a genuine poetical rhythm. Her model was Victor Hugo. At the age of thirty she became heir to a property of 12,000 francs by the death of the Castellaine of Broncourt. Then

she went to Ancillencourt, where she passed an examination for a teacher's place. At this time she appears to have entertained the purpose of devoting herself to the Church, and on that account declined an offer of marriage. Her mother, however, opposed the idea of her becoming a nun, and soon afterward a marked change took place in her religious relations—from a pious Catholic she was transformed to an atheist, and she determined henceforth to strive in behalf of the oppressed. A new enthusiasm possessed her; she would go to Paris, and there, in the earnest illustration of her new principles, die, as a kind of martyr, if necessary.

She started a school, first in the vicinity of the boulevards, but the life of a teacher did not suit her. Then she threw herself among the social democracy, and exhibited a bitter hatred toward the higher classes. The time appeared favorable to her. Already a strong adverse movement was showing itself to the imperial régime. She conceived a new mission, that of the Conferenciére, which, with her harangues, made public places

unsafe, and owed its success more to the curiosity of the populace than to its sympathy.

When the Empire fell, and the civil war followed, Louise Michel became especially conspicuous. Previously, she had been known to express at times feelings of tenderness and delicacy; now she appeared to be dominated by a barbarous spirit. To Ferré, who affected the part of

Her entrance into Paris was attended with a considerable demonstration on the part of radical socialists and fanatical republicans. Her trying experiences are said to have wrought little change in her character; if anything, she is more embittered and revengeful. She publishes a sheet called *La Revolution Sociale*, the furious sentiments of which excite much laughter in journalistic circles.



LOUISE MICHEL.

a Robespierre among the Communists, she was devoted, and willing to carry into effect the most atrocious schemes of pillage and destruction. As a destroyer, a *petroleuse*, as she was called in common with other women who used petroleum in firing buildings, she was a leading figure. In the overthrow of the Commune she was taken prisoner and exiled, with others, to the Island Nou, from which she returned among the last of the Communists to whom amnesty has been offered.

One can not look upon her face, even as shown in the imperfect form of an engraving, without being impressed by its strength. Stern resolve, inflexible convictions are seen in the lines of forehead, nose, mouth, and chin. The jaw shows extraordinary force and extraordinary vitality. Had she been well brought up, Louise Michel would have become a noble and powerful woman—a leader efficient in good works. Whereas now her strong qualities are enlisted in a futile

and fanatical cause. Her great ambition and influential sympathies have been led into irregular and unwise courses, mainly, we think, because in her youth there was

no appreciative hand to guide her rightly—to point the way for the exercise of her unusual endowments of energy and zeal.

SOME FIELD NOTES OF A PHRENOLOGIST.

DURING my career as a phrenological lecturer of the peripatetic school, many incidents of interest occurred, which abide in my memory with marked distinctness. It occurs to me that some of these are worth recording.

My first course of lectures was given in a village of Central Illinois. There being no public hall, a church was engaged, the minister and trustees being assured that the lectures would be of a moral character. My agent proceeded to advertise by posters, containing, besides the announcement of dates, etc., a symbolic head. This was a novelty, and the good pastor became alarmed, and at once called for an explanation. He said, "I understood that you simply proposed to give a course of lectures, but from your posters I learn that it is to be a sort of circus." It was now my turn to be astonished, and I asked what ground he had for such an opinion. "Why," said he, producing a copy of my small bill, and pointing to the print of the symbolical head, "here is a picture of a circus. There," pointing to the organ of Firmness, "is a regular circus mule, and here," directing my attention to the cat in Secretiveness, "is a tiger, and over here," putting his finger on the organ of Combativeness, "is a fight going on. Now, I can't have any such carryings on in my church."

Of course I explained the symbols briefly, and assured the good man that my entertainment was very different from a wicked circus, or even a moral show like Barnum's. He attended the entire course, and became an enthusiastic disciple of Gall.

At the close of the introductory lecture of my course in M——, Indiana, October, 1862, the audience selected, among

the subjects to be examined publicly, the pastor of the church in which the lectures were given. I had not met him, nor even seen him, till he came up on the platform. Judge, then, of the sensation produced by my saying, "This man has an exceptionally bad organization. His passions and propensities are strong, and his moral and religious organs comparatively small. He has the make-up of a bad man. But I am sure that he is not a bad man. His face shows that he has restrained his passions, and given great activity to his higher faculties, and the organs of Veneration, Benevolence, Sensuality, and of the intellect, show a high degree of activity, the result of culture, while the lower organs have been restrained; hence they are not active."

I saw clearly that the audience thought I had blundered; but I persisted in my view of the case, and made a more complete analysis than was my habit in public. When I completed the examination, the gentleman arose and said, "Brethren and friends: I have not heretofore given much attention to Phrenology, nor had much faith in it, but I am now fully convinced of its truth. You think that the professor has failed to read me correctly, but I *know* that he has succeeded marvelously. I am by natural bent of character a bad man. I am sure that, but for the grace of God, I should probably now be in the penitentiary, or possibly I should ere this have been hung. None but my God and myself know what I have to resist, at least I thought so till now; but this man has proven to me that Phrenology is a revelation from God, by which the human heart is laid bare, and its secret springs exposed. The doctor has told us that this science is the handmaid

of religion. I believe it, and henceforth I shall deem it my duty to study and apply its principles; and I hope that all my people may attend this course of lectures, and profit by them."

I met recently a distinguished judge who said, "Doctor, I owe you a lasting debt of gratitude." "I can not imagine why," I responded, "for I have no recollection of having met you till now." "But I have a distinct recollection of having met you in 1862. You were giving lectures in S—, Indiana, on Phre-

nology, and I brought my first-born son, a child of eight years, to you for advice in regard to his training. I followed your counsel, and am confident that by doing so I not only saved his life, but made a specimen of noble manhood out of what gave little promise of health of body or strength of mind."

But I could run on almost endlessly in this line, for reminiscences of a similar sort press for record. Perhaps I may resume the subject when opportunity permits.

T. A. BLAND, M.D.

THE SKILLFUL PLAYER.

GRATEFULLY we admire the trained musician, under whose deft fingers the instrument pours forth sounds of sweetest harmony. But higher commendation is due the player who so skillfully touches people's hearts as to bring out the music that is in them. True, a few hearts are like cracked jews-harps, and it would require a wondrous master of the art to extract from them a pleasing tune. But most hearts contain good music, if we but know how to finger the keys.

Some persons growl about the many discordant people that are continually jarring against them, when only they do not understand aright the instruments upon which they play, so are able to bring forth only discordant sounds. Yet some appear capable of yielding only harsh, rasping sounds, that grate upon every fiber of our being. Ah! such are sadly out of tune, and careless fingers would better touch them but softly ere they have undergone a tuning up by a master hand.

The skilled organist knows how to tune his organ, and, though the instrument be a poor one, still it sends forth strains responsive only to the tune played upon it. Of course the musician does not get the same kind of music from all hearts, any more than he extracts the same tones from the organ, piano, flute, and bass-viol, but from all he gets music and harmony, though of different kinds. A few

finely toned, sensitive hearts, like æolian harps, yield responsive musical strains to every passing breath of air. Sometimes, waves of sorrow, sweeping over the heart-strings, evoke a sad, plaintive melody. However gentle or rough the touch may be, the sounds are only sweetly musical still; for such hearts are full of music, and naught but musical sounds can be gotten out of them.

Human hearts are wondrous musical instruments, widely differing one from another; some thrill us with their rich, deep tones, or charm, subdue and inspire with their exquisite sweetness. True, time and adversity seem to have corroded and almost filled some hearts with dirt, that would be the better for a cleansing out and tuning up.

Many and varied are the musical instruments that please and entrance the ear with their enchanting sounds, but none compare with the one of Divine workmanship, with its numberless chords and delicate intonations, that holds within it the purest tones of exquisite music, called the human heart. From it, incomparably sweeter melodies than from all else come responsive to the seemingly magic touch of the skillful player. To become such a musician requires a cultivation of all the Christian graces, combined with skill, wisdom, and a knowledge of human nature.

S. M. BIDDLE.



WHY THERE IS SO MUCH DISEASE.

[Extracts from a paper read before the Public Health Association, by Dr. A. L. Gibbon, U. S. N.]

IT is only my present purpose to ask your attention to the culpable neglect which has been the natural consequence of the degradation of the body, and to urge upon you, in the interest of every living being, in the interest of every organized community, in the interest of the whole human race, the importance of bestowing the most earnest thought upon the subject of physical culture. All that we know or feel, every desire and gratification find expression through the body. Thought, will, emotion, sensation depend upon the normal action of normally constituted organic molecules. Hence, to think intelligently, to feel acutely, the chords on which these harmonies are rung must be in perfect tune. The aggregate actions of the various organs and apparatus of the body, which we call life, if harmonious and without jar, are what we mean by health. Dim the eye, deaden the ear, silence the speech and benumb the touch, and what will remain to us of the bright world? Widen the avenues to the senses, let in the flood of light and sound, develop the capabilities of the physical man, and as he communes with new spheres, he grows in mental stature.

It behooves us, therefore, to cultivate this garden of the soul, in which it lives and thrives—to develop this mortal frame

to its utmost, that all these attributes of manhood, which are alone possible through its instrumentality, may be exercised in their highest intensity—not only for the well-being and happiness of the individual, but for the welfare and higher development of the whole race. Rich estates and noble titles are valueless bequests beside the heritage of health. The youth who can boast an ancestry free from the stain of transmitted disease has a prouder blazon on his banners than the lordling whose feeble frame bears the indelible mark of constitutional contamination. Invalid parents beget invalid offspring, and these other weaklings like themselves, whose puny descendants ramify over an entire country. How great, then, should be the concern of the community in the physical condition of its individual members. The contaminated man, seared through folly, ignorance, or sin, does not bear his living burden alone to the grave, but shares it with his wife and child. It leaps the threshold of his home. The blight spreads from household to family, to vicinage, to race. The muddy stream poured into the ocean, meets others from like polluted sources—each aiding the other in marring the purity of the broad waters. The physical deterioration evidenced in certain localities—notably in

America—by the paucity of children, the incapacity for athletic sports, and the high mortality rate, is only temporarily retarded by foreign importation. While the breeding of cattle is carefully fostered and splendid results obtained by judicious crossing, the human animal is allowed to intermingle without regard to possible funest consequences. The mother confides her spotless daughter to a contaminated husband—the father sees his son deliberately taking to wife the heiress of some other father's infirmity. The warning family records of premature decay are unheeded. Hereditary taints are blindly encountered and physical vices intensified and perpetuated in malformed and weakly offspring. Nor is the evil wrought limited to the impairment of the body. Crime is the outcome of physical defects. The brutal outrages which have disgraced humanity, have been the fruit of impulses ingrained in ill-developed brains, exaggerated by repeated crossing. If the intermarriage of criminal classes is beyond the control of society, and the vipers must breed for slaughter, the enlightened sentiment of the educated should, without the need of arbitrary enactments, restrain the chance, promiscuous sexual alliance of the doomed victims of disease. Why should the future of a family or a race be imperiled to gratify the impulsive whim, the momentary fancy, or even the ardent affection of these, who bear the stigma of an ineradicable physical taint? Men toil and hoard. In the eager greed of wealth, they sacrifice health and strength and prematurely old survey the pile of gold which is to purchase pleasures they no longer have the capacity to enjoy. The very effort to taste the unaccustomed draught kills them before they should have reached their prime, and dying they leave their riches to children framed in the likeness of their own decrepit bodies.

What if the sanitarian succeeds in inducing mankind to heed his warnings. Will not life be made up of self-denials? Will we not have to live and move, eat and sleep and dress by rigid rules, so irk-

some that one would welcome the pangs of pain as penalty for untrammelled pleasure? By no means. It is not a question of a short life and a merry one, without restraint, in contrast with the tedious drawing of years of cheerless asceticism. The song and dance—the music and the flowers—the joyous laugh and sounds of jovial frolicking are heard and seen among Hygeia's followers; the cry of pain, the wailing of the sorrow-stricken—tears, agony, despair, the gloom of death among those who have denied her. Let the child learn the simple laws of health, and the man will live responsive to them as automatically as the musician obeys the laws of harmony. Inculcate in the youth that his ambition should be the possession of a healthy physique—on the maiden that no art can rival the charms with which nature will deck her unblemished form—that however lowly the station or humble the home, he and she may proudly vie with the cions of the richest aristocracy in that vigor of body, that strength of mind, that exquisite refinement of the emotional nature which constitutes the perfect thinking, feeling, loving, living man and woman—that the blue blood which is derived from titled progenitors, however many their quarterings, is cold and sluggish in the veins beside the red blood which has been transmitted from ancestors who have known no stain of disease.

What are these simple laws of health? The first and greatest, and that which comprehends all others, is Hygeia's mandate to be clean. It is not an idle saying that cleanliness is next to Godliness. It is its nearest kin—as filth is the parent of disease and sinfulness. Let us see what it means to be clean, and first realize that one-half* the mortality of the very cen-

* The report of Dr. John T. Nagle, Registrar of Vital Statistics, shows that during the three months ending September 30, 1881, there were 10,967 deaths in the city of New York, being equivalent to an annual death rate of between 35 and 36 in every 1,000 inhabitants, the population being estimated at 1,242,533. The mortality from zymotic diseases alone amounted to 5,079, a death rate of over 16 individuals in every 1,000 from diseases for which bad ventilation and bad drainage are mainly responsible.

ters of civilization—the great cities of the world—wherein are gathered the wise and learned, is due to preventable disease. One-half the deaths that are at this moment being mourned throughout the land, need not, ought not, would not have happened had this law of cleanliness been obeyed—for preventable diseases are expressively, if coarsely, named filth diseases, and filth is all that which defiles, not merely the outward surface, the person and attire, the dwelling place and sleeping apartment, but penetrates within, entering the body as food and drink, and befouling the air, which fills the lungs, poisons the blood, permeates the tissues and carries its nocuous influences to the minutest cell in the remotest organs.

Few of us would care to enter the bath which had already served a predecessor, yet the water possibly were less offensively soiled than the air of the apartment into which we plunge with reckless indifference. The nausea which assails you in the confined cabin below the water-line or in the musty pestiferous sleeping holes of a Pullman car, disappears when you have access to the free air, as does the drowsiness which possesses you in church, and which you have ascribed to the prosy sermon. When the public can be made to realize that one-half the men, women, and children who are falling dead around us, have died before their time from preventable diseases, and that most of these are directly or indirectly due to impure air, they will appreciate how momentous is this problem of keeping clean the atmosphere we breathe. Yet air as deadly may be found in the sumptuous palaces of princes and millionaires. Men build costly mansions and heedlessly fit them with contrivances designed to aid that indolence of luxury which spares the flaccid muscles the slightest effort, and which, through their unsanitary construction, destroy their children and themselves. The victims of typhoid and diphtheria sleep without waking on satin cushions in rose-wood coffins. Our own children go to

ill-ventilated schools by day and sleep in ill-ventilated rooms by night. The invalid teacher, fretted by the cares of her vocation, enfeebled by her sedentary life and cheerless solitude, tries to supplant her failing heat-producing power by closing windows and doors and building fires, until the crimson which the sunlight had stamped on the child's cheek fades, and she too shivers at the fresh air's touch. You, too, suffer headache from foul air—you are tired and listless from foul air—you sleep disturbed and awaken unrefreshed from foul air—ten in every thousand of you die yearly from foul air. Happier by far to sleep on a rude pallet in a garret, through whose thatched roof the stars twinkle, than on the downiest couch in the alcoved recess of a palace chamber, whose heavy hangings stifle the still air which curtained windows have imprisoned and fire and sewer have poisoned!

It is almost supererogatory to do more than suggest that the law of cleanliness involves cleanliness of the body itself as of the habiliments with which it is clothed and the domicile it inhabits. One need not be a physiologist to understand what wondrous influence a clean skin has upon the harmony of the functions, how many pounds of effete material are cast off it during the day, and how necessary that this human refuse should be removed. The dry and grimy skin is neither healthful, comfortable, nor beautiful. If the prize of health be not incentive enough nor the sense of comfort be an inducement to frequent bathing, the clear complexion and soft, smooth velvet surface of the clean man and clean woman should induce every human being to avail himself or herself of this cheap balm of beauty.

Man is pre-eminently the creature of habit. The child trained to be clean from birth will look upon sponge and bath and tooth-brush as indispensable, and will walk all its days on the cleanly path on which its mother first taught it to pick its footsteps. The sordid teeth and fetor-tainted breath are not only

disfigurements of the fairest face, but shameful evidences of maternal neglect and incapacity.

With this I might cease to claim your attention. When the lungs are hourly filled with pure air and the clean body is bathed in its sunlit ocean, the enlivened blood will crave its proper food, and the awakened appetite may be safely trusted to select it. Let the food be good and wholesome, plentiful in quantity, and not ruined by the cooking. National and sectional habits become idiocratic, and are not easily eradicated. The Yankee stomach delights in pies and baked beans, while hog and hominy are in equal favor in Dixie. Banish the pie-board from the North and the frying-pan from the South,

and thousands will live who now perish. The cook is a mighty power. Amid the smoke and vermin of the kitchen he wages war on the people who despise him. He sugars the venomed pill and sweetens the poisoned draught, and with disdainful contumely bids you eat, drink, and die. Dignify his calling, and expound its mysteries to the ruler of the drawing-room. Let the young mistress of the house know that culinary chemistry is as elevated a study as the physiological chemistry by her brother, and that the changes to be rung in flour and butter and sugar, and milk and eggs, are not mere panderings to taste, but the foundations on which are reared races of valiant men and lovely women.

MELANCHOLY.

WHAT "BACHELOR BLUFF" THINKS IT COMES FROM.

"CULTURE ought to chasten and enrich our whole being, filling us with Matthew Arnold's 'sweetness and light.' Is it not odd, now, that one prophet should be preaching this beneficence as the outcome of the right use of the mind, while others are deploring the gloom that intellectualism is casting over the world? But, in fact, is it intellectualism? Are we not giving that name to emotional unrest, self-consciousness and feverish desire? True intellectualism broadens, enlarges, exalts; all great, honest, healthful mental training and development can do no one harm. I believe that with all truly healthful persons—healthful in mind as well as in body—joyousness is the natural, spontaneous, inevitable expression of their being. To breathe, to move, to live, are in themselves pleasure and happiness with all well-organized persons. There may be trials, sorrows, sufferings, misfortunes, even bitter experiences; but, so long as a healthful balance is maintained throughout the being, the spirit rebounds from these sufferings and begins to weave hopeful promises for the future. No outward circumstance determines the cheerfulness or the sadness of men—the rich may be

sad and the poor cheerful, the fortunate may be gloomy and the unfortunate full of hope, the sick may be full of the spirit of joy and the strong wrapped up in morbid gloom. I have heard stalwart fellows deploring in lachrymose strains the misery of life in the very presence of confirmed invalids whose cheerfulness shed radiance upon all within their circle. Some persons are victims of dyspepsia, the most joy-killing of all ailments; some are victims of diseases that cast shadows upon the soul; some are cursed with a constitutional inclination to sadness. The causes are various, but every case of melancholy is the product of some defect in the organization. Melancholy is the sign of disease, and a capacity for cheerfulness hence is nothing more than supreme good health—good health of mind even more than of body. As a disease, then, it should be treated, and every effort made to cast it out, just as is made with other forms of sickness; very much indeed can be done to eradicate it when there is a will to do so. Cheerfulness ought to be placed among the cardinal virtues, and its cultivation made incumbent upon every one as a duty."

UNHEALTHFUL READING.

A LATE article by John Ruskin, published in the *Nineteenth Century*, has something in that eminent author's clear and conscientious manner on the fiction of the day, which should be heeded by moral and cultured people—for their children's sake at least.

"All healthy and helpful literature sets simple bars between right and wrong; assumes the possibility, in men and women, of having healthy minds in healthy bodies, and loses no time in the diagnosis of fever or dyspepsia in either; least of all in the particular kind of fever which signifies the ungoverned excess of any appetite or passion. The 'dullness' which many modern readers inevitably feel, and some modern blockheads think it creditable to allege, in Scott, consists not a little in his absolute purity from every loathsome element or excitement of the lower passions; so that people who live habitually in Satyric or hircine conditions of thought find him as insipid as they would a picture of Angelico's. The accurate and trenchant separation between him and the common railroad-station novelist is that, in his total method of conception, only lofty character is worth

describing at all; and it becomes interesting, not by its faults, but by the difficulties and accidents of the fortune through which it passes, while in the railway novel, interest is obtained with the vulgar reader for the vilest character, because the author describes carefully to his recognition the blotches, burrs, and pimples in which the paltry nature resembles his own. The 'Mill on the Floss' is perhaps the most striking instance extant of this study of cutaneous disease. There is not a single person in the book of the smallest importance to anybody in the world but themselves, or whose qualities deserved so much as a line of printer's type in their description. There is no girl alive, fairly clever, half educated, and unluckily related, whose life has not at least as much in it as Maggie's, to be described and to be pitied. Tom is a clumsy and cruel lout, with the making of better things in him (and the same may be said of nearly every Englishman at present smoking and elbowing his way through the ugly world his blunders have contributed to the making of); while the rest of the characters are simply the sweepings-out of a Pentonville omnibus."

KITCHEN LEAFLETS.

ROLLS, GRIDDLE-CAKES, BEANS, SPONGE-CAKE.

ONE of the recipes given in the February number, was for making a "pumpkin" pie with either pumpkin or squash, and if any of the JOURNAL'S lady readers have tried it, they have found, I think, the result to be very palatable and wholesome. I agree of course with the hygienists, that pastries as commonly made are not wholesome, because of the large proportion of fat or grease put into them—lard being the staple for shortening with most pie and cake makers. But I am of opinion that good, wholesome pies can be made, and only intelligence and care are necessary to that end. In

pies we can combine healthful ingredients, and produce results most delightful to the taste, but the methods must be essentially different from the old ones whose distinguishing features are: butter, lard, spices, superfine flour, and imperfect baking. I think that those who have tried squash in "pumpkin" pie, will vote in its favor as superior to the time-honored accessory of the corn-field. A while since I read in a prominent New York weekly, a long dissertation on pumpkin-pie, in which the writer set forth the superior merits of squash. A column and a half were occupied by

sundry suggestions, but a careful reading of the article failed to reveal a complete recipe for preparing the dish. The writer evidently intended to be exhaustive, but failed in the one essential, which no doubt every housekeeper of the many who read that paper, like myself, looked in vain for: a plain description of her way of making pumpkin-pie.

I am asked to give a few directions for pan and griddle cakes, and am expected of course to comply. Now in cold weather the healthy stomach can turn to good account such food, but for warm weather they can not be regarded as appropriate. One, after eating a rational number of nicely baked cakes with a moderate quantity of good molasses, or sugar, or what is better, some nice fruit sauce or jelly, can go into the sharp out-of-door air feeling braced-up against its chilling effects. The pan-cakes being rich in carbonaceous material, furnish heat in abundance to supply the loss incident to exposing the body to the cold. Beans are well adapted to cold weather, also, besides supplying a larger proportion of nutritive elements generally than almost any other known form of food, animal or vegetable. It should be added that beans require much care and time for perfect cooking, the dish produced by one who knows the constitution of this garden product and just how to prepare, is as different from that gotten up by hasty ignorance, as a piece of soaked leather is from a mellow apple.

GRAHAM OR GLUTEN ROLLS.

Take one pint of pure cold water, mix enough flour into it to make a stiff dough. Take this out of the dish and put it on a kneading board. Knead for about half an hour, adding wheat flour in the usual way to keep it from sticking to the board. Roll the dough with the hands into a cylinder about one inch and a half in diameter, and cut off pieces about three inches long. Bake in a hot and slightly oiled pan, in a quick oven from thirty to forty minutes. Place the pan in the upper part of the oven first, and remove it to the lower part of the oven after the crust is formed. If not well baked the rolls will be heavy when cold. Be careful not to have them

blister or scorch. The quantity of material named will make about twelve rolls. Do not look at them except to change their position in the oven—until it is time for them to be done.

GRAHAM GRIDDLE CAKES.

Two pints of Graham flour.
One pint of white flour.
One tablespoonful of corn-meal.
Three teaspoonfuls of baking-powder.
One pint of milk.
One pint of cold water.

Sift the Graham, white flour, and corn-meal together in a pan; stir in the baking-powder, then mix well and sift all again. Then add the milk and water, or only water to the extent of a quart. Bake on a hot griddle. If the mixture seems too thin add more Graham flour; if too thick add more water.

Bake as soon as mixed.

CORN-MEAL AND GLUTEN GRIDDLE CAKES.

Two pints of gluten flour.
Half tea-cup of sifted corn-meal.
Three teaspoonfuls of Royal baking-powder (well mixed through the flour and sifted).
One pint of cold milk.
One pint of cold water.

These can also be mixed up at night by scalding the meal and stirring in one quart of tepid water; no milk, and half of a yeast-cake dissolved in a portion of the water. Left to rise until morning, then baked on the griddle. If too thick, thin them with a little tepid water. Tepid water is made with one part *boiling* water and three parts *cold* water, as it comes from the well or pipe, say at 40° Fah.

HOMINY CAKES.

Two cups of fine hominy boiled and cold.
One cup of white flour.
One quart of milk.
Three eggs, well beaten.
One teaspoonful of salt.
Beat the hominy smooth; stir in the milk and salt; add the flour, and lastly the eggs. Bake at once in oval cakes on the griddle. Keep the mixture well stirred, and have the griddle hot.

DRIED BEAN SOUP.

Take a pint of beans (the small white variety is among the best for the purpose). Wash them well and put to soak over night. In the morning put them on to cook with one quart of water. Cook three hours; if the water boils off add more, or enough to make the soup as thin as preferred. If there is a strong taste to the beans it can be reduced by pouring the water off when they have boiled about five minutes, and adding the necessary quantity of boiling water again. Add a little salt after they are taken from the fire.

BAKED BEANS.

Partly boil the beans, then skim them out and put them in a bean-pot, putting a lean piece of cooked corned beef in them, or a little sweet butter; set them in a slow oven and let them bake all day, or half a day in a quick oven.

APPLE TAPIOCA PUDDING.

One tea-cupful of tapioca.

Six juicy and well-flavored apples, peeled and cored.

Cover the tapioca with three tea-cups of tepid water, and put it in a warm place to soak all night. In the morning add about a tea-cup more of water, and cook until it is of the consistency of starch. Put the apples, peeled and cored in a pudding-dish; fill the openings with sugar, and pour one tea-cup of tepid water over them; now cover closely and steam them in a moderate oven until tender, turning them occasionally as they cook at the bottom. Finally, pour the tapioca over the apples and bake one hour in a quick oven. Eat warm with sauce or with sugar alone.

SPONGE CAKE.

Two scant cups of granulated sugar.

Two full cups of white flour.

Half cup of cold water.

Six eggs.

Two teaspoons of Royal baking-powder.

Beat the eggs until they are frothy, then stir in the sugar and cold water; mix well. Put the baking-powder in the flour and sift twice before adding the eggs, sugar and water. Bake in a quick oven twenty minutes. Do not look at the cake until it has been in the oven fifteen minutes. Another good rule is:

Five eggs.

Two cups of granulated sugar.

Two cups of white flour.

Half cup cold water.

Bake in a moderate oven forty-five minutes.

ICING.

If icing is desired, take the whites of two of the eggs and beat them up; then stir in a scant teaspoonful of corn-starch and powdered sugar, to make a mass stiff enough to spread nicely over the cake. Use a knife in spreading, dipped in cold water before *beginning* to spread. Ice the cake cold. The dough of either cakes can be put in hot gem-pans, and thus baked in single cakes, or baked in one pan, whichever is preferred.

MIRA EATON.

HINTS FOR POOR SLEEPERS.

Poor sleepers will find it advantageous often to raise the head of the bed a foot higher than the foot, and then to sleep on a tolerably thick hair pillow, so as to bring the head a little higher than the shoulders. The object is to make the work of the heart in throwing blood to the brain harder, so it will not throw so much. A level bed, with the head almost as low as the feet, causes an easy flow of blood to the brain and prevents sleep.

Persons who find themselves restless and unable to sleep at night, would do well to place the head of the bed toward the north, as it is undoubtedly a great conducive to health.

A hot mustard foot-bath, taken at bedtime, is beneficial in drawing the blood from the head, and thus inducing sleep.

Sponge the entire length of the spine

with hot water for ten or fifteen minutes before retiring. This will often insure a good night's sleep.

A hearty meal, and a seat near a warm fire, after a long walk in a cold wind, will induce deep sleep in the majority of persons, no matter how lightly they ordinarily slumber.

Active outdoor exercise, and avoidance of excessive and long-continued mental exertion, are necessary in all cases of sleeplessness.

Where these means fail, such remedies as are known to diminish the amount of blood in the head should be resorted to—of course, under the direction of a competent physician. Opium, chloral, etc., increase the quantity of blood in the head, and are highly injurious. Their use should never be resorted to.

L. H. WASHINGTON, M.D.

NOTES IN SCIENCE AND AGRICULTURE.

New Discoveries at Pompeii.—A correspondent of the *Pall Mall Gazette* thus writes of the work of excavating among the ruins of Pompeii, and its later results :

"I visited Pompeii next day, and went straight to the diggings. The only wonder is that anything is ever dug up at all; the process is so ridiculously slow, even for Italy. The directors sit all day on the rubbish heaps smoking, and dozens of children file up and down with their little baskets of earth, whilst a few idle peasants shovel up a few lazy spadefuls at a time. Still, the first I saw was the side of a dining-room, uncovered only a few days ago. On one side was a bright picture of a cock and hens in a great state of excitement over a large basket of grain and red berries, all upset—Landseer could not have done it better. The fondness of the Pompeians for birds, beasts, and fishes is very apparent, and they always seem to be dining. The wealth of cooking apparatus in the museum is astonishing. You have saucepans perforated with countless holes, in most elaborate patterns; every conceivable kind of boiler and cauldron, casts for jellies representing the prostrate hare and the sucking pig; ladles, spoons, skewers, dishes for roasting six eggs or a dozen eggs at once, toasting-forks, gridirons, and fancy machines for pastry and delicate confectionery, what in Elizabeth's day were called 'conceits.' In Pompeii itself the oil-pots and wine amphoræ set into slabs, and of mosaic work of colored marble, are among the quaintest features of the ruined shops. I saw in another new part a fine dining-room, found three months ago, with some of the finest animal painting imaginable. The first section of the walls all around represented the boldest scenes under the sea—a conger struggling with an octopus, a shark pursuing its prey, a shoal of fish flying through the water, all glittering and fresh. The middle section dealt with birds and wild fowl floating, flying, quarrelling, diving; and the upper and largest section gave fierce hunting scenes—a horse pursued by a lion, an ox in desert scenery sprung upon by a tiger; and all these were set in scenery of great force, variety, and character—woods, rocks, rivers, and green hills.

"The corridors and ante-rooms of this house are equally rich, the walls copiously vignettted with figures—dwarfs on stilts, street scenes, animals. In one room there is a perfectly white suit of marble steps in situ, belonging to a fountain. The whole thing stands as though finished yesterday, without a soil or chip or scratch. They seem now to be coming to some of the richest houses, and have broken into the outer court of one in which stands a beautiful fountain cupola and niche of elaborate mosaic work, representing gods and goddesses in the deep blue heavens half veiled with fleecy clouds. The house is still

imbedded under thirty feet of earth; but, if this is the back-yard, what must the halls and corridors be? The plan now adopted is to leave as much as possible in situ. Specimens repeat themselves, and it is needless to go on removing similar mosaics or frescoes, of which there are plenty in the Naples museum. As a rule, therefore, all the later excavations are more interesting than the old ones, because they have been left unspoiled of their treasure. I should like to spend a week at Pompeii every year, if only to watch the uncovering and revel in the new finds."

How the First Daguerreotype WAS TAKEN.—In the course of an interview with the late Professor J. W. Draper by a reporter of the *New York World*, not long ago, some very interesting facts were given by the professor connected with his early experiments in photography:

"I believe you took the first likeness that was ever taken by the use of chemicals, did you not?" said the reporter. "Yes," replied the professor, "I think I did. If you choose, I'll tell you all about it. The secret of Daguerre was made known upon the promise to him by France of a pension of 6,000 francs in August, 1839. Putting an ordinary spectacle lens in a cigar-box I began to experiment, and succeeded easily in obtaining views from the east windows of the University chapel. With my cigar-box camera I took many and many a view, until one day I determined to try the experiment of taking a human face, which it was said Daguerre had not yet succeeded in doing, being able to take inanimate objects only. I think it was in October or November, 1839, that, having covered my assistant's face with white powder and taught him to sit very still for a long time, I managed to get a likeness. That I believe was the FIRST LIKENESS EVER OBTAINED by the Daguerre process. During the winter I made a larger camera, and in April, 1840, Professor Morse and I opened a primitive gallery on the top of this building. Professor Morse was at that time a teacher in the University of painting and the fine-arts, while I was a young professor of chemistry.

"So you see (and Professor Draper laughed heartily at the reminiscence) we were able to make quite an effective firm. He supplied the æsthetic part, posed the sitters and all that, while I took the pictures. Our gallery wasn't anything very elegant. We used the turret-room for a workshop, and had a hastily-constructed shed, with a glass roof, for the operating room. But nevertheless it was a grand success. It was during the summer vacation, and we had all the business we could possibly attend to at \$5 a picture. Can I remember who favored us with sittings? Well, no; it is so long ago. But we had for patrons the best known people of the town. I remember we took a picture, and a very good one, for

Mr. Theo. Frelinghuysen, who was the candidate for Vice-President on the Henry Clay ticket. On dark days we used to teach the art to would-be photographers or daguerreotypers, as they were then called. I can't recall the names of our pupils, but I am sure all the earlier picture takers were taught by us. They used to come from all parts of the country, learn as much as they thought necessary, and then go off and start in business for themselves. From April until the fall, when I was obliged to resume my duties of teaching, we kept our gallery open; and then Professor Morse, quite devoted to it, opened a gallery on his own account on top of the *Observer* building in Nassau street. Here he worked very successfully until the following spring, when seeing that the telegraph was destined to become a more important invention, he quit picture-taking and gave all his time to that."

What an Apple Expert Says.—I have fruits of various kinds, some of which keep in their natural state the year round, and all are delicious and wholesome when eaten as part of a meal. The apple I regard as the Alpha and Omega of all fruit. Our late worthy philosopher, Mr. S. R. Wells, said every man who owned a lot of ground should plant out fruit, and every one who neglected that duty failed to perform his mission on earth. I think in 1848 the Pomological Society held an exhibition of apples in Clinton Hall, and the varieties displayed were numerous. Mr. O. S. Fowler invited me to cut the specimens. I did so, and from their appearance and open texture I was not able to know the fruit only from the label, as the color varied as much as the taste, they not being so firm or as rich as those cultivated in Westchester County, New York. I mentioned to Mr. Fowler that I thought I had one kind that could excel any there, and to prove my assertion I sent him a specimen of the Joseph Moore, which he admitted was A No. 1. In 1849 I shipped to St. Catharina, Brazil, the following varieties: Joseph Moore, Newtown Pippin, Golden Pearmain, Rhode Island Greening, Roxbury Russet, Well-tree, French Pippin, Red Streak, and Esopus Spitzenberg. I recorded in my log-book the death of each. The Joseph Moore was the last to decay, the Roxbury Russet next, the Newtown Pippin third, Well-tree fourth, French Pippin fifth, Spitzenberg sixth, Pearmain seventh, R. I. Greening eighth, and Red Streak ninth. While crossing the line near land, the vessel became becalmed under the tropics, and this caused the apples to decay. Most of the above varieties I have had on hand until I picked them again the next season. I have never yet been convinced by my own experience of any superiors to the Joseph Moore, Newtown Pippin, and Well-tree for late keeping. The Marygold, Baldwin, and Vandevere I have kept until July 26th. I never cultivate any varieties for cider, not even the Harrison.

From 1800 to 1825 the Newtown Pippin was the principal apple sold from Westchester, and commanded in Albany \$1.25 a barrel. I regret to say that the Newtown Pippin orchards are rapidly disappearing in this part of Westchester County. If any apple trees are replaced they are generally selected from some highly colored plate. In cultivating apples plant the seed; bud them the second year, or graft them the third year, or buy them of some respectable nurseryman, and place them 40 to 50 feet apart. Brace them up while small, and wash with whale-oil soap spring and fall. Keep the soil well cultivated with vegetables until the trees are well grown. They will do well in twelve or fifteen years. Keep hogs in the orchard to root up the earth and eat up the windfalls. In 1880 apples sold from 75 cents to \$1.25 a barrel. In 1881 I sold the Joseph Moore for \$5 and the Large Siberian Crab for \$6. IRVING BAISLEY.

Westchester, N. Y.

A Safe Elevator.—A gentleman well known in New York literary and scientific circles has just secured patents in this country and in Europe for an elevator of cheap and simple construction, in relation to which any of those frightful and fatal accidents so common to the elevators now in use is practically impossible. Those who have seen the model are convinced that the arrangement is such that no matter at what speed the car may be run—no matter how ropes, chains, or machinery may give way—the passengers in the car are as safe as if seated by their own firesides. In this elevator, which can be run at the highest speed as safely as at the lowest, there is no maze of wire ropes, wheels, and gearing. A single manilla rope and a couple of wheels are all that is necessary to the most rapid and perfect working of the platform or car. A cursory glance at the model, Mr. McCarrol claims, will satisfy any architect, expert, or business man that there need be no further danger to property, life, or limb in the working of elevators; and that this invention, which can not but be of vast importance in a pecuniary sense, can be applied to any elevator now in use.

A Yielding Mast—New Invention.—Mr. John McLeod, late of New Zealand, has introduced a method of setting masts in vessels which greatly contributes to safety in navigation. In gales or sudden squalls the mast is made to yield to excessive pressure of wind against the sail to any degree desired, so that the surplus wind is spilled over without the vessel careening beyond any point which is compatible with good sailing. When necessary the mainboom tops up automatically, when the mast yields, and there is no luffing or shaking, as the surplus wind is spilled over the mast and sails; hence loss of headway and drifting to leeward are avoided, thus giving as a result much extra speed to windward. A working model of this invention is in the rooms of the Inventors' Institute, Cooper Union.

Instinct and Reason.—Man is too often governed by his propensities and passions, yet he is endowed with reason which raises him far above the mere animal. Psychologists do not always draw a distinct line between instinct and reason. Animals like the dog, the horse, etc., show a kind of reason; and superficial observers conclude that they are endowed with the same reasoning powers that belong to man. But Phrenology explains this matter by proof positive when it shows that the lower order of animals have no brain in that region where Causality is located in the head of man. Instinct in animals, however, leads them to perform some things that are impossible for man to do by the aid merely of his reasoning powers. There are many facts on record showing the power of the animal instinct in such a remarkable manner as to indicate a low form of reason.

A case of this kind came to my notice some time ago, and it occurred in the town of Blandford, Mass., situated ten miles from Westfield. Captain Lester E. Gibbs, now deceased, about the year 1847 was driving his celebrated horse "Hero," and when descending a steep hill the harness gave way, and the horse deliberately turned his head toward the thill that was dangling by his side, caught it in his mouth, and held it up until his driver had time to step from the wagon and adjust the harness.

F. L. BUELL.

I knew Capt. Gibbs and his horse "Hero," and he was the "knowingest" horse I ever saw which had not been trained. He, Capt. G., would tie up the reins and send "Hero" home with the wagon, eight miles over a mountain road, with a label attached to the hame, "Let him pass," and the horse would anticipate the meeting of a team by finding a good place on the narrow road to turn out and wait for the team to pass.

S.

Hints on Melon Growing.—I am a great lover of melons, and although I have lived in Philadelphia nearly all my life, have only found really fine melons in this great State of Nebraska. I have a peculiar way of raising them, and as the fall is the proper time to make a melon patch (I am now enlarging mine to meet an increased demand), I will describe my way for the benefit of your many readers. Select any piece of sandy land well exposed to the sun; if all pure sand, so much the better. Plow dead furrows, six feet apart, twenty-four inches deep, in straight lines from north to south. Fill these up with strong manure, old or new, and plow the earth back to bury the manure and form a ridge; level the top with the back of the harrow. At each end plant a stout stake to remain as an indicator of the exact position of the center of the ridge. You now have a perpetual melon patch for ten years at least. In the spring stretch a garden line from stake to stake, and at every six feet plant six seeds in a twelve-inch circle, and four or five radish seeds in the center. The bugs will not touch the melon plants as long as the radishes grow

there. Let all the seeds grow; do not thin them out, and keep out the weeds till the vines begin to show runners; then mull the whole patch with straw, hay, fresh-cut grass, or anything that will keep the surface moist and the fruit from the ground. As soon as the frost kills the vines, gather all fruit above eight inches in diameter, and stow it away in a sunny corner under some new hay. In this way I have melons ripening slowly and finely till the weather gets too cool to eat them. Next year plant your seed a foot or two north or south of the old hills, and so on yearly to obtain the whole ridge. The roots follow the ridge, and the cultivator can be run through the spaces without disturbing the roots. I grow the Long Island, black Spanish, and Mountain Sweet watermelons, and the green citron, Alton, large and white Japan citron melons. We do not drink oceans of cold water during haying and harvesting, as is the custom in many places in the East, but draw largely upon our melon patch, to the unbounded delight and comfort of all hands.—*Fruit Recorder.*

How to Plant Potatoes.—The number of bushels to the acre must of course depend upon the size of the potatoes and the way they are cut. If planted in hills they should be about three feet ten inches apart each way, and if in drills from fifteen to twenty inches apart. If there is a single eye in the piece it is sufficient, although some people plant them whole and others cut them in halves or quarters. We have cut them in halves and also in small pieces with one eye each, and no potatoes ever yielded better than those which grew from the small one-eyed pieces.

A Strong Cement for Mica, Glass, OR METALS, ETC.—Take equal weights of Nelson's crystal gelatine, and of cut Penang isinglass, and allow them to macerate in cold distilled water for at least twenty-four hours. Drain the expanded gelatinous shreds thoroughly, first in a colander, and then in an absorbent cloth. Dissolve the whole in the smallest possible quantity of spirits of wine—methylated spirit free from gum or color will do—of not less than fifty-four degrees over proof, by the aid of gentle heat. To every ten fluid ounces of this solution, add—previously dissolved in spirit containing five per cent. of acetic ether—one drachm of mastic, three of sandarac, and two of ammoniacum, taking care to mix the whole very perfectly before pouring into bottles and putting aside to cool.

In using this cement it is merely necessary to render it fluid by a gentle heat, and to warm the surface intended to be united before applying the cement to both, pressing them together, and wiping off any superfluity. In twenty-four hours' time the joint will sustain any moderate amount of force without giving way, and after two or three days a severe strain, or even hot liquids, may be applied without injury.



CHARLOTTE FOWLER WELLS, *Proprietor.*

H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
APRIL, 1882.

INCONGRUITIES OF CONSCIENTIOUSNESS.

CABINET COLLOQUY, NO. 13.—(*Concluded.*)

"YOUR explanation is quite satisfactory to me," said our visitor, "but opponents of Phrenology, as you know, will carp and cry out inconsistency when they find a seeming exception to the principles you propound—and this matter of Conscientiousness has been a favorite field for their instances of 'fallacy' in phrenological doctrine."

We know, sir, that the cynical and captious among our opponents are much disposed to reflect upon our methods of explaining apparent inconsistencies. Over and over again have we been told that when we have made a mistake, we are always ready with an excuse; that we have so many organs and faculties in our scheme, that we can cite this or that to account for variability from the rules which we lay down. Were such reasoning as ours employed in any branch of the physical sciences it would be accepted by our critics as logical and clear.

"I think," rejoined our visitor, "that the difficulty lies in the fact that very few of the intelligent and educated make a careful study of the mind—they have

a few general ideas of its nature, but they have not looked into its constitution analytically, for the purpose of determining its special functions. Now in respect to Conscientiousness or conscience, most of those I know who have expressed any views, treat it as a compound of feelings endowed with kindness, delicacy, the sense of duty, and so on. They speak of a man of conscience as one who shows not only the sense of justice, but is humane, discreet, and dignified in his conduct—thus combining the influences of several faculties. I must confess that before this talk with you I had supposed, that if a man had a faculty or organ strongly developed, he showed it in his character in a positive, unmistakable way, in a rather isolated fashion—as I did not so clearly perceive as I do now, that mental phenomena are necessarily dependent upon the co-ordinate exercise of several."

The stronger organs must exercise their peculiar influences upon the conduct. Individuality of mental expression is dependent upon the influence of certain faculties of dominant energy in the mind. The man whose Secretiveness is very large, will show it in his manner and conversation; so will the man of strong Combativeness, and he who has large Benevolence. Whether one is phrenological or not, he will find it a most interesting study to note how people express their dominant sentiments or propensities in their every-day actions. To be sure there are some who have by patient self-training obtained a good degree of control over their demeanor, so that they do not indicate to the world the full power of this or that feeling, but here again we are brought to consider the effect of culture in making even minor faculties useful in the operations of the

mind, and contributing to poise and harmony of function.

Returning to our subject—how common it is to hear it said, that such a one is doing a conscientious part when he is really doing wrong, and excuses are preferred in his behalf. Controversies are going on all the time in Church and State, between individuals and parties, which owe their existence and maintenance to conscientious convictions. Our late civil war is an example of how far sense of duty will carry whole sections of country. Surely the terrible suffering, carnage, and destruction of four years' fighting were not due to caprice or the ambition of a few politicians; no. The devotion shown by the masses of the Southern people was founded upon a conscientious sense of being in the right, and upon the necessity of defending their homes and their property.

In our common intercourse with the world we are in the habit of judging people leniently and sometimes even according them respect for the conscientious maintenance of views which are the opposite of our own. What is called conservatism, the principle which helps as much as any other to preserve the integrity of our political and social institutions, is due in great measure to conscientiousness. Men hold to old usages tenaciously, not only because they are old, and because they are doubtful concerning the wisdom of changes, but also because their sense of duty inclines them to keep in the old channels.

"The sentiment of conscience must be enlightened by the intellect, sir, otherwise its expression will be irregular and often positively wrong. I readily infer from your remarks that the phenomena

of the moral faculties are dependent upon one's training and association. As the old missionary hymn renders it, 'The heathen in his blindness, bows down to wood and stone,' because his religious faculty has not been instructed through the intellect with reference to the true God, and the proper way to worship. The heathen yearns to worship some power whose existence nature and his inner sense declare, and the rough block of wood or stone in which he symbolizes that power indicates the feebleness of his intelligence."

Yes, sir, people are often unjustly condemned for acts which are essentially improper, because their motives are ignored and little or no regard given to their intellectual culture and environment. Some men are more sensitive in conscientiousness than others temperamentally; their higher nervous susceptibility quickens and deepens emotional impression. What differences in methods of dealing are shown by business men whose credit on 'Change and standing in society are first-rate! We hear one say, "Smith did so and so, yesterday—I don't see how he could. It would go right against the grain for me to attempt anything of the kind." We have known a salesman to point out to his customer some insignificant defect in a piece of goods he was selling. The moment he saw it his delicate sense of duty prompted him to reveal it to the buyer. We have known a woman to make a long journey, at much inconvenience and expense to herself, for the purpose of explaining to an acquaintance some mistake of little importance which had been made by a third person. Of course the organic endowment of conscientiousness in such cases as these

is liberal, but one may possess the faculty in a strong degree, yet indicate by no means so delicate a sensibility.

"Suppose a man's gift of this conscientious sense be small by virtue of his organization, would you not be justified on phrenological principles for excusing him when his conduct does not come up to the standard of duty?"

Not unless he were weak-minded or demented. In this era of general enlightenment, facilities are supplied on every hand for intellectual culture, and the common experience of society points to virtuous life as the way of honor and solid success, while vicious courses terminate in disgrace and ruin. "The way of the transgressor is hard." This is the cool verdict of the intellectual judgment, and the malefactor who should plead a want of moral sense as the reason for his offense against law and order would be required to show whether or not he was lacking in practical knowledge of the common facts of life, how that transgression of the rules which have been set up for the protection of persons and property are followed by physical punishment as well as by public execration.

"If I understand my reading of Combe, he claims that men are to be estimated according to their different degrees of the moral sense, and I supposed that phrenologists generally accepted his views."

They do. We hold the principle that men are morally responsible to the extent of their appreciation of what is right, and their capability to do the right, and no further. The judicious parent treats his children on this principle: the quick, keen, and sensible one is held to a sharper accountability than the slow, dull, and forgetful one, yet in case of willful

wrong-doing, punishment is administered to the second as well as to the first.

Here comes in a most important phase of parental duty. The child that shows a weakness in Conscientiousness, should be carefully trained to understand the rationale of duty, should be encouraged in various ways to act honestly and consistently. When punished for disobedience or neglect of duty, he or she should be carefully impressed with a clear sense of the relation of the punishment to the offense.

The teaching of Christianity is in harmony with the phrenological principle, that man possesses varying degrees of moral obligation. The parable of the Talents in the twenty-fifth chapter of St. Matthew, illustrates it in a striking manner. The lord in the parable delivered to his servants from one talent to five talents, "to each according to his several ability," and when he came to reckon with them, the servant who had received the one talent was condemned because he had neglected to put it to some use. His "ability" was recognized as small; it was connected with a proportionate service, and the master did not expect him to produce ten, or five, or three talents, but merely what he could by fair effort. He refused to make any effort; deliberately and cunningly chose to waste his time and opportunity, and then with weak excuses sought to palliate his conduct. From this story related by the divine Teacher, we learn that God's moral government is founded upon man's capacity to understand and obey, and hence every one, whatever his mental endowment, stands before his Maker fully competent to perform all that is required of him, and can perform all that is required of him. D.

AN OPPONENT'S CONCESSIONS.

THAT exceedingly witty, genial, dogmatic yet instructive literary light of Boston, Dr. Oliver Wendell Holmes, has rarely been referred to by phrenologists except as one who should be considered an unrelenting foe to the doctrines of Spurzheim and Combe. He has incidentally spoken of phrenology in lectures before his classes in the medical school, but then in such terms of dislike and even of contempt, that students who knew nothing of the subject were generally impressed with prejudice and disdain which in after-time made it difficult for them to consider at all the evidences phrenology has to offer in its behalf. The power an eminent teacher wields over the young men who attend upon his instruction is very great, and the majority will accept as truth infallible everything he says. Hence we doubt not that such a teacher as Dr. Holmes has by his occasional direct or side attacks done much to retard the spread of phrenological science in New England.

But within a few years the "Autocrat of the Breakfast-table" has shown a disposition to qualify his views by intimating that for some things phrenology is worthy of honor. Here, for instance, is a quotation, bearing his name, which we find in one of our medical exchanges :

"The limitations of human responsibility have never been properly studied, unless it be by the phrenologists. You know, from my lectures, that I consider phrenology, as taught, a pseudo-science, and not a branch of positive knowledge, but for all that we owe it an immense debt. It has melted the world's conscience in its crucible, and cast it in a new mold with features less those of Moloch and more like those of humanity. If it has failed to demonstrate its system of correspondence, it has proved that

there are fixed relations between organization and mind and character. It has brought out that great doctrine of moral insanity, which has done more to make men charitable and soften legal and theological barbarism than any one doctrine I can think of since the message of peace and good-will to men."

We thank Dr. Holmes for this admission, and it is when analyzed a large one. For having accomplished so much phrenology merits the highest esteem and gratitude of civilization, and all who accept the principles of Gall and Spurzheim may justly be proud of the title, phrenologist.

THE PERSECUTION OF THE JEWS.

IS this the nineteenth century, with its boasted progress in intellectual achievements and its freedom from religious bigotry? Is this the day of generosity and magnanimity toward peoples and classes and families and individuals who differ from us in opinion, vocation, and living? Is this the era when a true understanding of the word charity has found place in the hearts of men, and because one is black, yellow, or red in complexion is not to be taken as prejudicial to his right to humane consideration? We had thought the affirmative of these questions, but recent demonstrations in Germany and Russia have somehow made us rub our eyes and our chin (the latter for the excitement of that mysterious ramification called the mental nerve), for perhaps we have been asleep, and dreaming of a condition of things mental and moral which does not positively exist. It seems as if the world has gone backward, that we have been suddenly precipitated into mediæval darkness, when civil and religious matters were a struggling muddle of antagonisms. The exhibition of rancor toward

the Jews in Germany may be scarcely more than one of those minor outbreaks to which an ignorant and jealous class in any large city may be stirred up by a few vicious leaders. But the great movement in Russia has a deep significance. When whole districts are made the scene of robbery, cruelty, and murder, and tens of thousands are driven from their homes and property, and that, too, with the connivance and support of the Government, we are forced to conclude that the day of persecution and tyranny has not passed; that nations professing the religion of Jesus have not learned its chief principle of "Good-will toward men."

We feel a deep sympathy for the suffering Jews, and trust that the vigorous protests made in England and in our own country against such atrocious barbarism as Russia has been guilty of, will have its proper effect in staying the tide of persecution. If the rulers of that country entertain the notion that by conniving at this great wrong to a large and the most industrious class of its population they may develop a better spirit of loyalty among the Russian people, they greatly mistake. Cruelty is kindred to despotism, and it but serves to stimulate democratic sentiment, call it nihilism, or by any other name.

GETTING AT THE TRUTH.

ONE of our medical exchanges in discussing the Guiteau case, uses this language in a tone of irony:

"If a mere exaggeration or predominance of one or more of the lower and baser qualities of a man's nature constitutes insanity, then a predominance of the higher and nobler functions must be similarly regarded. If excessive egotism, selfishness, malice, revenge, dis-

honesty, etc., be signs of insanity, so are unusual benevolence, charity, honesty, patriotism, reverence, and the rest."

We would respectfully ask, Is that disturbed mental condition which indicates the excessive influence of the passional or lower animal nature only to be considered insanity? If so, there are hundreds of people in asylums who are most unjustly deprived of their liberty. Dr. Gray, of the Utica institution, or Dr. Buttolph, of the great asylum at Morristown, will show the visitor men and women who are never rude in speech or manner, but quiet and obedient. Here is one whose whole mind is controlled by religious sentiment; there is another who is weighed down with sadness and melancholy; there is another whose talk is ever of charity and benevolence; there is another who clasps to her breast the effigy of a babe and is contented to fondle it all day long; there is another who sits by the hour scribbling incoherent sentences on bits of paper. Abnormality in the action or expression of a faculty indicates disorder or disease, and whether that faculty be of the lower, selfish nature or of the moral sentiments it matters not, so far as the fact of mental derangement is concerned. It is the degree of mental derangement which must be considered before we can pronounce upon a man's lack of responsibility, and the best experts in lunacy are sometimes baffled in the attempt to determine a case. The late trial of Guiteau has been successful in one respect, certainly, viz.: in showing how little is positively known by the "doctors" on the subject of mental alienation, and how extensively a man's cerebral functions may be disturbed without rendering him incapable of discerning between right and wrong.

Our Mentorial Bureau.

Go Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

ORGANIZATION OF A CHEMIST.—F. E. N.—One should have large perceptive faculties with a good development of Constructiveness, besides those qualities which contribute poise and steadiness of character. To figure well in sculpture, a man should not only possess a good intellect with Constructiveness, but have the organs of Spirituality and Sublimity well developed. The sculptor needs Size and Weight among the specially large faculties of the intellect, while a painter needs in addition to Form and Size large Color. With regard to your disease, we should say that the treatment should be mainly constitutional. The advice must be personal. In general we would refer you to a work like the "Family Physician" or "Hydro-pathic Encyclopedia."

SYMPATHY FOR DUMB ANIMALS.—

Question: Why is it that some persons have such a large sympathy for dumb creatures, and are deficient largely in the toward their own relations?
W. M. N.

Answer: The same instincts which contribute to kindness, sympathy, and feeling toward the lower animals, control in our relations with our fellows of the human species. As a rule, however, those who show a very intimate interest to brutes have a low quality physically, and lack refinement and elevation of sentiment. We can conceive of one losing interest in friends, because of their indifference, neglect, or ill-treatment, and finding relief for strong social propensities in the caresses of a dog and cat or monkey. As one man remarked to me: "My dog never talks back nor gives me an angry or sharp word, but is kind, affectionate, and devoted," we inferred that his social relations were not the pleasantest in the world. We pity, however, men and women who devote most of their affections to brutes. There can be little of that genuine sympathy between the human and the brute which satisfies and ennobles our nature.

CORN REMEDY.—O. L.—We lately published an item which stated that persistent application of gum arabic would relieve corns. We may have something further to say on the subject, but it will relate to their surgical treatment, which after all is the only radical method of curing old callosities. If a corn be removed by skillful manipulation, root and fiber, and easy-fitting shoes be worn afterward, the corn probably will not grow again, not be reproduced.

CHARACTER IN THE EAR.—*Question:* I notice a difference in the lower part of the outer ear in different persons. In some the lobe is separate from the side-head. In others it appears to be grown to it as far as the extremity. What does this mean, if anything?
E. B. P.

Answer: It will be found that when the lower part of the ear is closely attached to the head, the person possesses a strong development of the motive temperament, has muscular vigor, is tough, enduring, and has too a stronger, harder, severer nature. One with pendulous ears, that is the lobe being detached, and is soft and velvety, has the softer character, more of the elements of refinement. The organization is not so strong and compact physically as in the other case, but the nervous system may be earnest, exuberant, and elastic, and the affectional traits are usually more marked.

PHRENOLOGY IN ITS YOUTH.—*Question*: One of our prominent M.D.'s says that he believes in phrenology, that it is a true science, but that it is only in its infancy. Now what say you?

J. F. G.

Answer: We do not entirely disagree with him. All science may be regarded as in its infancy. Phrenology is one of the youngest of the sciences, if not the youngest, but as compared with others we think it has made longer strides, and in the special feature of usefulness to humanity, we think, when candidly regarded, it is not a whit behind any of its sisters and brothers.

ANGINA PECTORIS.—*Question*: Is angina, or neuralgia of the heart, curable?

E. O. D.

Answer: Angina of the heart is a very serious malady, and rarely yields to treatment, but we do not deem it absolutely incurable. We think that the best methods for its treatment are of the hygienic stamp. That, being constitutional and so affecting the whole nervous system, may, properly applied, bring about beneficial change. Of course the disease must be taken in its earliest stages if a favorable result is to be expected. We shall have something more to say about the curability of heart diseases in the next Number.

MAGNETIC CURRENTS OF SLEEP.—R. N. Q.—Some physiologists insist that we sleep more quietly and refreshingly when our couches are so disposed that our heads lie toward the North Pole. Of course, like all terrestrial things, man is electrical to a degree; that is, currents are moving in his body, and they must correspond to the genera' electrical movements of nature. It seems reasonable that when a man is at rest on his bed, if the direction of his body be contrary to the polar tendency of the electrical fluid, there would be some interference or disturbance of his electrical state. In our own experience we have observed a tendency to a more quiet repose when our bed was placed so that the head approximated the polar direction.

WANDERING MIND.—*Question*: When I take a book or paper in my hand to read, my mind wanders so that I get very little benefit. I will be thinking almost involuntarily on half a dozen subjects entirely other than that which I am reading, and although I use my strongest efforts to settle my mind on what I am reading, or keep it from wandering, it is in vain, for when I have finished I can tell very little of what I have read. If you can advise me what course to pursue it will be of more value to me than I could repay.

E. H.

Answer: You have a lively, nervous organization, a very active temperament, a very sensitive susceptibility to external influences, and it is likely that from childhood you have been vari-

ously employed mentally, at least been disposed to think of this, that, and the other, and so permitted the mind to run from one subject to another. The habit has grown strongly upon you, and it is now very difficult to avoid it, but "better late than never." You are young, I infer, and can set on foot a course of improvement. When you read, or attempt to read, go entirely apart by yourself. Go into your room and shut out, if possible, all sights and sounds. Are you in good health? Do you sleep well? You need, perhaps, repose of mind, and that can be obtained by living temperately and restoring the energy of the body by sleep and good food.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

UNCONSCIOUS INFLUENCE.—We little realize the influence we make upon and receive from those with whom we daily associate. There is a sort of presence, or some would say magnetism, surrounding every human being which makes itself more or less felt by those who come within its radius. We say more or less, because persons of finely sensitive natures are more susceptible to these influences than those of a stronger, coarser organization. The greatest study of mankind is man, and upon this subject we have the widest field for study and practical observation in our every-day life. All have doubtless observed how, when some persons come into their presence, they seemed to bring light and warmth with them, and the happy influence has stayed long after their departure; while others have given an uncomfortable, oppressive feeling, as if the sky were overcast with clouds, and threatened all sorts of storms and tempests; and it has often been difficult to shake off this sombre impression. The same person too will affect us differently at different times. If full of hope and good-cheer, he will carry the genial spirit with him, and our pulses will thrill with the life-giving sunshine which he scatters as he goes. Or if swayed by anger, or suspicion, or hate, or perhaps under a state of depression caused by some physical ailment, he leaves a similar impression upon us.

If not given to thought, or to tracing effect to cause, it may puzzle us to know why this sudden change in our mental atmosphere. But may we not study this subject and find a way to remedy the evil? Each soul is a sort of mental or spiritual thermometer, and in a passive state like the mercury in the tube is acted upon by a sort of spiritual heat or cold. But there is a sovereign power given to man by which these

conditions may be controlled. Intellect and will are his, and when these conditions and their cause are understood, it is in his power to render himself active or passive, positive or negative to them. We think each person may superinduce and retain an even, sunny frame of mind, nearly always. Of course there will be times and circumstances under which this is impossible; but, as a general rule, is it not as easy, and a great deal pleasanter to look upon the bright side of life than the dark side? Does it not make us feel happier and better to believe people good than to believe them bad? Let me assure you, my friend, that you may, to a great extent, make your own moods and frame of mind, by exercising your own God-given intellect and will-power; and thus render not only your own life happier, but the lives of all about you. Yes, and better too, for we believe to be happy is to be good. You must learn to govern yourself; not only your tongue, but your thoughts and feelings. Never allow yourself to brood over gloomy thoughts, but cultivate a cheerful, sunny temperament. Sunshine will scatter clouds always, and if others can feel while in your presence that they are in a bright and sunny atmosphere, they can not long be cloudy or cross. Knowledge is power, and it is half to know our own defects and their cause. When we have this knowledge is it not easy to cultivate a positive condition of mind and body, and instead of allowing ourselves to be influenced by the unhappy moods of those around us, endeavor to draw them into our own happy atmosphere?

"But," you will say, "it is so easy to point out the road for others to follow—so easy, until one tries to follow his own precepts." True, my friend, but one does not know how easy it is to accomplish anything until he has made brave, strong, and determined effort. It is not only necessary to resolve to do a thing, but to strive bravely, and with continual watchfulness and self-control to overcome the besetting sin. This it is to "fight the battles of life," for the enemies within are frequently more than those without. This it is to emerge from darkness into God's beautiful light and freedom.

OLIVE A. DAVISON.

ARRESTED DEVELOPMENT.—He who studies Nature for the purpose of improving the moral condition of mankind, can learn many valuable lessons from farm-life—and yet farmers are slow to apply these teachings to their lives and the lives of their families. One morning last summer, while taking our customary stroll over the farm where we were staying, we noticed that a small pumpkin had formed on the vine near a large rock. This pumpkin was an object of interest to us during the whole season. Every morning we noticed that it had grown

nearer the rock since we had last seen it. At last it grew until the two came in contact. Its growth was thus effectually stopped in that direction. But it still continued to expand sideways and backward; and thus all beauty of shape and harmony of development disappeared, leaving it unnaturally enlarged at its junction with the vine, while the other end was greatly contracted. But a short time elapsed until the part resting against the rock began to decay, and soon the whole pumpkin became a mass of rotteness, utterly worthless. The farmer, also, noticed it, and spoke of how that pumpkin was so strangely rendered useless.

But the circumstance well-illustrated a subject which he apparently never noticed. In the township where he resides are the usual number of stores and work-shops. And in these places, of an evening, after their day's work is done, the men and boys of the place almost invariably gather. These persons are not educated—if they were they would not spend their spare time in that way—and, as is characteristic of ignorant people, their tastes are low and coarse. Gathered thus about the fire, the men relate wonderful exploits of lifting, wrestling, fighting, and nose-pulling. The respect in which educated and godly men hold women, is denied them here; nay, her name is insulted, and the purest and best share the fate of the vile and degraded, and become the subjects of rude conversation and lewd jokes. And all this while the youth of the place are gathered around imbibing the poison draught.

Thus intellect and moral sentiment press against an adamant wall of ignorance and vice, while the animal passions, receiving abundant sustenance from this never-falling source, grow and expand until all the beauty and harmony of the young mind are sadly impaired. Then we notice the decay of intellect and moral sentiment, the mind becoming perceptibly diseased; the fountains of life impure; the manifestations of mind loathsome and disgusting.

But by careful training the vine might have been turned aside from the rock, and the pumpkin have reached its proper development; even so, parents may shape their children's lives so as to insure a harmonious development of mind. Let the love of God—and that always ennobles, purifies, and betters—take the place of the bitter draught that is held to their lips.

JAMES FERRIGO.

CREDIT TO WHOM CREDIT.—*Editor PHRENOLOGICAL JOURNAL:* An article in your February Number credits Mrs. Helen M. Cooke with "having brought out the fact," in a paper read before the Social Science Association, "That the first daily paper in the world was started in 1772, in London, by Elizabeth Mallet."

That fact, with other references to woman in newspaperdom, was borrowed from the Chapter upon Woman in Newspapers in the *Woman Suffrage History*. Several chapters of this work—among them the one on Woman in Newspapers, before appearing in book form, was published in the *National Citizen* (copyrighted), this chapter coming out, I think, in 1879.

Shortly afterward, Mrs. Cooke wrote me asking permission to use the chapter in a paper she wished to read before Sorosis, and I gave my consent. But at least once and again since that time I have learned of Mrs. Cooke's still making use of the facts of this chapter, in papers she has read before other organizations, and I do not learn that she gives the credit where it belongs, that is, to the *Woman Suffrage History*.

ONE OF THE EDITORS.

A VICTORY FOR HYGIENE.—An old reader writes from Michigan of her experience as an invalid: "It is only about three months since I lay for days on the border land of the unseen world with a tumor in my throat of several years' growth, which had so crushed the œsophagus together that every doctor pronounced death certain. I almost starved, but had for nearly thirty years steadily refused drug medication, and simple nature, with the Divine help, was at last triumphant. I have now to use great care, and it will take long to recover a healthy condition, but I so love the principles you advocate, that I long to help toward educating the people by getting these principles into their households, if only in book form, for if we can get them to read, in due time, impressions will be made upon the mind of the truthfulness of those great underlying facts you are engaged in unfolding, and then will come the desire to understand so that these principles may be personally applied. Twenty-seven years ago, I think, I was permitted to hear one of the Fowlers lecture, and the light received then has never become darkness with me. Many of the sentiments I was able to grasp, have been communicated to others to their benefit. May God help you to hold out the light. A great many have the idea that phrenology leads to infidelity, and that most of its advocates are fatalists, but I do not see anything in it contrary to the Gospel of Christ. On the other hand I see much to help. The influence of the Holy Spirit in the soul, is a direct aid in the way of changing the course of the natural man, quieting the selfish activities and quickening the life-giving powers of the spiritual organization, setting it up to reign over the others. S. B. P."

WHAT HE SAYS.—*Dear Editor.* I feel it my duty to express my gratitude for all the advantages I have derived from your *JOURNAL*. I am a German, from Berlin. I am 28 years old, and came to the United States three years ago to set-

tle down. Like most young men I followed the fashion of using tobacco and taking occasionally a glass of beer or wine, although I was very moderate in the use of these; after seeing the *JOURNAL*, I resolved at once to give up habits that perhaps would be deep-rooted before long and not easily overcome.

Against temptation my fights have been very strong, but not too strong, and I think they will never be able to overcome my desire to follow the teachings of the *JOURNAL*. From ten Numbers of this valuable monthly I have obtained more good information and practical knowledge than from all the newspapers, weeklies and monthlies, I have read for years. Yours,

F. W. ZIMMERMANN.

PERSONAL.

THE mother of Bayard Taylor, Mrs. Rebecca Taylor, eighty-two years old, received the first prize of two hundred dollars for the best cocoons at the exhibition of the Woman's Silk Culture Association in Philadelphia not long since.

TREOPHILUS PARSONS died at Cambridge, Mass., Jan. 26th, last, aged 85. He was formerly Dane Professor of Law at Harvard, and wrote many legal works of accepted authority and learning—among them, that on "The Law of Contracts." He was a Swedenborgian, and wrote "Deus Homo," and other religious works.

REV. DR. BELLOWS, the distinguished Unitarian minister, died in New York city, February last, aged 67. He had been for forty-two years pastor of All Souls' Church, was the organizing and animating mind in the Sanitary Commission during the Civil War, and was a man of great public and philanthropic spirit, as well as of the finest culture.

COL. A. B. MEACHAM, the hero of the Modoc war, and champion of the rights of the red man, died at the residence of Dr. T. A. Bland, in Washington, on the 16th of February. He was stricken down by apoplexy, while sitting at his desk, engaged in editorial work. Col. Meacham was in many respects a great man. He possessed talent of a high order, courage that never quailed and enthusiasm that prompted to deeds of heroism in behalf of any cause he espoused. He was a large-hearted, generous, and thoroughly honest man.

THERE is a man in Bellevue Hospital, New York, with a face that never alters its expression in the slightest degree. Something is the matter with the nerves and muscles so that they do not work at all: Not the faintest smile nor the suggestion of a frown ever varies the stolid monotony of his countenance. The features are regular and rather handsome, there being no distortion, or any outward evidence of the affection

other than the strange immobility. His name is Henry Stube, but he is called "Masky," because his face is like a mask, behind which he laughs and weeps unscen. He has worn this mask of his two years. He acquired it after a neuralgic cold. He is being treated with electricity chiefly, and the physicians think he will recover. In the meantime he parts his lips with his fingers for the introduction of food and water, and when he sleeps his eyelids are held shut by a slight bandage. His imperfect talking is done without moving his lips, and when he speaks or listens the impassiveness of his face looks singular indeed. There is something uncanny about it, and, after the idea has once got into your mind, you can hardly regard this face as anything else than a mask.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

WHO lives with cripples learns to limp.

OUR deeds determine us, as much as we determine our deeds.—*George Eliot.*

IT is curious how little we feel the burdens we put on the shoulders of others.

THE Creator, in obliging man to eat to live, invited him by appetite and rewarded him by pleasure.—*Brillat-Savarin.*

PRIDE is the consciousness of what one is without contempt for others.—*Sénac de Meilhan.*

THE penalty nature makes us pay for hardness is dullness. If we are hard, our life becomes dull and dismal.—*Matthew Arnold.*

MAN was made king of his faculties, and he should be as able to command his brain to work as his hands.—*Christian Register.*

CONTENTMENT is a blessing and it is within the reach of all, but it will not be found by him who goes out to seek it.

LET no man complain of the shortness of life, until he has measured the full capacity of a day. Discontent with your gifts destroys the power of those you have, and brings no others.—*Henry T. King.*

I learned that it is better a thousand times for a proud man to be humble, than to hold up his head in his pride and fancied innocence. I learned he that who will be a hero will barely be a man, and he that will be nothing but a doer of his work is sure of his manhood.—*MacDonald.*

Thou canst not change one little drop

That heaven hath mixed for thee :

However bitter be the cup,

It may thy healing be ;

And in its dregs thy sweetest hope,

Thy soul at last may see.

—*From the Greek.*

No one can be a great thinker who does not recognize that, as a thinker, it is his first duty to follow his intellect to whatever conclusion it may lead. Truth gains more even by the errors of one who, with due study and preparation, thinks for himself, than by the true opinions of those who only hold them because they do not suffer themselves to think.—*Mil's Liberty.*

MIRTH.

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

WHY are inattentive children like postage-stamps? Because you have to lick 'em to make 'em stick to their letters.

"WHAT is the difference between me and St. Paul?" asked one man of another. "St. Paul was all things to all men, and you are nothing to nobody!" was the reply.

THE worst kind of rheumatism is the spare-room-atism. Many an unhappy guest has crowded in between its icy sheets and died of it.

"WHAT must I do," asked a mean and conceited man of a friend who knew him well, "to get a picture of the one I love most?" "Sit for your own picture," was the reply.

LADY visitor to Scripture class: "With what weapon did Samson slay his enemies?" After a period of unbroken silence, fair questioner (touching her blooming cheek): "What's this?" Chorus: "The jor bone of a has, mum!"

"UNCLE WILLIAM'S PILLS."—A little girl came into a drug-store and asked for five cents' worth of "Uncle William's pills." The druggist could not make it out, so he sent her away; she returned soon afterward, and said, "Mother said 'Aunt Billy's,' but I thought it couldn't be right."

A PARTY of friends who were boarding at a hygienic establishment, while taking a walk in the fields, were attacked by a bull which chased them furiously out of his pasture. "That's your gratitude, is it, you great hateful thing?" exclaimed one of the ladies, panting with fright and fatigue. "After this I'll eat beef three times a day!"

A LITTLE girl has an uncle who has taught her to open and shut his crush hat. The other evening, however, he appeared with an ordinary silk one. Suddenly he saw the child coming, with his new silk hat wrinkled like an accordion. "Oh, uncle," she said, "this one is very hard! I've had to sit on it; but I can't get it more the half shut."



In this department we give short reviews of such new Books as publishers see fit to send us. In these views we seek to treat author and publisher satirically 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 and physiological science. We can usually supply any of those noticed.

THE BRAIN OF THE CAT.—I. Preliminary account of the Gross Anatomy, with four plates. By Burt G. Wilder, M.D., Professor of Comparative Anatomy, etc., in Cornell University, F.A.S., etc.

This is the substance matter of a paper read by Dr. Wilder before the American Philosophical Society at its last meeting in the summer of 1881. The author takes ground approved by other physiologists, to the effect that the domestic cat is well adapted to serve as a basis for work upon other forms, including man. Although in theory a positive knowledge of the human brain is to be learned only by the examination of it, yet on account of the many difficulties attending its procurement and dissection, better practical results may be obtained by devoting one's time and money to cats' brains. Nearly all the author's substantial knowledge of the brain has been derived from his examination of that of the cat—over two hundred specimens having come under his observation. He aims to be thorough in his method to present a complete analysis of the domestic feline. Hence the list of parts "visible to the unaided eye" is a long one—accompanied with explanations which the new nomenclature he has adopted renders necessary. We think, however, that the greater part of the terms and cerebral divisions suggested by Dr. Wilder are improvements on the old and arbitrary designations. Several admirably drawn plates showing the cat's brain entire, from different sides, and parts exterior and interior, accompany the paper, which, as a whole, will be found a valuable aid to the student who takes up the physical investigation of the brain.

THE BRAIN AND THE BIBLE; or, the Conflict between Mental Science and Theology. By Edgar C. Beall, with a Preface by Robert G. Ingersoll. 12mo, pp. 263. Cincinnati: Published by the author.

In the preface we are told by the brilliant champion of infidelity, that "this book, written by a brave and honest man, is filled with brave and honest thoughts"; and we are willing to own that this statement is not excessive. Mr. Beall is a frank, outspoken foe to Christian theology; his impressions carry him to enthusiasm in his attacks upon the Church. He sets

out with a brief summary of phrenological principles which, for the most part, indicate more than the average familiarity of students with the philosophy of the Gallian system, but the bulk of his book is made up of arguments and assertions, the grounds of which are gleaned from the domain of theological polemics rather than from strict mental philosophy. His reasoning is characterized by shrewdness, tact, and skill, especially in availing himself of what is apparently weak in the armor and defense of his adversaries, but he sometimes shows the *ad-captandum* spirit of the zealot in jumping at conclusions. This, we think, is particularly clear in his chapter on "The Design argument," wherein he is at much pains to distinguish between adaptation and purpose. The conclusion he lays down on page 144 is forced; we can not see a strictly logical coherence between it and the legitimate procedure of the preceding statements. If men are not to be permitted to go beyond the sphere of human experience in their reasonings concerning the supernatural, and if their own experience teaches them that everything they have to do with indicates purpose by the possession of the qualities of order and adaptation, are they not forced to the conclusion or implication that the "unaccountable" by its exhibition of the same qualities must also have a purpose?

We fear that Mr. Beall has cast his lot with a losing side—that the excellent talents and intelligence employed in the preparation of this volume might have been directed in a way more useful to society and with better result to himself.

HOW TO PAINT IN WATER-COLORS.

By Lavinia Steele Kellogg. Small quarto. Price 40 and 60 cents. New York: E. L. Kellogg & Co.

A neat little book prepared by a successful artist and teacher, which will prove of great assistance to all who desire to acquire the art of using water-colors. The directions are practical and clear, so that the young man or girl who has artistic leanings can follow them with good hope of success. With the book are twelve cards on which wild-flowers are drawn in outline; these are to be colored under the supervision as it were of the author, thus giving the learner valuable practice.

MARRIAGE AND PARFNTAGE, AND THE Sanitary and Physiological Laws for the Production of Children of Finer Health and Greater Ability. By a Physician and Sanitarian. 12mo, pp. 185. M. L. Holbrook & Co., New York.

The principle that "the virtues of men and women as well as their vices may descend to their children" is now so generally accepted by physiologists and sociologists, that one would ex-

pect more attention of a practical sort on the part of the educated class to the clear precepts of sanitary law in the matter of marriage. Education and moral culture are not successful as rapid improvers of the general population; so many antagonistic influences are permitted to exist that in most communities mental and physical deterioration appears to be the rule. The plain facts of science should be introduced into the every-day social and domestic life of people, and it is the object of the writer of this volume to show how marriage and parentage, the fundamentals of society, may be improved without disturbing existent social conditions.

WHAT'S THE MATTER? By Celia B. Whitehead. Pp. 120. Price, in paper, 25 cts. New York: W. B. Smith & Co.

We are pleased to note this new edition of an honest and conscientious appeal in behalf of improved habits in dress and living among American women. It intimates that there are some who have serious thoughts about what nature and duty require for personal health and comfort. Some new matter appears in the fresh addition which helps to strengthen what was said before, giving point to the moral, etc. We think Mrs. Whitehead's arguments will have some effect, especially as a Parisian lady of influence is advocating the adoption of a divided shirt. Anything they do in Paris is so nice, you know. We wish that "What's the Matter" were more specific in its directions for the making of the garments it advocates, for the people most likely to appreciate the good sense of its arguments are those who can not pay the high prices demanded by dealers in the "reformed dress." Why is it that they who profess to be working for humanity's sake demand so much money for their wares?

PUBLICATIONS RECEIVED.

ARE YOU GOING TO EUROPE? Hints and suggestions for travelers regarding Cook's Excursions. Published by Thos. Cook & Son, New York. A suggestive little pamphlet which the inexperienced traveler will find of special interest.

THE MALE VOICE CHOIR. A collection of Original and Selected Gospel Songs. By L. O. Emerson. A well-arranged book for the use of a male quartet, or a company of men. Containing upward of 90 good pieces, none over difficult. Price, 50 cents. Published by Oliver Ditson & Co., Boston.

FIFTH ANNUAL REPORT OF THE SOCIETY FOR THE PREVENTION OF CRIME, 1881. We regret to observe, that this is a report of the wide field of operations open to the reformer in the City of New York, rather than a summary of valuable work done the past year.

CONTRASTS IN SPIRITUAL LIFE: and Recent Experiences of Samuel Bowles in the First five Spheres. Also, a thrilling account of the late President Garfield's Reception in the Spiritual World. Written through the hand of Carrie E. S. Twing. Price, 50 cents. Springfield, Mass., Star Publishing Company.

PROHIBITION IN KANSAS. Addresses of Governor St. John, of Kansas, and Governor Colquitt, of Georgia, on January 23, 1882, at the Brooklyn Tabernacle.

SEMI-CENTENNIAL, OR FIFTIETH ANNUAL REPORT of the New York Prot. Episc. City Missionary Society. By the Executive Committee, 1880-'81. This society has an extensive field. One of the noblest of its charitable efforts is the St. Barnabas Home, with its half dozen reformatory branches, and we would have the society well-sustained on that account.

THE OPENING OF THE SEALED BOOK OF DANIEL. By Castle Churchill. Published by the author, Churchill, Cal.

REPORT OF THE BUREAU OF GENERAL SANITARY SCIENCE, Climatology and Hygiene to the American Institute of Homœopathy, Session of 1881. Received from Bushrod W. James, M.D., Chairman, a summary of facts relating to the topics mentioned, with good suggestions to the physician and layman.

HEALTH LECTURES FOR THE PEOPLE. Second Series, No. 4. The Brain and Its Function. By Dr. J. Batty Tuke, Edinburgh. A short description of the brain, followed by an attempt to define its functions, which discloses an indifferent state of mind in the author, as to the exact facts.

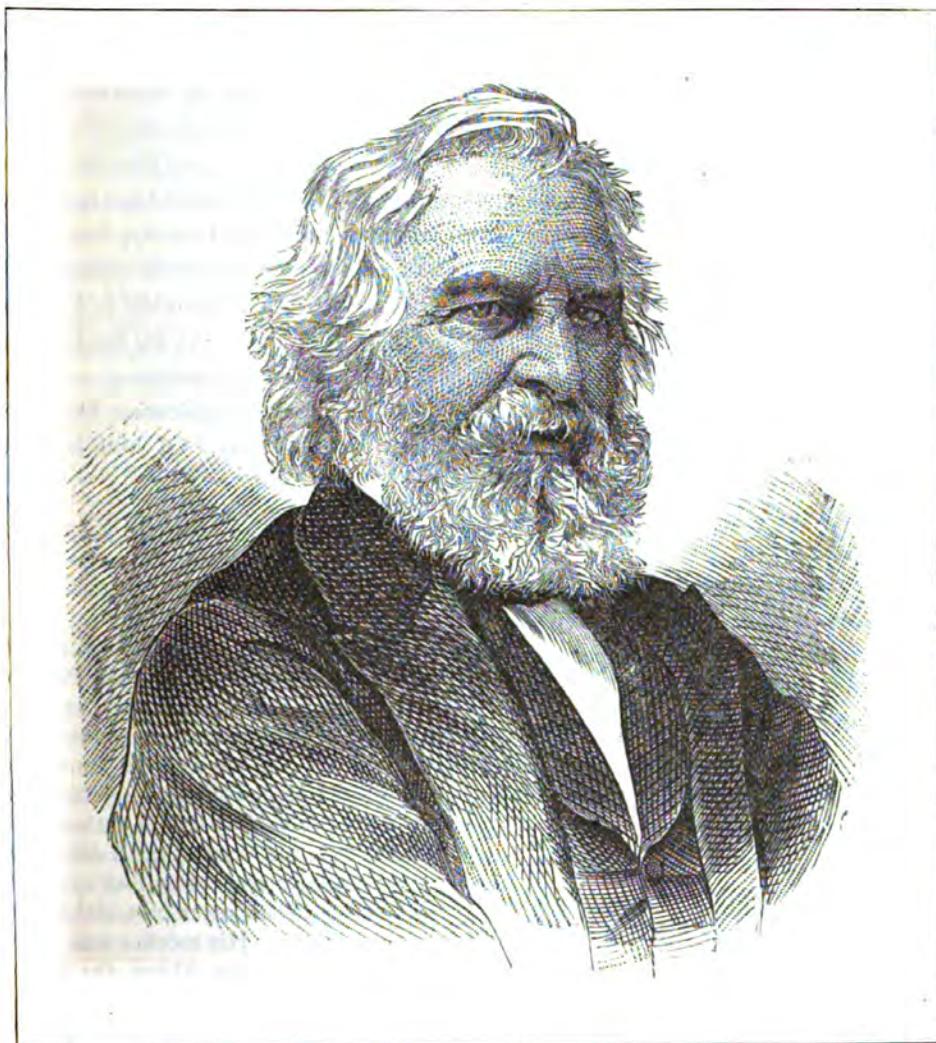
LATE ISSUES by J. S. Ogilvie & Co., New York. **ONLY A DOG; OR, FEDERAL OR CONFEDERATE.** By Mildred Brown. Price, 20 cents. **HILDA.** By the author of "Dora Thorne." Price, 20 cents. **RIP VAN WINKLE,** and other Sketches. By Washington Irving. Price, 10 cents. **BARE-FOOT BILLY'S FORTUNE.** By Gaffer Gray. Price, 10 cents. **THE COUNTESS' SECRET.** Price, 10 cents. **WAS IT A CRIME?** Price, 10 cents. **AN UNNATURAL BONDAGE.** By the author of "Dora Thorne." Price, 10 cents. **A LUCKY GIRL.** By the author of "A Cunning Woman." Price, 10 cents. **THE BALD EAGLE.** A Story of the American Revolution. By Mrs. Elizabeth Oakes Smith. Price, 10 cents. **WEAVERS AND WEFT.** By M. E. Braddon. Price, 15 cents. **NO CARDS, NO CAKE.** A Marriage Extraordinary. By Julia McNair Wright. Price, 20 cents. **AN UNEQUAL STAKE.** By author of "A Cunning Woman." Price, 10 cents. **TOM GIDDLER'S GROUND.** By Charles Dickens. Price, 10 cents. **DIARY OF A MINISTER'S WIFE.** No. 5. Price, 10 cents.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 74. 1882

NUMBER 5.]

May, 1882.

[WHOLE No. 522.]



HENRY W. LONGFELLOW.

HENRY W. LONGFELLOW,

THE POET OF AMERICA.

ENGLISH letters has suffered another bereavement in the death of the poet Longfellow. To America it is a sharp stroke indeed, for to Longfellow American authorship has been long accustomed to point as one who embodied the best qualities of the poet. Scholarship, grace, sweetness, spirituality, instruction, versatility, were his in a rare degree. He wrote to ennoble, to purify, to adorn, never to disparage or mar; and in his last work there was so much of strength and heart and freshness that we could scarcely persuade ourselves that he was an aged man, midway between seventy and eighty years. All civilization will join in deploring his sudden taking off; but wherever the English language is spoken, the news of Longfellow's departure from earth will be regarded as a public calamity, for it can be said with truth that no other poet of the time has achieved so genuine a popularity among all classes of the English-reading world.

Of the poet's organization little need be said, so well known had he become in the course of his long life to the people. The temperament was finely balanced, the vital elements, which were never deranged by improper habits, yielding an abundant support to the demands of an active brain. The perceptive faculties were large and hungry for exercise, hence he was ever studious, ever seeking to acquire information. His head rose high in the forward part and was broad in the upper side-head bordering on the temples; hence his gentle, sympathetic disposition, his ready appreciation of everything belonging to the tender and humane phases of life; hence also his delicate sense of the beautiful, re-

finied, and rhythmical. His individuality was not shown in acts of temerity and ostentation—he could scarcely be termed an ambitious man; he never sought by word or demeanor to impress others with the idea that he was a superior man and should be respected for his talents. His self-esteem was moderate, and he was not given to militant ways; he possessed, however, a broad head in the region of the ears, and that type of organism supplementing his active temperament and large faculties of inquiry, gave him the spirit of industry which pervaded his whole being. His was a beautiful career, beautiful in its common elements of the citizen, teacher, husband, father; beautiful in its results as the author and poet: for from what he wrote the world has gathered encouragement, suggestion, inspiration for higher, purer, nobler living. Of him it can be said, indeed, that

" His life was gentle; and the elements
So mixed in him that Nature might stand up
And say to all the world, 'This was a man!'"

HENRY WADSWORTH LONGFELLOW was born February 17, 1807, at Portland, in what is now Maine, but then was a province of Massachusetts; consequently, at his death, on the 24th of March last, he had just passed the seventy-fifth anniversary of his birth. His father was a lawyer of some reputation, a descendant of a Yorkshire man who had emigrated to America in the latter part of the seventeenth century. His mother was a direct descendant of John Alden, the hero of "Miles Standish's Courtship." After a season of preparation at an academy of his native city, he entered Bowdoin College in 1821, and studied through the full course of four years, taking his degree in 1825 with such men as Hawthorne, J. S.

C. Abbott, Geo. B. Cheever, Frederick Mellen, and others who have become known to the world in one department or another of mental endeavor. He was something of a poet while a college student, several of his poems finding their way into the press; for instance, "The Woods in Winter," "The Hymn of the Moravian Nuns," and "Sunrise on the Hills," were published in the *United States Literary Gazette*, and attracted more than local attention.

After his graduation young Longfellow attempted the study of law in his father's office, but in a few months he was invited to take the Chair of Modern Languages and Literature in Bowdoin College, which had been established, as it were, for him through the efforts of Mr. Benjamin Orr, one of the trustees, who had been impressed very strongly by the merit of a translation of one of the Odes of Horace, which Longfellow had written in his Sophomore year. The young man immediately accepted the professorship, and to prepare himself for its duties went to Europe, and spent three years in the study of French, German, Italian, and Spanish. He occupied this position five years, and resigned it to take a similar place at Harvard University, succeeding Mr. George Ticknor. Before commencing his course of instruction, he availed himself of another opportunity to visit Europe for travel and study, and returned after a year's absence. For seventeen years he continued to discharge the duties of this professorship with a steadily growing reputation as a teacher and poet.

In 1854 Professor Longfellow resigned his chair. He continued, however, to reside in Cambridge, and at the old Craigue House, of which he subsequently became the proprietor. No house in the United States has more interesting associations now than this, the headquarters of Washington in the early Revolution, and the home of Longfellow through all the best years of his life. It is an old-fashioned, square house, half a mile from the college, standing a little back from the elm-shaded avenue which leads to Mount

Auburn, and looking out over the meadows upon the Charles River.

From this old mansion volume after volume of his delightful verse has been sent forth. A list of Longfellow's books will show how rich the fruitage of his placid life is in literary labor. In 1833 he published a translation of the "Coplas de Manrique"; in 1835, "Outre Mer, a Pilgrimage Beyond the Sea"; 1839, "Hyperion, a Prose Romance," "Voices of the Night"; 1841, "Ballads and other Poems"; 1842, "Poems on Slavery"; 1843, "The Spanish Student"; 1845, "Poets and Poetry of Europe"; 1846, "The Belfry of Bruges, and other Poems"; 1847, "Evangeline"; 1849, "Kavanagh, a Novel"; 1850, "Seaside and Fireside"; 1851, "The Golden Legend"; 1855, "The Song of Hiawatha"; 1858, "The Courtship of Miles Standish"; 1863, "Tales of a Wayside Inn. Part I."; 1866, "Flower de Luce"; 1868, "The New England Tragedies," and the "Translation of the Divine Comedy of Dante"; 1872, "Three Books of Song: containing Tales of a Wayside Inn (Part II.), Judas Maccabæus and a Handful of Translations," and "The Divine Tragedy"; 1873, "Christus, a Mystery: containing The Divine Tragedy, The Golden Legend, and The New England Tragedies, with Introitus and Interludes," and "Aftermath, with Tales of a Wayside Inn (Part III.)"; 1874, "The Hanging of the Crane"; 1875, "The Masque of Pandora and other Poems," including "Morituri Salutamus," delivered before the Alumni Association of Bowdoin College. In 1876 he edited a series of selections called the "Poems of Places." He had already declined to undertake the editorship of "Picturesque America."

Though he had often declared his intention not to publish anything after his seventieth birthday, he happily broke the resolution more than once, giving to the world in 1880 "Ultima Thule," and shortly before his death "Hermes Trismegistus," one of the most interesting poems from his pen.

Mr. Longfellow was twice married, the

second wife being the beautiful "Mary Ashburner" of "Hyperion," to whom he was married in 1843, and who, after nearly a quarter of a century of a happy wedded life, was suddenly and horribly burned to death in their home at Cambridge. His five children survive him. Onslow, the elder son, is married and in business in Boston; Ernest is an artist; and of the three daughters, painted by Buchanan Read and immortalized in their father's poem of "The Children's Hour" as

"Grave Alice and laughing Allegra,
And Edith with golden hair"—

Alice, the eldest, is known as a writer; the youngest, Anna, also has shown literary tastes, while the second, Edith, is the wife of Richard Henry Dana, the third of a name honorable in our letters and our law. The poet's two brothers, Samuel and Alexander, the former of whom is known also as a poet, both clergymen, survive him.

All who knew Mr. Longfellow personally agree in describing his character as excelling in kindness, sincerity, and sweetness.

One who knew him intimately from early life says of him:

"He reveled in his friends and their

sympathies. He was genial and humorous at table, and ever bubbling over with cheerfulness and quiet mirth when in the society of those he liked. But then you have a man who was at the same time a bookworm and an inspired bard, whose door has been open to all pilgrims for nearly half a century, whose poems are a rich portion of the intellectual wealth of the world and the pride of his own country. Some of these thousands will have their say, and I make way for them.

"Nothing human that I ever knew exceeded the tenacity of his friendship. His heart might be likened to a precious library, in which the recollections of his friends were enshrined like rare volumes, to be taken down and cherished when the corresponding friend appeared before him, or awoke his attention by a letter. There was no jealousy in his composition, and no poet was ever a more sincere admirer of the productions of genuine aspirants to the guild. His charities were many and constant, and I know of an instance in which his purse for years provided support for the family of an old schoolfellow. He rarely was happier than when he could shed the rays of tender sympathy upon the hearts of his beneficiaries."

PHRENOLOGY AND PESTALOZZIANISM.—PART I.

PHRENOLOGY and Pestalozzianism are two great systems of philosophy which have for their object the developing of the natural powers and susceptibilities of mind. The one began with the examination of the exterior of the cranium of tens of thousands of men and animals; the other began by examining the natural impulses of childhood, and the desire to utilize these impulses in the culture of mind. By Pestalozzianism I mean that system of culture which develops mind by means of *objects*, whether these are in the form of "gifts," as in the kindergarten, or miscellaneous articles as used in primary schools. Pestalozzi did not build the whole structure, but he did more than any other man to lay the

foundation. The details of the structure are not yet complete. Is it possible for two systems of philosophy, originating in ways so widely different, to be in complete harmony? It is not my purpose to attempt to show by logic or a course of reasoning that there is harmony, but to give a partial account of the Pestalozzian system, and leave the readers of the JOURNAL to decide whether or not their philosophy coincides with that of the Pestalozzians.

People frequently quarrel about things in which there is no real difference. All systems have some truth, and all have some error. Truth, in its fullness, can never be reached by trying to show where in things differ, but by also trying to show

wherein they are harmonious. Continued strife will not promote reform, but will excite all the malevolence of man's nature. For this reason it is better to hunt for resemblances, and I shall endeavor to bring those to view without the reader's being under the necessity of putting forth particular effort to find them.

The followers of Pestalozzi maintain that nearly all our ideas are obtained directly or indirectly through the senses. Were it possible for a person to be destitute from the beginning of all the senses and still live, the ideas of such a person would be limited almost to zero. They maintain also that where the senses are active, the perceptive faculties are likewise active. These powers are all susceptible of culture through exercise. The senses must be educated along with the perpectives to secure the best results. A sleepy, sluggish child, whose senses seem to be dwarfed, will rarely, if ever, have keen perception; but the child whose eye catches every object, whose ear catches every sound, will be found to possess equally active perception. For this reason they maintain that the thorough culture of the senses and perpectives is of first importance, since it is the foundation upon which the whole educational superstructure is to be raised. Culture of mind is of more importance than the mere acquisition of facts but partially understood; for an active mind always receives ideas more readily than a sluggish one, even though the latter be possessed of greater knowledge than the former.

Take a boy at seven years of age who has an active mind, and who has never been at school, and a boy of a sluggish mind at twelve, who has been at school for five years, and the latter will be possessed of greater knowledge than the former. Give both the same chances, and in eight years the younger will then not only possess greater *power*, but a greater amount of *knowledge* also. The one will strive to go no higher from then on, while the other has but just started on his way up the hill of knowledge.

Reasoning thus, the followers of Pestalozzi have attempted to invent a system which has for its object the developing of greater power and activity, both of the senses and perception. Perception can not be exercised without exercising some one of the senses, and so the culture of one invariably results in the culture of the other. This being true, a double system of culture is not considered necessary; but each faculty of mind can be cultivated, and its culture will result in the developing of some one of the senses. The time when mind is most easily strengthened is in childhood. If not properly cultivated in their first stages of growth, plants will not attain to one-half the perfection possible by thorough early culture; and what is true of plants is true of all the manifestations of life, whether it be simple vitality or intellectual power. The usual method of early education is to let the child find such means of culture as Nature furnishes till the age of six or seven; but culture should begin at the beginning, and not end till it is no longer necessary. Some have objected to this, saying it is too much like bringing flowers to the bees instead of letting them go out to find their own flowers. This is all very well; but the enterprising beekeeper will sow clover, buckwheat, and other plants so that the bees may have a greater amount of flowers from which to find their supply of honey. Now, Nature's method of teaching is by means of objects, and she has implanted in the child's mind a desire, a longing to know of these objects. It desires to gather knowledge from them as a bee gathers honey from flowers. Man has never improved on Nature's methods. He does not bring the flowers to the bees, but provides an abundance of flowers in the fields near his bees, and in the education of the child he can provide those objects that will develop form, size, order, number, color, etc. By the use of its perceptive faculties, the child acquires a large stock of ideas before he ever enters the school-room. All knowledge is derived from Nature, and we

must have *real objects, real things, real colors, real forms, real sounds, real distances measured*, before we can have correct ideas.

In discussing the methods employed by the Pestalozzians in developing the intellectual faculties, I wish it to be distinctly understood that the thoughts given are all taken from works and papers on education and not from works on Phrenology, but shall take up the faculties in the order as located by Phrenology. For this reason we will first notice the development of

FORM.

This appeals to sight and feeling, and is among the first faculties developed in childhood, and demands very early attention. The child soon recognizes the familiar faces, and distinguishes the faces and forms of strangers. Beginning with balls, cubes, and cylinders as playthings, the child is taught to recognize the simpler forms and learn their names the same as it would recognize a hat or mitten. Resemblances in form are taught by grouping the various forms together. Thus, a ball, marble, orange, apple, pea, shot, etc., are exhibited, and the child is led to see that while they are not alike in size, color, etc., they *are* alike in *form*. They are told that anything of that *form* is said to be *spherical*, and they are then called upon to think of things that are spherical, and name all they can think of. In like manner the cylinder, lead and slate pencils, stick of candy, crayon, legs and rounds of chairs, are grouped together, and the resemblance in *form* shown. Then the word "cylindrical" is given, and the children are again called upon for examples. Cubes, cones, pyramids, frustrums, spheroids, etc., are each in turn examined. But children must *do* as well as *see*, and so they should form solid figures out of clay, as balls, half balls, cubes, etc. Circles, triangles, oblongs, squares, and ellipses can be cut from paper or pasteboard. In this case the hand is trained as well as the eye. Simple pictures should be given, and by

placing these over another piece of paper the child can puncture holes through both papers with a pin in such a way as to copy the first picture, which will appear on the under paper. The child can then pass a pencil-point from hole to hole that the pin has made, and lo! a picture like the first is formed. As the weeks and months go by, forms more and more complex, and pictures requiring greater skill are given, until the child has an accurate knowledge of all the various forms of lines, surfaces, and solids. It will be seen that great importance is placed upon drawing in the developing of *form*.

OBSERVATION.

The faculty of observation is exercised in every lesson on form, size, etc.; but it is necessary to give special lessons on observation. The teacher will place some object before the class, as a chair, and require the children to give the various parts of the object, as back, seat, legs, rounds. Then the form, size, color, and uses of the parts are given, and the qualities of the material of which the parts are formed. After several lessons are given, one child may be required to get up and give a description of the object by telling of its parts and of their form, size, etc. Then other pupils are called upon to tell what they may have observed which the first has failed to notice. The manner in which these descriptions are given will be discussed under the head of *language*.

SIZE.

The reader who has followed me thus far will see the importance of a full conception of *size*, since it is required that the child shall tell something of the size of objects described, and it must not be understood that this faculty has been neglected while the others have been cultivated. On the contrary, there is in the Pestalozzian system a perpetual development of all the faculties at once, and size receives its share of attention. The teacher begins with a collection of articles

of various sizes, and calls upon the children to tell which are the largest of similar articles, and which the smallest. Gradually the teacher gets them to distinguish between the sizes of those that are nearly equal. In like manner length is taken up, and the pupils are required to tell which of two articles in sight is the longer. As they get older, rulers are given them, and they are required, after a certain amount of experience, to guess as to the length, width, and thickness of books and other articles in the school-room. Slates, desks, blackboards, doors, walls, floor, stove, and everything capable of being measured should receive attention. Some things are very deceiving as to size, and these should receive special attention. Nearly every person will say that the height of an ordinary pail is as great as the distance across the top. People will almost always get the height of a "plug" hat nearly twice what it actually is. Tape-lines should be provided, and all the pupils should be required to measure distances up to a quarter of a mile. As they grow older, they should be required to measure wood, land, cribs of corn, bins of wheat, and then give the number of cords, acres, bushels, etc. In this case the child is obtaining *knowledge* as well as *power*—not book knowledge, but real knowledge from real things, which is practical.

WEIGHT.

The culture of the muscular sense ends in the development of this faculty. None of the movements of an infant are graceful. Its walk is a waddle; it opens its fingers with a sprawl; its progress is a series of tumbles. But its muscles are ever on the move; and, as the years go by, gracefulness takes the place of awkwardness. Nature has implanted in the child a desire to improve, and whatever it sees others do, it tries to do also. To aid the child in its efforts at improvement in this particular, Froebel devised a series of exercises that tend to develop the muscular sense, and give skill to the various movements. These are simple

at first; but as the child grows, each gift adds to its skill. From the catching of balls and building with blocks; the making of beds, chairs, houses, etc., from pease and wire; the puncturing of pictures and the weaving of splints, there is an unceasing development of the muscles of the fingers, hands, and arms, while the dancing, singing, marching, and gymnastics are constantly developing all the muscles of the body. (The reader will notice that while it is necessary to consider the manner of cultivating each faculty separately, that in the kindergarten many of the faculties are being developed at once. Thus, in the weaving of different-colored splints, form, color, order, and muscular skill are all developed together). The aim in this is to simply guide the child in its efforts to attain power and skill in the various movements of the body. That these are important, the God-given impulses of every child will show.

COLOR.

Red, blue, and yellow balls of woolen yarn are placed in the hands of very little children, as the *first gift* in the kindergarten system. These are the primary colors. All through the series of gifts color plays an important part. Colored blocks are arranged in artistic forms; colored squares, triangles, oblongs, circles, and other forms are used for the construction of beautiful figures; and all the material for work given the child is dyed some of the shades, hues, or tints, of the primary, secondary, or tertiary colors. Children are thus taught very early to recognize and name the colors. At school they are shown how a mixture of the primary colors produces the secondary, and these the tertiary; how a slight quantity of black mixed with these nine colors produces the *shades*; how a slight quantity of one of the nine, mixed with one of the others, will produce a *hue*; or, how white put with them produces *tints*. Children are in this manner led to *see* for themselves that all colors, no matter what they may be, are pro-

duced from the three primary colors, along with black and white.

ORDER.

Heaven's first law! It is necessary that the various colored blocks of the kindergarten be placed in exact *order* to produce the best effect. The child instantly sees the difference between blocks arranged without order and those that are arranged with it, and is readily taught to seek order and avoid confusion. All through the various gifts the same degree of importance is attached to it, and the same is true of the whole course of object lessons. The child that describes an object must observe order in taking up the parts of the discussion. In this manner nothing is left out of the description; for, being separated into parts, and the form, size, color, number, and uses of the parts stated, the material and qualities given, there is no possible chance to omit anything, if *order* is maintained. To show how this faculty is developed in its completeness, it would be necessary to go through the whole series of *gifts*, and through all the *steps* of the lessons, from objects proper. (In the kindergarten the progress is through *gifts*. In the primary object lessons it is by *steps*).

NUMBER OR CALCULATION.

Again we see the wonderful unity of this system of education. The three balls of the first gift to the child in its cradle give symmetry of *form*, beauty of *color*, and ideas of *number*. But number is taught through all the gifts. In making combinations, it is necessary to observe the number of blocks or pieces in each row; of the pease, and wire to make a chair; of the number of splints of each color for each design, and so on to the end. In primary work, the children are taught to recognize one, two, three, four, or five objects at sight without stopping to count. It takes weeks—yes, months—of drill to secure this. Meantime, the child is taught to add by sight $1 + 1$, $1 + 2$, $1 + 3$, $1 + 4$, $2 + 2$, $2 + 3$. These reversed are all the combinations possible in adding up to five. In like manner,

drills are conducted in subtracting. Are these altogether too simple? That is what the writer thought at first, till experience taught him differently. When all the combinations in adding and subtracting between one and twenty are thoroughly mastered, there is little left to learn. A little boy was very much surprised when I told him, while playing dominoes, that five and six in adding always produced *one*, and so asked him: "How many are sixteen and five?" He answered, "Twenty-*one*." "How many are twenty-six and five?" "Thirty-*one*." "How many are thirty-five and six?" "Forty-*one*." I then showed him that the greatest number of combinations of all the digits, using two at a time, is forty-five, and when these are *fully known*, a boy can sweep his eye up a column of figures and add as fast as he can recognize the figures. This conversation sprang from the fact that he had to *count* the spots on the dominoes, and add them also by counting, and this though he had been over in his arithmetic as far as percentage. There is nothing else so aggravating to a teacher as to have a pupil add by counting his fingers; and yet a knowledge of these forty-five combinations, that people think so absurdly simple, would end it forever. Of these forty-five, twenty-five result in sums no greater than ten. The Pestalozzians insist that these can all be taught readily by means of objects while the pupils are *very young*, provided no advance step be taken till the last is fully mastered. The drills end in such a development of the faculty that when the pupils finally begin the work as taken up in the books, their advance is very rapid. It was the rapidity with which his pupils could solve difficult problems in arithmetic which rendered Pestalozzi's school at Yverdon famous throughout the world at the beginning of this century; and this power came through the developing of the mathematical faculty at the proper age.

LANGUAGE.

As it is through language that all our ideas are communicated, the thorough

culture of language becomes of first importance. Correct language requires correct articulation, and for this reason much time is spent in drills on the oral elements. All words are spelled by phonetics, and this drill is continued till each pupil can give correctly and rapidly all the oral elements of any word. The children are required to give full statements, *as, in answer to the question, "What do you see?" they should say, "I see a bell," not simply "A bell." In order that they may have a correct and full understanding of things, and be able to describe objects correctly, the various *qualities* possessed by them must be understood, and their *names* must be known. By means of objects the nature of such qualities as transparent, opaque, porous, rough, smooth, etc., is taught. When a new word is given, as the name of a quality, it is pronounced, spelled by phonetics, and letters, and written on slates. Pupils are then required to name objects that possess this quality. Then, in succeeding lessons, objects are presented; the children give the qualities the objects possess, as, "chalk is white," "chalk is brittle," "chalk is opaque," etc. "The crayon is cylindrical in form, white in color, is porous, brittle, opaque, incombustible, and smooth." Then, as the lessons become more complex, the language becomes more explicit, and the parts discussed are classified; as, "The object seen is a chair. Its parts are the seat, back, legs, and rounds. Its color is black, but there are red and yellow stripes

on the legs and seat, and pictures of fruit and leaves on the back. The seat is made of wood, is flat upon the upper and lower sides, while the four edges are curved. There are four legs, cylindrical in form, and six rounds, which are also cylindrical. The back is made of two posts, connected at the top and across the center by two flat crosspieces that are bent in the form of a curve. As to uses: the seat is to sit upon, the back to lean against, the legs are to support the seat, and the rounds are to add to the strength and durability of the chair." This looks like a long, difficult description; but it will be observed that the parts are first found, and then color, form, number, and uses of the parts are given. The size and material of the parts, together with the quality, may also be stated. This shows the importance of *order*; for, the same order being always pursued, it is impossible for the child to omit any part of the description. This drill is continued for years with growing complexity in the object. The reader can now see how completely language, order, observation, and the other perceptives are developed by these descriptions. Of course, after this has continued for a long time, these become in part habits with the child, and when it sees an object it will *observe* the parts with greater minuteness, because it is examining it in an *orderly* way, and can afterward give an accurate description, because it has *language* to express its ideas.

LOREN E. CHURCHILL.

OUR WEATHER SYSTEM.

OF all the subjects presented to us from our earliest to our latest days, from the beginning of the world to the present time, none is more common and ever-present with us than the weather.

It forms the most common topic of conversation, and is the ready subject to unloose our tongues, and the happy medium or channel whereby, as strangers,

we mutually introduce ourselves to each other.

Without regard to time or place, hour or season, "the weather," of all subjects, is the one that invariably takes precedence over all other topics.

Notwithstanding this, however, there is no subject about which the world, and even the most intelligent portion of the

world, knows so little, for the simple reason that until of late we had no facts to enlighten us.

At first it seems strange that such should be the case, but with a little thought this is readily understood.

All sensible people will admit that we can not have knowledge of a subject without full and complete facts, at least all essential facts, for *all the facts* of any one subject were probably never developed. Life is too short, and we have too much to attend to, to do nothing but gather material. There must come a time when we must commence to build, and when, even though we have not all the material that it may be possible to gather, we yet have sufficient facts whereby we may begin to understand our subject.

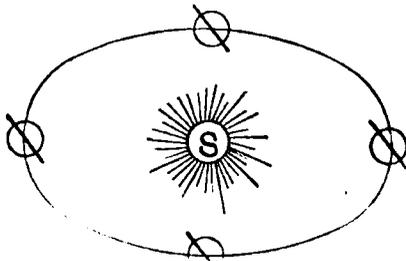


Fig. 1.—ORBIT OF THE EARTH.

The development of our weather system was impracticable before we had the telegraph; then it took a number of years before the idea was conceived to put the telegraph to service in this department. At first it was begun on a small scale; but no movement ever gave such a stimulus to a subject, or did so much for it as the establishment of our Weather Bureau in 1870 with power over such a favorable and wide extent of territory as the United States. This map when first published was very modest and incomplete compared with that now daily issued by the Weather Bureau, and this Bureau has steadily advanced—the while striving to make their work more and more complete.

Though hailing from Washington, I do not speak *ex cathedra* for the Weather

Bureau. The signal-office day by day furnishes the facts—these I take, and from them wreath the philosophy which in this paper I present to the reader.

Under the direction of the Weather Bureau signal stations have been established all over the country, at least where practicable, and to such an extent as the yearly appropriation would permit. From these stations three observations are taken daily—at the same moment—7 A.M., 3 P.M., and 11 P.M., Washington time. By this plan the changes from hour to hour, day to day, and the effects which are the outgrowth of these changes, are noted, and in permanent form preserved on the daily map. So our daily weather-map may very appropriately be called the *Geography of our Atmosphere*.

I. As in other branches of physical science the SUN is the first great factor or power. Without the sun we could not have our present form of meteorology, and only with the sun can we have those changes of our globe which we term "the weather."

II. The movement of the earth about the sun.

III. The daily motion of the earth on its axis.

IV. The parallelism of the earth, which causes the changes of the seasons, alternately transferring the heat of the sun from one side of the equator to the other—necessitating change—relieving monotony.

V. The slight oscillation of the earth, whereby its polar axis slowly describes its grand circle of some 25,000 miles in the heavens.

To-day our northern inclination is toward the star Polaris; twelve thousand years hence the astronomers tell us that our earth will point toward the large and bright star Vega, in the constellation Lyra. This movement is now so gradual that it has very little effect upon our present weather system; yet there may have been a time when this motion was more rapid, and it seems to be the best principle or factor whereby we can account for such changes as the world

passed through centuries ago when the animals of our present tropics found good feeding grounds in what we now term the Frigid zone.

So in addition to the changes of the earth resulting from the revolution on its axis, causing day and night—its motion about the sun, causing the changes of seasons—we have another, whose periods belong not to days, to years, or even to centuries, but to cycles measured by the thousands of years.

But I shall not now follow this point any further; its periods are too far apart for us to know much about them.

VI. In addition to the above changes or factors, we still have another—one that has only been revealed to us within the past few years, and that is the movement of the areas of the concentration of the sun's heat—probably best represented by the movement of a double-convex lens (a common magnifying-glass) over a piece of paper, with such light and focus as to cast a ring of strong light upon its surface. This we term the movement of *LOW*, and will be more definitely referred to further on.

VII. In this paper I shall speak of *HIGH* and *LOW*. By these terms I mean high and low barometer.

Barometer is a long word, so we drop it, and simply say High and Low.

VIII. Theory of *Low*. *Low*, or *LOW BAROMETER*—WHAT IT IS.

In the whole of nature there is probably nothing more curious and difficult to understand than the primary cause of the curious freaks of *Low*. Before the era of the weather-map, it was impossible to understand many freaks of nature that are now readily explained by the movements of *Low*.

Every department of nature has its first great cause. The weather-map has led us up to the first great cause in this department—it has revealed *Low* to us. But still the inquiring mind always desires to advance further, and asks, what is *Low*? Not simply, what is low barometer, but what causes it, and why should it have such properties as are daily revealed to us on the weather-map?

When facts fail us, then, and not till then, is it well to build, from what facts we have, what the world calls Theory. Theory is always well in its place, but it should never take precedence over facts.

I think we can better understand what *Low* is if we can imagine the world new—just started in space, with no changes yet begun. Where there is heat and water, there will after a while be developed suspended moisture, which we term clouds. Were there no agent to collect these clouds the atmosphere would gradually gather suspended moisture, and retain it until too heavy for further suspension, and then we should have a drizzling rain. The forces in nature are not always equal, and there are subtle elements at work or latent, which our obtuse senses can not perceive. After a while, for some reason unknown to us, the heat of the sun becomes concentrated upon certain points. The concentration of clouds has a two-fold effect: one to preserve or retain heat overnight during the absence of the sun, and to shut off during the day the heat from the sun. A portion of the earth has become heated beyond that of a neighboring locality. It being well supplied with water, clouds are formed. These clouds retain the heat overnight. The next day, when the sun reappears in the east, the natural tendency of its rays would be to concentrate on those portions where there was already the most heat and where the clouds did not replet. As it rises in the east, the eastern sections, or localities nearest to the sun, would be the first to receive the benefit of the heat; the tendency of which would be to heat those places—to rarify the air, this would cause the air of surrounding localities to move toward that point, and the moving air would take along with it the clouds formed the day before, and the location of the point of concentration of the day before would be moved toward the east. Why may not this movement after midday be retrograde and toward the west? Undoubtedly to a certain extent it is, but the practical result of this is rather to establish another point of concentration for the succeeding day at

that point or farther to the west. So we have a number of areas of low barometer—almost always two over the area of the United States, on east and west lines, and sometimes in addition to these other areas on other lines of latitude.

These areas of Low or of *concentrated heat* become established and ever move, with a few *apparent* exceptions, toward the rising sun. Undoubtedly if the earth were reversed on its axis, so that the sun arose in the west, these areas of concentration of heat which we term low barometer would travel toward the west.

Such is the theory of Low which I respectfully submit to the world. I, however, stand ready to accept a better one whenever it may be offered. Until then I shall hold to this, as it reasonably accounts for the peculiar changes daily revealed to us on the weather-map.

People not familiar with the changes of the atmosphere may think that when the area of Low is over a certain locality, that the atmosphere is then heavy, as it is commonly spoken of as "heavy." It is heavy with moisture, and that is all. The air itself is light, being displaced by the concentration of heat at this point. The barometer is our proof of this lightness, for at such times the atmosphere will only support a low column of mercury.

Low is the storm center; no Low, no storm. Low is absolutely necessary: as necessary as that we must have the valley if we want water to run down-hill. Low being the *positive* element in producing the changes of the weather, it necessarily follows that we must have more to say about Low than about High; yet High is not without its influence, and though we speak of it comparatively as a *negative* element, yet at times, as will be seen further on, it becomes a most positive agent in the formation of our weather.

IX. The counterpart of low barometer is high barometer—technically called High. High is where the atmosphere is condensed—where it is clear and what is generally, though erroneously, termed "light," *i. e.*, dry. When used in this connection, these terms seem somewhat

paradoxical, yet there is no difficulty in understanding them if one will not confound common phraseology with scientific truth.

X. WATER is one of the essential elements that our natures demand; in our present condition we could not exist without it. In this connection, as an element, I speak of it in its broad sense and not in its chemical sense, as a compound body. The more we study the weather-map, the more shall we see and understand the important part water plays in our meteorological economy. Without water we could not have clouds, and without clouds we could not have our earth watered, and it would be like the moon, a most sorry place for bodies organized as we are to live upon. The best place for man to live is where land and water are well balanced. Without water we have the desert, with its extremes of heat and cold—hot while the sun is shining, and very cold so soon as the sun has set, there being no moisture to form clouds and retain heat. Meteorologically water acts very much like, although the reverse of, water in a steam-saw; it acts as a barrier or non-conductor. Over an extended area where there is no water, Low is repelled, and will not stop overnight—hence no rain. The only way to remedy this is to encourage water by irrigation, or to encourage the growth of such trees, scrub-pines, as will grow on such soil. Water is necessary for foliage, yet where there is no water, Low may be induced to visit the place if hardy plants may be induced to grow there, and thereby attract moisture. The foliage and Low will act and react upon each other.

XI. CLOUDS are simply moisture supported in the air. They are being formed everywhere, at least everywhere where there is water and heat. Clouds are known by various names, such as "Cirrus," very light clouds; "Stratus," long, narrow, heavy clouds; "Cumulus," commonly called thunder clouds; and "Nimbus," *i. e.*, such heavy clouds as we have during a storm, when outline is lost in mass. Then we have combinations of

these names. We have extended masses in small patches, called "Mackerel Sky."

After all, there is not much in these names beyond a power of description or designation, for in a meteorological sense they amount to little. To notice whether they are light or heavy, and the direction in which they are moving, is the essential hing after all. In the past, and even in the present, there are many absurd notions in meteorology; for example, it is a common thing to "see wind" in clouds. Clouds are simply moisture being transported by the winds. They have no power over the wind—they are subject to the wind, and the wind is governed by

XII. THE WINDS are the agent of the storm—the propelling power which carries the clouds from place to place as the storm center Low dictates from day to day—hour to hour. It is said that "the wind bloweth where it listeth," but it always listeth to blow toward Low.

XIII. The weather-map is the record of the storm and sunshine—of the meteorological changes which continually occur. It is the geography of the atmosphere. When we come to understand the weather-map we shall fully understand the beauties of nature in this department. We shall comprehend the grand and perfect sanitary system of nature

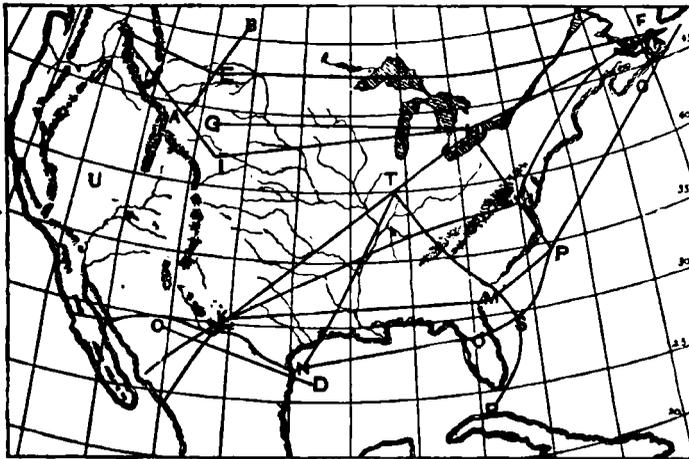


Fig. 2.—TRACKS OF LOW.

Low, and Low is regulated by the sun. Thus, in this, as in every department of nature, we are led up to the Great First Cause, beyond which, in this sphere at least, we can not go.

The clouds are formed by heat. By heat the conditions are produced which create the winds, and give them their direction and velocity. Moisture in the form of clouds is thus transported hither and thither. Formed in one place, transported to another, and there deposited to form new material for other clouds to be transported elsewhere. And thus the round of motion is kept up forever, and teaches us lessons in the economy of nature and how much depends upon motion.

whereby our earth is watered, our temperature regulated and changed, and our air renewed and maintained pure and clear.

The weather-map has proved to be one of the grandest inventions, acquisitions, and incentives to science that the world ever had. Facts have been obtained and utilized that but for the system that created this map must have lain concealed, with no hope of resurrection or bringing to light.

Before the advent of the weather-map—indeed, in Franklin's time—they had crude ideas about storms traveling toward the north-east; but before the advent of the map it was impossible to understand the whys and wherefores, the

directions of storms, and indeed even what a storm really is. There was, and even at present there is, an idea that *one* storm will continue two or three weeks. This is erroneous, but could not have been understood years ago. One storm lasts from one to three days, rarely over three days. But a succession of storms may last weeks and even months. Again, during dry spells in summer the storm centers are passing over the country quite as regularly as in the wet seasons of the year. But they are so far from us, or have so little moisture in them, they fail to give rain, at least much below the 45° parallel.

XIV. The Paths of Low, so far as revealed by observations in the United States and the Atlantic Ocean, are ever from the west, toward the east—toward the rising sun. There are apparent exceptions, as will be seen in cases presented. The general course of the Mississippi River is south, yet we know that there are points in its course where it flows due north. Though this is a fact, no sensible person would claim that the course of the river was anything but toward the south.

In this paper I shall speak of Low, the *anterior Low* and the *posterior Low*. These terms, I think, will readily explain themselves to all intelligent persons. Low, in its path across the country, is much like an immense water-cart, or like old Aquarius, covering tracks of greater or less width. Storm centers are continually passing over the surface of the globe. On an average, one passes over the area of the United States once in three or four days, though not always on the same line or with the same speed. Their starting-point and course is a perpetual surprise—can not be foreseen or foretold, excepting generally as to direction toward the east. The speed at which they will travel is equally unknown. At present it seems impossible for us to determine the speed beforehand. At one time a storm center Low will travel at the rate of only a hundred miles a day, or even less; at another time it

will travel twelve hundred miles a day, and even more.

XV. The wind is always toward Low. There are apparent exceptions: as in a city, when the wind is north-west, going up one street it may seem like a wind from due north, while on a street at right angles to this the wind may appear to be from the west. Mountain ranges, as the Blue Ridge, may divert a wind; and in some localities, as in the neighborhood of Washington, make it appear to be even from the north-east, when the general course of the wind is south-east, south, or even south-west.

It being an established fact that the wind is always toward Low, or from the High to the Low, it naturally follows that if Low is on a high line of latitude, that the wind will be from the south; if on a low line of latitude, from the north. North winds, we know, are cold, and south winds warm; yet even in regard to winds there are a few apparent exceptions. At times a north wind will be quite warm and a south wind quite cold, for the reason that on account of Low having, for some time previous, been on a high line, and the air of the higher latitudes thereby becomes heated, the air from the north will for a few hours be quite warm, until the true north wind is reached, then it will be cold. So, when Low has been in the south, and then suddenly a new one is developed in the north, the air from the south, for a short time, will be cold.

In the summer-time Low is more apt to be on a high line than in the winter, but then there is nothing certain about its location as to seasons, for in the summer-time it will travel on a low line and in the winter on a high line. Without regard to the season—winter, spring, summer, or fall—if Low is on a high line it will be warm; if on a low line, cold, at least comparatively cold for the season.

The location of the area of Low barometer as it were defies the seasons. It is the great leveler and intensifier of heat and cold, dispensing its gifts without regard to seasons, bringing heat here and

cold there at will, defying the apparent natural condition of summer and winter, tempering the heat of one and neutralizing the cold of the other: a sort of uncertain capricious power that develops weather out of season, introducing sudden changes, transporting the sun's heat hither and thither quite in opposition to the location of the sun's position in the ecliptic, probably the most capricious, uncertain, and mysterious power in all nature—the re-adjuster of temperatures. Such is Low, and such a careful study of the weather-map will prove it to be.

XVI. The tracks of Low are variable (see map, fig. 2). If one could spend his whole life, and live a century, he or she could not make lines sufficient across the area of the United States to represent the variety of nature. Therefore, on this map it is not pretended to represent more than the general lines of Low. Anything more would be impossible.

In the first place we have few or no stations in the extreme north-west and south-west. In order to make our system more perfect, we should have more stations beyond the lines marked A, B and C, D; indeed, more stations generally through the West.

At present, so far as we are able to see, with what stations we have, Low enters the area of the United States through the north-west and south-west gates, in the neighborhood of G and E, and N and K. The high table-land U, lying in the center of the Rocky Mountain region, seems to repel Low, so it takes lines further to the north and south. More stations in this vicinity would enlighten us in regard to these regions.

Lows entering on the north are "picked up" in the neighborhood of E, G, and I. These may be termed the *high* Lows, *i. e.*, Lows on a high line of latitude. In their course across the country they take the general directions, E, F; G, H, F; I, H, F; G, H, L, P, etc.

From the point H, especially during the cooler months, they often take a downward course toward Cape Hatteras,

and from here (P) take a course more or less toward the north-east. It is useless, though, to give exact lines, for the course of Low, as well as its speed, is most uncertain, and this is one great reason why the so-called "weather-prophet" system can never be of any value.

The low Lows will take lines K, T, H, and then from H go in direction H, F, or H, L, P, Q, etc., or lines N, T, H; N, O, P, etc., or combinations of these lines. When Low is on a high line it will be warm; when on a low line, cold.

A storm sometimes clears off cold, sometimes warm. The reason for this is, if Low passes to the north of a certain place, say takes the line H, F or L, F, it will be warmer; if, however, it takes the line H, L, P, and passes out into the Atlantic Ocean, it will produce a north-west wind, and therefore be cold.

The winter of 1880-81 was very cold throughout the south-west and middle northern States, while it was very warm in the north-east. Years ago, before the advent of the weather-map, this could not have been explained. Indeed, intelligent men, unacquainted with the weather map, went so far as to say that science could not explain this phenomenon. A glance at the weather-map explains it all, and why we had not the usual January thaw, and did not have any thaw until about the middle of February, and why they had a heavy fall of snow in New Orleans—something they had not had there for years. The simple reason for this was, Low was the while on a low line, taking lines N, O, S, P; K, M, P; K, L, F, etc., the while crossing the country on low lines, and then following the Gulf stream to the north-east.

If one will comprehend the system developed by the weather-map—bearing in mind that the wind is always toward Low—the mystery of warm weather in the north-east, while cold throughout the rest of the country, will readily explain itself in a most complete manner.

I. P. NOYES.

(To be continued.)

FLOWERLESS AND SEEDLESS PLANTS.

LEAVING awhile the peers of the vegetable kingdom—the Phoenogamia of flowering plants, with their fibers, spirals, and varied tissues, their green leaves and many-hued flowers, and vital seeds, we will seek out another class of vegetation less highly endowed—the Cryptogamia, or *flowerless* and *seedless* plants. This division includes the worn-

lies being composed of cellular tissue alone, with no distinctive organs. A flattened mass of this tissue termed *fronds* bear within their integuments microscopic reproducing organisms designated as *spores*. The spores are conspicuously ornamental in many of the ferns, which family more nearly approaches to the higher orders, but there is nothing like a



ONOCLEA SENSIBILIS. (SENSITIVE FERN.)

out and poverty-stricken tribes. They have a meager structure, and are destitute of leaves, flowers, and seeds, and are found thinly spread over the surface of the world.

Among them are found all the club mosses, the ferns, mosses, and lichens, seaweeds, and all varieties of vegetable fungus growth, moulder, etc. The structure of these plants is simple, the lower fami-

flower to be found in the entire grand division.

This low order of plants lends much to the adornment of wood and wild, and to peopling the deep sea; but a wide chasm seemed to exist between this and the flowering kingdom until the botanist Arnold discovered in the East Indies a plant which seemed to possess characteristics of both grand divisions. This vege-

table wonder, though possessing a cellular structure only, develops flowers which spring immediately from the root.



SENSITIVE SEA-WEED. (NATURAL SIZE.)

It imbeds itself parasitically into the stem of a creeping vine peculiar to its habitat, and altogether resembles a huge flowering mushroom. A specimen whose record is given was three feet in diameter, and weighed fifteen pounds. It was a livid red, and of a fœtid odor. If the gulf between the vegetable continents is bridged, this sporous, flowering parasite *Rafflesia* has thrown across it a single span.

Club mosses, with their trailing beauties and unwithering greenness, serve as adornments for altar and home during Christmas-time. That boy has lost something out of his childhood who has never scrambled through the woods in search of ground pine and other club mosses, to twine into Christmas wreaths.

In moist woods and rock-crevices, in the late spring-time, are found the brown, curled, and fuzzy heads of the upspringing ferns—*Filices*—and all through the summer their graceful fronds adorn waste places. In the torrid zone, ferns exist in great beauty and profusion, and often, with stems but three or four inches in diameter, exceed thirty and forty feet in height, their plumy fronds surpassing even the palm in grace and delicacy. Indeed, in the English quarries fossil ferns

have often been mistaken for palms. In the East Indian forests, climbing, parasitical ferns are found, of most singular structure and vivid coloring. A species of polypodium, with brown scaly roots, inserted like living mosaics in the branches of trees, and adorned with yellow fronds, is exceptionally beautiful.

With many graces of form and varieties of color, ferns yield no perfume and produce no flowers or fruit, and though perfectly innoxious, cattle and sheep will not browse the fronds, and insects seldom alight on them. A few species are mildly medicinal. The revealments of geology plainly declare that the club mosses and ferns performed their mission in the economy of nature before the animal and higher vegetable organizations were created, and when there were no requisites for nutritious qualities in the vegetation of the earth, and only a demand for the consumption of moisture and carbonic acid. The largest of existing ferns dwindle into insignificance compared with the exhumed fossils of the pre-Adamite ages. Hugh Miller declared that three-sevenths of the entire carboniferous flora of Great Britain consisted of ferns alone. Fossil ferns have been found with stems five



FUCUS WITH PARASITES. (NATURAL SIZE.)

feet in diameter. Descending another step in the wide pathway of nature, we find many varieties of bright-hued mosses

clinging to the thin soil at the base of shelving rocks, carpeting the upgrowing roots of old trees, and brightening with their presence barren and waste places. They are very tenacious of life, and exist in climates the extremes of heat and cold; of simpler structure than ferns or club mosses, they are the connecting link between the higher and lower cryptogamian orders.

We next make the acquaintance of the lowly *lichen*. It consists of a crust, or frond, which spreads out horizontally on bare rocks, old walls, the trunks of trees and barren soil. Even more than mosses they endure the extremes of heat and cold, being found on the ice-bound rocks of the polar zone, and by the margin of the boiling geysers.

Lichens are chiefly valuable for dye-stuffs and they produce many and durable colors. An edible lichen grows on the deserts of Tartary, and the Lapland moss is the food of the reindeer, and often of his master.

Passing on from the hardy lichens we next reach the wide sea, where each incoming tide sweeps to our feet curious vegetation—algæ—sea-weeds. Defying our attempts to penetrate their history and habits, they guard the outposts of the vegetable empire. They are mere masses of cellular tissue, divided without order or regularity into flattened *lamina*, the expansions of which form air cells to assist their floating habits, besides containing the reproducing spores. The delicate coloring and bead-like filaments of many of the species are extremely beautiful. Here too are to be found some of the most gigantic as well as coarsest of nature's products, and to some of them are probably due tales of sea-serpents and other nondescript monsters. Among the most generally known, but least understood of these vegetable nomads is the gulf-weed—*Fucus natans*, which is found in and near the warm currents of Asia and America. The fronds are often incrustated with coral-line formations, and the sporous air-sacs help to bear them on the waves. Some-

where in the depths these plants may germinate, to be at length detached and borne to the surface, or they may awake to life on the top of the billow, but their true history is not known.

Closely allied to the fucus, and sometimes confounded with it, is the *Sargassum vulgare*, that extensive mass of marine vegetation known as the grassy sea, which the encircling currents have held in the mid-Atlantic since the time of Columbus. This mighty accumulation of sea-weeds led his affrighted sailors to believe they had reached the limit of navigation, while the bold voyager himself deemed it the foreshadowing of land. Recent surveys estimate these ocean meadows to exceed in area the extent of the valley of the Mississippi. Small specimens of the plant exhibit it as radiating from a common center which has never been fixed.

The algæ are more useful than any other cryptogamian tribes. Litmus, so valuable for chemical tests, is obtained from a variety of sea-weed, and also iodine, much employed in the treatment of cutaneous diseases. The natives of South America applied the stem of a species of fucus as a remedy for goitre, long before iodine—a product of the fucus—was known, and used for the same purpose by civilized Europe. The marine *Chondrus*, is used in making blancmange, and the famous edible birds' nests of the East Indies and China are manufactured by swallows of a species of algæ.

The mushroom, or *fungus*, is the last and lowest family of nature. They are mostly parasites, existing on diseased or decaying vegetable and animal substances, from the shelf-like boletus to the most infinitesimal form, as the *smut* on wheat, *ergot* on rye, and the *rust* on various grasses. These are all *false* parasites, that is, they grow on other plants, and on animal matter, but derive their nourishment from the air, instead of the fluids of the bodies to which they cling. Some of the most contagious and deadly diseases exist as minute fungi. The monad that tints the polar snow is the

lowest and simplest organism of the vegetable world, and consists of but a single cell.

Although the cryptogamians are simple in organization and eccentric in form, yet varieties are found with characteristics of the highest vegetable creations, even to approaching the mysterious border-land of sentient life. The *onoclea sensibilis*—one of our loveliest native ferns—is decidedly sensitive. On being rudely touched, contractions extend on either side, from the mid-vein of the frond, the margins of which approach each other as if to exclude the intruder, and this peculiarity exhibits itself to a very perceptible degree.

Among the algæ—that representative tribe of the thallogens—those lowly races with no distinctive developments, we also find the sensitive principle existing, and as wonderfully developed as among their more highly endowed relation of garden and field.

When the sensitive sea-weed drifts undisturbed in its native element the tiny fronds are expanded to the light and air, and if touched by any foreign substance, they instantly contract, and adhere closely to the laminæ to which they are attached, giving them the thickened appearance shown in portions of the illustration. Their peculiar qualities render it difficult to secure and study them in their expanded beauty.

Parasitic plants are among the beauties of ocean vegetation. The gulf-weed bears in its nurturing arms hosts of these lovely, but fragile dependents. Every portion of this weed will often be covered with clinging parasites of varied form and coloring. The only explanation of the life and growth and uses of the great mass of the vegetation of the ocean and its shores is, that it exists simply as another of the many exemplifications of Almighty and life-giving power.

A. E. COLE.

TOUCHING MATTERS CHIROGRAPHICAL.

TO the business man a good handwriting is, if not an absolute, at least a prime, necessity; to every one, it is a desirable accomplishment. Yet how many there are whose writing is barely legible; how many whose chirography is simply execrable. The *New York Tribune* once contained an article from the pen of its editor-in-chief, setting forth the incompetency and general inefficiency in the management of affairs in the New York Post-office, by which four days were required to carry a letter thence and deliver it in a village forty miles distant. Mr. Greeley, it seems, had written a letter to go to his country-seat about that far from the city on the Harlem Railroad, and duly mailed it at the New York Post-office. The letter came in due course into the hands of the mailing clerks, not one of whom was able to read the direction. It was then referred to the "blind reader": so called, not because this official is himself a blind man, but because

he is employed to read the address on "blind letters"; that is, all letters the superscription of which is so faulty as to be unintelligible to the ordinary post-office clerk, hence called "blind letters." These officials become by much practice, after a while, wonderfully expert. But the letter in question was more than a match for even the blind reader. With all his expertness he was unable to decipher the address. He threw it aside for the time being, but after a few days took it up again, and still unable to make out the direction, he guessed at it, and at a venture sent the letter to *Chappaqua*. Guesswork is as good as any when it happens to hit, which it did this time, and the letter reached its destination after four days' delay. Hence the wrath of the veteran editor. We have been told by officials employed in various departments of our postal service, that nine-tenths of all the letters that go astray in the mails do so from some fault of their writers; either

through mistakes or omissions in the address, or from the general illegibility of the superscription.

By some unaccountable perversity bad writers usually concentrate all the objectionable features of their writing in their signatures, which are as unintelligible as though they were written in Sanscrit. The house by which we were at one time employed was in the constant receipt by mail of orders for books, also to be sent by mail. These illegible signatures were a source of great trouble. The post-office stamp on the envelope often helped us out with the address, but this could of course render no assistance in the matter of the party's name. Where we utterly failed to make out the name and were unwilling even to guess at it, we either made as exact a copy of the signature as we could, or we cut it out of the letter and pasted it on the package to be sent.

Again, there are some who write by no means badly, but who will still persist in signing their names in a way that makes it either difficult or impossible for any one unacquainted with their signatures to read them. This is a style much affected by presidents and cashiers of banks, and by others in some official or semi-official station where their principal, perhaps their only, business is to sign certain documents. The style is adopted by these worthies in order to make their signatures more difficult to counterfeit. The sign-manual of Gen. Spinner on our national greenback currency is an example of the kind of signature to which we allude. It is a kind which is easily enough recognized by all who have seen it before, but no one seeing it for the first time would be able to read it. We once received an order for books from a bank president in Canada. The body of his letter was well enough written, and for that matter the signature was too, so far as the looks of the thing went; but it was, in other respects, of the kind described; his official signature, the same that he would employ in signing a bank note, and legible enough, we dare say, to the man's neighbors, or to any one who had ever seen it

before, but all Greek to us. But the gentleman, with an amount of forethought unusual even in business men, had taken the precaution to write out on the left-hand side of his letter at the bottom, his name, in plain legible characters: this in addition to his formal signature in the usual place. Now there—to use a slang phrase—was a man with a level head. His bank is the one for our deposits. It is a bank that will not break, we warrant.

Now we hold that every one can learn to write at least legibly. All that is wanted in most cases is a little more care and a little more time. These scrawlers, while hurrying through their writing in order to save a minute of their own time, do not reflect upon the loss of time and patience which they thus entail upon those who have to puzzle and rack their brains in the endeavor—sometimes a vain endeavor—to read their hieroglyphics. That is selfish. But we are told that some persons are natural penmen and others are not, and that the latter never can become good writers however much they may try. This is true, with some qualification of the last clause of the sentence. Our father was a natural penman. He wrote a beautiful round-hand, and his large-hand was like copper-plate. Yet not one of his three sons were natural penmen. The son of a mechanic, a near neighbor of ours, and, at the time referred to, a boy like ourself, obtained a situation as clerk in a country store; and by the time he had been there six months, he could write better than we could, better than we ever hope to be able to write; although our opportunities had been vastly superior to his. He was a natural penman. Though not ourself a natural penman, still we have by dint of labor and care, and painstaking, acquired a very fair hand; and in our judgment although all can not become elegant writers, every one may learn to write legibly. Our own experience teaches us that much. Where a case is met with that seems to militate against this proposition, it may be regarded as exceptional. To assist, then, all bad writers who have a laudible desire to improve their style, is

the object for which this article was written.

In the first place let us analyze a good handwriting and see in what it consists. According to our view, good writing consists mainly of three elements, and we name them in the order of their relative importance. The first is legibility; second, speed; and third, beauty. That legibility is of the first importance in all writing, no one will, we dare say, undertake to dispute; hence we need not spend time in the attempt to prove it. Speed we have placed second. However legible, and even beautiful one's handwriting may be, if these characteristics are attained only by slow and laborious toil, the writer will find himself unfitted for many situations which he might otherwise fill with pleasure and profit to himself. Better sacrifice the element of beauty, while still keeping within the bounds of legibility in order to attain greater speed. For example: the shorthand reporter will find that the amount of work which he may be able to turn out will, in certain contingencies, depend very much upon the rapidity with which he may be able to transcribe his shorthand notes into longhand. His capacity in this respect will be the measure of the amount of business done. When a speed of 150 to 175 words a minute in shorthand has been attained, the success of the stenographer in a business point of view will, after this, depend more upon his speed in longhand writing than upon his speed in shorthand. Having accomplished the two requisites of legibility and speed, it is well also to give some attention to the appearance of your writing, to do something for looks' sake. When a specimen of penmanship is submitted for examination, it is always a point in its favor, if, in addition to its other good qualities, it also presents a handsome appearance. But you are not always to suppose that because a piece of writing looks well, it must therefore of necessity be good writing. We have seen writing in which the lines and curves were graceful and well made, and which looked rather well,

but which was sadly wanting in the most essential requisite of legibility notwithstanding. This is a style of writing much in vogue among merchants' clerks.

Seat yourself squarely on your chair, resting not upon one hip alone, but equally upon both. The writing-table, or better still, the desk, with a sloping lid, should be of a height to correspond with your elbow when sitting. Sit squarely up to it, and not sideways; and lay your paper on the table or desk squarely in front of you, and a little to the right. Take hold of your pen about an inch from the nib, holding it between the first two fingers and the thumb, the other two fingers resting by their ends on the paper and forming a support. Do not grasp your pen like a bar of iron, but let it be held rather loosely and easily. We can not give more specific instructions without ocular demonstration. Although we believe the method of holding the pen now given to be the best, in fact the only correct one, still there are good writers who hold their pens differently. Indeed we have known some excellent penmen whose manner of holding the pen was, to say the least, vicious. Good writing does not depend so much upon any particular way of holding the pen as has been generally supposed. It depends perhaps as much upon the eye as upon the hand, in the same way as does sketching or drawing; or as a phrenologist would put it: it depends somewhat upon certain intellectual faculties of which the eye is the external organ. If, therefore, you have contracted a habit of holding the pen, one which you have had for a long time, and which you find it difficult to break yourself of, even though it be not of the best, we would not advise you to make any change. It is only in the case of young persons whose habits are not yet fully formed that we would insist upon the adoption of, and rigid adherence to, the rules laid down.

Having gotten your pen well in hand, rest your arm on the edge of the table or desk, about half-way between the wrist and elbow, the elbow a convenient dis-

tance from the body. The arm thus balanced as on a pivot, while the hand moves over the paper to the right, the elbow will approach the side of the body. The writing masters of the old school used to teach us to hold the elbow close to the side, the pen pointing over the shoulder. How any such absurd rule ever came to be taught, or how anybody could ever learn to write in such a position, is more than we can conjecture. It is a rule which is now universally condemned by teachers of penmanship, and good writers everywhere.

We would advise a style of writing that is round rather than angular, and one that is heavy rather than light. In a hand that is rather heavy, any little irregularities or other blemishes are not so apparent as when finer writing is attempted. In furtherance of the latter object you should use a rather coarse-pointed pen. We prefer the Washington Medallion pen, a steel pen of American manufacture, to all others. None of your fine-pointed Gillott's or Spencerian pens for us. The writing done in the British Government offices is all in this heavy style of penmanship. It was introduced there by Lord Palmerston while he was Foreign Secretary. He it was who rigorously abolished hair-strokes. Mr. Thomas Allen Reed—to whom we take pleasure here in expressing our obligations for his instructive article on penmanship in Pitman's *Shorthand Magazine*—says of this action on the part of his lordship: "If in his long career he (Lord Palmerston) never introduced any other reform than that, I hold that he would deserve to live long in the grateful recollection of his countrymen." This style too, we notice, is much used in the departments of our own Government at Washington. We would recommend also a style rather perpendicular than slant; one that is nearly, if not quite, straight up and down. Sloping letters, as compared with those of a more upright style, are less easily made, and require both more space and more time. The perpendicular style is one that has lately come into favor with editors,

reporters, and others who write for the press.

There, now, you have all our points in one paragraph, at least all the principal ones. We might in addition urge that you keep your writing well down to the line; that is, write evenly on the line, and not sometimes above it. Make the opening in your a's, e's, and o's, especially your e's, always distinct, and do not allow the ink to overflow the interspace. After you have written a few lines, stop and look at your writing. Examine it critically and note any faults or deficiencies. Then write the same thing over again, correcting the faults noted. This process might be repeated with advantage two or three times. We have not space to go further into particulars here.

But it is the three points first enunciated that we the more particularly insist upon. We recapitulate them: 1st. A round-hand rather than an angular one; 2d. Heavy rather than light, avoiding all hair-strokes and flourishes; 3d. A perpendicular style rather than a sloping one. It is to the observance of these maxims more than to all else that any excellence we have attained to in the way of writing is due. Not that our style is an elegant one, we do not claim that; but it possesses in a large degree the three elements which according to our analysis constitute good penmanship. Our handwriting is very legible and easy to read. It is on this account well liked in printing-offices, compositors reading it as readily as print. This is the first and most essential element as already stated. It is capable of a good degree of speed, the second element; and a quantity of it together, as on a page, looks rather well, which is the third element. In regard to the two last-mentioned qualities, we mean those of speed and beauty: we would say here that in the practice of others, these might perhaps be carried to a point beyond that which we have attained; for we feel assured that there are many in whose hands this style might receive a higher degree of

development in these directions than we have ourselves been able to give.

A few words in regard to writing materials and we have done. It has been said that a good mechanic can work with any kind of tools. Not so a poor mechanic, indeed. However, be that as it may, we think it always well to employ the best stationery available. We have already advised you of our choice of steel pens. Where there is much writing to be done, if it is your business to write constantly, a gold pen is the best, as causing less fatigue to the muscles of the hand and arm, on account of the greater flexibility and elasticity of that metal. But when you have a piece of work to do which you wish to execute with the greatest nicety and skill that you are master of, take a steel pen, as the best writing can be done with that.

As to ink: there is but one ink in the world, and that is Arnold's. Some object to it on account of its corrosive property. But ink to be permanent must possess this property in some degree. The violet ink that has lately come into use flows readily from the pen, and it does not corrode. In using it a steel pen will last until it is completely worn out with the friction produced by moving in contact with the paper. Many prefer it and use it on account of these qualities, but then it is not permanent; it will fade, especially when exposed to the light. It answers very well, however, for any writing done for temporary purposes, as for editors' copy and the like; but for book accounts, and for all legal and other documents where permanency is required, it is not safe to use it. We said just now that Arnold's ink was the only ink in the world worthy of the name; there is, however, an ink, of American manufacture too, put up in stone bottles like Arnold's, and bearing a label which is a *fac-simile* of his, and the ink itself is so much like Arnold's, that no one can upon trial distinguish between the two. We do not mention the manufacturer's name, because if he has a good thing, and knows it, but does not know enough to adver-

tise it, we do not propose to give him an advertisement here *gratis*.

The market is flooded with patent inkstands. We regard them all as patent humbugs. In the first place, being patents, they are rather costly. Secondly, being somewhat complicated in construction, many of them, they are liable to get out of order. And for the same reason, they are rather hard to clean. We prefer an inkstand which holds but a small quantity, as we like to have it washed out often and filled with fresh ink. Then an inkstand should have a broad base, that it may not be easily overturned. These two conditions are well met in "Ornate," which consists of a broad base of bronze metal, in which rests an ink-well of glass, holding about two thimblefuls, and removable at pleasure when it needs cleaning. But we like, best of all, a cube of glass having within it a cavity of the proper size, and attached to which by a hinge is a diamond-shaped cover, also of glass. This is an inkstand that is easily cleaned; it can not get out of order; and its cost is about one-third that of your patent humbugs.

As to paper: we prefer that which is of good body, heavy rather than light; and of a pure white, or cream-color, rather than that of a bluish tint so much in vogue a little while back. We like it also to be more widely ruled than the paper commonly used.

JAMES COULTER LAYARD.

GEORGE WASHINGTON once disposed of an office-seeker's petition by saying: "As George Washington I should be glad to do this gentleman a favor, but as President of the United States I am unable to comply with his request!"

SEVENTY-FIVE years ago Robert Fulton asked the use of the Hall of the House of Representatives, to deliver an address on the use of steam for propelling boats, but was refused; the "assembled wisdom" of the nation deeming the idea too absurd for the consideration of reasonable men.

THE CHILD'S LAUGH.

ONE morn a child, just five years old,
 Laughed out as a breeze pass'd by ;
 And the breeze stoop'd down and caught the
 sound
 Ere its gladsome notes could die.

And away it flew over fields of dew,
 And over the forest grand ;
 But the laughter sweet in its fast retreat
 It held in a cool soft hand.

And where'er it strayed the soft leaves play'd
 And tittered on every tree ;
 And the flower looked up as it touched its cup,
 And its face swell'd out with glee.

And the waters dull of a shade-hid pool
 Smiled faint through a languid lip ;
 And the brooklet proud laughed out aloud
 As the breeze brushed over it.

And the breeze went on from dawn to dawn,
 And over the world it went,
 And joy and mirth took instant birth
 Wherever its wings were bent ;

And many a time in a far-off clime
 Where the father's feet have stray'd,
 His dreaming ear is startled to hear
 The laughter his child once made.

And the mother who sits and dreams and knits
 When the fire is burning low,
 Is roused to hear that laugh ring clear
 That her child made long ago.

And the breeze goes on from dawn to dawn,
 And wanders the wide world o'er,
 And the joyous shout that the child gave out
 'Twill carry forevermore.

KARL KARLINGTON.

KNOWLEDGE OF THE WORLD.

A KNOWLEDGE of the world, by our own experience and observation, is so necessary that without it we would act very absurdly, and frequently give offense when we do not mean it. All the learning in the world will not secure us from mistakes, as without an acquaintance with life a man may say very good things, but time them so ill and address them so improperly, that he had much better kept silent. Full of himself and his own business, and inattentive to the circumstances and situations of those he converses with, he vents it without the least discretion, says things he ought not to say, confuses some, shocks others, and puts the whole company in pain. The best direction we can give in this matter is, rather to fall in with the conversation of others than start a subject of your own; rather strive to put them more in conceit with themselves, than to draw their attention to you.

A novice in life, he who knows little of mankind but what he collects from books, lays it down as a maxim, that most men love flattery; in order, therefore, to please, he will flatter; but how? With-

out regard either to circumstances or occasion. Instead of those delicate touches, those soft tints, that serve to heighten the piece, he lays on his colors with a heavy hand, and daubs where he means to adorn; in other words, he will flatter so unseasonably, and at the same time so grossly, that while he wishes to please he puts out of countenance, and is sure to offend. On the contrary, a man of the world, one who has made life his study, knows the power of flattery as well as he, but then he knows how to apply it; he watches the opportunity, and does it indirectly, by inference, comparison, and hint.

Man is made up of such a variety of matter, that to search him thoroughly requires time and attention; for, though we are all made of the same materials, and have all the same passions, yet, from a difference in their proportion and combination, we vary in our dispositions; what is agreeable to one is disagreeable to another, and what one approves another will condemn. Reason is given us to control these passions, but it seldom does. Application, therefore, to the rea-

son of any one will frequently prove ineffectual, unless we endeavor at the same time to gain his heart.

Wherever, then, you are, search into the character of men; find out, if possible, their governing passion or their particular merit; take them on their weak side, and you will generally succeed; their prevailing vanity you may readily discover by observing their favorite topic of conversation; for every one talks most of what he would be thought most to excel in. In this apply the principles of phrenology, and your success will be almost certain.

Every man has his particular times when he may be applied to with success, the *mollia tempora fandi*; but those times are not all day long,—they must be found out. You should not hope for success in applying to a man about one business when he is occupied with another; or

when his mind is affected with grief, anger, or the like.

You can not judge of other men's minds better than by studying your own; for, though some men have one foible, and others another, yet men in general are very much alike. Whatever pleases or offends you will, in similar circumstances, please or offend others; if you find yourself hurt when another makes you feel his superiority, you will certainly—upon the common rule of right—do as you would be done by—take care not to let another feel *your* superiority, if you have it, especially if you wish to gain his interest or esteem. If disagreeable insinuations, open contradictions, or oblique sneers vex and anger you, would you use them where you wished to please? Certainly not. Observe then with care, the operations of your own mind, and you may, in a great measure, read all mankind.

C. WHITTIER BROWN.

A PORTRAIT GALLERY OF CONFEDERATE CELEBRITIES.

No. I.

[THE series of papers of which this is the first, was sent to the editor of the PHRENOLOGICAL JOURNAL a few months before their author, Mr. Edward A. Pollard, died. He was one of the most cultivated writers produced by the South, and an earnest sympathizer with the movement for a separate Confederacy, and therefore a close observer of the events which occurred during the late struggle. The present is deemed a not unfitting time for the publication of what he had prepared for a much earlier appearance.—Ed. P. J.]

IN years before the war there was perhaps no opinion more obstinately held, or more dogmatically and even insolently asserted by Southern men than that their section was superior to the North in statesmanship, and had produced all that was most valuable in political science in America. The South, it was said, had given birth to a majority of those men best known to the world as American publicists; she had produced most of the

political literature of the country; and for three generations she had supplied most of the highest offices of the country. Yet, notwithstanding these plausible appearances, we are constrained, in the light of recent and indispensable revelations, to call into question the cardinal boast of the South, and to doubt a superiority which she has persistently claimed and treated as granted beyond recall, a fixed fact in the pages of history. The mere majority referred to of names politically famous may have been accidental; indeed, no moral fact is capable of being proved by an account so purely arithmetical. And, after all, may there not be a confusion or ignorance in the South's estimate of statesmanship, a misapprehension as to what really constitutes the remarkable virtue or felicity of which she had so long claimed eminent possession?

The South seems to have had a predilection for political employments; her

young men were politicians before they had graduated in literary studies, and minors, ignorant of Euclid and Latin dictionaries, could yet talk with intelligence and discretion of the resolutions of 1798 and '99. The peculiar society of the South encouraged politics as a profession. It was there a badge of social superiority; and, whatever else may be said of the distinctions of that society, it is certain that its aristocracy, so far from being founded on Slavery, as commonly reported, rested mainly on distinctions in political life, those holding offices constituting the highest social class, although the coincidence of their being also slaveholders was frequent. There perhaps never was so marked an aristocracy of politicians as in the South preceding the war, since the days when, in the early and virtuous splendors of Rome and Greece, public dignities were prized beyond all other possessions.

The school of reform was never popular in the South, and the best inspiration of the statesman was thus wanting there. Just before the war the politics of the South had become almost wholly traditional and inflexible. But if anything was wanting to complete the disillusionizing as to a superior political wisdom resident in the South, it was furnished in the developments of the late war, and the complete failure which the Confederacy made of its affairs. As the history of the Confederate failure comes to be better known the world is agreed that it was due far more to the folly of its Government than to the weakness of its arms. In truth, never was such a caricature of government as the Davis *régime*, and if anybody has ever been able to discover in those four years of Southern rule a stroke of statesmanship, a single *coup* of political wisdom, a single measure wisely calculated to ameliorate any set of necessities that the war produced, this writer will be obliged for the information. On the contrary, this wretched Confederate Government was just the most complete negation of statesmanship that the world had ever seen in like circumstances of pre-

sumption. The administration of Mr. Davis was a feeble echo of what was done at Washington; the foreign relations of the Confederacy were absurdities; its fisc was a caricature; every effort at diplomacy was a failure and reaction; nothing was well done but the fighting, and that only gave for naught the blood of the best and bravest. In modern times war has become an affair of the Cabinet as well as of the field—a game of wits as well as of arms. Now, what is remarkable of the history of the war as it involved the South, is the utter blankness and impotency of the political side of the account, and that, too, contrasted with the military efficiency which she displayed. The Southern Confederacy produced a Stonewall Jackson, a Johnston, a Lee, yet scarcely a statesman to imprint his name on the history of the struggle; there were brilliant battles, monuments of valor on many a field, some memorable displays of various virtue, yet not one single civic success, not one single gain of diplomacy, not one single victory of the Cabinet!

The contrast goes to show that statesmanship is a virtue *sui generis*. At least, that it is not to be taken as a measure of the whole intellectual character, and that all merits are not to be decided on it alone. However deficient in statesmanship, the "so-called" Confederate Government has other intellectual aspects interesting to the critical historian. It is most remarkable that a collection of men such as the leaders of the "Rebellion," having so little to interest the world in the *rôle* of statesmen, should, yet, have so much to interest them as a group of intellect and of personal character. This contrast seems to have been but little attended to in histories of the late war. The Confederate leaders, while deficient as statesmen, were yet very remarkable intellectual persons; to judge of their other abilities by their failure in the arts of government is essentially fallacious; and it would prove particularly so in this case, where the undeniable historical fact is that they were such

poor statesmen, and yet such able and cultivated persons. To examine these men in a light in which they have not yet been placed—that of distinguished personal characters, without reference to their record as publicists or partisans, and disembarrassed of all political references—is the design of these pages: an

Stephens; the President of Congress (when the Congress was a single legislative corps), Howell Cobb; the Secretary of State, Robert M. T. Hunter; the Secretary of War, Judah P. Benjamin. The leading officers of the Confederate Government were thus filled in the first year of the war; the Cabinet of Mr. Davis, it



JEFFERSON DAVIS.

attempt to supply a marked omission in history.

A just estimate of the intellectual *personnel* of the Confederate Government obviously requires that we should select as a group for examination those holding its most important offices. As such a group, a portrait gallery which may be extended, we would name: the President, Jefferson Davis; the Vice-President, Alexander H.

is generally suspected, afterward fell off in point of ability—at least, it was the subject of many changes—there being no less than five Secretaries of War in four years: Walker, Benjamin, Randolph Seddon, and Breckinridge; anyhow, the Southern Confederacy in its inaugural exhibits a collection of names which, justly representing the intellectual force that erected it, can not fail to strike the

reader as an imposing array of reputations already conceded in history. All these men were of national reputation before the war commenced; all of them had enjoyed the highest honors in the old Union, next to the Presidency itself, those of the Senate and the Cabinet; and it would be idle now to charge that the new Government was intellectually deficient, and from such imputation to force an explanation of its failure in the war. It failed for any other reason in the world than the want of intellect; perhaps there was too much of intellect, at the expense of other conditions no less necessary to the success of a great revolution—but these are speculations with which we have here nothing to do, and which we abruptly dismiss.

JEFFERSON DAVIS.

Mr. Davis was fifty-two years old when he entered upon the career of leader of a great revolution. Neither the character of the man, nor the former habits of his life, fitted such a career. His natural tastes, until they had been corrupted by ambition, were strongly inclined to a scholarly life, one of repose and speculation, rather than that of action on any public theater. He had deliberately chosen such a life, when at the age of twenty-seven he resigned from the United States Army, and for eight years thereafter, confined on a Mississippi plantation, continued a life so studiously private that it was withdrawn even from the notice of his former friends and associates. This curious interval in his life really affords an insight into the character of Jefferson Davis which has not generally been observed. Stormy and ambitious as was his subsequent career, he frequently confessed to a happiness in this period of retirement which could only have proceeded from one of those natures which, however occupied in the world, or however conspicuously placed by circumstances, yet finds a supreme pleasure and luxury in *self-culture*: that is, in the improvement of the mind, not for special

effects, but for the delightful consciousness of its progress in power and knowledge.

The fact was, Mr. Davis was a *closet-student* by nature. He deliberately gave the best part of his manhood to obscure occupations; and within these years of retirement he made himself an accomplished scholar—yet scarcely more. Here he acquired the extraordinary literary culture which made him in some respects so admirable; but here, too, he may have derived much of that imperfect intellectual character which marks those who have but little practical intercourse with men, and who have not mixed knowledge of the world with the information of the scholar. It is this fine mixture which we recognize especially in the highest types of statesmanship, and which we observe in those happy men who command the successes of the multitude along with the appreciation of the few and the intelligent. Whatever may be the natural vigor of the mind, it may be impaired by excessive and solitary exercises; a weak and speculative intellectual character is often the result of studies which abstract us from the world; and in the practical conduct of human affairs, the danger of over-refinement is not less than that of a blunt and barren ignorance. Altogether Mr. Davis' period of studious and elegant retirement was not a fortunate preparation for the distinguished and momentous career on which he was to enter.

When Mr. Davis did emerge into public life, under the pressure of a great excitement in the local politics of his State, his ambition seems to have served to continue him in that life; supplied a motive in a career where his natural inaptitude, and even distaste, was confessed, and thenceforward continued to spur him in that career. He was misplaced as a politician, and still more so as a man of affairs. The most notable defect of his intellectual character was *narrowness*; and it had various demonstrations under the different tests applied to it. In his attempt at the management of practical

affairs, he was singularly unfortunate in his estimate of the adequacy of means to an end; instead of that easy and self-possessed work characteristic of the man who measures his means, and is thus capable of organizing his efforts, his administration was always fettered with details having the appearance of being very over-busy, and yet accomplishing but little in the way of clear and appreciable results. He was one of those men whose hands were always tremulous as with the excess of business; he had none of that easy, even method that comes from the careful adjustment of means to an end; distraught, with all his time eaten up by a confused multitude of cares, he yet had but little to show in the way of results for the labors that wore away his health and that were apparently so great and yet really so fruitless. They purchased for him a vulgar admiration as for great industry; but it was a fussy industry, one lacking the self-possession and poise of what may be called the *business-faculty*, and the characteristic of which is always that it is as easy in its methods as it is wide and comprehensive in its preparations. The utter want of this faculty was the most fatal defect of Mr. Davis' administration.

If Mr. Davis' intellectual narrowness had been coupled with a better temper it might have been less harmful. But unfortunately it had the addition of a temper which sharpened and exacerbated it, that of the most violent prejudices, and of a conceit which made enemies of all who stood, even innocently, between it and the public admiration. With his devotion to a great public cause he mixed animosities the most unworthy, and he carried along and bound up with his political career a secret history of jealousies. He stocked the public offices with creatures of his favor, and his appointments had scarcely a distant reference to the question of fitness for the services required in the prosecution of the war. His vanity was such as easily took alarm. Indeed the most constant and significant event of Mr. Davis' administration will

be found to be his jealous repulsion of advisers and assistants, and his descent to rivalry in popularity with his subordinates and lieutenants. He showed an eagerness to appropriate all the honors of the Confederate cause, and to wear them conspicuously in sight of the world. In this he departed from the true policy of greatness, and lowered the summit to which fortune had raised him. It is the unailing characteristic of the great man that he never descends to competition with his subordinates, but ingeniously takes every success of theirs as his own, the source and sustenance of his own greatness. It is the art of utilizing those around him, on the principle that the successes of his subordinates eventually recur to himself as the center, magnifying him and filling up the measure of his fame, rather than the weak, jealous attempt of self-assertion, which drives from itself all necessary aid and counsel, and, choosing a naked eminence, finds only a vanishing point. Such was the attempt of Jefferson Davis. He descended to competition with his lieutenants, instead of exciting among them a generous rivalry to serve his own central and crowning fame.

On the whole, Jefferson Davis is one of the happiest subjects for a biographer. The curious union in him of so much of weakness and defect with a high partial culture presents a series of contrasts that is naturally expressed in that antithetical style which is especially suitable to character-drawing, and the most striking charm of the class of literature known as biography. We are constantly studying contrasts in this man, and, in writing of him, the pen naturally operates under a system of checks and balances. We see in him one of the most mixed characters of his times; that his judgment was at once shallow and perverse; that though his life was not stained with dishonor, it was often steeped in petty meannesses; that an obstacle to wise counselors, he was yet an easy prey to flatterers; that overtaxing his time and almost wearing out his life by incessant labors, he had

yet no faculty of business; that zealous and busy in public affairs, he was yet trifling and whimsical, a creator of nothing; that haughty, persistent, repellent of advice, the approach to his vanity was always open, and the avenues of his patronage beset by a conceit as easily bribed as by an obstinacy that was inexorable. As the summation of a painful history, we are forced to confess that a nature, capable of better things in another and quieter career, was wholly unequal to the trials of a leader of a great revolution; that an ambition intoxicated by great opportunities, became at last malign and paltry; and that one who might have continued a distinguished man in a lesser cause, or, at least, not have had occasion there to unmask his weaknesses, fell under an accumulation of fortune, ending his career in ruin and degradation.

The peculiar narrowness of Mr. Davis had the notable effects that it kept him ignorant of the real situation of affairs, and that it never afforded him any higher conception of the cause in which he was engaged than that of his own personal fortunes. There is a little piece of the secret history of the Southern Confederacy, but lately communicated to the writer, which may be related here, not only for its just and dramatic illustration of the character of Mr. Davis, but for its historical interest in other respects. The authority for the revelation is a former member of the Confederate Congress from North Carolina. It is now very well known that the Fortress Monroe Commission in the spring of 1865 was one of the worst and most vexatious of the "lost opportunities" of the South; that the diplomacy of the Confederacy which heretofore had accomplished nothing in the war, not even made a stroke of a pen to be remembered, had then a splendid opportunity of saving much for the South, indeed might have obtained terms for its expiring cause which Mr. Lincoln described as "*carte blanche*;" with only the word 'Re-union' written at the top of the page." The opportunity was insulted and lost—so much is

generally known; but it has only recently been divulged that it was lost mainly through the selfishness of one man.

About the time of the Commission, and when the air of Richmond was filled with rumors of a possible peace, a delegation of North Carolina gentlemen, headed by that staunch Unionist, Mr. Gilmer, called on Mr. Davis and obtained a private interview, to urge upon him a course which they were persuaded would result in peace, and secure the greatest interests of the South. He was assured that some of the delegates had communications from Washington to the effect that there was an eagerness there to conclude the war, and a disposition to grant terms of extraordinary generosity; the South might retain everything except Slavery, and with even a hope of compensation for that, if it would only freely, and as of its own motion, give up its form of an independent Government, and lay down arms which, as it best knew, then scarcely bore the shadow of a hope. Here were vast interests to be saved, and it only required that Mr. Davis should have the candor and generosity to surrender an office which he could no longer hope to maintain; whatever there was of self-sacrifice in such a step would be rewarded to him by a reputation in history for magnanimity that would far outweigh a few short days of a power already decayed and unreal, and scarcely existing more than as an empty title; his resignation would be the signal of peace; a single word now pronounced from his lips might save the South, crown his heretofore traduced career with an act of splendid, indisputable wisdom, and make for him an immortal title to the gratitude of his countrymen. These views were urged by the delegates in language bordering on enthusiasm, and sometimes trembling from the great anxiety they felt in the issue of the interview. It was a remarkable scene. Those who plead for Mr. Davis' resignation as the price of so much to be secured, stood in the private chamber in which he had granted this interview, in various attitudes of

eagerness, some speaking, interrupting each other from their fullness of matter, others appearing as if they held their breath in suspense for the reply that was to come. The speeches continued for about twenty minutes in the rapidity and disorder of informal eager talk, and Mr. Davis had not yet replied a word. All the time he paced the room to and fro; it was a measured, stiff step, as if he were trying to subdue an impatience of the mind by a mechanical employment; his face, bowed on his breast, was swollen from the constraint of silence he was evidently trying to maintain, that he might hear his interviewers at least with

decency. At last and suddenly he turned his face, lifted and blazing, and said, "Do you think, can you think, gentlemen, that I would ever negotiate *my own* destruction? Never! never!" No other word was said; no thought seemed to have entered the breast of the infatuated man that he spoke for six or seven millions of his countrymen; the issue was for him, wholly and simply, Jefferson Davis or nothing, and the words on that issue were decisive enough. The door of the secret chamber was closed on the delegates, and, with them, on the last hopes of the Southern Confederacy.

• EDWARD A. POLLARD.

PROPHETIC DREAMS.

SEVERAL instances are recorded in the Bible in which the future was made known by dreams, and the interpretation of dreams was sometimes an important part of the prophet's mission. Dreams in all ages have been believed in as affording indications of the future. In ancient Greece it was believed that dreams came from the great Jupiter, the king of gods. In ancient Egypt and Babylon, the interpretation of the monarch's dreams was an important state office, and was intrusted to a college of wise men. In consulting the Greek and Roman oracles, it was common, after performing sacred rites, to sleep in the temple, so that the information desired might be made known in dreams. Ancient philosophers wrote treatises upon the interpretation of dreams, as even Bacon seems to have believed that something might be learned from them. In modern times, however, very little attention is given to dreams, and they are generally dismissed from the mind with only a passing thought. The popular saying, "As idle as a dream," well expresses the sentiment of people generally in regard to this kind of phenomenon. This popular estimate of the nature of dreams is undoubtedly a just one as regards dreams generally. Yet it is possible that there may be ex-

ceptions. Some dreams may have a meaning which it is important that the dreamer should interpret aright, and understand its import.

The mind, sometimes, in sleep can do that which it failed to do when awake. A difficult mathematical problem which, during the working hours, had baffled all efforts for its solution, is sometimes solved with ease during sleep. Many events, experiences; and impressions which apparently had long been forgotten, and could not have been recalled in the waking state, may come back vividly to mind during sleep. The mind can accomplish some tasks during sleep which it could not accomplish during the waking hours. It is possible that the mind, during the sleep of part of its faculties, may receive at times foregleams of the future, which, rightly interpreted, may be of advantage to the dreamer. In ancient times, too much reliance was placed upon dreams. In these modern times it is possible that dreams are too indiscriminately thrust aside as belonging to the vagaries and fancies of the night. The venerable Ralph Waldo Emerson says of dreams: "A skillful man reads his dreams for his self-knowledge, yet not the details, but the quality. What part does he play in them—a cheerful, manly part, or a poor,

driveling part? However monstrous and grotesque their apparitions, they have a substantial truth. The same remark may be extended to the omens and coincidences which may have astonished us. Of all it is true that the reason of them is always latent in the individual. Goethe said: 'These whimsical pictures, inasmuch as they originate from us, may well have an analogy with our whole life and fate.' The soul contains in itself the event that shall presently befall it; for the event is only the actualizing of its thought. It is no wonder that particular dreams and presentiments should fall out and be prophetic. The fallacy consists in selecting a few insignificant hints when all are inspired with the same sense. Every man goes through the world attended by innumerable facts, prefiguring (yes, distinctly announcing) his fate, if only eyes of sufficient heed and illumination were fastened on the sign."

Some very remarkable instances have occurred in which dreams have come to pass in the manner revealed to the dreamer. According to the *London News*, on the occasion of the terrible railroad accident from which Charles Dickens narrowly escaped with his life, there was in the same train a lady and gentleman just landed in England, after their return from India. Just before the accident, the lady said to her husband: "I see the great wave rolling; it is close to us"; and then the crash came, and she was killed. The husband was unhurt, and at a later time, explained the strange words of his wife. Ever since they set out from India, she had been haunted in sleep by the dream of a vast silvery wave, and always as it was about to break on her, she had wakened in terror. This was the wave which she recognized immediately before the accident which caused her death. Prof. Hedge relates that "when André, in a visit to friends in Derbyshire, before his embarkation for America, was introduced to a certain Mr. Cummington, that gentleman recognized in him the original of the countenance of a man whom he had seen in a

dream, arrested in the midst of a forest, and afterward hung on a gallows." The subsequent death of Major André in the manner indicated in the dream was a remarkable point in its fulfillment. Prof. Hedge, in commenting upon this dream and others in which the event took place as foreseen in the dream, regards them as tending to show "that the soul is essentially clairvoyant; when not impeded and overpowered by the action of the senses and the exigencies of the waking life, it seems to be taken up into unison with the universal spirit, to which there is no here nor there, no now nor then, and to have sight not only of what is, but of what has been, and what is to be."

During our long civil war, many instances occurred in which men were forewarned in dreams of their own death or that of their comrades. A week previous to the battle of Fair Oaks, a New York volunteer dreamed that in just one week there was to be a great battle, in which he would be killed while charging across a field; that two sergeants of his acquaintance would be killed in the woods, one shot in the breast and the other in the groin, and that a large number of others would be killed. The soldier appeared so depressed in spirits the next day that his companions rallied him about being homesick, and he reluctantly told his dream. In just a week the battle took place, and the dreamer was killed in full sight of his regiment, and the two sergeants were killed, twenty minutes after, in the woods, one shot through the breast and the other in the groin, just as had been foretold in the dream. More than fifty men, it is said, were witnesses of the truth of this statement. The night before the cavalry fight at Brandy Station, a trooper who slept as he jogged along in the column, dreamed that a certain captain in his regiment would be unhorsed in a fight the next day, and while rising from his fall would be wounded in his left knee. He told the captain his dream, but was laughed at for his credulity. But in the very first

charge the next day, the captain was unhorsed by the breaking of the girth, and was pitched heels over head into a patch of briars. While he was struggling out his horse was killed by a shell, and a fragment mashed the captain's left knee so that he had to have it amputated. Three days before the engagement at Kelly's Ford, "a corporal in the Sixth Michigan cavalry dreamed that a brother of his, who was a sergeant in another company, would have his horse killed in the action, and would almost immediately mount a dark bay horse with a white nose. Within five minutes both horse and rider would be killed by a shell. This dream was related to more than a score of comrades fully two days before the fight. Early in the action the sergeant's horse was struck square in the forehead by a bullet, and dropped dead in his tracks. It was scarcely three minutes before a white-nosed horse, carrying a blood-stained saddle, galloped up to the sergeant and halted. He remembered the dream, and refused to mount the animal, and soon after picked up a black horse. The white-nosed animal was mounted by a second corporal in another regiment, and horse and rider were torn to fragments by a shell in full sight of four companies of the Sixth." In the last instance, apparently, the life of the sergeant was saved by heeding the admonition of the dream. The writer who narrated this and other similar instances, adds, that "there was a time when a soldier's dream saved Gen. Kilpatrick's life; when a dream changed Custer's plans for three

days; when a dream prevented Gen. Talbert's camp from a surprise and capture; and when a dream gave Gen. Sherman more accurate knowledge of Early's forces than all the scouts."

Numerous other instances of prophetic dreams might be narrated, but enough has been adduced to show that there is something worthy of considerate attention in some dreams, however trivial the greater part of them may be. The prophetic revelations made through dreams in ancient times are perhaps sometimes repeated in these modern times.

H. REYNOLDS, M.D.

ONE WAY TO DO IT.—Should you wish to advise a friend "not to use big words," you may adopt the following phraseology, which will be of course more impressive than the simple monosyllable caution:—In promulgating your esoteric cogitations, or articulating your superficial sentimentalities and amicable, philosophical or psychological observations, beware of platitudinous ponderosity. Let your conversational communications possess a clarified conciseness, a compacted comprehensibleness, coalescent consistency, and a concatenated cogency. Eschew all conglomerations of flatulent garrulity, jejune babblement and asinine affectations. Let your extemporaneous desecantings and unpremeditated expatiations have intelligibility and veracious vivacity, without rhodomontade or thrasonical bombast. Sedulously avoid all polysyllabic profundity, pompous prolixity, psittaceous vacuity, ventriloquial verbosity and vaniloquent vapidty.

THE AUTOCRAT OF THE BREAKFAST-TABLE.

At the head of the table, with smiles on his face,
The light of the soul, the sweet halo of grace,
Sits the Autocrat, laughing and chatting away,
The merriest monarch that ever bore sway.

A happy good-fellow—"don't judge by his
size,"

His stature of soul—he is witty and wise.
Nature could not afford a mountainous man,
Endowed and polished in such exquisite plan.

To the humor of Hood his genius gives glow,

With the joke that must come, "if the buttons
must go."

Should he break a thin rib with a side-splitting
pun,

He's a doctor whose laughter can bandage with
fun.

Although his profession runs into the ground,
And some of his patients sleep under the mound,
His wit could awaken their visible cough,
Though their spirits had gone "where the Cro-
ton's cut off." GEORGE W. BUNGAY.



INDIGESTION: ITS CAUSES AND REMEDY.

INDIGESTION is a very common affection. Probably at least one-half of our people suffer more or less from it, although they may not be aware that that is the cause of their troubles. The stomach occupies a central position in the body, and has intimate nervous connection with the large ganglia of the sympathetic and spinal nervous system and with the brain. As a consequence of its extensive and intimate nervous connections with nearly all parts of the system, irritation of the stomach is liable to occasion serious disturbance in almost any part of the system. Indigestion, by the irritation it arouses in the stomach, may set up much disturbance in the system through the nervous derangements which it excites. Indigestion, however, influences the system in other ways. The food not digesting properly, the constitution of the blood becomes impaired. It may be deficient in some needed elements, owing to the failure of the digestive process to extract those elements from the food, and it may contain some deleterious substances found during the fermentative changes occurring in the food. The blood thus becoming impaired opens the way for a wide circle of derangements which may be manifested in the system.

Among the disturbances of the nervous system which indigestion may occasion, may be mentioned neuralgic pains in the muscles of the chest and abdomen; weakness or weariness or painful aching in the

limbs; headache, dizziness, disturbances of the eyesight, impaired intellectual activity, loss of memory, depression of spirits, anxiety, fear, morosity, irritability of temper, or various forms of melancholia, hysteria, and even convulsions. Much of the fretfulness and irritability of temper which characterize some of our people is due to indigestion. Indulgence in these manifestations of irritability of temper increases the indigestion and makes the condition worse. Many of the frequent headaches which many suffer are due to indigestion, although such persons may think that their food digests perfectly well. Sometimes persons suffering from frequent attacks of dizziness are greatly disturbed, fearing that apoplexy is threatened, while all their trouble is caused by indigestion. Loss of memory and impaired intellectual activity sometimes cause much anxiety lest some disease of the brain is commencing, as a general breaking-down of the intellect is near at hand. It is well to bear in mind that all these disturbances of the nervous system may be dependent upon indigestion, although, of course, they are not always due to that cause, and may indicate other diseases.

Indigestion may occasion frequent palpitation of the heart, occurring either spontaneously or on slight exertion. It may also occasion irregular action of the heart and intermission in its beats. A large proportion of the cases of palpi-

tion occurring in persons of all ages is due to indigestion. The removal of the palpitation is to be sought, in all such cases, by correcting the indigestion, and not in taking medicine, to control the action of the heart. Taking medicines for controlling the action of the heart will usually be found to aggravate the indigestion, and thus make the patient worse instead of better.

Difficulty in breathing, occurring spontaneously, as on slight exertion, may be caused by indigestion. Asthmatic paroxysms in those disposed to such attacks are frequently brought on by the same cause. Many of those who suffer greatly from asthma may nearly or quite escape from attacks of the disease by the adoption of a carefully regulated diet which shall insure the complete digestion of the food. Persons who in vain have traveled from one end of the continent to the other, to find a place where they would be exempt from asthmatic attacks, have finally found relief at home by carefully regulating their diet.

Indigestion causes alterations in the general nutrition of the body, which are manifested in various ways, among which are the following: Anæmia, or a depraved state of the blood, involving a deficiency of the red globules of the blood, and causing persons thus affected to be unnaturally pale, especially about the lips; decay of the teeth; grayness of the hair; excessive liability to inflammation, from slight causes, of the mucous membranes, especially the eyes and throat; to which may be added, in cases of those predisposed to such affections, liability to gout and rheumatism, and affection of the lungs or kidneys. Consumption has frequently been regarded as due in many cases to long-continued derangement of the digestion, whereby the general nutrition of the system had become impaired. Premature grayness of the hair may frequently be due to indigestion, and if the indigestion is removed, and a healthy condition of the digestion brought about, the hair may, in some instances, become restored to its original color. It is much

better to seek a restoration of color in this way than by using "hair restoratives," which injure the hair, and sometimes poison the whole system. The alarming prevalence of the decay of teeth among our people, both old and young, is probably largely due to indigestion. The inflammation of the mucous membrane of the throat, known as "clergyman's sore throat," is a product of indigestion, and the removal of the cause by the adoption of a suitable dietary, exercise in the open air, and observance of the laws of health generally, will be the best treatment for it.

Indigestion is the cause of various alterations in the skin manifested by general coldness or chilliness, especially of the extremities, by changes in its color or texture, which may be earthy or sallow in tint, or dry and coarse, and by various eruptions, among which are the well-known eczema, acne, impetigo, and nettle rash. Most of the cases of skin disease affecting children are best treated by attention to the diet, making the diet easily digestible, and sufficiently limited to insure complete digestion.

The causes of indigestion may be due to the food or the condition of the stomach. The food may be defective in quality. There may be excess or deficiency of the normal ingredients, saccharine, starchy, albuminous, or fatty, or some of the naturally indigestible materials which form a part of all food. The food may be introduced in an indigestible form on account of defects in the cooking of it, or imperfect mastication, or from its having undergone putrefaction or fermentation, which arrests the functions of the stomach. Imperfect mastication of food is a very common cause of indigestion among Americans. A large part of our people eat in a hurry, and swallow their food before it has been thoroughly masticated and mixed with the saliva of the mouth. Warm, new bread and pies are especially hurtful when hastily eaten. Eating too much is probably the most common of all causes of indigestion. The secretion of the gastric juice in the stomach seems to

be proportioned to the amount of material required for the nourishment of the system. Food taken in excess of this amount acts as a foreign substance undergoing fermentation and putrefaction, and occasioning much disturbance in the system.

Much may be done for the cure of indigestion by eating very abstemiously of suitable food, thoroughly masticated, tak-

ing exercise in the open air, breathing pure air, and observing the laws of health generally. The amount of food should be reduced until the quantity is reached which the stomach can digest without evincing any symptoms of indigestion. This amount may, in some cases, be found to be one-third or one-half of the quantity usually eaten by those suffering from indigestion. HENRY REYNOLDS, M.D.

COW-POX—WHAT IT IS.

AS the object of vaccination is to produce the sickness or malady called cow-pox, which is claimed by a large majority of our physicians to be an antidote to or preventive of small-pox, a description of cow-pox, as it occurs in the animal, will be interesting to many of the readers of the PHRENOLOGICAL JOURNAL. A veterinary authority, Mr. Stewart, contributes a lucid sketch of this disease to the *Rural New-Yorker*, from which the following is quoted:

"One of the most annoying diseases to which cows are subject is pox, or variola. It would be trifling in its effects upon the cow were it not that it affects the teats and renders milking difficult, or almost impossible, and that when it appears in a herd it goes through the whole of it. This disease is an eruptive, contagious fever, communicated by a special virus reproduced by the disease.

"The history of the disease is as follows: When the owner of a cow is milking the animal, he discovers that she is uneasy and restless, and on searching for the cause may find one or more hard nodules in the skin of the teat, which are painful to the cow when pressed. The milk also falls off in quantity. In a few days these nodules appear at the surface in the form of round, inflamed spots, somewhat raised above the skin, and depressed or pitted in the center. In three or four days the spots are found to contain liquid matter, and, if care is not taken, are broken and may become raw sores, which are difficult to heal, which,

in fact, sometimes result very disastrously and even fatally. By and by the contained liquid becomes a thick, yellowish pus, which dries into a scab, and this in time becomes loose and falls off, being replaced by newly-formed skin. When one case is out of the way another appears, and in a herd of twenty or more it may continue the whole summer in its passage through the herd, giving constant annoyance. During the progress of the disease the udder is inflamed and tender, so that milking in the usual manner is impossible. Recourse is then had to milking-tubes, which are made of silver and carefully inserted into the teat, being lubricated with lard or sweet-oil, to prevent irritation of the lining membrane of the organ. The milk flows through the tube and the udder is easily drained dry without any inconvenience to the animal."

[Comment is unnecessary with reference to the morality of continuing to take milk from animals thus diseased and suffering it to be used as food! Yet our authority speaks as if it were no unusual matter to keep on milking the cows—the theory being entertained, we must assume, that the pox does not affect the milk unhealthfully. But further on he tells us that it is a blood disease! as all the phenomena unmistakably indicate!]

"This disease is readily communicated to mankind and to horses, and spreads from cow to cow, being usually conveyed by the milker, whose hands and clothing soon become infected with the virus.

The matter contained in the vesicles is the true vaccine virus used for inoculating persons as an antidote to small-pox. The virus will often remain permanent in a stable, and will cause every heifer which is milked in it to contract the disease. When this is found to be the case the stable should be thoroughly disinfected by burning sulphur in it very liberally, by sprinkling carbolic acid freely over the floors, and by thoroughly whitewashing the walls and the stalls and other furniture. . . .

"During the continuance of the disease the effect upon the milk is either imperceptible or very light. When at the first outset the udder becomes hard and inflamed, the milk curdles prematurely, and will often thicken if brought to a heat of 150 degrees. There will sometimes be white specks in the butter, caused by the coagulation of portions of the milk, and perhaps by the presence of secreted matter in it; but in general there is nothing in the milk that would indicate that the cow was ailing in any way. Nevertheless, as the disease is a blood disease, and the blood has been subjected to the action of a special virus by which the disease has been produced, and as the milk is a direct product from the blood, it is at least subject to suspicion, and should not be used by persons who are particular as to the purity and wholesome character of their food, which they are wise in demanding should be above suspicion."

[We think that he should have used stronger language, and enjoined its total disuse.]

"The duration of the disease is from ten to twenty days, and if the cow is kept warm and free from exposure to rain or inclement weather, no complication is likely to occur. In some cases the disease passes off with a very slight eruption, a mere pustule followed by a scab upon one teat only, and that of a very inconsiderable character, being observable, and the owner of the cow never suspecting the nature of the slight trouble, even should he give it a passing

thought. But as cases are by no means rare in which the disease has spread very quickly to other cows, and these have experienced a more serious indisposition, it is wise for the dairyman to be on his guard and use all necessary precautions as soon as he perceives the first indications of the disease in the herd."

DIET OF THE JAPANESE.—Few natives, except officers in the capital, sailors and soldiers, eat beef. Mutton and pork beyond the treaty ports are hardly yet known. About two hundred varieties of fish are eaten, one-half of the people eating fish every day. The food of the masses is "ninety per cent. vegetable." A list of food-plants in use, not including sea-plants, has been prepared, with their analyses, by Prof. Edward Kinch, of the Tokio University. A large number of these substances are unknown, or at least unused, in the United States. Of rice, which occupies in its culture one-half of the cultivated land, there are two hundred and fifty varieties of seed in the country. Millet is extensively used, but bread raised from a "sponge" of yeast is hardly yet known in the popular diet, the old Latin-Portuguese word *pan* being, however, in use. The soy-bean, which in chemical composition closely approaches animal fiber, is extensively cultivated. Probably no country excels Japan in the variety of leguminous plants raised for food. Of tubers and roots, the sweet potato is the most popular, though, strange to say, as much tabooed by the aristocratic classes, as onions are supposed to be among us. Sixteen million bushels of these "Satsuma potatoes" were produced last year, while the "Java" or "Dutch"—our common white potato—is left to foreigners, the native palate not liking it. Lily bulbs—sixteen varieties—serve as food, boiled and served with "drawn butter." The lotus root is eagerly eaten without oblivion of country or decay of patriotism. Poppy seeds powdered as condiment, infusions of salted cherry blossoms for drink, horse-chestnuts and acorns are among the articles of diet.

KITCHEN LEAFLETS.—NO. 4.

ARRANGING THE TABLE, GRAHAM GEMS, MACARONI, ORANGE PUDDING, ETC.

I HAVE heard it said, "Let me have good things to eat, and I don't care a pin about how the table looks," and could not help a feeling of pity for the person who made such a remark, for, accepting its sincerity, it betrayed a lack of refinement, a spirit of mind dominated, so far as its alimentive relations were concerned, by the coarse and lower instinct of eating. With most people it does make a difference in their relish of a meal if the set or arrangement of the table be disorderly; and I have met some whose appetite would not be tempted by the choicest dishes if they were served at a table the disposition of which was of the jumbled, "helter-skelter" class. The proper arrangement of a table is one of the fine-arts, and the housekeeper who can appreciate the harmonious as well as the orderly in placing napery, dishes, glasses, cutlery, is an artist of no mean character. The articles of food she may have to offer may be of the plainest; her furnishings may be far from fashionable, yet she will contribute such a charm to the meal by its very arrangement that one forgets that he is eating only bread, butter, and potatoes.

In our well-to-do families the setting of the table is left too much to Bridget. Abundant materials of a good quality are provided, but the uncultivated kitchen-help throws them on the table miscellaneously. So long as the service for the favorite beverage is placed at one end, and the roast, stew, or fry set at the other, near enough for them who dish out to manipulate conveniently, it matters little how much other accessories to a meal are mixed. The influence of such a want of neatness and taste can not be otherwise than demoralizing to manners and appetite. Children especially are affected by it. I know a housekeeper who always gives the finishing touch to the arrangement of her table before the family is summoned to it; and it is really wonderful how great a transformation her skillful hands and exquisite taste will effect in a minute or two. One really feels a kind of

spiritual elevation on taking a seat at her generous yet unostentatious board. We can not help associating good cooking with its tasteful service; at any rate I am sure that poor food served amid attractive surroundings is much less likely to produce symptoms of dyspepsia, than when served in a huddle of accessories, and on a crumpled, spotted cloth.

GRAHAM OR GLUTEN GEMS.

Three pints of flour.

Two pints of cold or hot water.

Put the water in the bread bowl into which the gems are to be mixed. Sift the flour in slowly with one hand, while stirring with the other. Stir about ten minutes, or until the dough is well aerated. Bake in a quick oven from forty to sixty minutes, or until they are brown top and bottom. When made with hot water they do not require quite so hot an oven. If you prefer gems hard and brittle, use cold water—the colder the better. If you like them moist and tender, use hot water. Put the gem pans in the oven to get hot when you begin to make the gems, as they should be smoking hot before putting in the dough. Oil the pans with good sweet butter, or pure fresh olive oil, then wipe them out so there will not be any butter or oil standing in them. Use a piece of white muslin tied on the end of a stick for the oiling process, and keep it for that purpose. If the pans are kept in a clean place they will not need washing every time, and only occasional oiling. Wood makes a better fire for gems than coal, as they will bake quicker. If coal is used, do not look at them until they have been in the oven twenty minutes, then turn them, if necessary. Some ovens bake quicker and better on the shelf, yet they are apt to burn if the shelf is near the top of the stove or range, consequently it is not always safe to place them there. Success in making gems depends largely upon the heat. The recipe given will make twenty-two. We can not always depend upon getting wheat-meal of the same quality, and one brand differs from another in absorbing power, yet the mixture should always be stiff enough not to settle flat. Long experience has proven to me that this recipe contains about the right proportions of ingredients. Soft water should be used, as hard water seems to render the dough tough. Raisins and currants can be put in gems if liked. Gluten gems are better made with one-half milk for the wetting, that is, one pint of cold milk and one pint of hot water.

GRAHAM AND CORN-MEAL RAISED BREAD.

Eight teacups of graham flour.

Half a teacup of corn-meal.

Two tablespoonfuls of molasses.

One teaspoonful of salt.

Half of a yeast-cake previously dissolved in tepid water.

One quart of tepid water.

Scald the corn-meal first with one teacup of boiling water. Add the flour, molasses, salt, yeast, and lastly the water. Mix it about eight P.M., and cover lightly for the night. In the morning stir down with a spoon. Then pour the dough in the pans which have been previously heated and well-greased, and bake in a quick oven one full hour. This makes two medium-sized loaves. This sort of bread requires a hotter oven than white-flour bread.

BAKED MACARONI.

Use the pipe macaroni, breaking it up into pieces an inch or so long, wash well and cook in boiling water salted, twenty minutes, or until it is tender. Care must be taken not to let it break, split, or adhere together. Butter a pudding dish, drain the macaroni from the water, and put a layer of macaroni in the bottom of the dish, spread some milk and grated cheese over it, and here and there a trifle of butter. Spread upon the cheese more macaroni, and fill the dish in this order, having macaroni at the top and no cheese. Pour half a teacup of sweet milk over the top, sprinkle a little salt upon it, and lastly a well-beaten egg. Cover the dish and bake in a hot oven half an hour, then remove the cover and let the macaroni brown nicely. Serve in the dish in which it is baked. Prepared cheese in bottles, specially for macaroni, can be obtained at first-class grocers. The cheese may be left out altogether, if desired.

MACARONI A LA CREME.

Break half a pound of pipe macaroni in inch pieces, wash thoroughly, put it in a farina boiler, with boiling water enough to cover it and allow for swelling, add one tablespoonful of salt. Boil ten minutes, then drain off all the water. Pour a large cup of sweet milk over it, and let it cook until tender. While it is cooking, heat one cup of milk in a pipkin or porcelain-lined kettle until it boils; thicken it with one teaspoonful of flour (previously dissolved in cold water); stir in a tablespoonful of butter, and lastly a beaten egg. Mix all thoroughly together, let it cook a few minutes until it thickens. Dish up the macaroni, pour the sauce over it, and serve.

PARSNIPS.

Among garden products which are obtainable until early "greens" begin to come into the

markets, parsnips, in my opinion, deserve kindly mention. To one not wedded to the flesh-pot, they make a good substitute now and then for the steak or roast. Here are three ways of preparing them:

MASHED PARSNIPS.

Wash thoroughly and remove the skins by scraping; cut them in halves or quarters; pour boiling water on them—enough to cover them; boil until tender. Now pour off the water and mash and prepare them the same as potatoes.

BROWNEP PARSNIPS.

Cold boiled parsnips may be cut crosswise in pieces, say half an inch in thickness, and then browned in the oven, or in strips lengthwise on a greased pan or griddle.

STEWED PARSNIPS.

Wash and scrape as before, and cut the parsnips into thin slices. Cook them in as little water as possible to prevent burning. When nearly cooked add boiling milk, thickened with flour previously wet with cold milk (one even tablespoonful of flour is enough to a pint of milk). Let them simmer about fifteen minutes. Water will do if milk can not be had, but it is not as good.

QUEEN-BREAD PUDDING.

One quart of sweet milk.

One pint of fine bread crumbs.

Half a pint of sugar.

Yolks of four eggs.

One tablespoonful of butter.

Put the bread crumbs in the pudding-dish, pour the milk over them, add the beaten eggs, butter and sugar, mix well, and bake in a quick oven thirty or forty minutes. If baked too long it will be watery. Beat up the whites of the eggs with three teaspoonfuls of sugar. Draw the dish to the mouth of the oven and cover the top of the pudding with a layer of jelly, then spread the whites of the eggs over it, replace in the oven, and bake until slightly browned. Have the oven hot for the meringue. Eat cold with cream, but the pudding is good without sauce.

PUDDING SAUCE.

Two tablespoonfuls of butter.

One cup of sugar.

One teaspoonful of cornstarch.

One teaspoonful of any kind of flavoring preferred.

Stir the butter and sugar together until it is creamy; dissolve the cornstarch in a little cold water, put it on the stove and pour boiling water into it until it is of the consistency of thin starch. Let it boil up, then pour the starch over the butter and sugar, mix well, then add the flavoring.

ORANGE PUDDING.

Peel and cut up fine four medium-sized sour oranges. Put them in the bottom of a pudding-dish. Add :

One teacup of white sugar.

One pint of boiled milk.

Yolks of three eggs.

Two tablespoonfuls of cornstarch.

Dissolve the cornstarch in a little cold water, stir it into the boiled milk. Mix the sugar, oranges, and yolks of the eggs together ; pour the milk and cornstarch over the mixture, and

bake in a quick oven about twenty minutes. Then draw the pudding to the oven door, spread the top lightly and quickly with a meringue made of the whites of the eggs beaten to a very stiff froth, and mixed with two teaspoonfuls of powdered sugar. Put back in the oven, cover for five minutes, then remove the cover and brown slightly. The oven must be very hot, so that the meringue will bake quickly. To be eaten cold. If successfully made this is a dessert which will please the most fastidious palate.

MIKA EATON.

HOW BUDDHA TAUGHT VEGETARIANISM.

THE king stood in his hall of offering,
On either hand the white-robed Brahmans ranged
Muttered their mantras, feeding still the fire
Which roared upon the midmost altar. There
From scented woods flickered bright tongues of
flame,

Hissing and curling as they licked the gifts
Of ghee and spices and the Soma juice,
The joy of Indra. Round about the pile
A slow, thick, scarlet streamlet smoked and ran,
Sucked by the sand, but ever rolling down,
The blood of bleating victims. One such lay,
A spotted goat, long-horned, its head bound
back

With munja grass ; at its stretched throat the
knife

Pressed by a priest, who murmured, " This,
dread gods

Of many yajnas, cometh as the crown
From Bimbāsāra ; take ye joy to see
The spirited blood, and pleasure in the scent
Of rich flesh roasting 'mid the fragrant flames ;
Let the king's sins be laid upon this goat,
And let the fire consume them burning it,
For now I strike."

But Buddha softly said,
" Let him not strike, great king ! " and therewith
loosed

The victim's bonds, none staying him, so great
His presence was. Then, craving leave, he spake
Of life, which all can take, but none can give ;
Life, which all creatures love and strive to keep,
Wonderful, dear, and pleasant unto each,
Even to the meanest ; yea, a boon to all
Where pity is, for pity makes the world
Soft to the weak and noble for the strong.
Unto the dumb lips of the flock he lent
Sad, pleading words, showing how man, who
prays

For mercy to the gods, is merciless,
Being as god to those ; albeit all life
Is linked and kin, and what we slay have given
Meek tribute of their milk and wool, and set
Fast trust upon the hands which murder them.
Also he spake of what the holy books
Do surely teach, how that at death some sink
To bird and beast, and these rise up to man
In wanderings of the spark which grows purged
flame.

So were the sacrifice new sin, if so
The fated passage of a soul be staid.
Nor, spake he, shall one wash his spirit clean
By blood ; nor gladden gods, being good, with
blood ;

Nor bribe them, being evil ; nay, nor lay
Upon the brow of innocent bound beasts
One hair's weight of that answer all must give
For all things done amiss or wrongfully,
Alone, each for himself, reckoning with that
The fixed arithmetic of the universe,
Which meteth good for good and ill for ill,
Measure for measure, unto deeds, words,
thoughts ;

Watchful, aware, implacable, unmoved ;
Making all futures fruits of all the pasts.
Thus spake he, breathing words so piteous
With such high lordliness of ruth and right,
The priests drew back their garments o'er the
hands

Crimsoned with slaughter, and the king came
near,

Standing with clasped palms reverencing
Buddha ;

While still our lord went on, teaching how fair
This earth were if all living things be linked
In friendliness and common use of foods,
Bloodless and pure ; the golden grain, bright fruits,
Sweet herbs which grow for all, the waters wan,
Sufficient drinks and meats. Which when these
heard,

The might of gentleness so conquered them,
The priests themselves scattered their altar-flames
And flung away the steel of sacrifice ;
And through the land next day passed a decree
Proclaimed by criers, and in this wise graved
On rock and column : " Thus the king's will is :
There hath been slaughter for the sacrifice
And slaying for the meat, but henceforth none
Shall spill the blood of life nor taste of flesh,
Seeing that knowledge grows, and life is one,
And mercy cometh to the merciful."

So ran the edict, and from those days forth
Sweet peace hath spread between all living kind,
Man and the beasts which serve him, and the
birds,

On all those banks of Gunga where our lord
Taught with his saintly pity and soft speech.

—ARNOLD'S *Light of Asia*.

NOTES IN SCIENCE AND AGRICULTURE.

A Remarkable Race of Men.—

The Monakees, or inhabitants of the western Moon Mountains, appear to be unlike any other race of the known world. In mechanical arts advanced far beyond their neighbors, they are at the same time addicted to most preposterous habits and superstitions. With the aid of an interpreter, and his knowledge of the Fant-Arabian dialects, the Hakim interviewed their priests and medicine-men, inspected their dwellings, caves, and temples, and visited many of their outlying villages, and continued his investigations even after his official duties had recalled him to Khundabad. For the Khundi chieftain, in the meanwhile, had ascertained the whereabouts of the captive traders, and finally effected their release, and after the end of the next rainy season the Tripolitans returned to Darfoor, where the Hakim took charge of the sick, and employed his leisure in writing the chronicle of his discovery. This chronicle, addressed to his kinsman, the mollah of Tripoli, gives a circumstantial description of the Monakee race; their habits, physical peculiarities, and singular superstitions—interspersed with an account of his personal adventures and of the reflections that occurred to him while traveling through their country. "The work abounds with incidents and graphic descriptions," says the reviewer of the first German translation, "as well as with scientific disclosures that throw a suggestive light on the origin of the customs and vices of civilized life." Besides his first professional trips across the frontier, the Hakim seems to have spent nearly eight months among the Monakees, collecting information on all possible topics, interviewing the just and watching the wicked, traveling from village to village, often at the risk of his life, but always sustained by the conviction that "Allah had appointed him to perform this work," and the hope that the world would recognize its importance.—*Popular Science Monthly*.

The Sandias—Past and Present.

—The Sandia mountains are dotted with ruins of ancient smelters of a kind that are not in use anywhere at the present day. The native New Mexican or Spanish people do not appear to have acquired the mode of erecting them from the Indians. Even the Pueblo of to-day seems to be ignorant of the manner of their construction. They were cheap and simple, but they answered the purpose admirably. But in no instance has any indication of the existence of a stamp-mill been found in the Sandias. This would show that ancient mining was not restricted to the working of free gold, and that the extraction of gold from smelting ore was understood. But it is undeniable that discoveries in the modes of obtaining gold from combinations of ores have recently been made that could never have been known to the an-

cients, and this is proven by the fact that much of the slag now found near these old smelters contains gold in considerable quantities. Yet the records, histories, and traditions agree that gold was obtained in fabulous amounts. With modern appliances and new and cheap methods, the yield should now be much greater. Gold ore in whatever shape can now be cheaply treated and not an atom be lost. When one takes into consideration the great bulk of gold taken out of the Sandias by the Indians in their crude way, he must be convinced of the wonderful richness of these mountains. There is every reason to believe that the Sandias will eventually be regarded as the greatest of all New Mexican mining districts.—*Bernadillo News*.

A Peculiar Country.—

The climate in which, as reported several years ago, things seem to be most mixed, is New Holland, where it is summer when it is winter in Europe, and *vice versa*; where the barometer rises before bad weather and falls before good; where the north is the hot wind and the south the cold; where the humblest house is fitted up with cedar and mahogany, and myrtle is burned for fuel; where the swans are black, and the eagles white; where the kangaroo, an animal between a squirrel and a deer, has five claws on its fore-paws, and three talons on its hind legs, and yet hops on its tail; where the mole lays eggs and has a duck's bill; where there is a bird with a broom in its mouth instead of a tongue; where there is a fish one half belonging to the genus *Raia* and the other half to that of *Squalus*; where the pears are made of wood with the stalk at the broader end; and where the cherry grows with the cherry-stone outside.—*Exchange*.

Advance of Photography.—

A new era in photography appears to have set in, and the old collodion process, by which so much beautiful work has been done, seems likely to be entirely superseded by what is known as the gelatine or emulsion process. In this method the sensitive chemicals are mechanically combined with pure gelatine, and extremely thin films of this are dried on glass or some other impervious surface, and in this state they will keep sensitive for an indefinite period of time if kept in the dark, and a moderately dry atmosphere. The great feature of these films is that they are extremely sensitive to light, and that photographs can be taken with them in one-twentieth or even a thirtieth of the time occupied in the ordinary collodion process. This is an advance that only photographers know the full value of, and it enables them to obtain practically instantaneous pictures, of moving objects on the one hand, and on the other of objects only partially illuminated, such as the interior of buildings, dark forest scenery, and

so forth. Another great advantage is that after the picture is chemically impressed upon them by exposure they remain unchanged, and can be as perfectly developed months after as at the time they are taken.—*Journal of the Telegraph*.

The Water of Some of our Great Cities.—A writer for the *Chemical News* has been making analyses of the water supplied by public authority for drinking purposes in eleven of our principal cities, and furnished for publication the following table, showing the order of purity. It should be noted with regard to the Newark, Jersey City, and Hoboken water that the chemist's samples of that were "made all upon the one day, at the close of a period of many weeks of almost unexampled drought, and analyses of the forty samples thus collected show not only the composition of the river water in its worst condition, but likewise the changes in that composition during a flow of twenty-one miles":

- I. Brooklyn.
- II. Rochester.
- III. Philadelphia.
- IV. Baltimore.
- V. Washington.
- VI. New York.
- VII. Newark, Jersey City, Hoboken.
- VIII. Cincinnati.
- IX. Oswego.
- X. Wilmington, Delaware.
- XI. Boston.

The time when the comparison was made was about July 1, 1881. The writer thus comments upon the result: "In many particulars the order thus arrived at was quite unforeseen, and was a matter of great surprise. This was more especially true of Boston, which I anticipated would stand nearly at the head of the list, but which actually came at the bottom, and yet the water-sheds of both Brooklyn and Boston are upon drift gravel. A month later I found that the best hotels in Boston, and private citizens who were willing to be at the extra expense, were supplied by spring water carted into the city and sold at a good price per gallon. This state of affairs continued until the 28th of August, when I visited the city again, and inspected the Cochituate Lake and the Sudbury and Mystic Rivers, the three sources of supply. The water in the reservoirs supplied by the two latter streams had a yellow color and disagreeable musty taste and smell. During the earlier portion of the summer all the reservoirs had contained an abundant growth of algæ, which later on had decomposed, leaving behind the bad taste referred to. A striking peculiarity of these Boston waters is the large amount of decomposable organic matters held in solution."

Tides in Prehistoric Ages.—Prof. Ball, of England, in a recent lecture, said on this subject: "At present the moon is 240,000 miles away, but there was a time when

the moon was only one-sixth part of this, or say 40,000 miles away. That time must have corresponded to some geological epoch. It may have been earlier than the time when Eozoon lived. It is more likely to have been later. I want to point out that when the moon was only 40,000 miles away we had in it a geological engine of transcendent power. If the present tides be three feet, and if the early tides were 216 times their present amount then it is plain that the ancient tides must have been 648 ft.

"There can be no doubt that in ancient times tides of this amount, and even tides very much larger, must have occurred. I ask the geologists to take account of these facts, and to consider the effect—a tidal rise and fall of 648 ft. twice every day. Dwell for one moment on the sublime spectacle of a tide 648 ft. high, and see what an agent it would be for the performance of geological work! We are now standing, I suppose, some 500 ft. above the level of the sea. The sea is a good many miles from Birmingham, yet if the rise and fall at the coasts were 648 ft., Birmingham might be as great a seaport as Liverpool. Three-quarters tide would bring the sea into the streets of Birmingham. At high tide there would be about 150 ft. of blue water over our heads. Every house would be covered, and the tops of a few chimneys would alone indicate the site of the town.

"In a few hours more the whole of this vast flood would have retreated. Not only would it leave England high and dry, but probably the Straits of Dover would be drained, and perhaps even Ireland would in a literal sense become a member of the United Kingdom. A few hours pass, and the whole of England is again inundated, but only again to be abandoned."

Hope for Sufferers by Heart DISEASE.—According to Dr. J. Milner Fothergill, the views of the medical profession as to the prospects for the future of cases of valvular disease of the heart are undergoing very considerable changes, in a direction opposite to the hopelessness with which they have been regarded in the past. Not every murmur which may be heard over the heart is a sign that the patient is destined to a sudden death from the action of the cause that produces the sound, nor is it always evidence of organic cardiac disease. It is a grave symptom, but its importance may be and often is exaggerated. It is only probably produced by deformity in the cardiac valves; but anæmic, aortic, and, still more, pulmonary murmurs are now generally recognized. The late Dr. Latham carefully discriminated between grave and comparatively trivial injuries to the mitralvalve curtains by endocarditis, and held that there were three divisions of cases of permanent unsoundness of the heart remaining after endocarditis: 1. Cases in which, besides the permanent endocardial murmur, there is no other symptom referable to the heart; 2. Cases in which, besides the

murmur, there is occasional palpitation; and, 3. Cases in which, besides the murmur, there is constant palpitation. The typical cases of the text-books, where there is a series of morbid sequelæ, gradually descending more or less swiftly, all belong to the third division. Dr. Fothergill has cases in his own practice of mitral murmurs which have existed for fourteen, sixteen, twenty-seven, and thirty-eight years, without developing any very alarming symptoms, and reports the death, between the writing and publication of his article, of a case of aortal regurgitation—a rapidly fatal form of disease—which had not perceptibly advanced during twenty-five years of excessive activity. He also notices cases of aortic obstruction of fourteen, sixteen, and eleven years, of which the first only has as yet died. In conclusion, he observes that under proper treatment, by which the prospects are profoundly affected, and with care, a life of activity is practicable in many cases, provided bodily exertion be avoided, or exercised moderately.

Tar Water.—Mr. Dewey, of Rochester, N. Y., communicates the following to the *Gardener's Monthly*: Gas-tar water is sure death to potato bugs. Mr. S. R. Hart, of Brighton, N. Y., near Rochester, has for two years past used on his potato vines water which has been impregnated with gas tar. Two quarts of gas tar in a pail, and fill the pail with water; stir it up well, and let the tar settle. Then sprinkle the vines with the water from a sprinkling pot. This has proven more effective than Paris green. He has also tried it on currant bushes, and finds it equally effective. It is inexpensive and perfectly reliable, and no doubt will prove equally sure death to insects of every kind on trees. This gas tar can be had for \$1 a barrel, and one barrel would supply a whole township.

Best Varieties of Peach-Trees.

—A fruit-grower offers the following suggestions on the selection and planting of peach-trees. Among the best varieties are:

Lord Palmerston.—This is a very large, creamy white peach with a pink blush. It is one of Mr. Rivers' seedlings; fruit rich and juicy, and ripens immediately after the well-known Crawford's Late.

Wager.—Quite a noticeable variety, from the fact that it is believed that the pits, when planted, produce the same variety. Fruit large, yellow, and red, of good quality; ripens in August.

Conkling.—This originated in Northern New York. It is a fine, large, new, yellow peach, and ripens after Crawford's Early.

Waterloo.—A new, extra early peach of great promise. Fruit yellow and red, of fine quality, and among the earliest and largest of the early varieties.

Early Alexander, Amsden's June, Wilder, Early Beatrice, and *Downing* are other extra early kinds that may be planted in safety

quite generally throughout the country. Of these the *Alexander* and *Downing* are perhaps the best for profit.

Musser, Saunders, Early Louise, Early Rivers, and *Hale's Early* follow them in about the order named, ripening within two or three weeks.

Troth's Early, Mountain Rose, Large Early York, Foster, Crawford's Early, Moore's Favorite, and *Old Mixon Free* ripen next, in about the order named. The first two are medium-sized varieties, and the others from large to extra large, profitable and very desirable. They are yellow or red varieties, and succeed pretty generally wherever peaches can be raised.

Stump the World, Ward's Late Free, Fox's Seedling (white), *Crawford's Late, Heath Cling* (white), *Beers' Lenox, Keyport White,* and *Solway* are large or extra large late varieties, and among the most profitable. They prove adapted to most parts of the country, though the last four kinds are almost too late to always ripen well in the most northern sections.

Bilyen's Late October and *Stadley* are fine, large white peaches, and among the very latest. Their fruit sometimes sells at very high prices.

The trees may be set out from 14 to 18 feet apart, and the branches well trimmed back after the trees are planted. As peach-trees only cost from five to fifteen cents each, according to quantity, and as the trees require only a few moments' care each year, and produce fruit when only two or three years of age, there are few persons comparatively but who may soon have delicious, ripe, blushing peaches of their own raising.

A Discovery of a City of Cliff

DWELLERS.—Mr. J. J. Stephenson, the conductor of an exploring expedition to New Mexico and Arizona last fall, communicated to the *New York Tribune* a very interesting account of a discovery of an ancient cliff city 60 miles long.

Mr. Stephenson examined this deserted city during several days, visiting portions distant 45 miles from each other, and discovering with his glass that the excavations extended 15 or 20 miles further on. By far the greater number are inaccessible, but many of the old paths, worn many inches deep by the feet of the ancients who dwelt there, are intact, and by them the explorer mounted to the old dwellings. There was a marked similarity in the form and construction of these excavations. There was only one aperture, which served for door, window, and chimney. The single room had an oval roof, which bore the grooves made by the flinty adzes or axes of the excavators. The method of digging or carving out these caves was disclosed by the form and direction of the grooves, which were usually parallel to each other, and several inches apart, while between, as shown by the rough surface of the stone, the remaining substance had been broken off. There were

fire-places at the rear, but no place of exit for the smoke, except the single aperture in front. Many of the dwellings had side or rear excavations of small size, within some of which corn-cobs and beans were found, evidently left by chance inhabitants of a later period. Near the roof of many of the caves there were mortices, projecting from which in some instances there were discovered the decayed ends of wooden sleepers. These were of a kind of wood not recognizable as a present growth of the locality and unknown to the explorers. Specimens were brought away to be examined and classified by naturalists. In the sides of some dwellings there were found small recesses, evidently used as cupboards for the household utensils of the family. The substance of the cliff was tufa, a volcanic ash quite soft and easily worked by the rude implements of the old builders.

Upon the top of the Mesa or table-land above these caves there were found large circular structures, now in ruins, but with walls to the height of ten or twelve feet still standing. They were evidently places of worship. They were built of square stones of nearly uniform size, about twenty inches in length by six inches in width and four in thickness, cut from the cliff. Measurements were made of two of these structures, one of which was 100 and the other 200 feet in diameter, and might have held from 1,000 to 2,000 people. The inference that these were places of worship is drawn from the fact that the Pueblos of the present day, who are fire and sun worshipers, have similar temples. No remains of altars were found, which fact is doubtless to be explained by the exposed situation and the soft materials probably used in the construction of such furniture. The southern end of this cave city, which seemed to have been the most densely populated, presented many evidences of art and industry. There were found many animal forms carved out of stone. In one place there were two life-size mountain lions, animals which are still peculiar to that region. There are also to be seen many smaller animal forms, so much worn away that it can not be determined what they were designed to represent. Upon standing walls in this neighborhood are many hieroglyphics, which from their resemblance to the picture writing of the living Pueblos, may, Mr. Stephenson thinks, be partially, if not entirely, deciphered. The great age of this city is proved by the vast accumulation of *debris* from the upper portion of the cliff which covers its base. In places where mountain brooks have cut their way through, the existence of one and sometimes two rows of cave dwellings below the surface of the *debris* is disclosed.

Origin and Influence of Temperament.—In a lecture delivered by Mr. A. J. Davis, it was stated that the idea of temperament was borrowed from the elements. Originally it was meant to represent heat and

cold, and the subdivisions were limited. Recently it had been discovered that temperament was subject to a great variety of subdivisions, and one writer had indicated as many as twelve temperaments. The speaker himself had been able to discover but one temperament, with a single origin; but it was susceptible of seven subdivisions. It had its origin back among the creative forces of nature, where life preceded organic development into blood, muscles, bones, and tissues; and temperament was projected into the vital organism by the chemical forces that wrought at the formation of the most rudimentary structures. Nutrition and generation he found at the base of the subdivisions, and rising thence he would designate them as (1) the nutritive, (2) the sensitive, (3) the muscular, (4) the motive, (5) the mental, (6) the spiritual, (7) and the harmonial. These were the temperaments as he had learned to distinguish them by the analogies of nature; and different individuals, drawing their sustenance from the same food, would make very different external and mental characteristics. Mr. Davis here illustrated his idea by pictures of phrenologically developed heads in the different degrees of progress from the savage or nutritive temperament to the highest or harmonial temperament as expressed in the preponderance of the intellectual and moral faculties. This latter development, in the view of Mr. Davis, might be considered representative of the second coming of Christ. He spoke further of the influence that mothers may have in forming the temperament of their offspring, and promised to elaborate his subject more fully at another time.

Artificial Wine—A CONVINCING ILLUSTRATION.—In England recently a physician of Jersey, Collette by name, gave a lecture on the "Manufacture of Old Crusted Port." One of the audience was requested to purchase from a local wine merchant of repute a bottle of port, for which he paid six shillings. This, with cobwebs, etc., was deposited on the lecturer's table. Dr. Collette then stated he would, in the course of a few minutes, produce a similar article at a cost of five farthings. A judge—a gentleman said to be well qualified—was then elected by the meeting. A committee was chosen to come on to the platform and witness the operation; this consisted of weighing out ingredients. The basis of the composition was cider; bullock's blood was used for a rich tawny color, tartaric acid to give age, cream of tartar mixed with gum water was smeared on the inside of the bottle and gave a beautiful crust. Outside, cobwebs with dust and whitewash were applied to give an ancient look, and the bottle was stoppered with a well-stained cork. The expert was introduced, and tasted a glass from each bottle, declaring, with a knowing wink at the audience, that the wine *a la Collette* was the genuine article; the temperance audience of course applauded to the echo.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A. M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
MAY, 1882.

"ACCIDENTAL" SHOOTINGS.

THAT was a light sentence which the Jersey judge inflicted upon the young man who shot and almost killed a young girl "accidentally." In idiotic playfulness he leveled his gun at her, and after it had gone off and she had fallen to the ground senseless from the effect of the shot, he in idiotic horror exclaimed that he "didn't know it was loaded." Possibly if the case had occurred in New York or any other State besides New Jersey, the judgment would have been lighter. As it was, the judge severely censured the careless fellow, and deprecated the laxity of law and custom which permitted the carrying of deadly weapons by ignorant and unskillful persons. We can not understand why intelligent law-makers allow such a relic of barbarism to exist in the thickly settled places of civilization. Nine-tenths of the killing and maiming reported in our newspapers are done with gun, pistol, or dagger—the pistol being especially conspicuous as the weapon of recklessness and brutality. And it certainly would be an act of the clearest wisdom to restrict the sale and wearing of these dangerous things.

They have no real use in the arts of modern life; they are merely instruments of cruelty, and no man with any claim to humanity would advocate the practice of carrying them on the person. They whose office it is to protect society against the lawless and disorderly hangers-on of society, the sheriff, the policeman, the detective, have some reason for arming themselves against the perils to which their employment exposes them. The keeping of a rifle or fowling-piece in rural neighborhoods should be by license. In some of the States a license is required for the general sale of gunpowder; the same logic is applicable to the instruments which utilize the gunpowder. Next to a statute prohibiting the sale of alcoholic beverages, a law restricting the sale and wearing of deadly weapons would be beneficial, we think, in reducing the number of crimes against the person which keep our police so busy. If, however, such a statute had only the one effect of relieving the community of these painful cases of carelessness in which the childish wail, "I didn't know it was loaded," is the only excuse offered by the offender, its existence and enforcement would be a civil beneficence.

With such a statute is it likely that the press would have occasion to record the following by no means only instance of its kind?

"Monday afternoon, as the Rev. Mr. Voorhees, a retired Reformed minister of Port Ewen, was quietly seated in his home, he heard the report of a pistol, a crash of glass, and felt the breeze of a passing missile. Some one in the street had fired a 32-caliber bullet through his window, which passed within six inches of his head, and dashing through a looking-glass flattened out against the wall and dropped to the floor. He rushed

outdoors, but could see no author of the shot. Who fired it is a mystery."—*Poughkeepsie Eagle, March 4.*

Nor should we have been inflicted with the painful details of the death of the late Mr. C. J. Vanderbilt, for a judicious law would certainly preclude the supply of deadly weapons to persons of diseased or weak minds and bodies.

CHINAMAN vs. AMERICAN.

WHAT'S the matter? Congress has actually passed a law imposing severe restrictions upon Chinese immigration. And the principal reason, as urged by the advocates of the measure, is that the Chinaman is too powerful a competitor with the American workingman. He can live more cheaply than the American, is content with less wages, and at the same time can do better work. He is simply "a working machine," says one of our Representatives, and pays little regard to the character of our institutions, and has no sympathy for American sentiment, moral or social. We will not say whether or not Ah-Sin can see much in the general complexion of American affairs that indicates an attractive superiority over the condition of things in China; but as he is a conservative, taciturn, reflective little man, he must ponder a little upon the inner causes of the conspicuous activity of passion and propensity among us. From his loop-hole in some by-street, he observes that emulation, greed, and deceit are potent factors in the life of all classes of society, but that avarice is the most powerful influence; hence, his characteristic of patient diligence, by ministering to this ruling passion, will conduce to his own benefit. But he has habits which are entirely out of

keeping with American manners. For instance, he is given to smoking opium, and 'tis said also that he is horribly dirty! Yet, somehow, those habits don't impair seriously his diligence and industry; while the very common practice of drinking whisky and beer, and smoking or chewing tobacco, do impair an American's faculties for industry; in thousands of instances rendering men utterly worthless to society. We know that Ah-Sin is often found in some close cellar, amid squalid surroundings, plying the tools of the laundress; but the product of his slender yellow fingers in the way of purified linen is little short of the marvelous. People who have employed him in sundry lines of shop and domestic work, say that he never glosses or neglects his duties, but is more thorough and scrupulous than his employer. He seems to delight in doing his best every time. We suspect that a certain nameless fear is at the bottom of the feeling which has expressed itself in the late legislation against Ah-Sin, possibly akin to that sentiment which in Germany and Russia has cropped out in acts of lawlessness or persecution against the Jews. The energy, shrewdness, and diligence of the man of Palestine make the Teuton and Slav tremble for their precedence in commerce and politics.

Ah-Sin certainly possesses characteristics not unlike the Jew for diligence and industry, and in the mechanical arts he is decidedly the superior. A California observer says, "In every employment they have entered, the Chinese have mastered their work. They are the best imitators in the world. The man who belittles or minimizes a Chinaman is a fool. The Chinese are dangerous because they are adepts. In all the arts and sciences we find

them rapidly catching up with modern progress." This may be the "matter." But can it be that we, proud representatives of Anglo-Saxon civilization, and pronounced advocates of Christian charity and liberal culture, are doubtful of our ability to cope with Ah-Sin, and so will shut him out of our "free" land?

Since the above was written the bill has been vetoed by President Arthur. The strong anti-Chinese element in Congress inspired by the antipathy entertained in California against the Asiatic may pass the bill over the veto. Would it not be more in keeping with the spirit of our institutions to admit the Chinaman, not as the slave of a contractor or employer, but as a free man subject in all respects to our laws and usages, and then to place him in such relations as will tend to transform him socially and morally from the Chinaman to the American?

THE SECRET OF IT.—A month or two ago a paragraph was published in the PHRENOLOGICAL descriptive of Pullman, near Chicago, where those comfortable sleeping and drawing-room coaches, generally in use on trunk lines of railway, are manufactured. What we would add now to that description of the new town is of a moral sort, yet most positively practical in its relation to society at large. In twenty months this town of workmen has grown to a population of two thousand five hundred, yet so harmonious has been its life that the necessity of any police supervision has not been even intimated, no lawless or disorderly act having been witnessed in its streets. "Why, this is extraordinary, indeed!" exclaims the reader; "and taken in connection with

what I have already learned about Pullman, it must be a sort of heaven below. A manufacturing town, and so peaceful that its women and children never meet that functionary commonly esteemed indispensable to the maintenance of good order, the policeman or watchman, and whose imaginations are not filled with scenes of ruffianism and brutality conjured up by the spectacle of his club! Why, how can it be? What is the secret, pray, of this wonderful novelty in American life?"

'Tis easily told, and we have it from good authority, viz., the Chief-Justice of the Supreme Court of New York, that Pullman is a strictly temperance settlement, and not a drop of anything alcoholic is permitted to be sold within its limits.

NO MAN can safely go abroad, that does not love to stay at home; no man can safely speak, that does not willingly hold his tongue; no man can safely govern, that would not cheerfully become subject; no man can safely command that has not truly learned to obey; and no man can safely rejoice, but he that has the testimony of a good conscience.

WHO WILL BEAR THE BANNER?—Those who have been pioneers in Phrenology, and sought to secure its permanency in the minds of the people, as a means of general education and the personal improvement of individuals in all coming generations, have established an INSTITUTE for thorough instruction in this science. Since 1866, when the Institute was incorporated, there have been sessions for the instruction of students

every year, and in two years, '76 and '77, it was found expedient to give a second course.

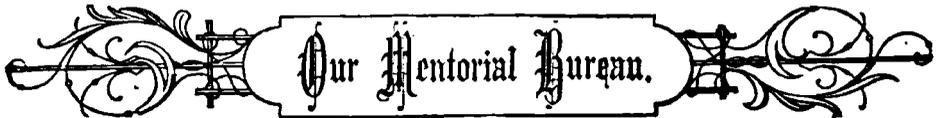
We now have but one term each year, beginning the first Tuesday in October.

No work is more useful; none offers better results. While the broad fields in our line of effort are white, ready for the harvest, most of those who have labored in them, find themselves becoming whitened by time, and are thus reminded that younger hands than theirs must, at no distant day, bear the burdens and reap the rewards of this man-reforming work. Who will prepare to fill the ranks? Somebody will do it. All that study and long experience and practice can achieve is now at the service of those who desire to take it,

and use it heartily in this most useful of pursuits.

Nowhere else in the world can such ample facilities be had to learn all that is known of Phrenology and Physiognomy than in the Institute, and with these our students are made familiar by careful inspection and varied explanations. All the skulls, busts, and portraits which have been collected from all quarters of the world, during the last half century, are made tributary in the work of instruction.

Full particulars in regard to the topics taught, terms, length of session, expenses in New York, etc., will be sent to all who apply by mail for "The Institute Extra," at the office of the PHRENOLOGICAL JOURNAL, 753 BROADWAY, NEW YORK.



To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

ANNOYING FEET.—*Question:* My feet trouble a good deal. In spite of washing and other pains, they sweat easily and smell badly. Can you advise me what to do for them? O. F.

Answer: Foul excretions from the skin show impurity of the blood. You should correct your diet, and use other means to improve the state of your system. Bathe your feet at night with tepid water. A little borax in the water, or a little ammonia, will help to prevent the bad odor. Or a mild solution of boric acid can be used to sponge the feet after washing them. This is recommended by a prominent English dermatologist.

SPIRITUALISM AND PHRENOLOGY.—*Question:* Have spiritualists ever declared in favor of phrenological doctrines? If so, please to tell me when and where? W. H.

Answer. The advocates of "spiritualism" have generally supported Phrenology. In the present Number, an extract from a lecture by Mr. A. J. Davis, one of the most prominent of spiritualists, is quoted. And within a few weeks the

Banner of Light, of Boston, published the following as a communication from the unseen world. An inquirer asks: "If Phrenology be correct, to what extent does it affect individual responsibility?" and is answered: "We know that Phrenology is correct. To us it is a science capable of the utmost demonstration; but that it affects individual responsibility we are not prepared to say. Conditions, circumstances, and surroundings may exert an influence upon us over which we have no control, and through these experiences and conditions we may be unable to cultivate those attributes which Phrenology declares we are all possessed of to that extent necessary for our highest unfoldment; but wherever we neglect an opportunity of calling forth the best powers within us, of cultivating and developing them, then are we to be held responsible for our shortcomings or neglect. It must be so; for we feel the responsibility resting upon us, and if we do wrong, even while in the body, and become conscious of the wrong and its effects upon ourselves or some other, we suffer for it; the elements of suffering are within our souls, and we can no more get away from them than we can stay away from our conscious selves." This is a very clear exposition, as far as it goes, of the doctrine of personal responsibility.

ELECTRIFIED BODY.—*Question:* In combing my hair there is a dry, crackling sound, and in the dark, fiery streaks follow the comb. At times, too, when undressing, the inner garments seem crackling, and a fiery streak follows the hand in stroking them. What is the cause? Is there a remedy? L. C.

Answer: All persons and things are electrical to some degree, and you are evidently in an overcharged condition. The phenomenon is not without precedent, however. One of the museums in our city exhibits a body so highly electrified that when one touches him a shock is actually felt. You know that there are some animals which are remarkable for this property; the gymnotus, or electric eel, is one. Although an inhabitant of water, one of the best conducting media known. Yet it stores up a large amount of electricity, and can give a powerful shock to anything that touches it. In your case, abundant bathing and the wearing of under and over garments of linen, or other good conducting material, may relieve you of the annoyance.

FUNCTION OF THE SPLEEN.—*Question:* Have physiologists discovered the functions of the spleen? and oblige yours, etc., G. V. M.

Answer: Not entirely, although they are pretty well agreed that this organ serves as a kind of safety-valve to the portal circulation, relieving it when overpressed or congested with blood;

and that it has something to do with regulating the composition of the blood, probably that of breaking down and destroying used-up or degenerate red-blood corpuscles.

ORIGIN OF SHAVING THE BEARD.—

Question: When was the custom of shaving introduced? O. P.

Answer: We can not tell you, as allusions to shaving are found in very early records. It seems, however, to have been a general custom in ancient times to wear the beard. Among the Greeks, Alexander, the Macedonian, enforced shaving for a practical reason: knowing that the soldiers of India, when they encountered their foes, had the habit of grasping them by the beard, he ordered all his soldiers to shave. Afterward shaving was practiced generally among the Macedonians, and then among Greek citizens. The Romans imitated the Greeks in this practice, as they did in many other things, and spread it to the different European nations yet barbaric. In the Middle ages shaving was gradually introduced throughout Europe. The beard was a source of trouble to Peter the Great, who, simultaneously with the introduction of his great reforms in Russia, tried to induce his people to imitate the shaving nations. This innovation was resisted by his subjects with the utmost persistence, and they preferred to pay a heavy fine rather than suffer disfigurement, as they believed, of the image of God. To the Russians of olden times the beard was a symbol of liberty.

HEART DISEASE.—*Question:* Will you please inform me, through your JOURNAL, what treatment you would advise for "enlargement of the heart," and oblige, A READER.

Answer: There are different phases of heart enlargement, such as those due to hypertrophy, dilatation of the heart, fatty degeneration, etc. The treatment must depend upon the diagnosis, but in general it consists of an abstemious diet, rest, freedom from excitement, exercise adapted to the condition, and water applications. Personal advice only in this and the other case mentioned could be satisfactory.

PHRENOLOGY AND THE KINDERGARTEN.—

Question: I think of studying the principles of kindergarten teaching, and should like to have your opinion as to whether they are in harmony with phrenology? A. C.

Answer: We think that there is a close relation between the methods of the kindergarten and phrenology. We are pleased to refer you to the article in the present Number which discusses the very subject of your question in detail, and which you will probably find of personal value.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

PHRENOLOGY AND PHYSIOGNOMY.—

We frequently hear people remark that they believe in physiognomy, but in the "so-called" science of Phrenology they have but very little, if any, belief. There is not a person who has brains, who will dispute that physiognomy shows something of character; because even a dog is able, in a great measure, to read the condition of his master's mind, by simply the expression of his countenance. Now let us ask, What is it that causes people, in accordance with their different circumstances or influences, to have different expressions of countenance? There certainly must be a very prominent cause for their positive facial manifestations; and it certainly must be a natural one. Any reasonable answer to this question will afford absolute proof of the complete relationship between these two sciences. It seems to me that any man or woman capable of only moderate philosophical reasoning ought, after a very few minutes' consideration of this subject, to comprehend the relation of these sciences. The various mobile expressions produced on the face are results of muscular contraction; and the exercise of any function or organ of the brain acts upon a related muscle causing it to contract and produce in the face a certain expression. The organ of Firmness has a muscular connection with the upper lip, and when in exercise produces its mark of compression. Hence, the old saying, "Keep a stiff upper lip." Sometimes when young people begin to get discouraged or to lack firmness of purpose, old people will say, "Keep a stiff upper lip now!" No person can even assume to be firm, in the phrenological sense of that term, without giving to the upper lip a compressed or stiff appearance. When one's Mirthfulness is excited it would be very difficult for him to prevent a contraction of certain muscles located back of and above the corners of the mouth, which draw them outward and upward. The exercise of Mirthfulness also gives a mirthful expression to the eye. The exercise of Combativeness gives a fierce and threatening expression to the eye. The exercise of the other functions or organs of the brain causes their relative muscles to contract and give to the face corresponding expressions. Whenever we see a person looking mirthful, the very first question that naturally arises in our minds is, "What is he pleased about?" If the expression is combative, and perhaps severe and stubborn as well, the question is, "What makes him so angry?" It is evident, then, that previously or at the time the

face is putting on any expression, there is more or less thinking done, or some part or portion of the brain is exercised. To say that the brain acts only as a single organ, or that the opposite of a sentiment as expressed by the face may be produced by the same organ of the brain, is wholly unreasonable. We might with equal propriety say that the vital system has only one organ; or if it has more than one organ, that each is capable of exercising the function of the other organs; for instance, that the liver or stomach is capable of performing the function of the heart. Nobody is foolish enough to assert this. You can not point to a single individual that has been skeptical in regard to phrenology, after he has given it a thorough investigation. His skepticism is positive evidence that he has not investigated it. There are some people who invariably say "That isn't so" of everything that does not agree with their own views. Ask them why it "isn't so," and if you get a candid answer they tell you that they haven't looked into it because they don't think it worth while. Rashness of judgment is the result of prejudice or illiberality. It is a historical fact that every science and truth instituted since the world began has met with the greatest opposition. But if you wish to ride a hobby that but few will oppose, launch out astride of a "humbug," every time. Phrenology is no "humbug;" but is a science, as true and reliable as God, its author. JOHN W. LOWE.

WHAT SHE SAYS.—I have been a subscriber to the JOURNAL, and I can assure you I am very much pleased with it. One thing above all I like about it is, it is not devoted to any sect or creed. There are other papers larger and more showy, but none of more value to the human family, for the reading of the JOURNAL never becomes old, but is always new and instructive. I think if all mothers were to read such literature, and not devote so much of their time to light and frivolous reading and idle gossip, that the human family would be much more refined and intelligent than it is to-day.

MRS. J. D., Iowa.

PROPOSES A CONVENTION.—*Editor PHRENOLOGICAL JOURNAL:* I would like to get in correspondence with phrenologists and hygienists, with a view to holding a convention for mutual encouragement and the discussion of these subjects. It would greatly further our cause. What do you think of it? Let us hear from others on the subject.

Canton, Ill.

ALFRED MARTINEZ.

NO PUBLICATION in America keeps so completely up with the demands of the better class of the reading public as the PHRENOLOGICAL JOURNAL. It improves with age, and a perusal of its pages always inclines one to love more ardently a higher plane of life.—*Exchange.*

PERSONAL.

MR. WILLIAM HUGHES, of Baltimore, recently married a Miss Burroughs, of Virginia. A remarkable coincidence in his family is that he has three brothers who all have the same birthday, each one of whom was married on his twenty-sixth birthday to a Miss Burroughs, in the same church, by the same clergyman, each of the three brides becoming twenty-one years old on that day.

DR. JOHN GRAY, Superintendent of the State Lunatic Asylum at Utica, N. Y., narrowly escaped death at the hands of an insane man, who entered the office of the Doctor and shot him. The ball passed through his head a little below the cheek bones. We are glad to know that the wound, although a very painful one, will not prevent the Doctor from resuming his useful duties before many weeks. The would-be assassin gave himself up to the authorities, and stated that for eighteen months he has labored under the delusion that he was an ambassador sent from Heaven to shoot Dr. Gray.

SOME AGED WOMEN.—Mrs. E. T. Weston, of New Hampshire, has just celebrated her 104th birthday, and is in quite good health. Mrs. Hannah Osborn, who died a short time ago at Holderness, N. H., was about 104, and all the people thereabouts know by family and town records, and her descendants of the most respectable circle, that her age was as stated. Mrs. Prudence Lakin, the mother of the Rev. A. S. Lakin, a well-known minister of the M. E. Church, is 107 years old. Mrs. Aplee, residing in Elm street, Morristown, N. J., will be 104 years old in May. Though the family are wealthy, the old lady persists in helping in the various duties of the household.

D. J. MARRINER, of New York, had a severe attack of pneumonia two years ago, which left him with a vicious and persistent cough. The doctors told him he was in the first stage of consumption, but he is now on the road to sound health. He attributes his recovery, not to the use of sure cures or safe remedies at \$3 a bottle, but to total abstinence from drugs, and to a common-sense system of dress, bathing, exercise, and diet. His chief articles of food have been fruit, bread, and beefsteak (with a liberal allowance of hot water as a beverage).

MR. MOSES TAYLOR, one of the richest men in New York, and connected with the Delaware, Lackawanna, and Western Railroad from its inception, has given \$250,000 for the endowment of a hospital for the disabled employes of that company. It is time something of the kind were done, so great is the destruction of human life by railways.

WISDOM.

“Think truly, and thy thought
Shall be a fruitful seed.”

JUSTICE delayed is justice denied.—*Gladstone*.

THE aim of education is perfection; patience the road.—*Margaret Fuller*.

IT is constant effort that builds up character, and character is all that we are.—*Anon*.

IT is not so much for love of the world that we seek it, as to escape our own companionship.

THAT unfinished block is my master, and I am its obedient pupil.—*Michael Angelo*.

CHINESE PROVERB: “Never rub your eyes except with your elbows.” Very sound and practical.

KIND words produce their own image in men's souls, and a beautiful image it is. They soothe and comfort the hearer.

THERE are some vices which adhere to us only because of others; and which, when the trunk is removed, fall away like branches.—*Pascal*.

TRUE worth is in being, not seeming,
In doing each day that goes by
Some little good, not in dreaming
Of great things to do by and by.

TO REJOICE in another's prosperity is to give content to your own lot; to mitigate another's grief is to alleviate or dispel your own.—*T. Edwards*.

THE grandest and strongest natures are ever the calmest. A fiery restlessness is the symbol of frailties not yet outgrown. The repose of power is its richest phase and its clearest testimony.

TO THINK we are able is almost to be so; to determine upon attainment is frequently attainment itself. Thus earnest resolution has often seemed to have about it a savor of omnipotence.—*Smiles*.

IN an album of autographs Alphonse Karr has written: “The first half of our lives we pass in desiring the second, and the second in regretting the first.” In the same album Alexandre Dumas has written: “What is duty? It is what we exact of others.”

ONE ought to love society if he wishes to enjoy solitude. It is a social nature that solitude works upon with the most various power. If one is misanthropic, and betakes himself to loneliness that he may get away from hateful things, solitude is a silent emptiness to him.—*Zimmermann*.

MIRTH.

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

TO CURE SLEEPLESSNESS—engage as a night watchman; it never fails.

A SIOUX brave is named Castile Soap. A slippery fellow—ha!

TO CALL an elevator an "alleviator," as a lady is said to have done recently, may be murdering English, but with extenuating circumstances.

PARIS advertisement: "For sale, a monkey, a cat, and two parrots. Address Mad. X—, Rue ——. As the lady is about to get married, she has no further use for these animals."

"YES," said the farmer; "barbed wire fence is expensive, but the hired man doesn't stop and rest for five minutes on the top of it every time he has to climb it."—*Boston Post.*

A LADY recently sent a fur cape to a fur establishment for repair, explaining her wishes in the following note: "I want mi kape mendid whar the micea nored it in gud shap."

A DARKEY philosopher says: "I has noticed dat all great men retains in arter life de early impressons ob childhood. Dis acar heah is whar my fodder hit me wid a sarssfras spout."

"OH, DEAR!" exclaimed Edith to her doll, "I do wish you would sit still. I never saw such an uneasy thing in all my life. Why don't you act like grown folks, and be still and stupid for a while?"

AN irritable man who was annoyed in an omnibus by the lady who sat next to him coughing violently, exclaimed: "That's a very bad cold of yours, madam." To which she meekly replied: "I know it, sir, and I am sorry for it; but it's the best I've got."

AN Irishman took a Yankee friend to church with him on Christmas day. The music was magnificent and the decorations gorgeous. On their way out of the church he asked the Yankee how he liked it. "Why, it beats the devil!" said the down-easter. "That's the intintion," dryly remarked the gentleman from Tipperary.

DE TOCQUEVILLE, at a Paris dinner, once said: "Connect de coot, de little yellow spot on de map, dat makes de clock pedlar, de schoolmaster, and de senator. De first give you de time, de second tell you what to do with him, and de third make you law and civilization. Ah, gentlemen! dat little State you call Connect de coot is one very great miracle to 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 and physiological science. We can usually supply any of those noticed.

CAPTURING A LOCOMOTIVE: A History of Secret Service in the Late War. By Rev. Wm. Pittenger. 12mo, pp. 354. Philadelphia: J. B. Lippincott & Co.

A true narrative, this, and full of more thrilling interest than even a romantic story. Related by one who took part in it, and who, therefore, experienced its startling and often terrible incidents, it has a vividness which no second-hand account could possess. The writer is probably known already to the reader through his "Daring and Suffering," and "Extempore Speaking"; at any rate, he needs no introduction as a new, untried book-maker. We are given the particulars of a memorable attempt by a score or so of heroic Union soldiers, belonging to the command of Gen. O. M. Mitchell, to embarrass and break up the communication and transporting facilities of the Confederates in the neighborhood of Chattanooga. Disguised as private citizens, these soldiers traveled into the heart of Georgia early in 1863, and actually seized the locomotive of a train employed in transporting Confederate soldiers northward, while the train was stopping at a station near Marietta, and ran with it almost to Chattanooga, pursued by a more powerful engine and the enraged engineer of the stolen locomotive. The supply of fuel having been exhausted, the Unionists were compelled to abandon their prize and take to the country. But the telegraph had flashed intelligence of their extraordinary deed in advance, and the region for miles around was up in excitement and arms, watching and searching for them. They were captured; and what they experienced as prisoners—or as spies, for that appears to have been the impression entertained of them by their angry captors—is related with much minuteness by Mr. Pittenger. Doubtless many a chapter of the inner or secret history of the late war remains to be written; but few, we opine, will vie in spirit, audacity, and in variety of incident with this.

THE WINE QUESTION, IN THE LIGHT OF THE NEW DISPENSATION. By John Ellis, M.D., Author of "The Avoidable Causes of Disease, Insanity, etc.," etc. 12mo, pp. 228. New York: Published by the Author.

This volume is from the pen of an earnest

thinker and worker, a thorough-going member of the Church of the New Jerusalem, as appears in the outset. His discussion of the wine question is arranged with the view to indicating parallels between the deductions of science and the declarations of "New Church" authority respecting the nature of alcohol and its application as a beverage. According to Swedenborgian philosophy, fermented drinks of an intoxicating nature are poisons, and therefore products of hell. This claim Dr. Ellis endeavors to support by quotations from the great Swedish seer. To the general reader, probably, the author's citations from medicists, chemists, and physiologists will have more weight as logical proof of his position against wine. In the compilation of authorities he has evidently been to much pains, for we find many admirable quotations which we have not met in recent publications on the same subject. The two kinds of wine in the Bible—that bone of contention among some of our supposed Biblical scholars—comes in for a share of consideration, and a strong case is made for the affirmative.

The pith of the book is the author's defense of his interpretation of Swedenborgian philosophy concerning the use of intoxicating drinks, his views having been questioned by writers in the "New Church." It is a gallant defense, and carries with it the sympathy of every true advocate of temperance and moral reform. It is also a strong defense which it will be far from easy for any one, however well instructed in Swedenborgianism, to answer.

POEMS. By L. Belle Van Nada. With Preface. 12mo, pp. 151. Printed for the Author at Indianapolis, Ind.

Very evident it is that much thought has been bestowed upon the verses which make up this volume. Here and there a line is seen which is complete in poetical form, and embodies true feeling. "Among the Stars" contains sentiment of the purest order and much coherency of rhythmic movement. We trust that circumstances will aid the author to work on and give to the world other compositions, as this, her first volume, contains the evidences of a poetic faculty which needs only cultivation for its development into capability that should win notice.

THE THROAT AND THE VOICE. By J. Solis Cohen, M.D., Lecturer on Diseases of the Throat and Chest in Jefferson Medical College, etc. pp. 155. Paper, 30 cents.

OUR HOME. By Henry Hartshorne, A.M., M.D., formerly Professor of Hygiene in the University of Pennsylvania. pp. 149. Price, 30 cents.

These recent issues, from the press of Messrs. P. Blakiston & Co., of Philadelphia, are excellent little medical books in their way, and deserving of a wide circulation. They have been

prepared by no mere compiler or "stock writer," but by specialists of reputation. There is no pretense on the part of the authors to teach the art of practicing medicine within the space of a book one can easily put in his pocket, but to direct the reader's attention to some scientific facts concerning the throat and voice, and the making of a healthful home. Valuable suggestions are given for the care of the throat and for the prevention and treatment of its peculiar diseases, and instruction with reference to the proper use of the voice. Dr. Hartshorne furnishes the reader of his little book with a system of rules which every one interested in the making of a home would be wise in following. How to build, warm, ventilate, drain, and occupy a house is clearly set forth in accordance with the latest teachings of hygiene and physiology.

THE LOST ESTATE, AND OTHER STORIES. By Mrs. J. P. Ballard, Author of "The Hole in the Bag," etc. 18mo, pp. 218. Price, 50 cents. New York: National Temperance Society.

When a man gets into the evil practice of drinking alcoholic liquors, it is easy for him to lose the fairest estate, be it in money or land. And it is easy also for him to lose character and reputation, those more valuable possessions of humanity. In this little story we have a graphic illustration of the ruin brought to a once happy home by intemperance; and the many other stories which are added to make up the book, contrast the life of indulgence and sin with the life of sobriety and virtue in that sprightly yet true fashion which pleases children.

THE SCIENCE OF THE STARS. By Alfred J. Pearce, Author of "The Text-Book of Astrology," etc. 16mo, pp. 201. London: Simpkin, Marshall & Co.

This is a "wonder" book, a setting forth of views of the class termed astrological. In his preface, the author makes this declaration: "If authority alone could be allowed to decide the vexed question of the truth of astrology, it will be recognized from the names of the founders of modern astronomy, before quoted, that the weight of authority is decidedly in favor of astrology." Looking back to see the names of the "before quoted" founders of modern astronomy, we find those of Pythagoras and Kepler! The potent influences of the moon and planets and constellations of the zodiac are set forth, and the author is at some trouble to point out apparent coincidences in history with these influences. We fear that his labor has been for the most part in vain, and that he will fail to persuade many of the intelligent that the modern representatives of astronomical science—Lockyer, Struve, Hall, Newcomb, and others—are not to be trusted more than mediæval nations.

PUBLICATIONS RECEIVED.

READINGS AND RECITATIONS, No. 4. A new collection of articles in prose and verse, embracing argument and appeal, pathos and humor, by the foremost temperance advocates and writers. Suitable for use in schools, all temperance organizations, reform clubs, lodges, divisions, etc., and also adapted for public and private readings. Edited by Miss L. Penney, editor of "The National Temperance Orator," etc. 12mo, pp. 120. Cloth, 60 cents; paper, 25 cents. New York: The National Temperance Society and Publication House.

THE SPOILS SYSTEM and Civil Service Reform in the Custom House and Post-Office at New York. By Dorman B. Eaton. Published for the Civil Service Reform Association by G. P. Putnam's Sons, New York. Mr. Eaton, as Chairman of the Civil Service Commission, has made special inquiry into the methods of appointment and the service of appointees in the two departments mentioned above, and speaks with authority, therefore, in his pamphlet. He shows the obstacles in American politics to reform in our civil service, and also what efforts have been made to improve the Post-Office and the Custom House by officials who were above partisanship, and suggests practicable methods for the consideration of our public men "who live above the fog." The pamphlet should have a wide circulation, that the public may know how the men who represent them in the councils of the State and nation selfishly embarrass the current of public business, and do great damage to the people.

THE NEW ENGLAND FAMILY. By Nathan Allen, M.D. (Reprinted from the *New Englander* for March, 1882). The New Englanders—by which Dr. Allen means the descendants of the old settlers—are losing ground as factors in population; their families are becoming smaller and smaller, so that now the foreign elements are numerically stronger than the old stock. The reasons which are offered for this decadence are physiological in the main. The old Puritanic vigor and home sentiment have almost disappeared, and in their place are found an excessive nervous development with morbid or false notions concerning the domestic relations and the purpose of life. Dr. Allen's forebodings are gloomy—too gloomy, we think. We esteem him highly as an observer and earnest well-wisher for the race; but may it not be that his protracted study of vital statistics, especially upon the degenerate or mortuary side, has given him a pessimistic bias?

ZADKIEL'S ALMANAC FOR 1883: Containing predictions of the weather; voice of the stars; numerous useful tables, with a hieroglyphic—strife, discord, prosperity. By Zadkiel, Yao

Szo, etc. Price, 10 cents. Cousins & Co., London.

HINTS FOR PAINTERS, Decorators, and Paper-Hangers. Being a selection of useful rules, data, memoranda, methods, and suggestions for house, ship, and furniture painting, paper-hanging, gilding, color mixing, etc. Prepared with special reference to amateurs by An Old Hand. Price, 25 cents. Published by the Industrial Publication Company, New York.

GLIMPSES OF THE WORK AMONG SEAMEN of all Nations in the Mariners' Church of the Port of New York. This is the sixty-fourth annual report of the Society for Promoting the Gospel Among Seamen, and is an encouraging retrospect of the work accomplished during the past year.

FORESTS: Their Influence Upon Climate and Rainfall. By J. M. Anders, M.D., Ph.D. A well-argued appeal for the preservation of our woodland from total extinction, and for the increase of tree-planting generally.

THE poet Whittier has written for *Wide Awake* a tender and exquisite poem commemorative of the children's love for Longfellow, and of Longfellow's death. It appears in the May Number, together with a fine frontispiece portrait of Longfellow, engraved by Closson.

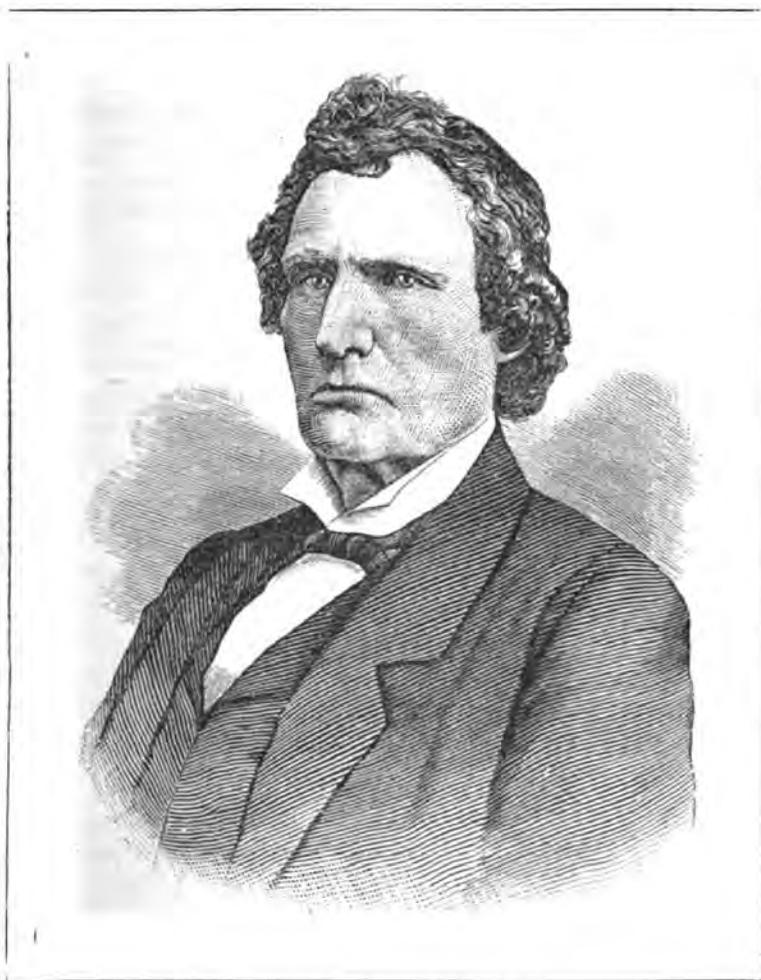
THE PEOPLE'S LIBRARY. The following additions to this popular series of stories, in paper covers, have been made: **AN ONLY SISTER.** By Madame Guizot de Witt. Edited by Miss Mullock. Price, 10 cents.—**CLOUDS AND SUNSHINE.** By Charles Reade. Price, 10 cents.—**ARRESTED ON SUSPICION.** By M. Laffan. Price, 10 cents.—**CALAMITY JANE.** By Reckless Ralph. Price, 10 cents.—**GIPSEY BLAIR, THE WESTERN DETECTIVE.** By Judson R. Taylor. Price, 20 cents.—**A GOLDEN HEART.** By Bertha M. Clay. Price, 20 cents.—**HIS LOVE AND FORTUNE.** By Emma S. Southworth. Price, 10 cents.—**EULOGY ON JAMES A. GARFIELD.** Delivered February 27th, 1882, in the House of Representatives, Washington, by Hon. James G. Blaine. Price, 10 cents.—**HER SECOND LOVE.** By the author of "Dora Thorne." Price, 20 cents.—**WHO KILLED ZEBBEE?** By Wilkie Collins, and **THE HEAD WAITER.** By F. W. Robinson. Price, 10 cents.—**JOHN JAGO'S GHOST.** By Wilkie Collins. Price, 10 cents.—**HOW I MARRIED HIM:** The Confession of a Young Lady. By Wilkie Collins. Price, 10 cents.—**BEFORE THE DAWN.** By Mary Cecil Hay. Price, 15 cents.—**WITHOUT MONEY.** By the author of "An Utter Despair." Price, 10 cents.—**THE CHIMES.** By Charles Dickens. Price, 10 cents.—**MARRIED AND DESERTED.** Price, 10 cents.—**WILL HE BETRAY HER?** By Mrs. Henry Wood.—**FAITHLESS OR TRUE,** and **A STRONG ADVOCATE,** together. Price, 10 cents. All supplied by the Publishers, J. S. Ogilvie & Co., New York.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 74. 1882.

NUMBER 6.]

June, 1882.

[WHOLE NO. 523.



THADDEUS STEVENS,

THE LATE REPUBLICAN LEADER.

SEVERAL years since I visited Lancaster, Pennsylvania, and during my stay in that quiet little city, I called to see Thaddeus Stevens. He was then the greatest living public man in the Keystone State. He was recognized by many as the grandest

American commoner of the century. With his party he was a champion, a leader, a chief. In Congress he was prominent as a logical debater and a fiery radical, and at home he was a local king, whose word was law, whose suggestion was the shadow of a statute to come. He was then an old man and physically infirm. I say that he was old as we count the years of human life, for he was in his seventy-third year, but he could write and speak with a vigor that few men of fifty command. Thirty years of public life fighting with the minority against a fierce majority for justice and liberty, had not bent his form nor crushed his spirit. In his contest for human rights he never failed to honor the fact that "color is not a crime." Without flinching he braved the odium which his love of equal rights for all brought upon him. He favored the education of black children in our common schools, the enlisting of black men for the army and navy, and the lifting of the entire race of negroes in this country out of the chains and fetters and gyves of slavery not only, but into the high sphere of civilization enjoyed by the whites. His voice and his vote had always been on the side of oppressed humanity, and he lived to see his ideas grow into institutions. I found this grand old man sitting in his library. He had been bored all the morning by little local politicians, the little-great men of the town, who think the world was created that they might govern it, and that when they fail to make their calling and election sure "chaos will come again." He was in good spirits and in better health than usual, notwithstanding (to use his own words) "the newspaper attacks on his constitution." He gave me a cordial invitation to sit down and chat with him, and without reserve gave his opinion of some of the men who were public property, not in the sense of

being purchasable commodities, but in the sense that they were then alive and active in the domain of politics.

He applauded Horace Greeley (who was then the boss editor) for his ability and integrity, but censured him for bailing Jefferson Davis. He considered the *Tribune* a great force not weakened by the mistakes of its editor-in-chief. He had little affection for Senator Fessenden because he considered him parsimonious, and he especially disliked his dealing so gently with Andy Johnson. He did not consider Mr. Chase a great statesman. Speaking of some national men, who are yet living, he said Trumbull "is a Republican perforce, while he is constitutionally conservative." He thought Senator Sherman had too high an opinion of himself. Edmonds of Vermont and Morgan of New York were the subjects with others of criticism, touched up with a little coloring of commendation. I have before me a scrap from the *Christian Intelligencer*, which reads as follows: "Thaddeus Stevens, in early and middle age, was a very handsome man. His face was as distinguished as his figure was well made, the latter being marred only by that unfortunate deformity, a club-foot. He was exceedingly sensitive upon the subject of this misfortune, yet it was a blessing in disguise, for it caused him to sympathize with, and be deeply interested in, those who were lame or deformed in any way, and many instances are told of his great generosity toward such." At the time I saw him I wrote as follows in my note-book: "Mr. Stevens is six feet in height, rather slender now, but in his prime he must have had a powerful frame and great physical strength. His gray eyes are full of fire and look you squarely in the face when he talks. He has an eagle nose, indicative of ability to command. His compressed lips show decision

and firmness, and his broad, high forehead is a magnificent dome of thought. He had the reputation of being a good neighbor, a true friend, a generous giver, and a genuine patriot. He would carry the standard of stars and march to the music of progress over the continent, but he had little patience with those who did not keep step with him. He climbs the highest altitudes of progress, and beholds with the vision of a seer a new civilization without caste, without chains, without injustice, with a free press, a free school, free soil, and free men.

"No carven statue, not a silent sphynx,
Is our great commoner, he boldly thinks,
And his brave heart, which no defeats eclipse,
Beats thoughts to eloquence upon his lips.
A radical, one of the uncrowned kings,
He goes down to the deepest roots of things,
And pulls up flowers, and weeds, and even wheat,
If in his way, and spurns them with his feet.
His eagle eyes have foresight, and they see
The future, and the nation's destiny.
When our stout ship of State was in the storm
Of thunder fire, and crimson rain, the form
Of our bold leader stood erect and tall,
Under the flag which now floats over all,
The flag where stripes will not long as it waves
Be duplicated on the backs of slaves.
O firm, strong leader, reconstruct the State,
And make it just and free as well as great.
May the best thought that's forged within the brain
Be merciful and just, then not in vain
Thy speech incisive and thy critic tone,
For laureled Liberty shall hold her throne."

Mr. STEVENS was born at Peacham, Caledonia County, Vermont, April 4, 1793, died in Washington, D. C., August 11, 1868. His parents were poor and unable to help him, but though he was lame and sickly his resolute soul enabled him to help himself. By hard study he qualified for college, and was graduated with honor at Dartmouth in 1814. At once he went to work, teaching school and studying law, and soon secured a large practice. In 1828 he entered the political field, and with great ardor objected to the election of General Jackson, acting with zeal in behalf of the Whig party. In 1833, and for a number of years following, he was a member of the Pennsylvania Legislature, and distinguished himself as an

opponent to slavery. In 1838 he rendered important service to the State as Canal Commissioner. In 1842 he moved to Lancaster, Pa., opened a law office, and devoted six years to the practice of his profession. He was elected a Representative in Congress in 1848 and re-elected in 1850. There he eloquently and persistently opposed the fugitive slave law and the Kansas-Nebraska bill. In 1858 he was again honored with a seat in Congress and held it till he died. As a lawyer he easily distanced many competitors, and took his place among the first men of the nation at the head of the bar. As a manufacturer and business man his enterprise and diligence were crowned with wealth, and when the rebels burned down his iron works the loss of \$100,000 did not cripple him in his affairs so that he had to stop business. Mr. J. E. Barr, of Lancaster, at the time of my visit, had just published a lifelike portrait of the distinguished statesman. It is finely engraved on steel, and is the only likeness of Mr. Stevens approved by him. The lofty forehead, the searching eyes, the compressed mouth, the strongly-marked features are perfectly developed in this picture. I value this portrait very highly, not alone because it is an accurate representation of the face and expression of the heroic man, but because it was presented to me by its prototype as a memento. At the present writing there is considerable excitement in relation to the property that he left. His estate was left to his nephew on condition he should keep sober for five years, with successive "chances" of five years each in case of a first failure. As the conditions have not been complied with, the estate is claimed by the residuary legatees, viz., the trustees of a colored orphan asylum, to which it was to revert. Claims are also made by individual relations. His sympathy for the colored people did not exhaust itself in congressional speeches and in his efforts to secure enactments for their protection and education. Here is a picture of him, drawn, shall we say, "with envious gall and wormwood," by an English writer and published in the *London Quarterly Review*: "Day after day a strange and ghastly figure rose

within the walls of the House, and heaped bitter imprecations upon the South, and upon all who came from it or went into it—a weird and shrunken-looking man, bent in figure and club-footed, over whose deeply-lined and pallid countenance a strange gleam was at times shot from his sunken eyes. Accustomed to all the dark and intricate ways which lead to political life in the United States, stern and pitiless in nature, and hating the Southern people with a superhuman hatred, no more willing instrument for exciting sectional animosity could have been found than this veteran of the Pennsylvania arena, Thaddeus Stevens. His voice was usually quavering and feeble, but when excitement stirred him—as it did whenever any plea was offered from the South—he threw a certain tone into it which made it ring all over the House, and inspired those who had been presumptuous enough to oppose him with an extraordinary dread of his influence and power.” No, he did not hate the Southern people—he hated slavery as O’Connell did. The Irish orator

and statesman refused to shake hands with James Gordon Bennett because he defended the “peculiar institution”; but did he hate the citizens of the United States without discrimination? A man may hate the sin, and yet not hate the sinner. His ways were neither dark nor intricate, for he battered breaches through the defenses of slavery and let in the light, and his ringing blows echoed across the Continent. The sectional animosity spoken of was from the “cotton seed sown by the devil on the Southern soil,” as Wendell Phillips puts it, and which sprouted in strife and bore the blood-red blossom of war. His voice may have quavered, but it was heard afar, and it made the oppressors tremble as the roar of the lion shakes the nerves of the traveler in the desert. It is true that a certain class of Congressmen dreaded and feared his influence and power. He may have been old and shrunken and lame and pallid, but he was able to defeat the strongest man that dared to measure lances with him in the arena of debate. G. W. BUNGAY.

STUDIES IN COMPARATIVE PHRENOLOGY.

CHAPTER XI.

IDIOCY AND INSANITY.

THE mental condition generally termed idiocy may be congenital or accidental; in its effect upon the faculties it may be general or partial. Congenital and accidental idiocy comprise all those cases in which the head is below the standard of volume set for normal intelligence; those in which the head appears to be well-formed, but nevertheless contains a brain wanting in certain parts essential to its co-ordinate exercise; and also those cases in which faculties once good have been lost or destroyed by some extraordinary occurrence, as a severe blow upon the head or a heavy fall which shocked the whole nervous system so much as to impair its balance permanently.

There may be complete idiocy, in which an entire want of intelligence exists—the

person being incapable of helping himself or attending to his natural wants in the smallest degree; and there may be incomplete idiocy, in which failure of intelligence or capability is related to certain faculties, while the others are active and normal. Hence it is seen that idiocy presents several shades of difference and many varieties, and that it has a much more extended application than is commonly thought.

We meet with men in the walks of every-day society who show fair skill in the management of their business affairs, but whose judgment is altogether unsound in other matters; in fact, are incapable of understanding them clearly. Thus we meet with merchants and bankers whose names rank high on ‘Change, but who have no idea of music—not be

ing able to distinguish one tuæ from another, or lack completely any practical understanding of mechanical methods, and could not drive a nail neatly into a board. So too we meet with men who are superior as musicians or as writers on literary topics, but who have no practical sense of economy, are wasteful of money, and constantly in debt.

Complete idiots, and those individuals whose intellectual faculties are in a very feeble state of development, require the guardianship of their friends or the State. In some the want of intellect leaves unrestrained affective faculties possessing uncommon energy, and such individuals are therefore dangerous and demand close watching. Not a few instances are on record wherein idiots of this class have been made the instruments of villains for the performance of great crime. Herder quotes the case of an idiot who having seen a pig killed went and cut the throat of a man. Gall alludes to a young imbecile who had set fire to nine houses. Vimont speaks of one Missonnier who was employed by assassins to kill one M. Fualdes.

The instances of violence and serious injury to life and property done by unbalanced persons while sequestered in the homes of their friends are very numerous, and call for more earnest consideration on the part of those having charge of police and sanitary affairs. Private sentiment which endangers the security of a home or a neighborhood should not be permitted to have sway in this era of physiological enlightenment. Imbeciles who are at all subject to periods of excitement in which they are likely to injure themselves or others should be placed under intelligent surveillance.

DESTRUCTIVE MONOMANIA.

There are numerous forms of monomania in which the individuals affected exhibit good reasoning powers on subjects disconnected with that of their peculiar weakness. Some, probably the majority of these, are inoffensive; but many are liable to paroxysms or violent

phases of mental disturbance, during which they are capable of doing harm. One kind of monomania has a destructive tendency, in which the unfortunate individual when dominated by excitement may seek to kill his associates by open violence or by secret arts. The case of Madame Gottfried, the German woman who poisoned two husbands, her mother, several children, and other persons, belongs to this class. In Madame Gottfried the homicidal propensity was evinced in a manner peculiar as it was horrible. She resided in Bremen until the discovery of her crimes in 1828, and inherited ample means for living amid elegant surroundings. In company she appeared modest, courteous, and kind, and was deemed affectionate and benevolent. So perfectly did she maintain the above character, and so cunningly did she dispose of her victims, that she had caused the death of over thirty persons before suspicion was awakened against her. In the attempt, however, to kill a young man by mixing arsenic with his food, she was discovered by her intended victim and arrested, and, after a trial, sentenced to death by decapitation. The chief object of these crimes was to obtain money for the maintenance of her mode of living, yet in nearly all the cases very little advantage was gained in that respect.

A similar instance of the propensity to murder is cited by Dr. W. A. Hammond in his paper on "Reasoning Mania"* in the case of Helené Jégado, a French woman, who killed twenty-eight persons by poison between the years 1853 and 1857.

In many instances of homicidal mania the deranged retain sufficient reason to warn people against approaching them when in a state of excitement. Pinel relates an interesting account of a man who experienced at irregular intervals an access of fury marked by irresistible impulse to shed blood; and, if he could then seize a cutting instrument, he was led to sacrifice the first person who came

* Read before the Medico-Legal Society of New York, March 1, 1882.

in his way. During this state of fury he would answer questions that were put to him and indicate no incoherence of thought. He felt even profoundly the horror of his situation, and remorsefully blamed himself for having the mad disposition. Before his confinement at Bicetre he was one day seized by one of his deadly rages in his house. On the instant he warned his wife, whom he tenderly loved, and she had barely time to fly and save herself from a violent death.

A case of homicidal mania analogous to the last is related by a contributor to the *Journal of Mental Diseases* (London) for January, 1882. A young woman of good family, who was living in a training institution of London, evinced from time to time an uncontrollable disposition to commit personal violence on any of her companions who might be present when the paroxysm seized her. She had severely wounded two or three of her associates with scissors or knife before it was determined to remove her to an asylum, where she is now. She herself asked to be placed under restraint, dreading lest she should in one of her rages murder some one. Her mental vagaries have usually been connected with physical debility of some sort, especially weaknesses peculiar to women.

To have a true idea of the various aspects presented by monomania, it is necessary to examine with care the development and action of the cerebral organs—not only those which may be the center of the functional disturbance, but also others which have any relation to the former. As a general rule it can not be asserted with too much emphasis that the organs of the intellectual and affective faculties have an absolute and a relative action—the first being the direct action or impulse which lies at the inception of conduct; the other being that final or outward expression which results from the combined influence of the organs participating in the mental process.

As a rule the intellectual powers are not great in monomaniacs; while their affectional faculties are strong and easily

excited. Campagne says of them: "Loquacious or unusually taciturn, heedless or morbidly cautious, dreamers, wearisome to all brought in contact with them, capricious and unmitigated liars—their qualities are often in a certain manner brilliant, but are entirely without solidity or depth. Sharpness and cunning are not often wanting, especially for little things and insignificant intrigues. Ever armed with a lively imagination and quick comprehension, they readily appropriate the ideas of others—developing or transforming them and giving them the stamp of their own individuality. But the creative force is not there, and they rarely possess enough mental vigor to get their own living."*

Their heads are generally smaller than persons of sound mind, the want of balance being specially shown by the deficient development of the superior part of the anterior lobes of the brain; while the head is short relatively to its breadth, the region of the ears being prominent.

Campagne says that "reasoning maniacs" have a head smaller than that of lunatics in general, and that the antero-posterior curve, and particularly the posterior curve of the cranium, are less than those of persons of sound mind, lunatics in general, the weak-minded, and even of idiots; the posterior lobes being congenitally atrophied.

MENTAL ALTERATIONS THROUGH INJURY.

Works on mental disease and neural surgery cite many cases of persons endowed with ordinary faculties, who, after a fall or an injury to the head, manifested remarkable intellectual powers, or strange transformations of character.

Vimont mentions the *père* Mabillon who exhibited a high intelligence after having received a blow on the head. Accrel relates the history of a young man of irreproachable manners, who, after receiving a wound which necessitated the removal of a part of the skull-bone, could scarcely be dissuaded from acting very

* *Traité de la manie raisonnée*, Paris, 1869.

immodestly. Vimont quotes also the case of a man who had been struck violently on the neck, and whose conduct was changed from that of known virtue and regularity to that of the most abandoned lubricity.

It is easy to explain these phenomena when we take into account the influence

of organs in a state of activity or excitement; and the analysis of a given case of abnormal mental expression will lead us to the physical source of the trouble—the nervous center—whose derangement or supra-normal exercise must in any event disturb the general harmony of the mind. D.

HORSE HEADS AND HORSE CHARACTER.

ONE who is conversant with human physiognomy can say of a photograph which may be offered for his examination, "This is a portrait," or, "This is not a portrait," and that, too, without being at all acquainted with the supposed original of the sun-print. So, on glancing at the series of horses' heads which are herewith presented to the consideration of the reader, we can point to four or five of them and declare that they are veritable likenesses in profile of certain high-bred animals. The artist has been faithful in his reproduction of form, lineament, and expression, and we can trace easily their differences in temperament and general characteristics. There are some horsemen who have been so thorough in their study of the relation of form and feature to character, that they can de-

nologists, and if their knowledge were set down with scientific method, it would be of value to all who have anything to do with



MAUD S.

horses, and especially to those whose business it is to train them.

The dullest observer could not fail to see marks of high breeding in the heads of Maud S., Black Henry, and Daniel Lambert. There is a clean, sharply-defined mould; an alert, intelligent expression; a keen, straightforward gaze, all of which unmistakably declare superiority of organism. In Maud S. and the thoroughbred the mental temperament may be said to have a typical representation, the former especially showing, by the low situation of the eye relatively to the ear and the plane of the forehead, a large brain. In spite of the foreshortening, there is enough of the surface of the head to impress us with its breadth. The nervous susceptibility is fairly a-tremble in the delicate skin and fine ears. As compared with the Scotch Clydesdale, Maud S., the thoroughbred, and Daniel Lambert have a lighter skull and thinner and more sensi-



BLACK HENRY.

termine with much nicety the disposition and value of a horse after a few minutes' observation of him. They are horse-phre-

tive membranes. Yet the first mentioned is by no means deficient in spirit. The Hambletonian, as portrayed by the illustra-

charge of a careless farm-hand. The French Percheron, like the Clydesdale, possesses a good stomach, and is stout in body



DANIEL LAMBERT.



HAMBLETONIAN.

tion, is not as good-natured as the others. He is a well-made, muscular fellow, having more of the motive temperament than the trotters, but is less susceptible to high training. He has endurance and strength, can do a good day's work in the thills of a heavy wagon, and can move nimbly before a light buggy. He needs an intelligent driver—no bungler with the reins. Black Henry is a gentle animal, but must not be trifled with. He needs no blinders, and the man who understands him would resent any suggestion to limit his vision. He is a powerful fellow, and we judge would do his best

and limb, fitted for the heavy work of business. He is patient and steady-going, not over-tasty about the quality of his food, and he gets out of it abundant nutrition. The nervous Maud S. and thoroughbred are dainty feeders, and know the difference between a box of rough boards and a stall finished in well-joined hard wood.

A writer in *The Blacksmith and Wheelwright*, the publisher of which has courteously supplied us the seven handsome illustrations associated with this sketch, alludes to the phrenology of the horse in these terms: "Like men, horses are of various



FRENCH PERCHERON.



THOROUGHBRED.

in the field or on the road, being one of those horses that are likely to injure themselves through their ambition if left to the

dispositions. One exhibits pride and dignity, another is dull, tame, and inefficient; one is savage, another is kind; one is quick

to understand, while another is stupid; one has courage, another is shy and timid, and, therefore, unreliable. There are differences in the form and expression of the face of the horse, especially in the structure and form of the head. Characteristics of this kind may be profitably studied by horse-men. . . . A great width between and prominence of the eyes indicate a teachable and tractable horse. Width between the ears indicates courage, nobleness, and strength of character. Roundness and elevation between the eyes is a sign of mildness of disposition, and desire to be caressed and to reciprocate kindness. A timid horse is narrow between the ears, like the deer, sheep, and rabbit. Such an one lacks courage, and is always unreliable. A dull, unteachable horse is narrow between the eyes, and flat and contracted above and back of them." The difference in the expression and form of the eye in a high-bred and in an ordinary horse is very marked. One glance at Maud S. and the Percheron

suffices to decide which is the superior in intelligence. There is a wide-awake and eager susceptibility in the one, which contrasts with the dull and passive expression



SCOTCH CLYDESDALE.

of the other. The Clydesdale, although belonging to the class of work-horses, is by no means wanting in intelligence. The specimen among our illustrations shows the effect of careful training and selection.

THE TYRANNY OF THE PRESENT.

ESAU sold his birthright for a mess of pottage.

Commentators and ministers have for years elaborated and elucidated this statement, some excusing, some condemning the action of poor Esau; but without help from any of them, it is easy to feel the full force of the words, to understand that his act illustrated for all time the sacrifice of permanent good for temporary relief, the unrelenting grip and control of circumstances, the common but cruel tyranny of the present.

But Esau, the unfortunate victim of countless slurs and sermons, the "cunning hunter," was at least an honest man so far as his record goes. It was his brother Jacob who, by a disguise and lie, secured the blessing of Isaac. Yet we know he valued that dying benediction from his exceeding bitter cry, "Bless me, even me also, O my father!" But when Esau came from the field he was hungry. Hunger is uncomfortable, impatient, il-

logical, inconsiderate of ways and means so long as its end can be secured. It is a temporary triumph of the body over the brain, the animal nature dominating the spiritual, the appetite subduing the reason. A dinner at that hour was of more value to Esau than any promised glory, power, or dominion in the years which were to come; and, in accepting and devouring his red pottage of lentiles, he furnished a definition, on its lowest plane, of the tyranny of the present.

If "human nature is the same everywhere," then it is fair to assume that the Esau of many hundred years ago was not unlike other Esaus of the present generation. One need not go to the book of Genesis or to the year 1200 B.C. to find his counterpart. Men are constantly sacrificing themselves and their interests, either from weakness of will, lack of patience, failure of endurance, poverty of understanding, want of faith, or mistaken notions of the relative value of things, to

the power of present circumstances and conditions. Nor is it a singular fact. The present is to all humanity the most vital point of existence. It is true, as Shelley says, "We look before and after, and pine for what is not"; yet the past is really a dead thing, occupying a phantom's place in memory. The future is yet unborn, and only a conjecture; while the point of time between what was and what will be is alive and awake, intensely vital with thoughts, words, and deeds, plans, desires, and necessities.

A new reading of the old Sanskrit shows that all the names of God—Deus, Zeus, Jupiter, etc.—were names of the sun, and that men could give no better definition or symbol of divine power than the Day—significant of all divine strength and glory, all human privilege and opportunity.

"To-day is a king in disguise," says an Oriental poet. "He only is rich who owns the day," says an American philosopher, and "'Tis the measure of a man, his apprehension of a day." Yet common experience proves that this apprehension is seldom of the broadest or wisest sort. It is rarely that we can penetrate the disguise of the king and recognize the sovereign through his commonplace garments of circumstances and surroundings; and human nature finds it hard to take anything on trust. Time is our friend or enemy according to our reception and treatment of him. The man can be stronger than the hour if he so wills; but unless he wills, the hour will rule him, body and soul, to his everlasting loss and regret.

The great mass of men are placed by circumstances beyond the temptation to waste time or postpone duties. Every hour of their day is bought and paid for, and the most is to be made of it and done in it, lest the wages be withheld when pay-day comes. But the work done, the money earned, the day closed, the man is free again for his short season, and it is just this sort of freedom—exacting no account of itself, considering only the present time, the present desire, the

present chance—that is short-sighted, weak, easily influenced and tyrannized over. Upon those who have the most leisure, independence, and choice of occupation, the responsibility rests most heavily. The employer may be a tyrant, but the chances are that the man above the necessity of employment finds a greater one in his own nature. The man who is forced to work is certainly not entitled to any particular credit for his industry; but the one upon whom no such demand is made is left at liberty to show whether such force is necessary in order that anything shall be accomplished.

"Not what I have, but what I do, is my kingdom," says Carlyle. The delusion and contentment of inferior minds is, "I have done this, and I intend to do that, but just now I am doing nothing." Yet this same "just now" is the present, and the only time in which anything ever was accomplished or ever will be. The life and the work have, in truth, no yesterdays or to-morrows. The one never really existed until it had ceased to be good for anything, and no to-morrow has ever dawned or will dawn upon the earth. "One of the illusions," says Emerson, "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."

Yet our reason and our emotions are so at variance, our duties and desires pull in such different directions, that present payment, present sacrifice, present effort, are indefinitely postponed to a more convenient season, the days of our lives yielded without protest to a tyrant as merciless to good intentions as ever Herod was to the children of Judea. Never tyrant wore so smiling a face or used his power in such gentle manner. The domination is so easy, plausible, and unobtrusive that its object is above suspicion. It is passive, neutral, and negative in most of its operations. Any revolt, even on the part of its victim, is

quieted by the assurance of more days to come—time enough for the future to atone for the present. Foolish process of reasoning which assumes for the premises of its formula not only that there is time enough, but that the individual can claim and control it. No man in the morning can be sure of the whole day, much less of another.

There is no limit to the possibilities of each divine, new day. We realize this as fully as the morning renews our strength, confidence, and hope. We know that the hours are priceless. We intend that they shall be filled solidly and satisfactorily with the best to be got from the space of time between two eternities. Yet too often the darkness of nightfall finds correspondence in the darkness of the spirit over the failure of what we knew so well and intended so honestly. A caller, a headache, a few errands, a delayed dinner-hour, a little indolence, or procrastination or lack of realization, and the day has gone—somewhere—beyond all possibility of recall or recovery, if we missed it or mourned over it for a thousand years.

Literary, scientific, artistic, and professional men, the students of the world, are the ones above all others whose work can be done at their own time and convenience. To them the darkness or the daylight matters very little, and the stroke of the clock makes slight impression. But they are the ones above all others most susceptible to outward surroundings, to states of the weather, to uncongenial companions, variable con-

ditions of mind, nervous depressions and exaltations, unsubstantial reveries and speculations. They are easily disturbed and wearied. Their work is of a kind which admits of no compromise with the trivial interests forced upon their attention by thoughtless or impertinent people. Nor indeed can it be harmlessly diverted by greater ones, attractive, delightful, fascinating though they may be, and brought by as fascinating associates. It is to-day in which the poem may be written, the picture painted, the sonata composed, the principle discovered, the hypothesis proved. The world waits for its inheritance, the best work of its best men, those who have the most light and liberty, therefore the most opportunity and power. It shall be disappointed only so far as the present is allowed to cajole, delude, and paralyze, making a bankrupt and a beggar of the future as it makes dreamers, idlers, and profligates for itself.

It is, therefore, the work of faith and philosophy to properly estimate and adjust the day and its demands, that the large shall not be sacrificed to the small, the life to the day, the year to the hour. Faith knows that future good can be secured only by securing the present on which all future good depends; it believes that the future will give explanation, compensation, completion, to a mysterious, suffering, unfinished present; it realizes the value of each detached piece of time and work which is to be gradually fitted into the grand mosaic of a useful and symmetrical life.

C. B. LE ROW.

OUR WEATHER SYSTEM.—No. 2.

XVII. THE paths of Low vary with the season. During the cooler months of the year, especially during the spring and fall, and variably through the winter, they mostly cross the United States diagonally from the south-west to the north-east. This gave rise to what is commonly called "line storms"; for during the spring and fall we generally have

south-west Lows, but not always; so when we come down to scientific facts, there is no such thing as a "line storm." It is purely accidental, and may occur or may not, depending entirely on the location of Low.

It may be hard for many people to accept this, but such is the incontrovertible fact. Likewise, neither is there any

such thing as a "north-east storm." What in old times was called a north-east storm is simply a south-west Low.

As the season advances from spring to summer Low takes a higher line, and travels east on the line of the great lakes, and sometimes far up into Canada, and this is the reason why it is sometimes as warm, if not warmer, in Canada than in many lower portions of the country. Toward fall it will, after a storm, begin to clear-off cold, and we will have north-west winds. This is caused by Low, from the neighborhood of the lakes, taking a south-east course. It will be noticed that the "weather-prophets" apparently "hit" the weather during the cooler months more than through the summer. The simple reason being, we are then having more south-west Lows, and they, traveling on a diagonal line in the course east, sweep the country more generally.

XVIII. Indian Summer, the marvel of the year, is likewise no longer a mystery, the weather-map explaining it all. During the summer Low is on a high line—it is therefore warm. About the middle of October, generally, though not always, the south-west Lows set in. The fall of 1881 they did not, and, up to the last of October, had not taken this course, and here is where it was rather bad for the "weather-prophets," for they had said it would be getting cold about the 15th to 16th of October, and that there would be great storms in the south-west. But nature does not travel in regular grooves, and would people study the weather-map they would learn this fact and the absurdity of attempting to prognosticate the weather on the basis of the weather periodically repeating itself.

To come back to Indian summer: when our forefathers settled in this country, and the south-west Lows set in, in the fall, they naturally supposed that winter had come. But after being cool for a short time it became warm again, and we had warm, hazy, "smoky" days. Low in the meanwhile had taken a high line, and thus this effect. At this time we are in the confines or outer lines of a high Low; too distant from it to get any precipitation therefrom, but sufficiently near to feel its balmy effects.

It has been asked: If such is the fact of Indian summer, why not the same effect in Europe? We have few facts in regard to the course of Low in the old world, but when they are developed they will readily explain all the phenomena of that country.

XIX. REGULARITY AND IRREGULARITY OF THE PASSING OF LOW.

There is no regularity about Low. Its periods are at times very regular, but there is no dependence upon it. April, 1881, until the 16th it was very regular, passing the meridian of Washington on the 1st, 4th, 8th, 12th, and 16th, but after this the regular interval of four days was broken, and the "weather-prophet," who had undertaken to make a wonderful record on its regularity, found himself foiled. The next Low appeared here on the 18th.

XX. The weather-map must controvert many old notions: among them, the idea that the moon, the planets, the icebergs, etc., affect the weather. On the same night we will have different kinds of weather, without regard to the size, condition, or position of the moon, or the relative situation of the planets. Wherever it is High, it will be pleasant and clear; where Low is, it will be stormy; as for icebergs, they are not worth considering.

XXI. Tornadoes, hurricanes, or by whatever name we may term violent conditions of wind or rain, will always be found in the path of Low. Low is the center of the storm, and always after the passing of Low we are liable to have these terrific conditions. Fortunately for us, Low is not often of sufficient power or concentration to produce these results.

HIGH.

XXII. I have said much about Low; it is now time to say a little about "High." The influence of High is more negative than Low, and yet it performs quite as essential a part in the economy of meteorology, and oftentimes very powerfully neutralizes the effect of Low. High often acts as a rock in a stream to Low, directing its course, and changing the results in a most extraordinary manner; as in the great snowstorm which occurred at Chicago, suddenly, on the morning of the 19th of March, 1881 (see Fig. 3).

On the 18th of March Low was at D. The "weather-prophet" had said there would be a great storm on the lakes from the 20th to the 21st of March. On the morning of the 19th of March the Weather Bureau had said that, for the day, it would be "fair" in the "lake region." Two Highs were on the map—on a high line at A and C. At 11 P.M. of the 18th Low had advanced up into Mississippi. From the relations of this Low and the two Highs it was not expected that Low would by the 19th reach a higher line than Washington, leaving the lake regions "fair," there being so much High there. But between 11 P.M., March 18th, and 5 A.M., March 19th, Low was drawn between these two

Highs like a stream in a canyon, at the velocity of 1,200 miles in twenty-four hours!

The *anterior* Low reached Chicago by early dawn, heading for the narrow cut between the two Highs A and C. This changed the whole aspect of what was expected. Had this storm traveled at its average rate of 350 to

400 miles per day, it would not have occurred, and if it had reached Chicago at all it would have produced a warm rain instead of a severe snow-storm; the difference between snow and rain being merely a matter of temperature.

The world at large could not understand this, and gave loud praise to a man who, from all appearances, does not seem to have understood it himself.

Time will right these things, and when the world becomes familiar with the movements of High and Low, as revealed on the weather-map, there will be no censure for the corps of able men at the head of our Weather Bureau for not knowing just what effect this relation of the two Highs and the Low would have. It may be asked: Could

it not have been foreseen? I think not such a peculiar relation of High and Low had not probably occurred from the advent of the weather-map, and it may be many long years before it will occur again. It strongly shows, however, the effect of High to neutralize Low.

Again, let High be on a high line, with considerable extent of line east and west (Fig. 3), say at B, extending half-way from B-A and B-C, and Low running on a low line, D, G, H, or E, I. The high High will act as a barrier to the north wind, and, although the wind may be from the north, it will not be from very far north, therefore not very cold. Again, if there should be a

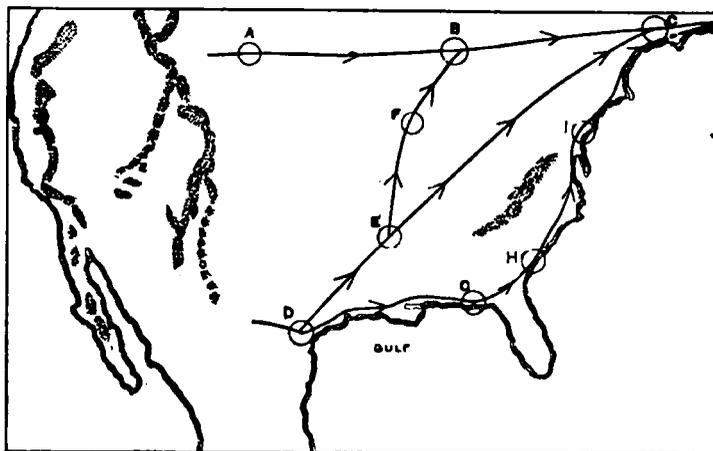


Fig. 3.—MOVEMENT OF LOW, MARCH 19, 1881

low High, extending from E to H, and Low on the line A-C, it will not be very hot at the north—the south wind will not be very far from the south.

XXIII. A PECULIAR LOW.—From the 26th of August, 1881, to the 1st of September, we had a very peculiar Low pass over the country—one which apparently set at naught the idea of Low traveling from the west toward the east. It again, however, illustrates the counter-influence of High. On the 26th of August, 1881, Low appeared off the Florida coast. What direction would it take? It was naturally supposed that it would pass along up the coast; that the Gulf Stream, with its warm, moving influence, would take it in a northerly direction. With this expectation

storm signals were ordered along the coast. High had been moving in its regular easterly direction for the past few days, and was passing off the coast in the neighborhood of K, the while working to the south-east, (Fig. 4). On the morning of the 27th Low reached the South Carolina coast, centering its chief force at Charleston. Here it produced a severe storm. High and Low seemed to have a contest for the right-of-way. High being the heavier body, Low had to give way. The result was that Low was unable to follow the coast, but was forced inland. For a day or two it took a north-west course, passed through Alabama and expended its force. From

which comes from the *posterior Low* it is impossible to locate, excepting in a general manner. As, during a thunder-storm, we know that lightning is very apt to strike, but *where?* is the question. Nothing illustrates this better than to pour a little water down a slightly inclined plane. Who will determine beforehand the exact lines on which it will travel? I think that it will ever defy the wisdom of the world to determine more than generally the points over which a thunder-storm will pass. But one thing we do know, and that is, thunder-storms occur only where there is great heat; and in this country, when the northern sections have become heated by a high

Low, thunder-storms are then in order there.

XXV. Fogs come at least from two sources, first from the confines or outer lines of Low. When from this origin they will be more general in their nature, and continue throughout the day, and remain spread over the country until Low has passed to other localities. The second source is local,

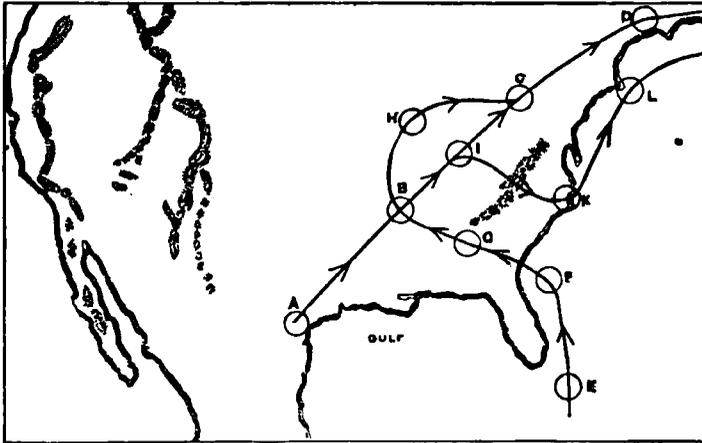


Fig. 4.—COURSE OF A PECULIAR LOW, AUGUST, 1881.

here it trended more and more to the east, following the line F, G, B, H, and on September 1st, in a very unconcentrated condition, took its regular high-line toward the east, causing it to be very warm in northern sections of the United States, producing thunder-storms in locations throughout the north. Lows following in such a track are very rare.

XXIV. THUNDER-STORMS always occur in the neighborhood of great heat. So always when we have a high Low a thunder-storm is in order. It generally comes from the *posterior Low*, *i. e.*, that part of Low following the main body, though it will also come from the main body itself. When from the main body, it is more concentrated, and may be more readily defined; that

and more apt to "set-in" toward morning, particularly in the neighborhood of bodies of water, and they may occur in the very center of High if the conditions are favorable. The cause of this is, the heat that the land absorbed the day before is given off during the night. This heat evaporates the moisture on the same general principle as clouds are formed. This local fog is sometimes called "river fog," though I suppose it is liable to occur on oceans as well as rivers. If there is sufficient wind blowing, this fog will be dispersed as fast as it is formed, so in the morning there will be no semblance of it; but if the air is still it will spread itself over the immediate neighborhood and remain until a wind takes it away,

or the returning sun causes it to be dispelled.

XXVI. WHERE THE RAIN FALLS.—Though Low is the agent of the storm and generates the wind which collects the clouds, the clouds do not wait until they reach the very center of Low before they precipitate, but “drop their fatness” before they reach the center, between the High and the Low.

XXVII. WHEN WINTER WILL SET-IN.—There is an old-fashioned notion that winter will not set in until the “springs are filled”; but this, like many other old notions that the world believed in before the advent of the weather-map, has no foundation in fact, yet there is sufficient in it for us to see why such a notion could be entertained. But, in these days, if winter set-in without the springs filling up, the old folks could not explain it. Now, however, the weather-map explains it all, and readily shows how the idea originated. As before stated, during the summer Low is on a high line; what moisture there is, is mostly developed in the north. In the fall Low takes the diagonal line. By consulting the map it will be seen that these *diagonal Lows* produce more general moisture, and when they occur the springs are necessarily filled. And this is all there is in the idea of the advent of winter waiting until the springs are filled. Sometimes it occurs, and sometimes not.

XXVIII. A few general facts about High and Low.

The changes of these two factors of meteorology are curious and variable. Sometimes it will be generally High over the United States, sometimes generally Low. There may be two, or even three of these centers on the map at once. When such is the case they will neutralize each other. A low Low will neutralize a high Low, and the reverse. A high High will change the condition of a north wind; a low High will change the condition of a south wind.

XXIX. AS TO OLD IDEAS ON THE WEATHER.—People may cling to old ideas on this subject with a tenacity worthy of the most enlightened thought. Yet in this particular I would respectfully call their

attention to the fact that the laws which I here speak of are far older than the crude and ignorant notions that from time to time have, for want of proper light, been held by the world. Meteorology is not unlike any other branch of knowledge. We do not gain the whole truth in a day, and many truths are dependent upon the advancement of other truths before they can be developed.

XXX. There is an idea that in times of drouth the firing of cannon or immense fires will induce rain. On account of the dryness of last summer (1881) there was considerable talk about it; and from time to time many individuals have endeavored to get Government to order the extensive firing of guns, or to build vast fires, in hopes, somehow or other, they know not how, to induce precipitation. Such attempts would not have the least effect, and would be utterly valueless and mere waste of material. We need heat to produce Low, but then the local heat that might be developed thereby would be of no practical value. One might as well undertake to tow the *Great Eastern* with a spider-web as to entice Low by any such contemptible force. We must wait on Low, and, so far as we are able to see at present, this is our only hope; we have no way of inducing it to appear where the surroundings are not propitious.

XXXI. METEOROLOGY OF THE FUTURE.—On an examination of this subject I think it will be readily seen that the more stations we have the more complete the weather system will be. At present we very much need more stations throughout the extreme West, especially the north-west and south-west. Again, these principles develop the fact that our stations, however many we have, can not benefit the Pacific slope, excepting scientifically. For the service to be of value to the Pacific coast there should be stations out on the ocean from 300 to 1,000 miles to the west. What the future may develop in this line remains to be seen. At the rate that science is advancing nothing would surprise us; indeed already a plan has been suggested for deep-sea anchoring for mid-ocean lighthouses. This

is necessary in order to make the weather reports of any value to the Pacific slope.

SKELETON MAPS.

It will be readily seen that though the weather-map is of vast importance it can not be of much practical value to neighborhoods remote from Washington. It will be too old when obtained. Now, in order to give the whole country the benefit of the map, I propose that we have skeleton maps (see Fig. 5) printed, size large or small, as may best suit the taste, indeed they may be made sufficiently small to appear in the columns of a daily paper, but a large size,

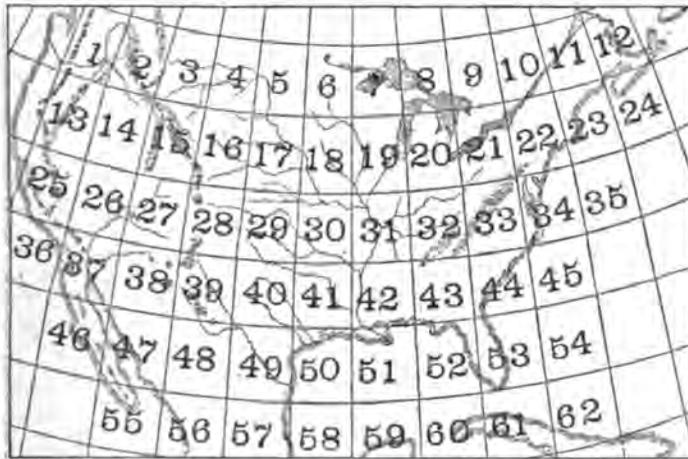


Fig. 5.—SUGGESTION FOR A WEATHER-MAP.

say 12 x 18 inches, would be best to be hung up in offices, houses, etc. Instead of, as at present, reporting for certain localities, let the daily report be that Low and High are in such and such localities, with direction of movement, areas of rain or snow, etc. So soon as the public will learn to read this little map it will surprise them how much it may convey. They may thereby not only know the local weather, but the weather for the whole country, and be able to become weather-prophets for themselves.

XXXII. PROPHECIES OF THE WEATHER. —It is often asked: How far ahead is it possible to foretell the weather? Probably *four days* in advance is the greatest limit, yet this can not be depended upon. It all depends on the location of Low, and Low is always surprising us. But it is remarked

that the "weather-prophets" can foretell for weeks and months. All there is about this is, we should like to see them. They can guess at the weather, and if Low happens to appear regular, and similar to some former occasion, they may "hit it," but if Low takes a notion to alter his course, then they are all adrift. Scientifically, the "weather-prophet" business is mere boy's play, etc., unworthy the recognition of any sensible man. If there is any one who does not believe this, let them study the weather-map and note the changes from day to day, and they will then see the absurdity of a "weather-prophet" saying that "it will

storm" on certain days. Where will it storm? is the question. A severe hurricane may occur, as it did this summer at Charleston, S. C., and yet there be no disturbance at all a hundred miles distant. Yet one of our celebrated "weather-prophets" undertook over his own signature to claim the credit of the storm that occurred at Charleston, S. C., on the 27th of August, because

he had proclaimed that on the 25th and 26th there would be storms in the "Lake regions and around New York." Meteorologically, it was as absurd in him to make such a claim as, geographically, it would have been to have said Charleston, S. C., was on the St. Lawrence, or that Montreal was on the lower Atlantic seaboard. When the people become more enlightened on this subject they will see the absurdity of such claims and treat all "weather-prophets" with contempt. What they will ask of the Weather Bureau will be for them to furnish the facts, then by the skeleton map they may become their own prophets.

XXXIII. To come back to Low, without regard to the movement or location of the planets, whether in *opposition, conjunction,*

in one part of the ecliptic or another; whether the moon be large or small, its horns level, or one lower than the other—new, half, full, or old; whether there be icebergs off our coast or not; whether the sun, moon, or stars are in eclipse or not; without regard to what the “old hunter and trapper,” or the “old man down East,” or “out West” may say; comets visible or not visible in our sky; whether peace or war reign, or even a load of baskets pass along the streets, old Low keeps on his way, and on such lines as he pleases (or, perhaps better, as the sun dictates) ever from the west toward the east.

Only through this system can the meteorology of our globe be explained, and only through this system can we understandingly talk or write about the weather.

CONCLUSION.

What I have here written are facts, and not mere fancy—plain, substantial facts that are stereotyped every day. No branch of human science is so presentable to the eye. It is unlike a book, which must be turned leaf by leaf in order for us to obtain all the wisdom therein revealed. The weather-map contains all there is of value to know about the weather. It may be read by any intelligent person as readily as a map or picture.

The weather-map is the geography of the atmosphere. Without consulting this map we have no more idea about the weather of our globe than we would have of the distribution of the land and water of our earth were we to shut our eyes to the knowledge that our brother the engineer has laid before us in his maps and charts of land and sea. Within ten years we have

accomplished wonders in this line. We could not have obtained this knowledge much before we did. The age was not prepared for it.

In this particular I would apply to this wonderful map those beautiful lines of the psalmist, “The dew of thy birth is the womb of the morning.” We were in darkness; now we are in much light. Undoubtedly there is much more light yet to be obtained, when the system is made more complete, more stations and international exchanges of daily weather reports, etc. Yet I am thinking that what comes after will be the perfection of details rather than much addition to the general facts. There is probably nothing that will bring the extreme and different parts of the earth together like this. When stations are established over the whole world and daily reports sent in to the common centers it will do more toward making the world one grand family with common interests than any other one thing.

It may be a mere dream at present to indulge in such a thought, yet it is among the possibilities, and ere another century roll 'round it may be accomplished. It would seem wise in us not only to continue the present work, but to extend its borders; thereby we extend its usefulness and add wonderfully to our storehouse of knowledge, and the better understand the system under which we live and how to profit by it—familiarize ourselves with nature in her varied moods—and by this intercourse see more and more reflected therein, and thereby the better understand the wonderful plans of the Grand Architect of the universe.

WASHINGTON, D. C.

ISAAC P. NOYES.

OBSERVATION AND MEMORY.

I EARNESTLY advise all young men to commence their studies, as much as possible, by direct observation of facts, and not by the mere inculcation of statements from books. A useful book was written with the title, “How to Observe.” These three words might serve as a motto to guide us in the most important part of

our early education—a part, unfortunately, only too much neglected. It is astonishing how much we all go about with our eyes open, and yet see nothing. This is because the organ of vision, like other organs, requires training; and by lack of training, and the slavish dependence on books, becomes dull and slow, and ulti-

mately incapable of exercising its natural function. Let those studies, therefore, both in school and college, be regarded as primary that teach young persons to know what they are seeing, and see what they otherwise would fail to see. Among the most useful are botany, zoölogy, mineralogy, geology, chemistry, architecture, drawing, and the fine-arts. How many a country excursion and continental tour have been rendered comparatively useless to young persons well drilled in their books, merely from the want of a little elementary knowledge in these sciences of observation. Another faculty of the mind that demands special culture is memory. Happily, of all mental faculties this is the one which is most certainly improved by exercise; besides there are helps to a weak memory such as do not exist for a weak imagination or a weak reasoning power. The most important points to be attended to in securing the retention of facts once impressed on the imagination, are the distinctness, vividness, and intensity of the original impression. It is better for the memory to have a distinct idea of one fact of a great subject, than to have confused ideas of the whole. Nothing helps the memory so much as order and classification. Classes are always few, individuals many; to know the class is to know what is essential in the character of an

individual, and what least burdens the memory to retain. The next important matter is repetition. A man who finds it difficult to remember that Deva is the Sanskrit for a god, has only to repeat it seven times a day, or seven times a week, and he will not forget it. The less tenacious a man's memory naturally is, the more determined ought he to be to complement it by frequent inculcation. Again, if memory be weak, Causality is perhaps strong; and this point of strength, if wisely used, may readily be made to turn an apparent loss into a real gain. It frequently happens that the man who is slow to remember without a reason, searches after the causal connection of the facts, and when he has found it, binds together by the bond of rational sequences what the constitution of his mind disinclined him to receive as an arbitrary and unexplained succession. Lastly, whatever facilities of memory a man may possess, let him not despise the sure aids so amply supplied by written record. To speak from a paper certainly does not strengthen, but has rather a tendency to enfeeble the memory; but to retain stores of really available matter, in the shape of written or printed record, enables a man to command a vast amount of accumulated materials, at whatever moment he may require them.

F. S. BLACKIE.

LINES TO THE TRAILING ARBUTUS.

(Accompanying a box of the beautiful woodland plant in full bloom, sent by the author to the PHRENOLOGICAL JOURNAL).

LITTLE woodland beauties,
 Pink, and white, and red;
 'Neath the dead leaves hiding,
 In your mossy bed.
 Long I've watched thy coming,
 Long have searched for thee;
 Spite of April's frowning,
 Loth to set thee free.
 As an ardent lover,
 Wooing maiden fair;
 Lo, I kneel before thee,
 In the fragrant air.
 Precious little treasure!
 Dearest little sweet!
 No wonder April kept you
 So long in her retreat.

Tiny little charmer,
 Think you I can part
 With such heaven-born sweetness,
 Since you have my heart?

No, e'en gods would ravish
 Beauty such as thine;
 And I claim thee wholly:
 Now at last you're mine.

Nestle on my bosom;
 Touch my cheek and lip;
 Feed me with the nectar
 Such as fairies sip.

Why so shy and blushing?
 God has sent you here,
 That some lonely wanderer,
 You might bless and cheer.

SARAH E. DONMALL-

Port Jefferson, L. I.



SIR JOHN A. MACDONALD,

THE STATESMAN OF CANADA.

HAVING occasion to look through the files of the PHRENOLOGICAL not long since in quest of certain biographical data, we were surprised to discover that in the vast array of personal history and portraiture which our magazine contains, there had not been included certain men whose shining abilities and State services had long ago made them very prominent. These omissions were certainly not intentional, but due to ordinary causes familiar enough to every magazine editor. One of them, the distinguished subject of the sketches which follow, we have been at some pains to supply, and few men in political affairs

are more deserving, we think, of the consideration of our readers than Sir John Macdonald. Turning first to a consideration of his organization we introduce the opinion of our chief examiner (to whom the portrait was submitted, with the simple request that he prepare a brief summary of what characteristics it indicated), as follows.

This man is a marked character, and the examiner has not the slightest idea who he is or what he has done. We suppose the head to be rather above the full size. It is certainly very long from the opening of the ear forward, indicating a sharp, intense intellect whose action is rapid, and whose

criticisms are so trenchant as to be severe. We judge the hair to be strong and dark, and from the size and prominence of the features, we conclude that the temperament is enduring and the qualities very positive. He evidently has great practical talent. The base of the forehead is wonderfully projected, and as a scholar he would be full of history, scientific criticism, prompt in the gathering of facts, and keen in recalling and in co-ordinating them. If he were a physician, he would be eminent in making diagnoses; if he were a business man, he would carry all the details; if he were scholarly, he would be known for literary ability, would remember his reading, would be able to quote largely and accurately. He would have made a splendid chemist, would excel in natural science anywhere, and as a linguist there are few superior to him this side of Burritt. He would excel as an actor, not in one or two lines of character, but would take any part and do it justice. As a business man he would carry details and be master of them. He would govern assistants well and his word would be law. He thinks faster than most men, hence helpers never get an opinion of what ought to be done next quicker than he reaches it. He would run a large factory or store, he would control important business operations, and though he is tough as a whip he would be likely to wear himself out, because such men never know when they have done enough. He is proud, positive, he is patriotic. He is fond of the home circle and willing to sustain and comfort as well as to control affairs. He would make a fine extemporaneous speaker, and the spirit and energy of his thoughts as he utters them are very impressive. He believes in himself and in his cause, and is not much inclined to ask advice or wait for it to be offered. He would make a fine lawyer,

orator, artist, dramatist especially, or controller of men and active affairs. We think he has his mother's sharp, intellectual intuition, that he has her eyes and forehead, but his father's middle face and middle head, and his father's general disposition, so far as driving, and governing, and general independence is concerned.

For upward of forty years Sir John Macdonald has been in public service, three-fourths of that time as a Minister of the Crown, and many times, by virtue of this ascendancy of his party, he was Government leader and Prime Minister. Epitomized, his official connection with Canadian affairs would read like this: He has served as Minister under six Governors-General—Elgin, Head, Monk, Lisgar, Dufferin, and Lorne, and seven Administrators—Rowan, Eyre, Williams, Mitchel, Windham, O'Grady, and McDougall. With the exception of the Finance Department and the Presidency of the Council, he has filled every office in the Cabinet, having been successively Receiver-General, Commissioner of Crown Lands, Minister of Militia, Attorney-General, and Minister of the Interior. He is the oldest Privy Councillor still active, and the *first* and *only* Colonial member of her Majesty's Privy Council.

Sir John was born on the 11th of January, 1815, at Kingston, Ontario. His father, Hugh Macdonald, was a Scotsman, having emigrated from Sutherlandshire to Canada several years before. Having received the training of the Royal Grammar School, Kingston, he studied law and commenced to practice in 1836. Ten years later he was made Queen's Counsel. His advancement was rapid almost from the time he made his appearance before the Canadian bar as a lawyer.

In 1844 he was returned as a member of Parliament, and from that time has sat continuously in it. From the time that he was appointed a member of the Executive Council of Canada in the Draper Administration, which lasted from May 11, 1847, to March 10, 1848, he may be said to

have taken part in nearly every measure of importance to Canada. One of the most important was that which resulted in the union of all the British American Colonies, and to Sir John Macdonald at least as much credit is due as to any other man for setting the project on foot and bringing it to a success. In the Conference held at Charlottetown in 1864 for the purpose of effecting a union of the maritime provinces, he was a diligent worker; and at the Quebec Conference which followed that of Charlottetown he presided, and there was laid the foundation which resulted in the Act of Union passed by the British Parliament. When the new Constitution came into force on the first of July, 1867, he, as Premier, was authorized to form the first Government for the New Dominion, and held his position until November, 1873.

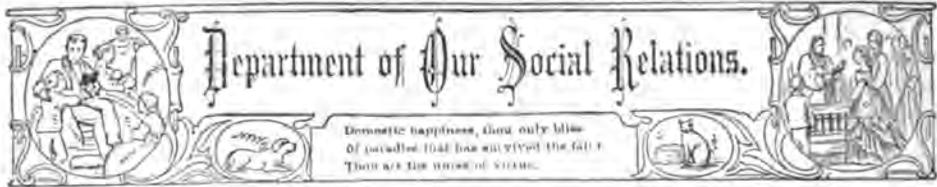
In 1871 he served as one of the ten Joint High Commissioners appointed by the English and American Governments to consider the "*Alabama Claims*," and whose labors at Washington resulted in the Treaty, which received the signatures of all the Commissioners on the 8th of May, 1871. He has also served Canada in her diplomatic relations with the mother country and other nations, frequently crossing the Atlantic as a delegate or commissioner, and on such occasions exhibiting great talent as a diplomatist. In connection with the "*Alabama Commission*" it was said that Sir John Macdonald was clearly one of the ablest men in it. In his private relations he is universally popular, and in politics his hold on the affections of his followers is something extraordinary.

In a letter recently received from Dr. A. M. Ross, formerly of Toronto, now of Montreal, to whose kindness we owe the photographic portrait from which our engraving has been prepared, the following remarks occur:

"As a statesman he stands head and shoulders above any other man in the Dominion of Canada. He is perfectly unselfish; although his career has abounded with opportunities to amass riches, he is now, and always has been, comparatively

poor. . . . Although Sir John is a Tory and a political opponent of mine, I believe him to be a true friend of Canada, and the only real statesman we have in this country."

LIFE IN CUBA.—It requires a continuous residence for a considerable time to become accustomed to the scenes and sounds of the street. They are such as have no place this side the Atlantic, and belong rather to Tangiers and other ancient localities. A grotesque population passes to and fro all day, and the air is full of strange cries from hoarse and screeching throats. Every second man of the population seems to have taken to peddling for a livelihood. They are selling everything, though nobody ever seems to wish to buy. There are horse-loads of green cornstalks, and the animals stagger by with nothing of them visible but their noses and tails, urged and guided by words uttered in a tone which is like the last cry of despair. The charcoal vender has also his long procession of animals, each one with his nose tied to his predecessor's tail, and jostling the fodder-man with the only and universal fuel of the country. There is the man with the pig slung across his shoulders. The animal is half-grown, lean, and quite hairless, and is proclaimed through the streets by the combined voices of himself and his owner. There is one who drives before him a flock of panting turkeys, who manages to make them go where he will, and when he stands still they all by one consent sit down in the middle of the street. Here comes one, vociferating, who has a motherly goat tied to the tail of his horse, and he declares that she is capable of nourishing a family. But the two kids who follow behind, brokenly pleading, do not by their appearance indicate that state of things. If it be early morning you will encounter the milkman, driving a herd of milch-kine through the streets and drawing the fluid into a glass tumbler at the front door of his customer's residence. It is a good way; the family are getting the unwatered article, which can be afterward diluted to suit themselves.—*Home Journal*.



TO LONGFELLOW.

MEN say that thou art now afar,
 In other world, in other star,
 That thou hast gone from earth away
 To fairer land, to brighter day.
 Ah! poet-soul! that may not be,
 For we are here, and thou art we;
 A million hearts enfold thee here,
 Thou must not soar beyond their sphere.

Where'er a breeze caressing blows,
 Where'er a lilac fragrance throws,
 Where'er a tree casts cooling shade
 Above a thoughtful man or maid,
 In sunset's glow and moon's soft ray,
 In Autumn bloom, and Summer day,
 Thou livest still in them and me,
 And deathless still while still we be.

From thine own house in Cambridge town,
 From Western plain and English down,
 From out this world, we truly know
 Thy spirit can not wholly go.
 Thy thought is thee, and where it shed
 Its sweetness on the heart or head,
 It lingers still, and ever must.
 Although the thinker sleep in dust.

Thou art not dead, or surely they
 Whom thou'st remoulded from their clay,
 Would come to weep about thy bed,
 And crown with laurels thy dear head.
 Evangeline so pure and quaint,
 A tender maiden, yet a saint,
 Priscilla like the morning dew,
 Forever fresh, forever new;

Miles Standish with his loving plea,
 John Alden strong in fealty:
 All these would come, though spectres dim,
 If we had sung thy fun'ral hymn.

Whilst these thy children live, shalt thou
 Too live, unchanged as now.
 Ah, no! thou canst not sleep in night,
 Whilst shines around this Easter light.
 How many pleasant songs were sung,
 Altho' thy heart was sorely wrung,
 When there beyond the rolling wave,
 One slept within her early grave.

Then as the household's modest dove
 Came, after years, a long-wooded love,
 Who made thy heart and home so bright
 That naught but fire could quench her light.
 Ah! bitter grief that rent the soul;
 To make it yet more sweetly whole,
 Till deeper music from the smart
 Flowed out to cheer the people's heart.

Sweet Cambridge town henceforth shall be
 Connected with thy memory,
 And a pure poet's life and lay
 Shall breathe its perfume there for aye.
 "O weep not, friends!" we hear thee say,
 "There's broader light released from clay,
 And over on this brighter side
 Is loving wife and youthful bride,
 And yet my spirit can I never
 From earthly scenes and loves dis sever."

AMELIE V. PETIT.

Easter, 1882.

DISCOURAGEMENTS.

LIFE is full of them. They are the moths which destroy often the best fabrics of thought; they debilitate our hopes before they are woven into solid cloth, or perforate the soft fabric as it falls from the loom. Only the rare favored few escape their ravages and behold unflawed the reward of vigilant effort. Frequently, from our narrow physical view, we see only our own discouragement-

ments, and think they enter not into the more cheerful lives of those about us; but, as years broaden our range of vision, we see almost every life has its broken threads, and that our daily friends have perhaps interwoven and hidden theirs with a patient skill quite beyond us.

Constant incentive and activity are the best safeguards against discouragements, just as use is the best preventive of moths.

If disappointment is the flower and fruit of early effort, let us cultivate and educate our actions that there may be a later bloom and fruitage of satisfaction.

We can not always overcome our physical inabilities and surroundings. Women are less free to break the web of circumstance, control difficulties, and fill the measure of their own aspirations than men, because prejudice, meagerly developed bodily strength, and a lack of franchise prevent them occupying the prominent lucrative positions whereby they might accumulate means and experience to further the accomplishment of great desires.

Marriage, the beautiful, holy tie of love, while it widens and blesses two lives, cramps sometimes with accumulated cares and a lack of intellectual breathing air the mind of man or woman. Usually, almost universally, it is the woman who loses caste and identity. She is Mrs. Peter Spooner, or whoever the case may be, and expected to further Mr. Spooner's fame and fortune as well as his family. It is only men of deep, tender love and broad generosity, who pause to notice whether their wives' lives develop as fully and independently as their own; whether the home surroundings and position are as perfectly in accordance with her taste and views of advancement as theirs.

Discouragements do not all come to the business men who fail to gain the reached-for goal of position or independence; they are just as keen, and more gnawing, in the lives of tired women whose moral and mental capacities are aching for field and development. The wedded, to enjoy life at its high-tide of human perfection, should endeavor to fit their physical and intellectual pace to each other, to consider each other's views and comforts so fully as to lose self-thought in the mutual effort of sympathy and uplifting.

With the educational advantages now offered the female sex, they have little occasion for early discouragement. It is only after the fitness for mental action

and ability to take equal ground with man has been acquired, and the active struggle for place and sustenance begins, that the inequality of opportunity presents itself; that society, with its impassable pales, and the lower stratum, with its profanation of purity, discourages woman and proves to her that the realization of awakened ambitions is impractical and vain. Then it is that her mind must be schooled to smaller expectations, the talents grow inert, the thoughts revert pityingly to fading visions as the look-out narrows and the woman realizes fully that she is a woman; that only through great love and moderate submission can she fill out the happiest measure of life.

Strong, self-reliant, well-balanced minds framed in sound bodies, are almost proof against discouragements. A great deal depends upon the frame—more perhaps than meager human charity allows considering we have no individual choice or control of original material.

Elasticity may be a more agreeable expression as applied to mind than strength, as the term "strong-minded" has been overused in regard to woman, and it is elasticity, the power to endure great tension and rebound, that constitutes our grandest element of strength and guard against discouragements. As long as we possess elastic ability to repair the wasted forces we will not be borne down by disappointments. Cheerful words and smiling faces illuminate any situation in life; and whatever our position on this great porchway of immortality, let us not spend the few days, or years, until the golden door swings ajar for us, nursing our discouragements.

MRS. S. L. OBERHOLTZER.

FRIEND, when the mountain's reached which you must climb,

Stand not repining o'er its towering height;
Mount with the feet God gave you, lingering not,
Sighing for eagle's wings to speed thy flight.

The steep and rocky path shall have an end,
Courage! press onward to the distant crest;
Only the toilers, who with patient steps
Reach the green summit, wear the crown of rest.

MEMORIES OF MOTHER GOOSE.

ONE beautiful September day I went to see a kind-hearted, genial old gentleman, living in a pleasant home in Charles St., Boston. I had gone from library to library, record to record, street to street, to hunt up some living man among her descendants who could tell me more about Mother Elizabeth Goose, the illustrious author of "Mother Goose's Melodies." At last I had found her great grandson, as enthusiastic in talking about her virtues as I was in listening. This silver-haired, sunnyc-eyed old gentleman was John Fleet Elliott. His mother was a Fleet, and he showed me the picture of his uncle, Thomas Fleet, taken by Copley. I regret that my insufficient leisure has prevented my knowing much of phrenology, yet the little I knew of it showed me at once that this old man's head offered a fine study to the phrenologist. One organ he had specially developed—Mirthfulness. In my long talk with him he said many bright and humorous things that would make the soberest man laugh. His forehead was broad and high, his features regular and symmetrical, his eyes clear and blue. He was a man of far more than ordinary intelligence, and seemed delighted in unrolling and showing any manuscripts he possessed giving light on his illustrious grandmother's history.

Mother Goose died one hundred and twenty-six years ago, at the age of ninety-two. Dr. Manning, pastor of the Old South Church in Boston, of which she became a member in 1698, in her thirty-third year, told me that he found her name in the church records. The Old South Church is the oldest Puritan meeting-house in America, is one hundred and fifty-four years old, and there she worshiped for twenty-seven years before her death, or until her lameness kept her at home. In the Old South Church is a very conspicuous tablet erected to her memory. A very queer little Mother Goose House was erected at the first Old South fair, where the Boston little folk gave their entertainments, and afterward, at the brilliant carnival of authors, they personated many scenes from Mother

Goose. One little fellow perambulated the building in a very large, ingeniously made, artificial goose. The bonnet Mother Goose wore, the watch she used, and her porringer, are still to be seen in the Loan Collection. There are left besides of what was once her personal property, nine green chairs, five old leather chairs, an old-fashioned chest of drawers, an iron pot, a skillet, four old spoons, and one old arm-chair. Mother Goose's old arm-chair, the chair she rocked her babies in, singing her own songs, who wouldn't like to see it? Though lame for four years before she died, she was busy and cheery to the last. The medicine she took cost 2*l.* 9*s.* 8*d.* (about \$12.50); her funeral, £3 (\$15.00). Her sweet, sunny temper was one reason for her very long life.

The Goose family came from England about the year 1656, and the last of the name died about the year 1807. It was a very wealthy family, and many of them were proud of their wealth, but not of their name; and as early as 1660, some of them wrote their name Vergoose and Vertigoose, but most of them kept the quaint name of Goose. They came originally from Norwich, England.

"The Man in the Moon came down too soon,
To inquire the way to Norridge."

"Norridge" was so important a place in the records of the Goose family, it was the first place the Man in the Moon inquired for. Mother Goose was Elizabeth Foster, daughter of William and Ann Foster, of Charlestown, Mass. There she lived until her marriage with Isaac Goose, of Boston. He was the most prominent and prosperous member of the family, a widower of fifty-five when he married Elizabeth Foster, a bright-looking woman, twenty-seven years of age. He had then ten children by his first wife, Mary Ballston. So Mother Goose began housekeeping with ten children. To these, in a few years, she added six of her own.

The mother of sixteen children, so young, too! Do we wonder that as she sewed on

their buttons, darned their stockings, nursed them through their respective fevers, coughs, mumps, and measles, bathed their bruises, and soothed their sorrows, that she should sing (if she didn't cry) of

"The old woman who lived in her shoe,
Who had so many children she didn't know what
to do."

Her great-grandson says she gave them plenty of broth and bread, but she did not "whip them all soundly," though "she put them to bed."

At the age of forty-five, when she was a most noble, lovable woman, Isaac Goose died. She most tenderly cherished the memory of the eighteen years she had lived with him, and five years after her daughter Elizabeth was married by the Rev. Cotton Mather to Thomas Fleet, a printer, thirty years of age. He had come from Bristol, England, three years before, and established a printing-office in Pudding Lane, now Devonshire Street, Boston. There, too, the young couple lived, and Mother Goose lived with them and nursed and cherished her first grandson, the little Fleet. Up-stairs and down-stairs she carried the baby, singing her inexpressible songs. Thomas Fleet was in love with his art. He published ballads, and pamphlets, and small books for children, and other books. He was slowly growing rich, and as he sat quietly looking over his own proofs, putting in the points, and crossing out the blunders, he would hear "Bye baby Bunting," or "Ride a dock horse," or "Baa-baa black sheep," over and over again, so that he came very near putting in horses, and sheep, and babies, in his sober proof-sheets. He was really in danger of turning his proof of sermons and psalms into songs.

"I wish that mother-in-law would stop singing," he thought. "If she does not stop singing 'Goosy, goosy gander, where shall I wander?'" Then he would add up his accounts, trying to get the fractions right, and then "Sing a song o' sixpence" would sound forth clear and shrill again from some corner of the house. In spite of everything he would stop his figuring to think how funny the black-birds would look in that

pie! Neighbor and friend and Thomas were tired of her singing, but the baby grew fat and happy, and Thomas Fleet had a keen sense of humor, and a bright idea came into his head one day. He would take down the songs she sang, and put them in a book. Some of them she had learned when a child from her song-loving mother, some she made up as she sang them. He would print them in a little book, and call it "Songs for the Nursery; or, Mother Goose's Melodies, printed by T. Fleet at his printing-house, Pudding Lane. 1719. Price two coppers." This was one hundred and sixty-three years ago, when Mother Goose was fifty-four years of age. A large part of the title-page was covered with a goose with a very long neck and mouth wide open. In 1856, a gentleman examining files of newspapers in the library of the Antiquarian Society at Worcester, found a dilapidated copy of this original Mother Goose, with about fifteen pages left of it. I don't believe Mother Goose liked the picture of the goose on the outside, but all the children did, and Thomas Fleet made fun whenever he could, even at his best friend's expense.

But Mother Goose sang on to his other babies, and the world's last baby may be sung to sleep by her songs. "Bye baby Bunting" is the tune to which all the world's cradles will rock, and as for myself I seldom see the moon but I think of the cow that jumped over it. When my own little girl was once very sick and crying with pain almost all night long, I sat up in bed by her side singing to her over and over about "Pussy in the well." When my sleepy eyes were almost shut, I went from "Pussy in the well" to the "Man in the Moon," from "Solomon Grundy" to "Baa-baa black sheep," until the child would laugh between her cries, and, lulled by the jingle of "Banbury Cross" and "the old woman on the white horse," she would take a brief, restful nap, and I would sing on, "wherever she goes—ever she goes—wherever she goes," until I sang myself to sleep. Neither Tennyson's best or Longfellow's sweetest could have so charmed and lulled the child, and Mother Goose's rhymes may

be remembered as long as the bards' sweetest songs.

My little boy learned to read marvelously quick after he got a copy of Mother Goose in large type. He soon read it all, and he would climb a tree like a little squirrel and sing about "Solomon Grundi" at the top of his shrill voice. He would vary the text sometimes this way: "Solomon Grundi, born on Sunday, died on Monday, he wants to be an angel, poor Solomon Grundi—dory, dory, haddidooyer!"

I saw the picture of the man who had been one of the first babies Mother Goose sang to—Thomas Fleet, Jr. He lived to carry on his father's business, and to publish one of the first papers in Boston. The wise, bright, kind face of the picture looked as if the man remembered still his grandmother's cheery songs. The great-grandson of Mother Goose, with a merry twinkle in his eye, tells many amusing anecdotes of his uncle Fleet.

The story of "the man in the bramble bush" did me a world of good when a child; it is a sermon in itself. The best of us, to gain success at last, must make a few failures, scratch our eyes out at the very bush of experience, where we may scratch them in again—clearer, brighter eyes than ever, perhaps. Ever since Mother Goose first sang it, all the wondrous wise people have had to build up noble deeds on the ruins of brave failures.

Washington or Napoleon showed no

more resolution or resignation than this hero of the bramble bush. Following Dr. Elliott's instructions—Dr. Elliott he is called by his oldest friends—I made a pilgrimage to the grave of Mother Goose in the old Granary burying-ground, Boston. In that almost forgotten spot lie the remains of all the Goose family,—Susannah, the mother of Isaac Goose; Isaac Goose, Mary, his first gentle wife, and two of her children; and the immortal Elizabeth, his second wife. There, too, rest Thomas Fleet and his family. Mother Goose has the homeliest old brown stone of them all; it is old, and brown, and worn. I stooped down and gathered and brought away three little leaves, not of ivy, or cypress, or laurel, or myrtle, but of a little friendly weed that had grown lovingly up to the old stone. I wondered as I gathered them how many of the busy throng of men and women passing through Tremont Street every day in sight of her forgotten grave, had been lulled to sleep by her songs from loving lips, that like hers were covered over with the silent dust. I went back to my sister's, where my own little girl was singing to the beautiful baby there, who was opening her beaming eyes so cheerily as she was trotted up and down to the rhyme of

"Ride a dock horse to Banbury Cross,
To see the old lady on a white horse;
Rings on her fingers and bells on her toes,
She will have music wherever she goes."

LYDIA M. MILLARD.

STAGNANT.

WEARIED with the work and worry of the day that was just closing, I restfully reclined upon the parlor sofa, and thought what a blessed thing it would be to have nothing in all this wide world to do. If I could only go off alone and live a hermit's life, with naught to tempt or annoy, what a holy and happy life would be mine! Dreamily I thought, until into dream-land I had wandered and found myself on a beautiful hill-side, where shady trees and a sparkling, rushing rivulet freshened the scene. "Oh, what a charming place!" I exclaimed.

"Away from the crowd of people, where everything is at rest; excepting these bright, busy waters."

"Tell me, little brook," I began.

"Nay, stop me not, for I must hasten on to water the plain, and give cooling drinks to thirsty men and cattle below." And onward it sped.

I turned and almost stepped into an aunt-hill that was fairly alive with its thousands of little people hurrying to and fro, many of them dragging great loads—so busy they heeded me not. Among white clover tops

was heard a buzzing of bees, where they were culling the sweets. Was there nothing idle here? Looking up into a tree, I asked, "Little leaflets, what are you doing?" "Growing, growing." They rustled with a scornful toss. Two birds were joyfully at work building a nest in the tree.

"As I find nothing idle here but the trunk of this tree, I shall sit down and rest with it," I said, as I leaned against its sturdy bark. "Foolish one," came a voice from within, "so you think me idle, like yourself. Do you not know that I never tire of carrying sap for my branches and leaves, drinking in rain and sunshine, and growing larger and stronger, that I may be made into useful lumber some day? And you, too, should be working and growing. When work is done we begin to die. So you came here where the busy world could not contaminate you; thinking to become pure, holy, and wise. Let me tell you a little story: Once upon a time two sister brooks ran gayly splashing down this rocky hill-side; when upon a summer's day, one of them began to murmur and fret, saying it was so tired of this humdrum life, with man and beast

drinking its waters; sticks, dirt, and animals, marring its purity. The little flowers along its banks looked their thanks for the refreshing dews it sent them every morning and evening; and nodded their heads encouragingly. But to no purpose. The sun finally hearkened to its complainings, and sent down its scorching beams to dry up the fountain springs; thus leaving the waters to rest and purify themselves. And now look down yonder valley and you may see its remaining waters in a lonely little hollow, covered with a green scum, and so foul that even the wild beasts shun it. Look and learn; for a stagnant body or a stagnant mind, like this stagnant pool, soon becomes an unclean thing. But if you would be pure, strong, useful, and happy, find out what you can best do, and like tree, bird, and insect, do it; or, if you prefer to, remain idly here, a companion to this stagnant pool."

"No, no," I exclaimed, jumping to my feet, from the ground, or rather sofa, where I had been dreaming; I rubbed my eyes and sat down to ponder over "a dream that was not all a dream." S. M. BIDDLE.

HOME CONDUCT.

I HAVE just finished reading a book entitled "The Amenities of Home." The author's name is withheld. Evidently it was written by a woman moving in the higher circles of life, with wealth and influence, and, withal, a "society" woman, who addresses herself mainly to homes with similar surroundings; and yet humbler homes can see that they are included in the general unhappiness she makes all homes discover. The "skeleton" of all households is laid so bare to view, that I put down the book with a heavy sigh—an unspeakable sorrow—that it was all too true; that domestic bliss, the "only good that has survived the fall," should yet show such a falling off.

Here are some of the remedies she proposes: Politeness, good breeding, the ability to enter a drawing-room easily, to bow, to courtesy gracefully, etc.

Alas! and alas! this struck me as all ve-

neering which only *hides* the quality of the wood without at all altering its substance; in other words, a remedy not at all suited to the gravity of the disease. Is there any adequate remedy? For my own part, in seeing how, in all homes, something always militates against perfect happiness, I am only reconciled in believing that the good God never intended us to find our rest here, and so has put a thorn in every earthly nest, that we may aspire to nobler habitations—the life untrammelled by flesh. *Can* there be real happiness while two opposite natures inhere within us? Then, too, how opposites, in almost everything, attract each other, to marry, to bring into the world children whose whole moral natures must be a constant battle-ground, partaking, as they must partake, of the opposite natures of their parents. Can not *this* be a little solution of the unhappiness of all homes?

The author of the book mentioned would

have these homes kept keyed up to the conventionalities of society life; have their inmates always upon their polite behavior.

Now, to me, the very word "home," means a place where poor human nature so hard bested in the great world may unbend, relax, show even its worst or more selfish side, because we can be sure that none of our naughtiness will go further: a family being supposed to be united in keeping up at least the family character. Enough of deception, of calling things by wrong names, of bows and smiles to those utterly repugnant to us, goes on in outside life; let us drop the mask at our own firesides, assured that our dear ones will forgive the petulant speech, the little lapses of politeness, and attribute them, as they should to the wear and tear of life and bread-winning. Must we stay at home when a valuable dress is ruined by a careless movement at table, with a smile of questionable import at least, "It's of no consequence": "Oh, I'm not cold," though in a neighbor's house we are endangering our lives by sitting in a draught? To me, that is not a home where I must be continually on my guard lest I offend some one, or state an unpalatable truth; but the one spot where we may say just what we think, knowing it will not be misinterpreted. It is not to be *supposed* that in our own family circle we can ever maliciously say things to wound. While I admire an agreeable address, yet I can not attain to this; and shall I pass by a basket of noble fruit because of the roughness of the basket? Have I lived my life and failed to learn that the roughest bark often hides the best tree? Is it not *one* thing, at least, to be thankful for that there is one spot where we may act ourselves?

Our author says, "We are not the same strong-handed, steel-visaged personages to our family we are to the world; we are then fighting without gloves, with our own people."

True; and this, instead of making it the worse, is to me the comfort of it. Nevertheless, it is a sorrowful fact, and one that should make us, as human beings, hang our heads in shame, that even the holiest ties, the purest affection we are capable of, are so

adulterated with pettiness, *wickedness*; yes, that, after all, is the word, and the solution we can not escape from. "God made man upright, but he has sought out many inventions," among which is how not to be happy.

We are told, in this book, of a boy who wished his beautiful home would take fire and burn up, so he could escape from it. Does any one doubt the native wickedness of that boy, or of his ancestors at least? We are told of a family that met with reverses and had to leave their sumptuous city home, and make one amid the oil regions; of the mother in despair at her children's lost opportunities. "But out of the wreck of her fortune she had secured sufficient to furnish prettily, parlor and dining-room, and would at night light up brilliantly, have the table set as for a feast, and require all to come in dressed as for a party. She attended to their education herself, though not fitted for it by her training. She did as well as she could, taught them to bow, courtesy, dance, draw, play, and sing. So that when they became prosperous enough to go back to their city home and cousins they were not ashamed." Now I would not say that was not good education, but it seemed to me, more like weakly clinging to the past, and not bringing them to an education they must in some measure acquire amid their new surroundings, more fit to make them strong and self-reliant citizens.

Somehow I came to have a real pity for the author of this book. She seemed so powerless to know the real remedy for human sorrow; as though gracefulness, music, dancing, painting, and dress could assuage even one of its pangs. Is not this "healing the hurt of the daughter of my people" slightly?

She says, "Good manners are the shadow of virtues, if not the true grain of the seed." To me, it seems that while good manners,—that is, the ability to say and do just as all polite society does, not the good manners that spring from a good and honest heart—go far to make life—home-life—tolerable; and also to promote the best interests of the persons practicing them; that to pass life in cultivating unceasingly courtesy, much

valuable time that might be employed in conferring lasting blessings on our associates is sacrificed. Very few of our great reformers, or the world's benefactors, found time for the small sweet courtesies—the conventionalities—of life.

While the main drift of this book seems good, and much valuable information is contained in it, it yet leaves the reader somehow impressed with the smallness of the remedies prescribed for that race-old and sorrowful disease, an unhappy home. I do not know when I have closed a book with such a profound sorrow for its author and the world at large. With two more quotations and a reply to the first, I close this criticism. She says, "company-manners so called are therefore better than no manners at all."

Now, I have read of and seen some of the most depraved of men and women, whose manners were all unexceptionable; some of the most untruthful, whose tongues dropped honey, whose sweet manners fairly put to shame the hard truth-speaking man or woman. What is the use of all this outward veneering to a foul heart? "Is there never coming a time when every man shall speak truth to his neighbor?" What a falling off there will then be in friendships founded upon soft-spoken words and outward courtesies. Deeper than all the learning of schools, society manners, the amenities, lies the cure of earth's ills. But the book closes with these excellent words: "We almost welcome any suffering if it would make us so strong, noble, and true as some people have been."

HARRIET N. SMITH.

WHO SHOULD SPEAK FIRST.

AS woman is, and always has been, the gate-keeper of society, the rules of etiquette that she lays down must ever be binding. She makes social laws for her own protection, interest, and convenience, and, since she demands that man must obey them rigorously, she should be careful not to violate them herself. She has declared, and very justly, that, after a man has been introduced to her, the privilege of continuing or discontinuing the acquaintance when next they meet shall rest entirely with her. It is her right—and her duty, indeed—to recognize him on any subsequent occasion if she wishes to. Unless she does recognize him, he is to understand that she fails to approve him, and the fact, whatever the cause, must be accepted. He can not, with any social propriety, speak to her, much less inquire the reason of her quietly ignoring him.

Nothing, one would think, could be better or more generally known than this rule of etiquette. It has been from time immemorial the canon, written as well as unwritten, of all good society. Women seem to be perfectly aware of it—it would

be very strange if they were not—and yet they are constantly sinning against their own edict.

Who has not heard them express mild surprise because some man who had been presented to them again and again had not bowed to them on meeting them on the street, at the theater, or in the drawing-room?

If you ask them, "Did you recognize him?" they will be apt to reply, "Oh, no; of course not. He should have spoken first."

Being reminded of the well-defined etiquette bearing on the subject, they are likely to add:

"I know that very well; but no woman wants to take the initiative. Men should do that: it's their business; it doesn't belong to us. No one expects us to make ourselves so bold."

Meanwhile the unoffending offender feels mortified that the surprised, often the complaining woman or women, have repeatedly passed him without a sign. What has he been guilty of, he thinks—what breach of decorum or good manners? The cause may lie deeper. She

may consider him an improper person to keep up acquaintance with. Somebody may, somebody must have defamed him to her. He is sure he has done nothing; but she must certainly believe he has done something—otherwise she wouldn't refuse to admit his existence. What can it be?

He nearly makes up his mind to inquire; he is anxious to learn, as any sensible person would be under the circumstances, why and in what he has been slandered. But he remembers it is not his place nor his privilege. Etiquette has so decided; and he holds his peace with a canker gnawing at his content. While the woman is surprised and uneasy, he is troubled and humiliated, and for the same reason—because she deliberately violates a rule which good breeding has imposed and custom has sanctioned.

This being at cross-purposes defeats the very objects society has in view—agreeable intercourse, with exchange of ideas and opinions, between persons of culture and taste.

From the stand-point of society, man's presentation to woman is a privilege, and is counted as a pleasure, for she invariably has precedence there; in its consecrated walks she is held to be the superior creature. There is, happily, no question of the equality of the sexes in the purely social world, man's inferiority, within that strictly conventional domain, being a foregone conclusion. If she waits for him to greet her first, after a formal introduction, she puts it in the power of every man that may desire her acquaintance (and what womanly woman fails to believe there are many men longing for an opportunity to know her?) to claim it anywhere, at any time, without recourse to the proper and regular channels. She must speak first, or not at all, if she wishes to guard herself against intrusion, unconventionality, and social irregularity of every order. There is no need to point out the excellence, the advantage of the rule of etiquette as it at present stands. Women made it, and favor it in all instances where their own personality

is not involved. They should either favor it, and act upon it there, likewise, or abrogate it altogether—there is no medium ground.

Let the rule be strictly followed under all conditions, so that, when a woman does not recognize a man after an introduction, he may clearly understand that she declines to continue his acquaintance, and that, if he speak to her first, he must be set down either as an impertinent coxcomb or as a person ignorant of the laws governing good society.

JUNIUS H. BROWNE.

BEAUTIFUL INCIDENT.—The following incident from the annals of the late struggle between North and South, goes far to lighten up an era in our national history whose general character was saddened with suffering and death, and gloomy with evil portent:

In the spring of 1863 two great armies were encamped on either side of the Rappahannock, one dressed in blue, the other in gray. As twilight fell the bands on the Union side began to play "The Star-Spangled Banner" and "Rally Round the Flag," and that challenge of music was taken up by those on the other side, and they responded with "The Bonnie Blue Flag" and "Away Down South in Dixie." It was borne in upon the soul of a single soldier in one of those bands of music to begin a sweeter and more tender air, and slowly as he played it there joined in a sort of chorus the instruments upon the Union side, until finally a great and mighty chorus swelled up and down our army: "Home, Sweet Home." When they had finished there was no challenge yonder, for every band upon the farther shore had taken up the lovely air, so attuned to all that is holiest and dearest, and one great chorus of the two great hosts went up to God; and when they had finished, from the boys in gray came a challenge: "Three cheers for home!" and they went up, resounding through the skies, from both sides of the river. "Something upon the soldiers' cheeks washed off the stains of powder."



HOW THE FRENCH EAT.

FROM ALPHONSE KARR'S "LETTERS FROM MY GARDEN."

BYOND the questions of every day, there is one question which is of every age and country. We speak of bread. By bread, I understand food, for in France there is a prejudice in favor of bread. Suppose meat and vegetables of every kind to be cheap; suppose game to enter into houses, and fish to throw themselves on the shores; should there be no wheat, no bread, the French would consider themselves famished and would probably die of hunger.

They are the most rigid of modern Pythagoreans.

"You ask me," says Plutarch, "why Pythagoras abstained from eating the flesh of animals. On the other hand, I ask you, who was the first man who raised to his mouth the bleeding flesh of an animal which he had seen living; the first man who, belying our mother Tellus, and offending Ceres, the inventor of laws, and Bacchus, the consoler of men, accused them of not being able to feed us, and, to innocent vegetables, to the milk of herds, to savory fruits, added on his table corpses and bones, and, not content with the milk of the sheep, wished also to drink its blood and eat its limbs.

"And the animals which you devour, which you kill to satisfy lactitious and disordered appetites, are not ferocious and dangerous animals; you eat neither lions, tigers, nor wolves; you eat the lamb which takes grass from your hand, the hen and the pigeon accustomed to come at your call.

"And the proof that these humble aliments have been imagined more to satisfy your cruelty than your hunger, is that you are forced to conceal them from yourself. You do not, like the lion, tear the living lamb, and place its still warm flesh between your teeth. No, you kill it coolly, several days before you are hungry; you cause it to be cooked, you season it with spices and condiments of all sorts; otherwise your stomach would reject with loathing all these corpses which you can induce it to accept only by disguising them."

This is the substance of what Plutarch says: Alas! the most incontestable advantage which man has over other animals, is that he is competent to devour everything that exists, that which vegetates in the earth, ripens on the trees, swims in the water, flies in the air, roams over the plain or through the forest, to drink the milk of flocks, the juice of the vine and the blood of animals. If he does not eat men, it is because their flesh is hard and tough. The jaws of man present a complete collection of all the sorts of teeth known among animals; this jaw is the most complete, the only complete arsenal of this kind which Nature has formed.

So I pardon man for eating meat, though it sometimes appears to me a little queer to see at table an elegant, delicate, sensitive woman, say to you virtually: "What limb of this corpse shall I offer you?" and praise such or such a part of this dead body in

form of a funeral oration, to entice you to devour more. The necessity alluded to by Plutarch, of concealing, if not from the stomach, at least from the imagination, the corpses on which man feeds, has imposed on the animals which are served up on the table names different from those they bore while living:—"meat," for flesh; "mutton," for sheep; "beef," for cattle, etc. It is only to be regretted that this were not more general, and this dictionary more complete. I do not like the custom of serving up a hare with the skin on the paws, or a pheasant with the plumes of its tail arranged. Whatever reminds us of the life of what we eat is cruel and repugnant. I prefer not to know, or at least not to recognize them.

But if the Frenchman is a Pythagorean because he prefers bread to everything else, because he can not do without it, it is not through abstinence. Those among us whom money or other habits permit to eat of everything—animals, fish, etc.—eat bread as well as those who eat only bread.

We speak here only of the anatomical right. Man is born with the right to eat—his necessities, his stomach, his teeth, are his authority. Society has assumed the surveillance of this right of eating, submitting it to restrictions, to conditions. She has afterward regulated in their turn these restrictions, these conditions, these modifications, which would soon have resulted in negation. This double surveillance is the subject, starting-point, and the object of all the laws, as it is the object more or less direct of all the efforts, all the tendencies of man. I except true poets, who are a variety of the species, and true lovers, who are the invalids, as it is said. *Magister artis, ingenique largitor*, says Perseus.

It is the stomach which has taught us everything and given us invention and genius.

It seems to me that in theory we do not give to bread, that is to sustenance, the importance which it has practically. Thus, I am often astonished at one thing: we have acquired the habit of giving, as the only barometer of public prosperity in France, the price of stocks at the Bourse of Paris. Why is it exclusively the price of stocks

which indicates, as the low-water-mark of a bridge indicates the high and low tides, the situation of public prosperity? Why should it not be also the price of almonds or of umbrellas? or rather, to speak seriously, why should it not be the price of grain? Why should it not be prosperity itself, instead of one of its signs? You will tell me that there are certain things to be regarded before deciding whether prosperity could be ascertained by the high or low prices of grain. Agreed; but what prevents them from being regulated? For example, if everything depended upon the price of grain, as that would naturally be, without the sometimes immoral stock-jobbing and speculation which is made upon grain, the cultivator would not have to fear on one thing which he sells, a fall in the price which would affect at the same time everything which he buys. But we have not room for these details in the dimensions and form of this article. It is especially in speaking of things useful that we must avoid being long or tedious. I leave it for others to fathom the subjects which I can but point out and touch upon.

There should be no famine in France. France can furnish more grain than she can consume; besides, meat, farinaceous food of all sorts, and vegetables may easily be added. We are then to occupy ourselves solely with the possible dearness of grain. With proper care, there should never be dearness, for high price is not dearness. Suppose, in fact, the fields waving with golden harvests, the trees laden with fruit, the granaries overflowing; suppose grain at the lowest price it has ever been; if you have no money this low price is for you dearness. Bread is dear at a *sou* the pound if you have not that *sou*. In face of this abundance, you are a Tantalus dying with thirst in the midst of the waters.

Suppose, on the contrary, the harvest only tolerable, or scanty; grain, we have said, can not fail. Thanks to its variety of climate, France gains on the one hand what she loses on the other. Suppose this grain at a high price, at a very high price even; if you have much money, you need not suffer, you pay much, but you do not pay dear. It

is only necessary, therefore, to avoid dear-ness, that grain should be sold only in proportion as you have money : at a high price when you have much money, at a low price when you have little; but to arrive at this result, which at first sight appears absurd, that is to say, impossible, we must reverse the question, as Mahomet did, who, having ordered a mountain to come to him, and seeing that the mountain was disobedient, or at least was v^gry slow to obey, said : " If the mountain will not come to me, I shall go to the mountain ; the result will be the same."

If the price of grain can not rise and fall in proportion as you have money, have money in proportion to the price of grain. Nothing is so simple, notwithstanding the appearance. Manufactures, especially in England, have established a dangerous contest. The object is to manufacture at the lowest possible price. Thus manufacturers have economized first on the purchases, on the combustibles, on the preparations ; they have economized by order, by innovations, etc. When they have reached the end of these economies, they have economized in manual labor. We are assured that there are in England laborers who scarcely eat. The triumph would be to have those who did not eat at all. But it is doubtful whether the human species can attain so great perfection. For want of this, machines have been invented ; machines do not eat bread, but they consume coal. Besides, we must still have men to manage them, and these men must have bread.

Well, one method of lowering wages proportionally is to lower the prices of provisions ; this should be the object. But, at the same time, in order that the prices of provisions may be lowered without reducing those who produce them to famine, the prices of everything else must be proportioned to this, whatever it may be. That is so true, so necessary, that, by the force of things alone, it is settled nearly thus : in countries where the living is dear, wages are higher. Therefore, we repeat, it would be more reasonable to take the price of grain for a sign of prosperity and a universal regulator, than the prices of stocks at the exchange.

Man, in a material point of view, is a machine, which is wound up by the stomach ; so whatever can make living cheap, that is to say, render life easy, is a matter in which I have great interest. Parmentier, who endowed France with the potato, has not had, I hope, in public opinion, the rank which is his due. Men expend their admiration first on those who do them harm, then on those who amuse them. Let a real benefactor of humanity present himself, they have no more money.

Invent to-morrow a gun which will kill men farther off than another, devise a bomb which shall vomit death under forms more varied than ancient bombs, find a fire which can not be extinguished and whose ravages it would be impossible to arrest, attention will be earnestly excited, committees nominated, learned bodies will make reports, they will give your name to the fire, to the bomb, or to the fusil. But discover a new aliment, or imagine a method of rendering its production more easy and consequently the price less high, and no person will pay attention to it. Meanwhile, if a dish of luxury is in question, something useless and very dear, it would not be impossible to interest people in it. But when Parmentier persevered in attempting to introduce the potato as an article of sustenance, he was compelled to struggle nearly all his life ; then, when these roots had been adopted (which was not immediately, for this tuber was introduced into France about 1620, and Valmont de Belmare, in 1775 again re-asserts the unhealthy and poisonous qualities which had been attributed to it) ; then, when this present had at last been accepted, the name of Parmentier, which a just gratitude should have given to it, was withheld, while we have always Lefaucheux guns, Paixhan bombs, etc.

France, vanity apart, is a truly fortunate country. Its climate, which possesses all the temperatures of other countries, with the exception of extreme heat or cold, has permitted it to acquire and appropriate almost all the productions of the entire world. Most of our fruits are of foreign origin : the peach-tree comes from Persia, the apricot from Armenia, the cherry from the Kingdom of Pontus in Asia, the plum-tree from

Syria, the almond-tree from Greece, the mulberry comes to us from Persia, and the white mulberry from China; the potato, the crop of which is valued in France at two hundred millions of francs, was brought from Peru; rice comes from America, etc. A whole paper would not suffice to give a catalogue of all the fruits, vegetables, and flowers, the true capital of the world, which are acclimated in France.

There are other productions which live here only in the hot-houses of the Jardin des Plantes of Paris. I believe that a cup of coffee produced by the coffee-trees and sweetened by the canes confided to the direction of M. Neumann could not be had for less than five hundred francs; this is the reason why we daily see ships go to seek for the coffee of Parisian porters and the tea of the ladies, coffee and sugar in America, and the leaves of the Chinese shrub.

We must not, in favor of these foreign plants, neglect and forget their equivalents originating in France or naturalized with us. Not to mention the bees which give us honey and wax, with which we were satisfied before we had the juice of the sugarcane, and the brains of whales to make our candles; we know at present how to extract sugar from everything. Learned men have recently made sugar from rabbits; they have discovered that by puncturing in a certain manner a certain spot in the brain of rabbits, their blood is changed into sugar. A report on this subject has been made to the Academy of Sciences.

It is especially when I am dissatisfied with the creature, that I contemplate with pleasure the gratuitous benefits with which the Creator has loaded man. One of the things which charmed me in my residence on the sea-shore, is that we can not die of hunger there, while it is very easy elsewhere; every time the sea retires and leaves a part of its bed, it offers to the dwellers on its shores at least wherewith to appease their hunger; crabs, limpets, and several other shellfish, with many other gratuitous harvests which Providence has reserved for those of his discontented children who have no lands. It must be confessed that they allow much to

be lost. Thus, I have been assured that the Germans are very fond of snails, which are eaten in France by very few; while these same Germans have a horror of frogs, which pass here for a delicate dish. The stomach acquires habits, you see. I have been told also that the Persians abhor the sturgeon, that the Russians eat neither shad nor craw-fish, and that the Icelanders have an invincible repugnance for the eel. In certain provinces of France, they eat adders under the name of hedge eels; the Chinese eat birds' nests; the inhabitants of the islands of the Pacific consider little dogs a savory dish; in many countries they eat horse-flesh; people who have eaten of the cat assert that it can not be distinguished from the rabbit. I have seen many hunters eat the owl with pleasure and compare it with an excellent chicken. Not to speak of these extreme resources, for the repugnances of the stomach, that tyrannical viscera to which we are all slaves, are often invincible. There are many things lost which would be a great resource for the unfortunate, in two ways: first, by furnishing them a more or less agreeable aliment, afterward by increasing the disposable quantity of the other productions of which I have spoken.

On the coast in the environs of Havre as well as on the other side of the water, on the shores of lower Normandy, and doubtless on almost all sea-shores, when the sea retires, it leaves uncovered the fields of the poor, that is to say, a certain number of plants which grow in the depths of the sea are not only edible like certain vegetables of the land, but have also a savor as agreeable as the latter. The *ulva lactuca*, which has a little the appearance of common lettuce, is eaten raw or cooked. It is the same with the *ulva lanceolata* and some others. We may also eat the *fucus saccharinus*, and the *fucus palmatus*. Several Asiatic nations make great use of algæ and varechs; and the swallows' nests, so delicious to the Chinese, are composed by the esculent swallow of the *fucus* and other marine plants.

I have not, myself, eaten their various algæ, and speak only from hearsay; but I have several times eaten, and with as much pleas-

ure as any terrestrial vegetable, the most common of all on certain parts of our coasts, the *christe manna*. The *christe manna* has the flavor of spinach and parsley, and is prepared in the same manner; it is but a few years since it has been eaten; there are made of it, for sailors, very healthful preserves, less costly than other vegetable preserves, the use of which exercises a happy influence on the health of passengers and crews in voyages of long duration; but very few persons gather, prepare, and eat this manna of the shores—even among those who have nothing to eat but bread, and that of an insufficient quality—and yet they have but to *scoop to take it*, as is vulgarly said; this aliment, very healthy, and very agreeable, is in so abundant quantity that it might be gathered with a sickle. I have heard it asserted that on the shores bordering Havre alone might be gathered enough to feed for ten days the whole department of the Lower Seine.

Many of the inhabitants perform on these very shores a rude and fatiguing labor, the result of which is at most to feed their families, and do not think of collecting the *christe manna*. When you speak to them on the subject, they grow angry and say to you: "Why do you not tell us to eat the herbs of the field like animals?" It is in vain you explain to them that all men eat herbs: that sorrel, spinach, cabbages, salads, etc., are herbs of which people eat the leaves; that salsify, carrots, turnips, and potatoes are herbs of which the roots are eaten; that asparagus is an herb of which we eat the bud; that the artichoke is an herb of

which the flower is eaten, still in the bud; that beans and peas are herbs of which we eat the seeds; they repeat that herbs are not made to be eaten by Christians. It is only example which can bring the dwellers on the sea-shore to avoid trampling underfoot this wasted wealth, and this example must come from rich people. When so many difficulties were found in establishing the alimentary use of potatoes it was necessary, and this was not without influence, that King Louis XIV. should love them much and eat them daily. The fashion was also introduced of wearing the white or violet blossoms in the headdresses of the ladies.

I do not consider the *christe manna* as an alimentary conquest of the value of the potato; but, I repeat, it is healthful and pleasant food, and has over the potato this advantage, that those who have neither money nor land may pick it up; and, while awaiting the ameliorations of which I have spoken at the commencement of this article, we should not neglect similar resources.

Meanwhile, there is one circumstance which should make us reflect on the aliment of Parisians at least. In their city, of which Peter the Great said, in another point of view, "If I had such a city, I would destroy it, lest it should devour my empire," in this city which produces neither a cabbage nor a pea, official calculations have established that there enter each day for the sustenance of the city, 2,774 carts; 190 beasts of burden, and 611 baskets, laden with provisions, and that there are still, here and there, people who might eat a little more without dying of indigestion.

"ON DOCTORS."

IN the January Number of the PHRENOLOGICAL JOURNAL, under the above caption, appeared an editorial which suggests many important points, a few of which I shall attempt to supply. I am impelled to this by a strong feeling of what is due to all medical men (myself included), and to each one of the humblest of my countrymen.

The article begins with a reference to the case of President Garfield; justly saying that "The case of Mr. Garfield has prob-

ably done more than any other thing, in the annals of American medicine and surgery, to awaken the public mind to a realization of the large margin of possible mistake in the diagnosis of a physician." And it certainly ought to, if it does not, "remove the blind, and almost superstitious, dependence upon the wisdom and potency of the doctor."

Doctors' mistakes are like those of the lawyers and legislators, not always uncov-

ered for public inspection; but in this case the autopsy showed how wide of the mark the best of surgical guessing may shoot.

I have not the least doubt but that the attendant surgeons, in this case, were as capable of diagnosing and treating our late President, as would have been any medical men in the world: being, as they certainly are, posted in their art as it exists. Nevertheless, now that the truth is known, it is hard to find a doctor or any other man who did not all the while know that these gentlemen were wrong, and who could not have saved the wounded man had he been in their hands. I have just read in a New Orleans paper this clause: "Dr. S——, of this city, but now in New York, writes that 'The wounds of Gen. Garfield were not necessarily fatal, and with proper treatment he might have recovered.'"

The editor adds: "There is food for reflection here, as Dr. S—— is competent authority." Yes; and my reflections lead me to conclude that Dr. S—— is typical of a very large class of medical men, and true to the presumptuous instincts of too many of his class, he is inclined to parade himself before the world as proficient in the healing art.

This horde of infallibles will never make exactly the *same* mistake made by Drs. Agnew and Hamilton, because after the lesson of this case none of them will ever locate a ball far from the region in which Guiteau's missile was found; nevertheless a bullet *might* lodge in the groin of some of Dr. S——'s clients, and at the autopsy stubbornly refuse to appear on the back—where the Doctor might have located it.

Claiming for the "healing art" the position of exact science, has done great injury both to physicians and the people. It leads the young practitioner to suppose that what he has read in his text-book and heard from the professors at college is positively true, and that as a rule he must continue through life to draw his conclusions and regulate his practice in accordance with it, instead of making his own daily observation and experience the basis for a course of reasoning that might eventuate in the establishment of scientific means for the cure of bodily

ills. In medicine it is as it has always been elsewhere; our progress will be in inverse proportion to the abstract value we place upon what we are pleased to call our learning.

Claiming too much for our art is an evil and likely to give annoyance, especially to the very best of medical men; for in case of failure, the knave and pretender can point to the failure as a proof that the doctor is not learned in his calling; and shall not the public believe him after being taught that medicine is a science?

The most striking mistake made by the President's medical attendants had its foundation in professional vanity; and that being an almost universal weakness of the craft, it should produce shame rather than censoriousness in the minds of all. I refer to the habit of dogmatic assumption; the claim, for our art, of a scientific accuracy that it does not possess. Of course those gentlemen knew that, beyond a finger's length, the course of a bullet through the body was as uncertain as the flight of a bird through the air, and as undefinable as the track of a ship upon the ocean, and it would have been better for the reputation of all concerned if they had possessed the courage to have said: "We don't know where the ball is."

Such confessions as this every physician has frequent occasion to make to himself, but he seldom is brave and true enough to speak out, because it gives his knavish and pretentious professional neighbor a chance to impute the blame to him instead of placing it where it belongs, viz.: to the paucity of absolute knowledge within the reach of any member of the profession. It is the constant boast of the profession that great improvements have been made in the healing art during the last few years. Such was the boast thirty years ago, as well as to-day, and if we take the pains to see how much truth there is in it we find in the midst of a great deal of twaddle about scientific discoveries in medicine, a very few positive *additions* to the resources of cure; but the progress in a negative way has been indeed gratifying, for we have repudiated and discontinued many things that were hurtful, and if this good work continues until the

pharmacopia is but a blank sheet, we may be able to start anew and build up a treatment only so fast and so far as well-understood principles will warrant. Then we may claim a solid and scientific basis, but not until then.

In the medical profession are many excellent men conscientiously doing what they can for those who trust them; will they not speak out and tell the world that as for results "there is nothing certain but uncertainty"?

It is not my purpose in this communication to criticise the practice of any medical man, but simply to call attention to the imperfect condition of so-called medical science, and upon this as a premise to de-

nounce the effrontery of those medical schools, associations, and the tools thereof, who claim the right to decide for the American citizen who shall prescribe for his family, under the false pretense or plea of protecting him from "ignorance and quackery." How absurd to talk of regulating the practice of medicine by relegating it to such a tribunal.

I am a practitioner and hold a diploma from a "regular" medical college, but if another man who has never seen a medical college, or indeed any other kind of college, can demonstrate to the people a capacity superior to mine for treating the sick, who in the name of common sense shall forbid his being employed in my stead?

J. N. L., M.D.

A "SOCIETY" GIRL'S SOLILOQUY.

They tell me my face is fair,
That my form is full of grace,
And yet I am doing my best—or worst—
To spoil this form and face.
Ah, well do our censors say
That woman is wofully weak,
For we hug the chains that gall us so,
And refuse an escape to seek.

I could scream with the pain, and I do,
When Parker my waist so pinches ;
But Fashion decrees that it must be
At the most but sixteen inches.
And it's lace ! lace ! lace !
Till I gasp for each breath I take,
And often long in the torture keen
That the stay-cord would but break.

'Tis the same from top to toe—
My boots my feet pinch in ;
My jersey, Fashion's latest fad,
Clings close to me like a skin.
And it's tug ! tug ! tug !
When that garment they try to doff ;
The caricature can't be too strong
That tries to "take it off."

My hands are forced into gloves
A size, at least, too small ;
My dress so clutches me round the knees
That I fear every step to fall.
I am nowhere free ; my arms
By tight-cut sleeves are clipp'd,
My neck is spanned by a golden band,
And by stiff, starch'd linen nipp'd.

But why do I dwell on this ?
Worse secrets I have to tell,
If secrets you can esteem the tricks
Which the world knows all too well ;
The rouge, the chalk, and the paste !
The hare's-foot and the dye !
The washes, the pencils, cosmetiques !
Which Fashion's votaries try.

False ! false ! false !
And the list is one to shame !
But it's not the fashion now to blush
When these toilet aids we name.
There's our hair ; well, that is false,
To a greater extent or less ;
And the lover who steals a lock ne'er knows
Whose hair he may possess.

And our faces ! oh, who shall tell
The labor which they involve ?
The washes we boil, the pastes we mix,
The unguents we dissolve.
Paint, and powder, and patch,
Patch, and powder, and paint,
Till the heart is sick and the fingers tired,
And one's very spirit faint.

Paint ! paint ! paint !
Till the "roses" will stand the light ;
And paint, paint, paint
In a style that is fit for night ;
While the eyes are deftly lined,
And lips with colors traced,
And one's alabaster brow and bust
In enamel are duly cased !

Oh, what would I give to be
 The free, fresh girl of yore,
 To cut my corset-strings,
 And to powder and paint no more!
 Oh, but for one short day,
 To feel as I used to feel,
 Ere cruel Fashion bound me tight
 In her bands of bone and steel!

Oh, men with sisters dear!
 Oh, men with sweethearts and wives!
 'Tis to gain your smiles, remember this,
 We are wearing out our lives.
 Remember, and interfere,
 Have pity, and come to our aid,
 And 'gainst our tyrants merciless
 Lead us on a new crusade.

—London Truth.

ABOUT GRAHAM BREAD AND GEMS.

MR. S. E. TODD, SR.:—In the July Number of the PHRENOLOGICAL JOURNAL for 1881, is an article from your pen on the subject of Graham bread, in which you hint at the ideal after which my wife has been pursuing for years without attaining or accomplishing it. I grow my own wheat—the celebrated Dakota No. 1 Hard; bought a mill on purpose to grind my own Graham flour. My wife makes SUPERB Graham bread and biscuit when leavened or raised with baking powder; but she seems to have failed to produce “Graham gems” without either yeast or baking powder. Now, can this be done? I know the PHRENOLOGICAL JOURNAL and all other hygienic papers *claim* it can be; but I have never yet seen it done. I should be infinitely obliged if you could enable me (or rather my wife) to solve this secret. I am half ashamed to write you to ask the question; but thought I would venture to trouble even a stranger to explain the *modus operandi*. If you will favor me with a reply, I shall be lastingly your debtor.

Yours very obediently,

J. MORLEY WARD.

Sanborn, Dakota Territory.

Having received the above letter recently, instead of writing to my correspondent, I offer my reply through the PHRENOLOGICAL JOURNAL, he being a reader thereof, and because most of its readers are more or less interested in this subject; and further, because what I say confirms what your contributor, Mira Eaton, has said in her excellent prescriptions for the table:—During the past thirty-eight years of my life, my wife has been accustomed to make Graham bread; and I may be allowed to state, that during all that period she never made an unpalatable loaf. She is really an expert of long experience. As she is not an expert with a pen, I have talked and catechised until I have the desired information, in a small compass. Perhaps a re-

hearsal of our conversation on the subject will aid many a reader of the JOURNAL in his or her efforts to make light, sweet, and luxurious Graham bread and Graham gems. I commenced thus: Wherein consists the secret of your uniform success, by way of making such superb Graham bread and gems, while some other makers of good white bread utterly fail? “There is no secret about the matter. Graham bread is not made as I make white bread. A dough is prepared for making white bread. But when I make Graham bread and gems, a stiff batter is made.” How stiff do you make the batter? “Well, about as stiff as it can be stirred easily with a spoon.” Do you ever make it stiff enough to knead? “No. Then it would be dough, and not batter. It is very important that the batter be made of just the proper consistence. It must not be so thin as to be sloppy, nor so thick that it seems like very soft dough. A beginner must exercise not a little observation so as to prepare the batter just right. If the batter is too thin, the bread or gems will not be light. Cousin Doubleyou says that the right degree of heat is the most important part in making Graham gems, without yeast or baking powder. He himself always supervises the baking. When the oven is just hot enough, he says he puts in the gems or bread; and they always have just the nicest gems I ever ate.” Well, how can I tell this inquirer to heat his oven just right, so that it will be neither too hot, nor not as hot as it should be? “Cousin Doubleyou always thrusts his hand into the oven; and I do the same. After a little experience one can tell when the oven is too hot, or not quite hot enough.” I suppose that this is somewhat like popping

corn? "Yes; exactly, so far as the proper degree of heat is concerned." When we pop corn, if there is not a sufficient degree of heat, the corn will be browned and cooked through and through; but it will not pop? "Yes; that's it." Then you know, when the heat is too intense, the corn will be scorched and burnt, before it will pop. Isn't that so when making Graham bread and gems? "Yes; that's it exactly." Now, wife, I fancy the philosophy of the success is like this: Graham flour is composed of very small grains or granules; and when you expose the batter exactly to the proper degree of heat, all these little granules pop open and expand, similar to popped corn, thus making light and corky bread. "Yes; that's it exactly." But, when you don't get your batter of the right consistence, and put it in the oven before the proper temperature has been produced, the little granules will be heated and cooked through before they become hot enough to pop. "Yes, sir; that's it; and that is why so many fail. They mix their batter too thin; and then put it in the oven before the heat is half as high as it should be. In this way they get hard and heavy bread." Now, when you make gems you stir the Graham flour into warm water until you make it just stiff enough? "Yes, sir." How much salt? "Oh, just a pinch, say a teaspoonful per loaf; but don't put in too much." Then you turn the stiff batter into gem-pans, and bake with a brisk and quick heat? "Yes; and if the heat is just right, gems (without yeast or baking powder) will be as light and spongy as the best of pound-cake; and we get that rich and luxurious taste of fine wheat, which I could never taste except in Cousin Doubleyou's Graham gems and in my own." You never use yeast nor baking powder at all? "No, never. We never need it. Why, when they are so light and spongy and not at all doughy or clammy, what do we want of baking powder? If the flour is made of the best of wheat, and one will be careful to produce exactly the right degree of heat, he can make Graham gems that a prince might eat with excellent gusto."

SERENO EDWARDS TODD, SR.

THE SUPERIOR PHYSIQUE OF THE NORWEGIANS.—An English observer writes that of 10 children born in Norway, a little over seven reach their twentieth year; that in England and the United States of America somewhat less than seven reach that stage; that in France only five reach it, and in Ireland less than five. He tells us that in Norway out of 10,000 born, rather more than one out of three reaches the age of seventy; in England, one out of four; in the United States, if both sexes be computed, less than one out of four; in France, less than one out of eight, and in Ireland less than one out of eleven, and he adds this significant computation, based on what may be called the commercial view of the vital question: In producing dead machinery, the cost of all that is broken in the making is charged to the cost of that which is completed. If we estimated by this same rule the cost of rearing children to manhood, comparing the number of years lived by those who fell with the years of those who passed successfully to the age of manhood, there would be found between the two extremes presented in Norway and Ireland—both, be it observed, unnatural—a loss of 120 per cent. greater in the first year of life, 75 per cent. greater in the first four years of life, and 120 per cent. greater in the years between the fifth and the twentieth, in Ireland than in Norway. In Norway the average length of life of the effective population is 39 and rather more than a half years, in England 35½ years, in France not quite 33 years, and in Ireland not quite 29 years. Thus, again comparing the best with the worst of a scale of vitality, in which both are bad, in Norway the proportion of the population that reaches 20 survives nearly 40 years, or four-fifths of the effective period, to contribute to the wealth of the community; while in Ireland the same proportion survives less than 29, or considerably under three-fifths of the effective period.

THE king of Abyssinia, it is said, has a very effective method of preventing the tobacco habit from spreading in his dominions. He cuts off the noses of those who snuff, and the lips of those who smoke!

KITCHEN LEAFLETS.—NO. 5.

VARIETY—WHEAT-MUSH, GEM EGGS, ASPARAGUS, STRAWBERRIES.

THE civilized appetite demands variety in food. In my last I had something to say on the necessity of neatness in the setting of a table; now it is fitting to speak of variety. There are some people—I have heard of them—we never saw one of them—who can live on the same articles day after day and be contented. I pity the woman who keeps house for them; such critics as they must be after so much experience, on the food of their monochrome choice, and so dull must be the home-life they preside over; for monotony in food, as in other things, begets dullness.

By variety in food I do not mean a spread of many different articles on one table, but changes from day to day. The food of dinner should differ in some respects from that of breakfast, and the dinner of Tuesday may exhibit a toothsome dish quite different from a dish that was served on Monday to the general acceptance of the family. Now is it possible to have variety and yet keep within the limits of simplicity and healthfulness? I answer, yes. There are thousands of women who are kept on the strain to provide frequent changes for breakfast, dinner, and supper, because they think that something elaborate must be served at each meal. They spend hours in getting up a single dish; and often to their chagrin, a common biscuit or a single vegetable is declared to be "just the thing," because the latter has come out of the oven or steamer *well* cooked. It is a waste of time and brain-power for women not professional cooks to fret and worry over complicated dishes. In my experience they have never paid. But the thoughtful housekeeper can, by a little change in form, alter the appearance and taste of a dish, yet not affect materially its nutritive properties. Any one of the grains, wheat, oats, corn, rice, barley, may be manipulated in a hundred ways, and yet simply and with excellent results. So also with the common vegetables, each is susceptible to many methods of treatment, none of which need be tedious.

I have in my collection of manuals for the kitchen, one which has been much advertised, much sold, and much lauded. It has some creditable features, and I have found here and there a hint of value, but the greater proportion of its recipes have one fault—that of complication and expensiveness; so that it is not the cookery guide I should commend to the young wife of a clerk with a small salary.

Warm weather is now at hand with its contributions of fruits and green vegetables, fresh from the garden, and with its suggestions of food less abundant in carbon. I have, therefore, sought to furnish in the recipes which follow, dishes appropriate to the season.

CRUSHED WHEAT MUSH.

Take two tea-cups of fresh and clean crushed wheat; put it on to cook with about three pints of cold water, using the double or "farina" boiler to prevent burning. Pour hot water in the under kettle, and cook about two hours after the water begins to boil, and serve the same as oatmeal and other grain.

CRUSHED WHEAT AND GRAHAM ROLLS.

Work graham flour into cold, crushed wheat mush, keeping the dough so soft it can scarcely be rolled out an inch thick; cut into forms with a biscuit cutter and bake quickly in a hot oven. These make excellent breakfast biscuits, which are more solid than those made from oatmeal mush. Do not knead the mixture much—only stiff enough to roll out lightly.

GEM EGGS.

Place the gem-pans on the top of the stove, and when hissing hot, grease with good sweet butter, and break the eggs into the pan, one for each; cook about five minutes. Have a warm platter ready, and remove each egg with a knife and serve. These make a pretty dish for the breakfast or dinner-table.

STEWED ASPARAGUS.

Cut all the green and tender part in small pieces; stew gently (in a pipkin) with but little water for about half an hour. Milk gravy is suitable as a dressing—made as below.

BOILED ASPARAGUS ON TOAST.

Cut off the white or hard ends of the sprouts and wash lightly, then tie them in bundles of six

each, and drop them into boiling water sufficient to cover; boil gently about twenty minutes, or until tender; cut and remove the strings. Have some toast on the platter, and carefully place them on it lengthwise. Milk gravy may be used as the dressing.

ASPARAGUS TOAST.

Split some graham or gluten gems and toast them slightly, then dip them while hot into the water in which asparagus has been boiled, and lay them on the platter on which the asparagus is to be placed. White raised bread can be used in the same way, or *stale* gems split and simmered in milk until soft.

SPINACH.

Wash the plant carefully in an abundance of water, then rinse well and put into a pot with no water except what clings to it from the rinsing. Cover closely and cook gently from twenty to thirty minutes. Take up in a colander, and place over the pot to drain—covering to keep warm. Serve warm in a covered dish. Milk gravy or egg sauce is a nice dressing.

MILK GRAVY.

One pint of good sweet milk.
Two teaspoonfuls of white flour.
One beaten egg.

Boil the milk; dissolve the flour in a little cold milk, stir into the hot milk, and then add the beaten egg; mix well; allow it to boil up once, then immediately remove from the fire, and serve.

STRAWBERRY SHORT-CAKE.

One quart of flour.
Three tablespoonfuls of butter.
One tea-cup of milk.
One egg.
One tablespoonful of white sugar.
One and a half teaspoonfuls of Royal baking-powder.

Sift the flour, with the baking-powder well mixed in it; then chop the butter through the flour; beat up the egg and stir that in the milk, pour it in the flour; mix well; turn out on a floured kneading-board—now take a knife and divide the paste into two parts. Roll lightly and quickly one part, and place it on a greased jelly-cake tin; then roll the other part—place that on the first and bake both in a hot oven until done. While warm—not too hot—separate the layers, taking off the upper one—they will come apart easily. Spread upon the lower a thick layer of strawberries; sprinkle powdered sugar among and over them, and cover with the other crust. Return the pan to the oven and leave it there long enough to warm slightly, but not heat through. Send to the table whole. This may be eaten with sweet cream or other dressing. Never wash strawberries unless it *must* be done, and then do it before they are hulled. Use a large bowlful

of water, and put a few berries in at a time; stir them lightly with the hands until clean, then skim them out and hull at once. Much handling takes away the freshness and flavor of the fruit.

STRAWBERRY JAM.

Look the berries over carefully and weigh them. If liked, add one pint of red currant juice to every four pounds of strawberries. I think this addition an improvement. Allow three-quarters of a pound of sugar to each pound of berries. Boil the currant juice with the strawberries half an hour—stirring all the time, then pour in the sugar (warmed a little) and let the whole boil rapidly for about thirty-five minutes; skim off all the froth. Now pour into a stone jar, and when cool, cover the surface of the fruit with tissue-paper, and over that a close-fitting jar-cap. Set away in a cool, dry place. Raspberry jam can be made in the same way.

CANNED STRAWBERRIES.

Strawberries intended for canning should be large, firm, and not over-ripe or soft. Put them in the canning-kettle with one-quarter of a pound of sugar to each pound of berries; cover closely and cook gently for five minutes (have the cans set in a pan of hot water, so that the hot fruit will not crack them)—remove from the fire—fill the cans and immediately seal. Turn the cans upside down, and let them stand until cool; if not air-tight the juice will then ooze out. When cold and perfectly tight, set the cans away in a cold, dry, dark place. Of course, glass cans should be used—new, or perfectly clean.

FROSTED STRAWBERRIES.

Beat up the white of an egg in two tablespoonfuls of water; take large ripe berries, dip each one in the mixture and then roll it lightly in crushed sugar which has been rolled fine; place the sugared fruit on a dish and let it stand six hours before serving.

MIRA EATON.

HOT MILK AS A RESTORATIVE.

Milk that is heated to much above 100 degrees Fahrenheit loses for the time a degree of its sweetness and its density; but no one fatigued by over-exertion of body and mind, who has ever experienced the reviving influence of a tumbler of this beverage, heated as hot as it can be sipped, will willingly forego a resort to it because of its having been rendered somewhat less acceptable to the palate. The promptness with which its cordial influence is felt is indeed surprising. Some portions of it seem to be digested and appropriated almost immediately; and many who fancy they need alcoholic stimulants when exhausted by labor of brain or body will find in this simple draught an equivalent that shall be abundantly satisfying and more enduring in its effects.

NOTES IN SCIENCE AND AGRICULTURE.

Brain-Growth and Civilization.

—In the *Scotsman* of Edinburgh, that newspaper which the epistolary correspondence between Spurzheim, the two Combes, and Sir William Hamilton, rendered specially famous in the opinion of phrenologists, a writer thus epitomizes late opinions on the topic embraced by the caption of this item. He says: "In a progressive civilization, such as prevails in this country and throughout the greater part of Europe and America, there is reason to believe that the cranial capacity of the population is, on the whole, increasing rather than diminishing. Owing to the want of early observation, it is difficult to institute comparisons between past and present. An opportunity, however, lately occurred in Paris, which was taken advantage of by M. Broca. In digging the foundation of a new building, a vault was opened containing a large number of skeletons, whose surroundings proved them to have lived not later than the twelfth century. M. Broca found the average capacity of 115 of those twelfth century skulls to be 1,426 cubic centimetres; while another series of skulls—125 in number—taken from a cemetery belonging to the early years of the present century, gave an average of 36 cubic centimetres more. The average Parisian skull would thus seem to have increased considerably in capacity during seven centuries of progressive civilization. That this increase has gone on slowly but surely as man progressed from barbarism to civilization may be inferred from a study of the cranial capacities of the various human races. Thus, while the brain capacity of the European amounts to 94 cubic inches, it is only 91 in the Esquimaux, 85 in the Negro, 82 in the Australian, and 77 in the Bushman. These are merely averages, and, as such, do not bring out the important fact lately noticed by Le Bon, that among the lower races the limits of variation in the cranial capacity of individuals of the same sex are much less extended than in the higher races. Thus, among modern Parisians large and small skulls vary by about 600 cubic centimetres, while negro skulls vary only by 204, and ancient Egyptian by 353 cubic centimetres.

"Another important difference in the cranial capacity of the higher and lower races is connected with sex, and serves to throw light upon the influence of mental exercise in increasing brain capacity. According to Prof. Bischoff, of Munich, in a recently published work, the difference between the average brain-weight of men and women is 10½ per cent. Much of this is undoubtedly due to difference in stature, a tall person having, *ceteris paribus*, a larger brain than one less in height; partly, however, it is attributable, there can be little doubt, to inferior mental training. Among the lower races, where the women have not only charge of the offspring, but have also to share, and that largely, in

the husband's occupations, the brain capacity of the two sexes shows much less difference. The difference, according to Le Bon, between the average capacity of the skulls of male and female Parisians is almost double that found to obtain between the skulls of the male and female inhabitants of ancient Egypt. Civilization, by giving increased exercise, especially to the male brain, has, there is good reason to believe, gradually produced that increase of brain capacity which now distinguishes the civilized from the savage races of mankind. Nowhere has this influence been more conspicuous than in China, whose culture, if not of the most advanced kind, has the advantage over all others in the great length of time it has endured. The Chinese are, as might have been expected, a big-brained people; indeed, the only statistics of Chinese brain-weights available show them to exceed all other nations in this respect. A few years ago the brain-weights of eleven adult male and of five female Chinese—the chance victims of a great typhoon at Hong Kong—were obtained. These belong, with one exception, to the Coolie, or lowest grade of Chinese society, and yet the average brain-weight of the males reached 50½ ounces, and that of the females 45½ ounces. This is an average not attained, so far as yet known, by any other nation, it being fully two ounces above that of the average negro, one and a half ounces above the European, and one-half ounce above the average Scotchman. That civilization has been the main cause of increase in the size of the brain there can be little doubt. To admit, therefore, that the heads of the British people are now growing smaller, would be to confess that the resources of civilization were indeed exhausted, and that, as a people, we had begun a retrograde journey toward the barbarism from which we originally emerged."

How to Make Brick Walls

WATER-TIGHT.—The Sylvester process was successfully applied to the interior walls of the gate houses of the Croton reservoir in the Central Park in this city, in 1866, on the advice of the late William Dearborn, C.E., and under the immediate supervision of George S. Greene, Jr., C.E., now the Engineer in Chief of the Department of Docks.

The process and its results in this case are described fully by Mr. Dearborn in a paper read by him before the American Society of Civil Engineers, May 4, 1870.

The process consists in using two washes or solutions. The first composed of three-quarters of a pound of castile soap dissolved in one gallon of water, laid on at boiling heat with a flat brush. When this has dried, twenty-four hours later apply in like manner the second wash of half a pound of alum dissolved in four gallons of water. The

temperature of this when applied should be 60° to 70° Fahr. After twenty-four hours apply another soap wash, and so on alternately until four coats of each have been put on. Experiments showed that this was sufficient to make the wall water-tight under forty feet head of water.

At the time of application the walls had been saturated and the weather was cold. The gate chambers were covered over and heated thoroughly with large stoves. The drying, cleaning the walls with wire brushes, and applying the mixture, took ninety-six days. Twenty-seven tons of coal were used for the drying, and one ton for heating the soap solution. 18,830 square feet of wall were washed with four coats. The drying and cleaning of the walls cost six and a half cents per square foot, and the plant, materials, and labor of applying the wash cost three and three-eighths cents per square foot.

Muck as a Fertilizer.—Farmers generally think that muck is one of the most valuable of manures, and without a very sound basis. Prof. Johnson, of the Conn. Experimental Station, thus advises on that subject: "The use of swamp muck on grass land, or on tilled soil newly broken up from grass and therefore well stocked with humus, is of the nature of 'carrying coals to Newcastle.' In market gardening, where the continual tillage tends to the rapid removal of organic matter, muck may well take, more or less, the place of stable manure, according to its quality and cost.

"The quality of swamp muck can be roughly inferred from the following considerations: When the swamp is a basin with a small outlet or none, when the 'wash' that enters it comes copiously from good or rich soil, when the herbage that grows on it is tall and rank, when large quantities of forest leaves accumulate in it, we may safely assume that the muck will be relatively rich in plant-food. It is from such deposits that the muck has been obtained, which is reported to have nearly equalled stable manure in fertilizing effect. On the other hand, when the wash into the swamp is scanty, and from coarse, poor soil, when the vegetation is mere moss or a spare growth of sedge, and when large volumes of water flow through it and leach out its soluble matters, then it would be strange if the muck had any considerable active fertilizing quality. It may, nevertheless, even then, be very serviceable for *amending* poor, coarse, sandy or gravelly soils, but the amending must be followed up by real 'manure' of the appropriate kind."

To Evict Rats.—A writer in the *Scientific American* says: "We clean our premises of the detestable vermin, rats, by making whitewash yellow with copperas and covering the stone and rafters with it. In every crevice in which a rat may go we put the crystals of the copperas and scatter in the corner of the floor. The result was a perfect stampede of rats and mice. Since that time

not a footfall of either rats or mice has been heard around the house. Every spring a coat of yellow wash is given the cellar as a purifier, as a rat exterminator, and no typhoid, dysentery, or fever attacks the family. Many persons deliberately attract all the rats in the neighborhood by leaving the fruits and vegetables uncovered in the cellar, and sometimes even the soap is left open for their regalement. Cover up everything eatable in the cellar and in the pantry and you will soon starve them out. These precautions, joined to the services of a good cat, will prove as good a rat exterminator as the chemist can provide. We never allow rats to be poisoned in our dwelling. They are so apt to die between the walls and produce annoyance."

A WORD OF COUNSEL.

FARMERS, take warning;

Plow in the spring-time,

Sow in the morning;

Spring rain is coming, zephyrs are blowing,
Heaven will attend to the quickening and growing,

Time to count cost,

Lessen expenses,

Time to look well

To the gates and the fences,

Making and mending as good workers should.

Silk Culture in the South.—One of the great industries of which the Old World has almost an exclusive control is silk production, and yet our own country has sections well adapted to it. The *Vicksburg Herald* declares there seems to be no good reason why the South should not largely and profitably produce silk. The climate is exactly what is desired, and the mulberry and orange trees, the leaves of which are the best food for the silk worm, grow spontaneously in many sections, and can be grown anywhere in the South in any quantity desired. A large class of the population in the South, women and children, have no occupation, and silk culture would, it seems to us, furnish an easy and profitable one. Silk is successfully raised now in many portions of the South, and there is a ready American market for more than can be produced. There is no risk on it, for silk is almost as necessary as King Cotton. Under our present system of tariff laws, the culture of silk is fostered and protected absolutely from foreign competition. The American producer has the advantage of a large import duty, and saves the expense of transportation thousands of miles across the sea. He also has the advantage of plenty of land on which to grow food for the worms, which the foreign producer has not. All these advantages combined go to show that silk culture will in a few years become one of the leading industries of the Southern States.

A New Variety of Glass.—A Vienna chemist has recently discovered what he claims to be a new variety of glass. It does not contain any silica, boric acid, potash, soda, lime, or lead, and is likely to attract the attention of all professional persons on account of its peculiar composition. Externally it is exactly similar to glass, but its luster is higher and it has a greater refraction, of equal hardness, perfectly white, clear, transparent, can be ground and polished, completely insoluble in water, neutral, and it is only attacked by hydrochloric or nitric acid, and is not affected by hydrofluoric acid. It is easily fusible in the flame of a candle, and can be made of any color. Its most important property is that it can be readily fused on to zinc, brass, and iron. It can also be used for the glazing of articles of glass and porcelain. As hydrofluoric acid has no effect on the glass it is likely to find employment for many technical purposes.

The Aryan Invasion of Europe.

—In very recent times—probably not more than twenty centuries before Christ—Europe was invaded by a new race of men, coming from central Asia. These were the Aryans, a race tall and massive in stature (the men averaging at least five feet eight inches, and the women five feet three inches), with "brachycephalic" or round and broad skulls, with powerful jaws and prominent eyebrows, with faces rather square or angular than oval, with fair, ruddy complexions and blue eyes, and red or flaxen hair. Of these, the earliest that came may perhaps have been the Latin tribes, with the Dorians and Ionians; but the first that made their way through western Europe to the shores of the Atlantic were the Gael, or true Kelts. After these came the Kymry; then the Teutons; and finally—in very recent times, near the beginning of the Christian era—the Slavs. These Aryan invaders were further advanced in civilization than the Iberians, who had so long inhabited Europe. They understood the arts which the latter understood, and, besides all this, they had learned how to work metals; and their invasion of Europe marks the beginning of what archaeologists call the Bronze Age, when tools and weapons were no longer made of polished stones, but were wrought from an alloy of copper and tin. The great blonde Aryans everywhere overcame the small brunette Iberians, but, instead of one race exterminating or expelling the other, the two races everywhere became commingled in various proportions. In Greece, southern Italy, Spain, and southern France, where the Iberians were most numerous as compared with the Aryan invaders, the people are still mainly small in stature and dark in complexion. In Russia and Scandinavia, where there were very few Iberians, the people show the purity of their Aryan descent in their fair complexion and large stature. While in northern Italy and northern France, in Germany and the British Islands, the

Iberian and Aryan statures and complexions are intermingled in endless variety.—JOHN FISKE in *May Atlantic*.

Pear-Wood.—The timber of the pear-tree is of a yellow color. Gerard says the timber of the wild pear is very firm and solid, and good to be cut into molds. The plates for his "Herbal" were cut out of this wood, as were, says he, breast-plates for English gentlewomen. At the present day it is much used by turners and pattern-makers; the blocks with which the designs for floor cloths are painted are made from pear-wood. When dyed black it can scarcely be distinguished from ebony. Handles for carpenters' tools, measuring rules, etc., are made from this wood. The wood of the pear makes excellent fuel, giving out an intense heat with a bright flame.

A New Metal.—The manufacture of a metal, composed partly of steel and partly of iron, has been described in Paris. The British publication called *Iron* says: "The novelty of this new combination consists in the introduction of a thin sheet of iron between the surfaces to be welded. A cast-iron mould is divided into two departments by means of a transverse plate, or of a tube placed in the interior, and the two metals are poured into the respective compartments. Before fusion, both metals are submitted to complete refining, which removes all matters that hinder welding; they are then turned into the mould, the sheet-iron partition in which serves to prevent their mingling, and to facilitate welding by being itself brought into a state of fusion. The success of the operation depends considerably on the preparation of the metals, on their readiness to weld, and on the thickness of the partition. The last is determined by experiment, and the dimensions differ according to those of the ingots to be produced. The metal thus prepared is said to be adapted to the fabrication of rails, anchors, etc., where the hardness of the metal diminishes the wear, and increases the resistance of the masses. In the construction of safes, plates of this combination are said to be proof against all attempts to break or drill through them.

Cement for Leather.—Of many substances lately brought very conspicuously to notice for fastening pieces of leather together, and in mending harness, joining machinery belting, and making shoes, one of the best is made by mixing ten parts of sulphide of carbon with one of oil of turpentine, and then adding enough gutta-percha to make a tough, thickly flowing liquid. One essential prerequisite to a thorough union of the parts consists in freedom of the surfaces to be joined from grease. This may be accomplished by laying a cloth upon them and applying a hot iron for a time. The cement is then applied to both pieces, the surfaces brought in contact, and pressure applied until the joint is dry.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
JUNE, 1882.

LUYS ON BRAIN FUNCTION.

A NEW volume on the functions of the brain has been given to the world by M. Luys, Physician to the Hospice de la Salpetriere, Paris, an eminent authority in matters relating to the nervous system. The volume has been received by physiologists in Europe and America with warm expressions of approval, some going so far as to designate it "the clearest and most interesting brief account yet made of the structure and operations of the brain." It is certainly a clearly-written treatise; but one that is chiefly made up of results obtained through the writer's own investigations, and sets forth views frequently more metaphysical than physiological in their bearing, yet without the characteristic prolixity or elaborate terminology of the average metaphysical essayist. In the first seventy-five or one hundred pages of the book the relations of the special senses to certain brain tissue and ganglia are described, and the channels followed by sensory impressions from the superficial capillaries to the central ganglia, and thence to the convolutions where each produces its peculiar ideal or psychic excitation, and is, or is not, followed by a motory reaction. He is not pre-

pared to enunciate a system of functional distribution as related to pure mental action; neither does he consume any space in denying the validity of any system enunciated by others, but the general tenor of his work is on their side; for instance, in Chapter VI. he says: "Having followed step by step the phenomena of cerebral activity just explained, and interpreted them in ordinary language, we may conclude that sensorial excitations radiated from the periphery reach the regions of psychic activity, and that there coming under the influence of the elements of which it is composed, they become transformed into persistent impressions—ideas corresponding to their origin; that they bring into play the sensibility and emotivity proper to those regions; that they become associated—anastomose one with the other—in a thousand ways by means of the organic tissue through which they are evolved. . . . Now, from the premises of the structure of the cortical substance comprehended as already indicated, it may be possible to deduce *data* which will enable us to appreciate the dynamic functions of the different zones of cells contained in it."

In the second part of the work, which seems to us to have largely the metaphysical character, although the author rarely loses sight of a physiological basis, he devotes considerable time to the discussion of Memory, and thus speaks of "*Local Memories*": "It results from the anatomical arrangements to which we have so many times directed attention, that the different groups of sensorial impressions have each a special territory of distribution in the different regions of the *sensorium*, and that consequently there are in the human brain inequalities very clearly distinguished as regards the part devoted to each particular order of sensorial impressions. It follows,

then, from this inequality of development of similar regions in different individuals, that there exist special aptitudes for the reception of the different kinds of sensorial impressions."

From such statements as these, we feel warranted in our belief that the time is not far distant when a phrenological system will be generally accepted by the scientific world. We are not so presumptuous as to say that it will be our system, for that has by no means reached its full maturity; but we are confident from all the indications, especially the acknowledgments of candid scientists, that the Phrenology of Gall and Spurzheim will suffer few changes of an essential nature in the final evolution.

A PURPOSE IN LIFE FOR WOMAN.

WE often hear it said that boys should be led to form a definite purpose with reference to their future. Practical writers like Smiles, Mathews, Eggleston, etc., are emphatic in assertions of this kind when discussing the nature of success in human life. Now, we are of the opinion that the status of society in most of the civilized nations, Great Britain and America especially, imposes an almost equal necessity upon girls: that they also should have a clearly marked aim in living. With the development of education, with the multiplication of industries, with the refinement of ideas concerning the relation of the sexes, and with the discovery of special aptitude for certain departments of work in the world's great machine-shop, women have become more and more important factors in social progress. The period has passed when it could be said that woman's sole and true place is the privacy of the domestic circle—the station

of wife and mother; and even if that were her only sphere she has far outgrown it, just as man has far outgrown his pastoral life of ancient days. The growth and differentiation of modern life have forced women into many places of effort once deemed exclusively the province of men. The growth of population, and the increasing inequality in the distribution of wealth, have made it necessary for a very large proportion of the women in every community to labor in some way for their support; and with the progress of time we have become accustomed to seeing women at the counter, at the loom, in the workshop, and at the desk.

The old chivalric nonsense about woman's degradation in being compelled to labor for her own bread is almost forgotten, and we are beginning to regard her with admiration proportioned to the capability she exhibits in the field she has chosen for the employment of her powers. Society is in fact becoming more and more convinced of the scientific fact that women differ in mental organization as much as men, and that many are better fitted for the outer, active life of the world than for the inner, quiet duties of the home, and any attempt to force upon all the same rule of life would not only be arbitrary and unreasonable, but productive of harm to the community.

The feminine brain is similar in constitution to the masculine; it has as many parts, as many organs, as many functions, as many faculties. It is, therefore, adapted to a varied field of action, and compulsory restriction to a limited sphere must result in unbalance and abnormality. With opportunity for the exercise of all the faculties, with training adapted to the general growth of brain and body, the many shiftless, fickle, helpless women who burden the so-called educated classes, would disappear,

and in their place we should find thoughtful, diligent, useful members of society.

In well-to-do circles there is some remnant of the old notion that girls should not be expected to work for their own support, and there it is we find the largest proportion of women without a purpose; but it will not be long, we think, before the practical spirit of our era will have swept that notion from its ancient place, and the girls whose advantages for self-culture should be equaled by their opportunities for the exercise of their talents and acquirements, will, like their brothers, demand suitable employment. The ambitious, enterprising boy finds something to work for, some object that whets his courage and stimulates his diligence; the ambitious, spirited girl equally needs an object—some material, encouraging object—toward which she can work, and impressing her with the noble sentiment of usefulness to the world.

Parents, teachers, guardians, you who do not help the girls intrusted to your care toward learning their capabilities, and toward having a definite aim, you are wanting in fidelity to your trust—you are responsible for their future career, and their failures will be recorded against you.

RALPH WALDO EMERSON.

AGAIN it becomes our duty to record the death of one who has been prominent in the molding of American literature. Perhaps it is not extravagant to say that Ralph Waldo Emerson, of all the great men who have honored our literature, did more to impart a distinctive character to it, and to make it respected abroad, than any other of his contemporaries. He was endowed with faculties of a high order, a spirit that was ever prompting him to achieve excellence in elevated fields. He

sought the perfect, yet looked upon life not as a dreamer, but as a practical thinker, discerning its possibilities of amelioration.

We read his essays on the Conduct of Life in early manhood, and we shall never forget the wonderful help they were toward understanding many things that had seemed arbitrary and unintelligible. He revealed to us a beautiful harmony and purpose in things that seemed before severe and even vindictive. At the same time it appeared to us that he had seen the things which we had seen, so clearly were our inner thoughts of life portrayed by his vigorous pen.

In his poetry as in his prose, there is the same ideal practicality; the same purposeful interpretation of life's relations. He cared more for the thought than the form, yet the loftiness of the thought rendered the form poetical, and he introduced motives into poetry which broadened and elevated its sphere as a vehicle of thought ethereal and secular. In two Numbers of the PHRENOLOGICAL, July and September, 1881, a criticism of Mr. Emerson's poetry from a careful student was published, and to that we would refer the reader.

Mr. Emerson had been from the beginning a hard worker in the fields of observation, reading, and thought, and as he advanced beyond middle life he did not relax in studious intensity until a few years ago, when his mind indicated weakness, and the sage himself awoke to the consciousness that his powers were waning. Yet he did not withdraw altogether from the field of authorship; as late as February of this year, an essay with the title "The Superlative," appearing in *The Century*, from his pen. In private life, the life he lived, Emerson was one of our best beloved citizens. In Concord, where he spent the greater part of his nearly seventy-nine years, the public esteem

for him bordered on enthusiasm, and well it might, for to surpassing mental gifts he added the virtue of the public benefactor, the man earnest and active in enterprises having the welfare of society in view, and he was also prepossessing in personal appearance, and very winning in manners. The immediate cause of his death, on the 27th of April, was an attack of pneumonia, the result of a cold which he had taken the latter part of March.

THE HEAD OF CROMWELL.

THERE has been of late a revival of public interest with regard to the whereabouts of the head or skull of the great Protector, and several English journalists have taken part in an investigation having for its object the discovery of an authentic account of what was done with Cromwell's body after his death, or after the Restoration. A few months ago an article from an English newspaper of high standing was published in this magazine, which reiterated the brutal treatment of the unconscious remains of one whose power or genius made him the foremost man of his age, and we were given the name and residence of the person in whose hands the embalmed head was found. A writer in the *Dublin (Ireland) Times*, thus speaks of the physiognomical peculiarities of the head: "The length, from the forehead to the back of the head, is quite extraordinary—far greater than in ordinary men. The forehead, or frontal portion, is low, but very broad; the orbits of the eyes are very large; the cheek bones and the bridge of the nose are high; and the lower jawbone, which is ordinarily curved, is short, straight, and forming a right angle from its point of insertion. The head is one indicating a brain (which is but the instrument of the mind) of

great activity and great capacity, corresponding with the remark of Cromwell's secretary, who said that 'it was at once a shop and a storehouse.'"

A cast of the face and forehead of Cromwell, in the collection of the Phrenological Institute, accords in general with this description. The forehead appears low on account of the great projection of the supra-orbital ridge, or the parts immediately above the eyebrows, and because of the immense breadth of the head between the temporal regions. The remark of the secretary well applies, for the indications of extraordinary power to observe and to accumulate facts, and to arrange, plan, and construct, are most conspicuous.

DUTY.—"It is to be feared that thousands, even of intelligent persons and persons who are supposed to be religious beings, have no conception of the greatness of the idea of duty, of moral accountableness, of the meaning of the word *ought*. But it is certain that nothing is well done until it is done from the sense of a controlling principle of inherent and essential rightness. Duty is the child of Love, and therefore there is power in all its teaching and commands."

A BOOTBLACK'S COUNSEL.—A man piling wood on a wharf fell into the river, and when hauled out one bystander advised him to be a little more careful in the future. A second advised him to take a stout drink of whisky to keep a chill off. A third thought he had better hurry home and change his clothes; and a fourth cautioned him to get water out of his ears. When all had spoken, a bootblack came forward and said: "I aint got much to say about this 'ere case, but my advice to this 'ere feller is to do more kickin' with his heels, and less hollerin' with his mouth, if he ever falls in again. Shine yer butes for five cents."

Our Mentorial Bureau.

To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

CAUSALITY AND TEMPERAMENT. —

Question: Two persons having an equal development of the organ of Causality, both marked six in a scale of seven, are they equal in the use of that faculty? Or is it possible that one may exceed the other by reason of a more active temperament? S. Y. N.

Answer: We infer that you understand the application of the system of marking organs; that six would be in perfect proportion to a head whose size was twenty-three inches, or six in the scale. You doubtless understand that the activity of an organ is dependent upon the quality and temperament. Now as it is difficult to find two persons with the same physiological characteristics, therefore it would be difficult to predicate an equal action organically in the mental operations of any two. Another condition must also be taken into consideration, that

of the influence of other organs in the brain. Even if it were possible for two persons to have precisely the same size of brain, the same development of a given organ, and the same degree of temperamental activity; it may be deemed impossible that any intellectual organ, especially a reflective one like Causality, should be in exact relation in both persons, with all the other organs of the head. Character is a growth, dependent, to be sure, upon cerebral development and activity, and that being immediately dependent upon the primordial conditions and environment, or education, and association, you can understand that it would be quite impossible to influence two minds equally. Differences of influence proceeding from circumstances must have their resultant effects on brain and mind. The question you ask opens up a wide field of discussion, and we can only hint some of the points which have an important connection with it.

ORGANIZATION AND PHYSIQUE.—**Question:** Suppose an individual to be large and coarse, the organs of his head would appear to be larger as a whole than one of a more artistic and small physique. In this case, is the size of each individual organ determined by their proportion to the cranium?

Answer: The examiner in making an estimate of the mental power, considers the physique and temperament in the first place. He knows that if the body be large and coarse, the cerebral tissue will be coarse in correspondence. The bones of the skull in one whose organization appears rude, are relatively thick; the angles, ridges, centers of ossification are conspicuous, thus indicating thickness of the bony tissue. One with a comparatively small body, of light frame and refined mould, may have a head which appears small; yet owing to the thinness of the bony envelope, the brain may be larger absolutely than in the case of the last illustration. Sizes are determined by their proportion to the general mass. There is no other way, but the examiner always takes into account the physical characteristics.

BUNIONS.—N. S.—Bunions are difficult to treat, being the result of long-continued ill-usage of the feet. Yet with patience you may bring about an improved condition. In the first place you must wear shoes which afford ample room for the toes. Bathe the feet frequently with tepid water—two or three times a day it would be well for you to do so. Water in which

a little salt or soda has been dissolved will be found helpful in alleviating any distress which may be experienced. If the toe is very much distorted, it may be moved into a more natural position by means of plaster straps.

EXERCISE AFTER EATING.—S. C. A. —Violent or long-continued exercise should not be entered upon after partaking of a hearty meal, neither should there be close mental effort immediately after eating. A little exercise, like a short walk in the open air after a meal, is, we think, beneficial, by arousing the general energies of the system. It is too much a practice for many to go from work to dinner, and at once after finishing dinner, back to work. There should be an interval of rest or change in each case. If discretion were exercised in this matter there would be fewer dyspeptics.

BACKSLIDING.—*Question:* Why is it some people who are hearty Christians while their lives are bright, turn from religion in time of deep trouble, perhaps never to embrace it again?

D. N.

Answer: We question the "hearty" element in the experience of such Christians. There are some who appear to look upon the Christian life as a course of enjoyment—an enjoyment which partakes more of the sensual and physical than of the spiritual elements. We are reminded of the parable of the sower. You doubtless remember what Jesus said with regard to those seeds that fell in "stony places," which corresponded to those who heard the Word and received it with joy, but having no root—i.e., the truth had not made a very deep impression—there was a failure of consistence, and in times of misfortune and trial—they fell away. The Christian life is a resolute assumption of duty in our every-day conduct. It is no festivity, or child's play, but genuine work. It is that labor of which the poet sings, which being

"In the line of duty,
Springs up like a thing of beauty."

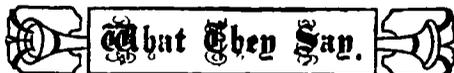
KING PHILIP.—A. W. R. Inquires as to what became of King Phillip's head? The Indian Phillip, son of Massasoit, being referred to. Perhaps some reader who is familiar with the history of the early Indian wars can supply the information.

ORGAN CULTURE.—*Question:* Is one organ cultivated at the expense of all the other organs? That is one objection a physician has in my neighborhood as to phrenology.

W. T. S.

Answer: We regret to say that the physician shows by his style of objection much ignorance of phrenology. All the writers on the subject

urge general culture, and deprecate the one-sided training of the schools. Phrenology aims to instruct the whole mind, to develop the whole person, and one who is brought up in strict observance of phrenological rule, will boast a general culture and an excellent balance of character. To cultivate one organ at the expense of all the others would be to produce a lunatic, or an intellectual monstrosity. A little thought, however, would at once show the impossibility of cultivating one organ at the expense of all the others, for mere observation brings into exercise a whole range of faculties, and some of the sentiments.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

HYGIENE, PHRENOLOGY, AND CHRISTIANITY.—In nearly every city, village, and populated township throughout our country may be seen from one to even more than a score of churches; the number varying, of course, according to the population and character of the inhabitants. Their spires pointing heavenward, remind us that their respective officiating clergymen are, or ought to be, laboring for the greatest good of humanity. This is perfectly just and right. We certainly would not care to live in a community where there are no churches or Christian people. But it seems to me that clergymen in general do not use every means within their reach, or every means they ought to use, to accomplish the object of their labors. And it also seems to me that in very many ways clergymen are dealing too exclusively with effects, and apparently have forgotten the fact that sin is the natural result of underlying causes. Persons who have informed themselves concerning criminals, are convinced that over three-fourths of the crimes committed proceed from intemperance. Show me a person who has no broader view of intemperance than simply the use of intoxicating liquors, and I will show you in that same person the individual who will never distinguish himself as a philosopher. Intemperance is a very broad word. It embraces everything that can injure a person mentally, physically, or morally, when resulting from self-indulgence, or disobedience to the laws of nature. True temperance consists only in the judicious use of necessary things, and total abstinence from things unnecessary. There is just as much intemperance in overeating, and in eating kinds of food unfit for the human stomach, or in chewing or smoking tobacco, or in wearing unhealthful corsets, as there is in

drinking alcohol. In fact, in the hundreds of ways that we are violating the laws of nature, we are making ourselves intemperate. And it is also a fact well known to mental scientists, and others who have intellect have also observed the same—that purity of thought and Christian character are not likely to result from depraved and diseased bodies and brains. On the other hand, sin is, without exception, the result of disease or mental unbalance—possibly sometimes ignorance. Now, it seems to me, that a clergyman, to be fully qualified to fill the whole length and breadth of God's *true ministry*, should be versed not only in the anatomy and physiology of the human body, but should be well informed in Hygiene and Phrenology; being thus qualified to instruct man as to a knowledge of himself, in connection with Biblical teachings, and to show that health is the reward of obedience to certain natural laws to which our being is subject, and that good motives are usually the result of good health; and lastly, that Phrenology points out the why and the wherefore of our justness or unjustness arising from other causes, and that knowledge, obedience, health, and a balanced brain are essential to true Christianity, he will be able to serve God and man more beneficially.

JOHN W. LOWE.

JUSTICE.—There are many views on the justice of Sergeant Mason's sentence, but to me it seems a transgression of justice. As a violation of the law his act deserved punishment, but the punishment to be just should be in proportion to the crime. There are few who would think that it would be as great a crime to take the life of a being whose every action was antagonistic to the growth of goodness in this world, as it would to destroy a life whose highest aim was to do right; and yet, there are those who insist that all life is of the same value.

For my part I can realize different degrees of worth in human life the same as there surely are in all things. Our law, as generally practiced, is too much of a set rule to admit of justice under many peculiar circumstances. I know of an instance where a young man of previous unimpeachable character, was sentenced to three years hard labor for applying to his own use (with the full intention of returning it) a small sum of his employer's money to help his widowed mother pay off a mortgage on a little home; and in the same court, the same day, the Judge punished a well-known rascal with thirty days in the county jail for breaking into a store and stealing all that was in the money-drawer; a trifling sum. Such is the *justice* of law. But who can realize in it the justice of the soul?

In Sergeant Mason's punishment of eight years hard labor, we may see the justice of the law, but we must fail to discover the true justice

of the soul, which can not be governed by set rules.

CHAS. L. HYDE.

WHAT A BOOK CAN DO.—The Rev. Chas. Quinney, of Saskatchewan, in a recent letter, writes of the treatise on Phrenology entitled, "Brain and Mind": "I can safely say that I have found it the most clear and practical work I ever read on the subject of Phrenology, and it has had the effect of removing many doubts and difficulties from my mind concerning different branches of this grand science; and at the same time give me much pleasure in its study. I only regret I did not commence this study long ago, as I am quite convinced that to be able to read character, if only in a small measure, is a great point for any one who has to deal with human nature. The knowledge of this, and the gift of 2 Tim. I. 7, together with God's blessing, must give an abundant success to the faithful workman. I would say to every objector to the science, before uttering another word against it, carefully read 'Brain and Mind.'"

MISSES IT.—H. N. S., a Massachusetts lady says, in a letter notifying us that she had not received late Numbers of the PHRENOLOGICAL JOURNAL: "I have managed to keep house and perform daily duties, but somehow there has been an achlug void in my main requirements, that I think nothing can fill but the sensible suggestions and thoroughly faithful articles of the JOURNAL."

H. B. S., of Hoosierdom, writes: "I also take this opportunity to express my delight in the JOURNAL, and to thank you for your earnest labors for the science."

PERSONAL.

THE grandson of Timothy Pickering, Mr. John Pickering, of Salem, Massachusetts, died lately in the house which the Pickering family have possessed since 1640.

THE Hungarian giant Drasal and the Russian giantess Maria, each eight feet tall, are to be married in Berlin soon—so rumor says, and if it be a love match we may call it a case of linked sweetness long drawn out.

MRS. FRANCES GRANT, residing at Rock Ferry, near Liverpool, England, has placed the sum of \$500,000 in the hands of trustees, directing that the interest accruing therefrom be paid to deserving poor people without regard to class or creed.

CHARLES ROBERT DARWIN, the noted scientist and author, died April 20th, at his home in a

suburb of London, aged 73 years. He was a graduate of Cambridge; as a naturalist accompanied the famous Beagle exploring expedition in 1832-36, and published two reports of the scientific observations of that voyage, besides several other books; began his special studies in 1851, the results of which he published in 1859, under the title of *The Origin of Species* by means of Natural Selection; he published *The Fertilization of Orchids* in 1862, *Variation of Plants and Animals under Domestication* in 1867, *The Descent of Man* in 1871, and in 1880 he published *The Power of Movement in Plants*, which is probably the most interesting of his works to the general reader. His intellect was remarkably developed in the perceptive faculties, while in reflective or generalizing power it was comparatively weak. In character he was modest, courteous, and gentle. For many years he suffered much from illness, but persisted to the last in his scientific studies. Mr. Darwin collected and affirmed what he believed to be facts, and in truth has contributed as much to natural science as any man of this remarkably active period of scientific investigation. Other men added their conjectures and named the mixture "Darwinism."

ATTORNEY-GENERAL BREWSTER, in the opinion of Alexander H. Stephens, is "the ablest man who has filled that office since William Wirt held it," and in the Washington correspondence of the *Louisville Courier-Journal* the following bit of personal biography is given: "Attorney-General Brewster's dainty ruffles at his wrists have often been noticed, because unusual in man's attire; but no one seems to understand the beautiful sentiment which for forty years has prompted him to wear them, in spite of unpleasant remarks. When he was first assuming the *toga virilis*, his mother, whose name he can not even now mention without emotion, called him to her, and asked him to grant a request of hers. She then explained that her father, whom she had always venerated, and who was a very distinguished divine, had always worn ruffled shirts, and she would like her son, for whom she anticipated an equally brilliant future as a lawyer, to wear ruffles in memory of his grandsire. She said she would not require him to wear them on the bosom of his shirt, as that would be very conspicuous, since ruffles had been so long out of fashion for men's apparel, but she thought that at the wrists they were becoming to a man's hands; so she wished to make some herself, and put them on her son's shirts. He acceded to her request, and has worn them always since, and thus his ruffled shirts became an exponent not only of his regard for his mother, but of hers for her father."

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

HE can make no fatal mistakes who patiently continues in well-doing.

Too many men go through the world with their ears full of cotton, and their mouths wide open.

"LET men laugh when you sacrifice desire to duty, if they will. You have time and eternity to rejoice in."

EXTRAORDINARY afflictions are not always the punishment of extraordinary sins, but sometimes the trials of extraordinary graces.—*Matthew Henry*.

"To realize a happier condition of Society TRUTH must be our guide, JUSTICE our method, and COURAGE our inspiration."—*Dr. Lees*.

There is no death! what seems so is transition;
This life of mortal breath

Is hut the suburb of the life Elysian,
Whose portals we call Death.

—*Henry W. Longfellow*.

SUNDAY, I'll stay at home! No, I won't, it's a bad habit! The trifling vexations of life dwindle when viewed from Mount Calvary. The stupidest preacher utters some truths. If the messenger have a stammering tongue, I'll think more of his errand, and the Master who sent him.—*Fanny Fern*.

"WHAT are you laughing at?" asked Sophocles of *Æschylus*, as they stood at the side of the stage and looked over the vast audience. "At all those Athenian donkeys," answered *Æschylus*, "who have paid from five to ten drachma for the privilege of listening to this Persian actress, when they don't understand one word she says."

NOTHING does so establish the mind amid the railings and turbulence of present things, as both a look above them and a look beyond them—above them, to the steady and good hand by which they are ruled; and beyond them, to the sweet and beautiful end to which by that hand they will be brought.—*Jeremy Taylor*.

BEAUTY IN USE.—Nothing is arbitrary, nothing is isolated in beauty. It depends forever on the necessary and useful. The plumage of the bird, the mimic plumage of the insect, has a reason for its rich colors in the constitution of the animal. Fitness is so inseparable an accompaniment of beauty that it has been taken for it.—*Emerson*.

MIRTH.

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

KICK your corn through a window-glass, and
the pane is gone forever.

A MEDICAL student says he has never been
able to discover the bone of contention, and de-
sires to know if it is not the jaw-bone.

RECIPE for becoming æsthetic—One dictionary
of art terms, three oil paintings and a job lot of
old crockeryware. Mix. No brains required.

FIRST Swell: "I never did like 'May.' Not
nearly so pretty as 'Mary.'" Second Swell:
"Clever ideaw, by Jove! Make oystaws good
to June, you know!"

"WANTED.—A moral young man to haul dead
animals. H. H. Kunkel, Forty-fifth street and
Lancaster Avenue, West Philadelphia." Adver-
tisement in Philadelphia *Ledger*.

WHEN a man is about to be told a secret he
shuts the door. When it is a woman, she opens
the door, to be sure no one is listening outside.

SOMEBODY once asked the late Sir Rowland
Hill to what medicine and druggist he owed his
robust health. Sir Rowland, who was a great
rider, replied: "My medicine has always been a
horse, and my druggist an ass."

An elderly minister, at a social party where the
young people were dancing, being asked if he
danced, replied: "No, I am not educated on
that end."

"WHAT side of the street do you live on, Mrs.
Kipple?" asked a counsel cross-examining a
witness. "On either side. If you go one way,
it's on the right side; if you go the other way,
it's on the left."

At a social reunion the question was asked,
"Of what sort of fruit does a quarrelsome man
and wife remind you?" The young lady who
promptly answered, "A prickly pair," got the
medal.

WURK! wurk! wurk!

While the chickens are crowin' aloof!

An' wurk! wurk! wurk!

While the cats are out on the roof!

For och! I am making a dress,

Cut bias, wid spangles galore;

And how it will shine at the picule

Wid its buttons behint and before.

A FEW mornings since a ragged little beggar
stopped at a door and plaintively suggested vic-
tuals. As the benevolent lady of the house was
filling his basket, she asked, "What is your

name, my son?" "My name is Grimes." "Is
your father living?" "Yes, ma'am." "I
thought old Grimes was dead." "That was my
grandpa."

A WIDOW called at the sculptor's studio to see
the clay model of the bust of her husband. "I
can change it in any particular that you may de-
sire, madame," said the artist. The woman re-
garded it with tearful eyes. "The nose is large."
"A large nose is an indication of goodness," re-
sponded the artist. The widow wiped away her
tears, and sobbed—"Well, then, make the nose
larger."

SAID the fond wife to her bear of a husband
as they drove along the broad road, "So that
farm-house is your old birth-place and home.
How you must love every bit of it! That queer
old window—" "I fell out of it once." "That dear
old moss-covered well—" "Water's mean, and I
fell down it once." "That romantic old fence—" "I
got licked once for tearing my breeches
on it." "That long emerald sweep of mead-
ow—" "Used to have to rake it all day." "That
tall purpling wild-cherry tree—" "Covered with
ivy that poisoned my arms and legs and laid me
up for two weeks." "That broad, round-topped
chestnut, with the old-gold blossoms—" "Neigh-
bors stole all the nuts." "I spent my vacations
over the lake, pet, and remember yon grotesque,
vine-clad church—" "Yes, that's where I first
saw you."

COMBE AND THE LIARS.—While George Combe
was preparing his work on moral philosophy he
lost no opportunity to study human nature in its
manifold phases. It is related of him that on one
occasion he had gathered three notorious liars
into company for the purpose of seeing how they
would take it, and what answer they would give
if he should request them to tell each one a lie
for his benefit. He told them frankly that he was
writing a work on human nature and the springs
of human action, and he was curious to see how
big a lie a man could tell when he tried.

"Now look you," said he; "to the man of you
who shall tell me the greatest, the most barefaced
lie, I will give a half-crown."

Said the first man:

"Yer honor, I can't do it. I never told a lie
in my life."

Said the second:

"Bless your soul, sir! I don't know no more
how to tell a lie than a nursin' infant."

While the third man capped the climax thus:

"Well, secin' as how't my two companions
have told yer honor only the solemn truth, I
don't see as I've got anything to do, only to hold
my tongue."

Combe awarded the prize to the last speaker.
—*Ledger*.



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 and physiological science. We can usually supply any of those noticed.

ABRAHAM LINCOLN. The type of American Genius; an Historical Romance. By Rufus Blanchard. 8vo, pp. 141. Wheaton: R. Blanchard & Co.

Have we here a new epic, which tried by the crucible of time, will render its author famous?—possibly. He is known as an historical writer on topics relating to the north-western country. This new effort is certainly an ambitious one, and in view of the differentiation of criticism concerning that recent pastoral "Dorothy," we think it possibly that Mr. Blanchard is entitled to commendation, at least for the patriotic spirit of his poem, and for the variety of its metrical form. Incidents in the early history of our nation are woven into the poem, and furnish a semi-romantic thread for the stimulus of his imagination. The most interesting of these incidents are culled from Indian life, and the wars between the settlers and the Indians; while scenes in the early life of Abraham Lincoln in the western wilderness form an agreeable association. Mr. Blanchard has patiently worked out an ingenious plot, and he deserves commendation.

DIARY OF A MINISTER'S WIFE. By Almeda M. Brown. 12mo, pp. 544. Price, \$1.50. New York: J. S. Ogilvie & Co.

We have had occasion to notice this book as we received the parts which were issued by the publishers. Now the completed work is before us. Much of it is a faithful description of experiences to which a minister in a country district is subject; but there are incidents which seem to us over-drawn, and trending on caricature. It is intended to amuse the reader, and will, in the great majority of cases, do so. Possibly it may prevent some bright girl, here and there, from becoming a "minister's wife," but we doubt whether clerical stock in the matrimonial market will be seriously depressed by the story.

CHRISTIAN HOLINESS: Its Philosophy, Theory, and Experience. By Rev. S. H. Platt, A. M., author of "The Gift of Power," "Hereditary," etc., etc. 18mo, pp. 233. Price, \$1.00. Brooklyn, N. Y.: The Hope Publishing Co.

This volume is the outgrowth of a sermon preached several years ago by the author, and

which subsequently had a very large sale in pamphlet. Mr. Platt is known to a large circle as an earnest advocate of physical reform in accordance with the known laws of generation and development. He believes that "like begets like," and if the parents eat "sour grapes the children's teeth will be set on edge." In this new volume he sets forth as a fundamental principle in the acquirement of true Christian holiness the necessity of living in accordance with physiological law, and moral purity. Hence he claims that men who practice any habits tending to weaken or pervert the bodily functions, become mentally impaired—i. e., the vice of the physical habit becomes impressed upon the moral nature, and at length reason and manhood are enslaved by appetite. His views are supported by citations from eminent observers and physiologists. He brings into a strong light the influence of inherited traits, and peculiar weaknesses and infirmities from which eminent men have suffered—and goes on to argue with much force in behalf of an earnest religious sentiment, a practical observance of Christian doctrine as the only method for subordinating the lower nature, and securing complete mastery of one's self, and so attaining that degree of moral integrity which may be termed holiness. The book is an admirable little treatise for religious people to read, especially those who think that the fashionable vices are not incompatible with Christian profession.

THE ROSE: A Treatise on the Cultivation, History, Family Characteristics, etc., of the various groups of roses, with accurate descriptions of the varieties now generally grown. By H. B. Ellwanger. 16mo, pp. 291. Extra cloth. Price, \$1.50. New York: Dodd, Mead & Company.

Twenty-five years ago it would have been difficult for a practical man to have filled out the pages of a good-sized book with a practical discussion of a single flower; but to-day so great has been the development of horticulture, there are several flowering plants to each of which a volume could be devoted. Mr. Ellwanger has chosen the rose in this instance, and his treatment shows the familiarity of a gardener who has studied the peculiarities of a favorite plant. The treatise is a thoroughly practical one for the reading of every flower lover, amateur or professional, from the owner of a few pots on the window-ledge to the master of a hundred green-houses. Besides the very complete directions for the care and propagation of different varieties, a descriptive table of nearly 1,000 sorts is given, which will be of special value to the horticulturist.

THE GOSPEL IN THE STARS: Or, the Primeval Astronomy. By Joseph A. Seiss, D. D., Pastor of the Church of the Holy Communion, Philadelphia. Author of "A Miracle

in Stone," "Lectures on the Apocalypse," etc. 12mo, pp. 450. Cloth, \$1.50. Philadelphia: E. Claxton & Company.

There are many things in common life whose history is a puzzle to the learned. Take, for instance, the custom of "Easter eggs," which has lately been repeated with a display of artistic ornamentation quite astonishing. People generally have an idea of the significance of the egg in this spring-tide festival, but how or when the custom arose is beyond the capability of archaeologists to discover satisfactorily. So with the constellations of the stars; their invention or mapping runs far back into obscure ages, and although Sir William Drummond, Pazzi Smith, and Frances Rolleston have labored to reveal the origin and meaning of the celestial "signs," and have added much interesting information to the general stock of astronomical knowledge, yet there is a great want of precise data. The reverend author of the book under notice has applied himself to the task of discovering the meaning of the constellations, what is symbolized by their figures and names, and is convinced that they bear a special relation to the religious life of man; that they bear brilliant testimony to the truth of the Christian Gospel, showing as it were in detail the life and work of Christ.

This is a new department of scientific study, and has not been pursued carelessly by the author; on the contrary, he has consulted the best authorities in astronomy, and made extensive researches in the special interest which he selected. We will not say that his religious convictions biased his judgment, for there is a good show of reason for many of his views, and there are certainly remarkable coincidences in the arrangement and apparent purpose of certain of the star groups with Bible narrative.

PUBLICATIONS RECEIVED.

THE OCCULT WORLD. By A. P. Sinnett. 12mo, pp. 170. Cloth. Price, \$1.00. Boston: Colby & Rich.

We are told in the introduction that there is a school of philosophy still in existence of which modern culture has lost sight, and it is of this ancient school that the writer treats. That philosophy has special relation to what we are nowadays given to calling magic. A large part of the book is taken up with allusions to the "Theosophical Society" the principal members of which are resident in India. Some apparently remarkable performances by members of this society are detailed. The aim of the author appears to be the maintenance of a belief in the performance, through human agency, of wonderful things, or that some men and women by dint of special education may attain to supernatural capabilities, or may reach a degree of knowledge

in the control of natural forces which is much beyond that of average man.

JOB'S COMFORTERS; or, Scientific Sympathy. By Joseph Parker, D.D. A particularly interesting sermon, by this eminent London divine. Price, 10 cents. Funk & Wagnalls, Publishers, N. Y.

TEACHING AS A SCIENCE, an address read before the Music Teachers' National Association, at Buffalo, N. Y., July, 1880, and other Essays. By Henry G. Hanchett. In this excellent essay the author earnestly urges upon the attention of music teachers the necessity of appreciating the pupil's organism, if the best success is to be attained. The intellect, the temperament, in fact the whole organism must be taken into account, for a proper understanding of the capabilities of a pupil. He shows clearly that the general neglect of music teachers to appreciate the science of mind, is the cause for so many failures in musical instruction. In other essays which follow, he points out the reason why the German people are so generally given to musical study, and what American society needs for rapid advancement in musical culture.

INNISFALLEN GREENHOUSES, Springfield, Ohio. An illustrated catalogue of flowering and vegetable plants received from Mr. Chas. A. Reeser.

TENTH ANNUAL REPORT OF THE YOUNG WOMAN'S CHRISTIAN ASSOCIATION, founded by the late Caroline D. Roberts.—An enterprising organization, as this neatly-printed catalogue indicates. The work done is evidently founded upon a basis of real practicality. One department to which our attention has been personally called—and which in itself indicates to us that the young ladies have positive ends in view, and so do not altogether indulge in sentimental vagaries—is that of a phonography class, under the instruction of Mrs. E. B. Burns. A considerable number of young women have been prepared in this class for practical business, and now are engaged in remunerative practice.

THE HOMILETIC MONTHLY: A magazine of sermons and other matter of homiletic interest and instruction. This publication, by Messrs. Funk & Wagnalls, of this city, is a valuable aid to the clergyman if used properly. It reminds us very much of the college student's "pony," being susceptible of improper uses, and so actually impairing the mental vigor of the minister who employs it in the preparation of his pulpit efforts. However, be that as it may, were we a minister we should be very thankful to Messrs. Funk & Wagnalls for supplying us with so excellent a help.

THE NORTH AMERICAN REVIEW for May, 1882, has several articles discussing fresh subjects,

among them that entitled, "Days with Longfellow," is specially interesting. It was contributed by Samuel Ward, a life-long intimate of the late poet. Another, "What Does Revelation Mean?" by Elizabeth Stuart Phelps, one of our American women who is as capable as any in dealing with so profound a topic. The views of such independent thinkers as Miss Phelps deserve careful reading on the part of religious people.

LATE Numbers of the ATLANTIC MONTHLY, particularly those for April and May, have impressed us that this old reflection of our higher range of literary thought in America has taken on a new spell of vigor. We have been much interested in the articles relating to life in the Southern States, one of which appears in the May Number. The careful correspondent has given faithful pictures of the people and region in which he has sojourned. Miss Phelps' "Doctor Gay" continues to attract interest, as a sort of counter-phase of the lady physician as drawn by Mr. Howells. The posthumous poem of Mr. Longfellow, "Mad River in the White Mountains," appears in the May Number; while science and history have their representatives in John Fiske's archeological study—"Arrival of Man in Europe," and Mr. Mann's "Old Fort Chartres." There is a good section for the intelligent farmer's reading, entitled, "Progress in Agriculture by Education and Government Aid."

PROCEEDINGS of meetings held Feb. 1st, 1892, at New York and London, to express sympathy with the oppressed Jews in Russia. Of course all intelligent and candid people heartily agree with the sentiments put forth in the addresses, which form the larger bulk of this pamphlet.

THE SHOE AND LEATHER MANUFACTURER. Devoted to the interest of shoe and leather manufacturers, tanners, and curriers. This new trade publication, the first Number of which is on our table, certainly merits the attention of the particular interest to which it is devoted. Mr. Richardson makes an excellent beginning.

THOMAS PAINE WAS JUNIUS. A strongly written brochure on the affirmative of the question suggested by the title.

Mr. J. N. Stearns, Publishing Agent of the National Temperance Society, New York, has recently published the following pamphlets:

UNHOLY ALLIANCES. By J. E. Rankin, D.D., Washington, D. C. Treating of the responsibility of the Government in relation to the liquor traffic. Price, 5 cents.—THE PLAGUE, ALCOHOLIC AND NARCOTIC. By T. De Witt Talmage, D.D. Two of a series of sermons recently preached by the vigorous incumbent of the

Brooklyn Tabernacle. Price, 10 cents. \$1.00 per dozen.—TWENTY-ONE HISTORIC LANDMARKS. By B. W. Richardson, M.D., F.R.S. The eminent advocate of temperance and reform, in this address takes occasion to encourage temperate workers with regard to progress which has been made in England in popular education, concerning the nature and effect of alcoholic liquors. Price, 10 cents.—THE NATIONAL GOVERNMENT AND THE LIQUOR TRAFFIC. By A. M. Powell, furnishes much statistical information from official sources, on the extent of distilling, brewing, and liquor selling in the United States. Price, 10 cents.—TWELVE ADDRESSES ON THE PHYSIOLOGICAL ACTION OF ALCOHOL. By James Ridge, M.D., B.S., B.A. For Sunday-schools, Bands of Hope, Juvenile Temperance Organizations, etc. Price, 10 cents.

THE CHRISTIAN PHILOSOPHY QUARTERLY, January Number, contains several of the addresses made at the meeting, last summer, of the School of Christian Philosophy, and other interesting matter. The *Quarterly* is the organ of the American Institute of Christian Philosophy, which has sprung into existence from that first meeting, and already numbers many of our leading clergy and laymen among its members. Published by A. D. F. Randolph & Co., of New York, at \$2.00 a year.

TWENTI-SIXTH ANNUAL REPORT OF THE Woman's Hospital in the State of New York. With increasing years this institution becomes more a necessity to the population of the metropolis in which it is located. Its record of excellent work will compare well with that of any other similar foundations.

AMONG recent additions to the People's Library, published by Messrs. J. S. Ogilvie & Co., are, ENGLEDEW HOUSE. By the author of "Dora Thorne." Price, 10 cents.—LOVE THE TREANT. By C. G. Thompson. Price, 10 cents.—ON HER WEDDING MORN. By the author of "Dora Thorne." Price, 10 cents.—HIS CHOICE; or, All is not Gold that Glitters. By M. A. Pauli. Price, 10 cents.—MIZPAH. By the author of "Wedding Bells." Price, 15 cents.—THE WEDDING BELLS; or, Telling Her Fortune. Price, 15 cents.—DOROTHY'S VENTURE. By Mary Cecil Hay. Price, 20 cents.—ESTHER; or, False and True. By Mina Conklin Ford. Price, 20 cents.—LIGHT IN DARKNESS, and other Sketches. By Miss Muloch. Price, 10 cents.—LETTIE LEIGH. By the author of "A Golden Heart." Price 10 cents.—SECOND THOUGHTS. By Rhoda Broughton. Price, 10 cents.—HIS BONNIE BRIDE. By E. Dundas. Price, 10 cents.—THE PHANTOM WIFE. By Molly Myrtle. Price, 10 cents.

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VOL. LXXV. OLD SERIES—VOL. XXVI. NEW SERIES.

JULY TO DECEMBER, 1882.

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

NEW YORK:
FOWLER & WELLS, PUBLISHERS, 753 BROADWAY.
1882.



“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 perfectionners 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.”—*Encyclopedia Britannica*, 8th Edition.



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THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 75. 1882.

NUMBER 1.]

July, 1882.

[WHOLE No. 524.



ROBERT BROWNING, THE EMINENT ENGLISH POET.

ROBERT BROWNING,

THE EMINENT ENGLISH POET.

ROBERT BROWNING, regarded as the most original and eccentric of modern poets, was born at Camberwell, London, May 7, 1812. As a little child he was very precocious, even making up little scraps of poetry. Like Pope of an earlier date, he "lisp'd in numbers, for the numbers came!" When but four years of age, being compelled by his mother to take some medicine, he expressed his desire in the following couplet, perhaps his first attempt at rhyme:

"All people, if you wish to see
A boy take physic, look at me."

In his eighth year he was able to translate Horace, and, according to his teachers, had a passably good understanding of the poet's humor. After his fourteenth year his education was conducted mainly at home under a private tutor. He attended a few lectures at the London University, his father being a shareholder in that institution, and he himself is a life owner of the same, while he is connected with other English educational establishments by fellowship or honorary appointment. At twenty years of age he prepared his first volume, which was published at his father's expense. Two years later he visited Russia, and spent some time there. In 1835 appeared his "Paracelsus." This may be said to indicate the tenor of his whole subsequent career as a writer or poet, its metaphysical characteristics partaking of the same spirit which appears in his other works. "Paracelsus" did not find many readers, but they generally saw that there was genuine poetry in it.

Next we have the poet inviting the world to read a work of a special order, an English historical drama. To be sure, his "Paracelsus" has much of the dramatic character, but in "Strafford" it is wrought out more distinctively and effectively. This drama was dedicated to Macready, the distinguished tragedian, and was put upon the stage at Covent

Garden, Macready taking the part of Strafford, and at another time personating Pym. It was not a success, the plot being confused, and the characters more serious and mystical than required by history.

Five years later appeared "King Victor and King Charles," another drama, and for several years more his composition was devoted to dramatic work. "Luria" and "The Return of the Druses," like "King Victor and King Charles," are historical and legendary, cast in full stage form. Luria is heroic in action and in suffering: like Othello, in many ways, a brave and skillful general, who serves Florence, and declares, "I can and have, perhaps, obliged the state, nor paid a mere son's duty."

Among others of his dramatic conceptions may be mentioned "Colombe's Birthday," "A Soul's Tragedy," "Pippa Passes," "The Blot in the 'Scutcheon." "Pippa Passes" is the most regular in construction of his plays, and, at the same time, most varied in plot. It has much vivacity and strength, but as usual the characters are elevated, over-refined, and very sages in talk. The work looked at, however, as the result of thought is a production of pure art, and must always be highly admired by every poet, on account of its wealth of fancy and exquisite romance.

Some of these dramatic compositions are true lyrics, and quite properly called, in the first general collection of his works, "Dramatic Romances and Lyrics." Others are more or less studies, like "Count Gismond in the Gondola." "The Pied Paper of Hamelin" is spirited in description and one of the best bits of folk lore ever written. "How the news came from Ghent to Aix" is vigorous and an honest narrative of an event having no unimportant relation to European history.

After 1846 Mr. Browning appears to have relinquished, for the most part, the

writing of dramas, although the dramatic element in some phase is scarcely ever absent from his poems. The great event in his career, as a man and as a writer, was his marriage with Elizabeth Barrett; a union generally regarded as one of mutual affection and intimate sympathy in each other's pursuit. Although feeble in health, such was the indomitable force of Mrs. Browning's character, and the earnestness of her convictions, that she studied, thought, and wrote as few, either men or women, have, judging by their records and results. It was on the 12th of September, 1846, that the marriage of these peculiar spirits was celebrated at the parish church of St. Marylebone, London. Leaving England soon after, they went to Italy, remained for a short time in Pisa, but finally chose Florence as their place of residence. After the birth of their only son in 1849, Mr. and Mrs. Browning visited England, and resided in London for a few years.

At this time Mr. Browning was thirty-seven years of age, and as sketched by a contemporary, he had dark hair, somewhat streaked with gray about the temples; a fair complexion, with perhaps the finest olive tinge; eyes large and clear; a nose straight, well cut; a mouth full, and rather broad; a chin pointed, though not prominent. His forehead widened rapidly upward from the outward angle of the eyes, and was slightly retreating. The mobility which characterizes his poetry is expressed not only in his face and head, but in his whole demeanor. Like his wife, Mr. Browning has given much attention to the study of human character in its softer and affectional phases. In this respect he differs much from contemporary poets of thirty years ago, and, indeed, then his method led to the formation of an original school, which is fully represented to-day by the Rossettis, Swinburne, and perhaps the younger Arnold. In 1850 Mr. Browning published his well-known poem, "Christmas Eve and Easter Day," in which he presents views of some of the religious and spiritual aspirants of the

time, together with his own views. After the appearance of this book, there followed a silence on his part of five years, during which his wife furnished all the poetry that came from the Browning household. As a rule the literary work of the pair was alternate, at least in its public production, a book by each never being issued from the press at the same time. They wrote apart, yet comparing and suggesting in regard to each other's work.

Mrs. Browning died in 1861, a loss of incalculable severity to her husband, such having been the close and peculiar intimacy which from the beginning existed between them. Of his later compositions, the better known are "The Ring and the Book," a wonderful production of realistic art, and generally deemed his greatest work, published in 1868; "Balaustion's Adventure," including a transcription from Euripides, in 1871; "Fifine at the Fair," in 1872; "Red Cotton Night-cap Country," in 1873; "Aristophanes' Apology," including "The Last Adventure of Balaustion," 1875; "The Agamemnon of Æschylus" transcribed, 1877; "La Saisiaz: the Two Poets of Croisiac," 1878. His tragedies and dramatic lyrics are included in the collection of his works entitled "Bells and Pomegranates."

Although seventy years of age, Mr. Browning shows little or no indication of mental infirmity, his compact, vigorous frame scarcely any falling off in strength. He has been favored with a remarkably strong physical frame, enjoying the best of health. Hence much more may be expected from him. Like some of our own poets he may continue for some time to delight the world with fresh productions, in which the fire of genius will burn as brightly as in the years gone by. His greatness lies in his originality, and yet, as Mr. Stedman says, at the close of a fine analysis, he is at once "the most original and the most unequal of poets; he continually descends to a prosaic level; but at times is elevated to the laureate's highest flights. . . . Inciden-

tally we have noted the distinction between the drama of Browning and that of the absolute kind, observing that his characters reflect his own mental traits, and that their action and emotion are of small moment compared with the speculations to which he makes them all give voice. Still he has dramatic insight, and a minute power of reading other men's hearts. His moral sentiment has a potent and subtle quality; through his early poems he really founded a school, and had imitators, and, although of his later method there are none, the younger poets he had most affected very naturally began work by carrying his philosophy to a startling yet perfectly logical extreme."

Judged from the point of view of organization, the physiology of the poet indicates an excellent basis for intellectual vigor and force. He has strength of constitution necessary to stand hardships and to carry him healthfully and energetically to old age. He inherits his mother's type of thought and her superior ability. This inheritance gives him vivacity and youthfulness in his advanced age. His intellect starts with facts, and his imagination and his logical power are kept under the dominion of the real. His quick observation keeps him inform-

ed in regard to history, detail, and practical life, and his memory is nearly fact-tight. So that all he has known, he continually knows, and it is available. His large Language gives vent and volume to expression. His large Comparison makes his style critical and definite, and his sense of human motive and character gives him individualism in his description of persons. That is his chief dramatic element. His Constructiveness is immense. He frames phrases and combines facts and forces; is not puzzled by multiplex topics, and that which to others seems misty and mysterious, to him is clear and plain. The portrait indicates large Acquisitiveness, which gives wisdom and taste in the direction of financial matters, and he would take good care of his interests, and wisely manage in business. He is generous and sympathetic, has a care for others and aims to smooth their pathway. He has force of character, and, while he is gentle and tender with friends and dependents, he has force to resist aggression, and the indignation to punish evil-doers. His Firmness and Self-esteem are fairly represented; hence he takes an independent course without being arrogant. As a lover he is ardent; as an acquaintance, cordial; and as a friend, steadfast.

WORDS THE CHANNELS OF THOUGHT.

Words are the Channels of Thought!—

Of thought and of each varied feeling,
Dissent, or a friendly communion,
Man thus, to his brother revealing!

Strong are the Channels of Thought!

The Past linking on to the Present!
Connecting us soon with the Future
Connection forever,—incessant!

Tender the Channels of Thought!

The prayers which ascend to high Heaven!
Confessions of sin and of failure,—
Neglect of the blessings were given!

Grand are the Channels of Thought!

The loftiest of our attaining,—
The songs of His Love and His Glory!
With least of the earth soil remaining.

See that the channels are pure,

With none of the germs of destruction
Be sure that the channels are open,
With no hidden rocks of obstruction!

Channels of thought must be clear,

With no vicious, half-revealed meaning;
Be clean and be sweet in the utterance,
With no feeble, one-sided leaning!

Keep pure our dear, native tongue!

'Twas sung when our cradle was rocking!
No slang parasites shall defile it!
The growth of buffoonery's mocking!

Keep clear the Channels of Thought!

The tongue of our fathers and mothers!
In strength it has grown through the ages!
The language of friends and of mothers!

GRACE H. BORN.

THE TRANSCENDENTALISTS AND BROOK FARM.

NEW England Transcendentalism has been much talked about and yet little understood by the masses.

Emerson remarked in a lecture read at Masonic Temple, Boston, January, 1842; "The first thing we have to say respecting what are called *new views* here in New England, at the present time, is, that they are not new, but the very oldest of thoughts cast into the mould of these new times."

"What is popularly called Transcendentalism among us, is Idealism; Idealism as it appears in 1842. As thinkers, mankind have ever divided into two sects, Materialists and Idealists; the first class founded on experience, the second on consciousness; the first class beginning to think from the data of the senses, the second class perceive that the senses are not final, and say the senses give no representations of things, but what are the things themselves they can not tell. The materialist insists on facts, on history, on the force of circumstances, and the animal wants of man; the idealist, on the power of Thought and Will, on inspiration, on miracle, on individual culture. These two modes of thinking are both natural, but the idealist contends that his way of thinking is in higher nature."

"The materialist takes his departure from the external world, and esteems a man as one product of that. The idealist takes his departure from his consciousness, and reckons the world an appearance."

"From this transfer of the world into the consciousness, this beholding of all things in the mind, follow easily his whole ethics. It is simpler to be self-dependent. The height of the duty of man is, to be self-sustained, to need no gift, no foreign force. Society is good when it does not violate me; but best when it is likest solitude. Everything real is self-existent. Everything divine shares the self-existence of the Deity. All that you call the world is the shadow of that substance which you are, the perpetual creation of the powers of thought."

"The Transcendentalist believes in miracle, in the perpetual openness of the human

mind to new influx of light and power; he believes in inspiration and ecstasy."

"You will see by this sketch that there is no such thing as a Transcendental *party*; that there is no pure Transcendentalist; that we know of none but prophets and heralds of such a philosophy." "We have had many harbingers and forerunners; but of a purely spiritual life, history has afforded no example. We have yet no man who has leaned entirely on his character and eaten angels' food; who, trusting to his sentiments, found life made of miracles."

"Genius and virtue predict in man the same absence of private ends, and of condescension to circumstances, united with every trait and talent of beauty and power. This way of thinking, falling on Roman times, made Stoic philosophers; falling on despotic times, made patriot Catos and Brutuses; falling on superstitious times, made prophets and apostles; on popish times, made protestants and ascetic monks, preachers of Faith against preachers of Works; on prelatical times, made Puritans and Quakers; and falling on Unitarian and commercial times, makes the peculiar shades of Idealism which we know."

"The Idealism of the present day acquired the name of Transcendental from the use of that term by Immanuel Kant, who replied to the skeptical philosophy of Locke, which insisted that there was nothing in the intellect which was not previously in the experience of the senses, by showing that there was a very important class of ideas, which did not come by experience, but through which experience was acquired; that there were intuitions of the mind itself; he demonstrated them Transcendental forms. And from the profoundness and precision of that man's thinking, whatever belongs to the class of intuitive thought, is popularly called at the present day Transcendental."

The thoughts which these few hermits strove to proclaim by silence, as well as by speech, not only by what they did, but by what they forbore to do, shall abide in

beauty and strength to reorganize themselves in nature, to invest themselves anew in other, perhaps higher endowed and happier mixed clay than ours, in fuller union with the surrounding system.

In these carefully selected extracts from Emerson's own words, we have shown the main tenets of those who call themselves, or are called by others, Transcendentalists. They never united in any sect or society. Many persons think the community at Brook Farm was an association of Transcendentalists. But this is a mistake. There were there gathered men and women of all creeds and beliefs. Brook Farm Community was the outcome of various causes uniting in dissatisfaction with the existing state of social order. Fourier's theories and views had influenced some, the increasing study of German philosophy had widened the mental horizon of others, Channing's thoughts, poured forth in a Boston pulpit, roused the minds of his hearers to a more practical application of Christian beliefs to Christian practice; Emerson's dissent from long-established custom drew out discussion, and new ideas shook old beliefs from their intrenchments; American Transcendentalism thus sprang into life.

Mr. Ripley, influenced by the new current of thought, was led to establish the Industrial Association, at West Roxbury, Mass., with the purpose of arranging labor so as to give all men time for culture, and at the same time free society from the lower influences of selfish competition. He was the moving spirit, and the main control of affairs was in his hands. The Association has been described as "a practical, orderly, noble effort to apply Christianity directly to human customs and institutions." The members were gathered about him as about a friend and brother. Some of the most notable among them were George W. Curtis, A. Bronson Alcott, Horace Sumner, brother of Charles; Charles A. Dana, Nathaniel Hawthorne, and Margaret Fuller.

Hawthorne in one of his romances has given us some glimpses of life and views in this experiment to improve upon the old methods of simple family life. In this story, founded upon experiences at Brook Farm,

he says: "Though we saw fit to drink our tea from earthen cups to-night, and in earthen company, it was at our option to use pictured porcelain and handle silver forks to-morrow. This same salvo, as to the power of regaining our former position, contributed much to the equanimity with which we subsequently bore many of the hardships and humiliations of a life of toil." In regard to the members he remarks: "Our recruits were mostly individuals who had gone through such an experience as to disgust them with ordinary pursuits, but who were not so old, nor had suffered so deeply as to lose faith in the better time to come."

Hawthorne, who was about to marry Miss Sophia Peabody, had an idea of providing himself an inexpensive home after marriage in the Community, at the same time securing, by about six hours' daily labor, the necessaries of life, and having the remaining leisure for literary pursuits. He found to his disappointment, after investing all his means, about a thousand dollars, that many additional hours of labor would be necessary to furnish his family support. He remained scarcely a year, and withdrew. Mr. Ripley said that "he worked like a dragon." The labor at the farm was agricultural, teaching the ignorant, whether men, women or children, was a leading idea. They occupied several buildings, the largest, named "The Hive," contained the dining-room and kitchen; another was called "The Pilgrim House"; besides these were "The Nest" and "The Cottage." Mr. and Mrs. Ripley lived in "The Eyrie," and here gatherings were held in the evenings. Sitting about in the moonlight they sang old ballads. Sometimes at evening essays were read, or Shakespeare's plays with distributed parts.

The men wore blouses of plaid or checked material, belted, with broad collars folded over the shoulders; the women dressed in simple calico, and all wore rough straw hats. Life was quite unconventional, and religious worship and beliefs entirely unfettered; and in no fixed way connected with transcendentalism or its propagation as a cultus or form of thought for all.

Hawthorne's stay at Brook Farm was not

unusually short; others who had put in much more money withdrew sooner. One wealthy member who gave six thousand dollars to the building of the "Pilgrim House," returned "to the world" after a very short trial of Community life. The experiment ended in ten years.

With another quotation from the romance mentioned we will close Hawthorne's account. "On the whole, it was a society such as has seldom met together; nor, perhaps, could it reasonably be expected to hold together long. Persons of marked individuality—crooked sticks, as some of us might be called—are not exactly the easiest to bind up into a fagot. But so long as our union should subsist, a man of intellect and feeling, with a free nature in him, might have sought far and near without finding so many points of attraction as would allure him hitherward. We were of all creeds and opinions, and generally tolerant of all, on every imaginable subject.

"We had divorced ourselves from pride, and were striving to supply its place with familiar love. We meant to lessen the laboring man's great burden of toil, by performing our due share of it at the cost of our own thews and sinews. And as the basis of our institution, we purposed to offer up the earnest toil of our bodies, as a prayer, no less than an effort for the advancement of our race."

Doubtless Hawthorne received some benefit through practical knowledge of physical labor, and doubtless soon learned that with ten to twelve hours daily manual toil no mental exertion of any value would be possible, for no mind can accomplish much worthy intellectual labor when the body is thoroughly fatigued. The electric fire which sustains the life needs of soul and sense will not admit of subdivision. "Ye can not serve two masters."

Mr. Alcott was also one of the transcendental thinkers who tried the experiment of community life and failed to find it meet his views. He was a contributor to the famous transcendental organ, *The Dial*, to which he contributed articles entitled, "Orphic Sayings." The paper lived from 1839 to 1842, and passed away from lack of support.

But now, to have been a contributor to *The Dial* is almost equal to a patent of nobility. He was for many years a teacher in Boston, and has written several books. Of his religious views we find some record in his book entitled "Tablets," though he seems not to have formulated his beliefs into a creed. A few extracts will give a clew to his opinions:

"When thou approachest to The One,
Self from thyself thou first must free,
Thy cloak, duplicity, cast clean aside,
And in the Being's Being be."

This view implies that man in coming to the Supreme Being must put aside his earthly and sensual nature, and bring the best and highest part of himself, in order to attain any approach to the Sovereign One. And this sentiment is common to all religious thinkers.

He remarks very truly that "temperament, in-born tendencies, predispositions, determine one's cast of thinking or no-thinking, and go far to shape his religious opinions. The instincts, faithfully drawn out and cherished by purity of life, lead to Theism as their flower and fruit. If swayed by the senses, we are natural Pantheists, at best idolaters and unbelievers in the Personal Mind. The passions prevailing, incline us to Atheism, or some superstition ending in skepticism, and indifference to all religious considerations."

"The liberal mind is of no sect; it shows to sects their departures from the ideal standard, and thus maintains pure religion in the world."

"If one's life is not worshipful, no one cares for his professions."

Many kindred thoughts might be gathered from Alcott's writings to prove the devout and worshipful frame of mind in which he lives. In his old age he attends the Unitarian church, as did also Mr. Emerson, showing that their affinities are rather with these than with the so-called orthodox sects.

Henry Thoreau may also be classed among transcendental thinkers. He spoke or wrote little upon religious topics, but occasional expressions may be gleaned from his books, which show how little he thought

of old creeds; a few quotations will illustrate.

"The doctrines of despair, of spiritual or political tyranny or servitude, were never taught by such as shared the serenity of nature."

"Of what significance the light of day if it is not the reflection of an inward dawn? To what purpose is the veil of night withdrawn, if the morning reveals nothing to the soul?"

"Perhaps to the eye of the gods, the cottage is more holy than the Parthenon, for they look down with no especial favor upon the shrines formally dedicated to them, and that should be the most sacred roof which shelters most of humanity."

"So we saunter toward the Holy Land, till one day the sun shall shine more brightly than ever he has done, shall perchance shine into our minds and hearts, and light up our whole lives with a great awakening light, as warm and serene and golden as on a bank-side in autumn."

Emerson said of Thoreau: "Whilst he used in his writings a certain petulance of

remark in reference to churches or churchmen, he was a person of a rare, tender, and absolute religion, a person incapable of any profanation, by act or by thought. The same isolation which belonged to his original thinking and living detached him from the social religious forms. He thought that without religion or devotion of some kind nothing great was ever accomplished. Himself of a perfect probity, he required not less of others."

Margaret Fuller, another of the most noted of the transcendentalists, was of a profoundly religious nature, seeking always a deeper insight, wider knowledge, and a higher life. And we conclude that generally the spirits who formed the nucleus of Brook Farm Community, whether as active members or deep sympathizers in the movement, were of more than ordinarily devout natures, although their religious tenets were not those of the Puritans and had no tinge of Calvinism. As sectarianism declines, the transcendentalists will take their true place among the noblest of earth's thinkers.

AMELIE V. PETIT.

PHRENOLOGY AND PESTALOZZIANISM.—II.

TIME.

IN the Kindergarten, ideas of time are given very early in marching, dancing, beating time, reading in concert, and other concert work. To develop the idea of how long a second of time is, the teacher will count and have the school join, the effort being to count just sixty in a minute. Unless the teacher has had a great deal of experience in counting, the first trial will be a failure as to accuracy, for the counting will be too rapid. A second trial will prove more nearly right. It will take time before this can be done. When the class can count at this rate quite accurately with the teacher, they should try it alone till they are equally successful. After this the teacher should call on individual pupils. Then the class should count sixty twice, three times, etc., so as to give a correct idea of two, three, or more minutes. The children will ere this have learned that there

are sixty seconds in one minute. They will learn this fact, as they are trying to have just one second between each count, and that it takes sixty counts in one minute. They can now be told that sixty minutes make one hour and twenty-four hours make one day. To test their ability further in measuring time, they can be requested to close their eyes at the tap of the bell, and keep them closed one minute and open them as soon as they think the minute is up. The teacher, by watching the pupils' eyes and the watch, can tell who succeed in measuring the time the most accurately.

TUNE.

In none of the books I have examined that were written by the followers of Pestalozzi, have I found any definite course laid out for the development of this faculty. To be sure, singing is taught in the schools in a way, but not in a way to develop the

musical faculty as is the case with the other faculties. In the Kindergarten there is a more definite course; but even here it seems to be taught more for the sake of adding to the interest than for the purpose of developing mind. Of course the simplicity of the airs is such that nearly all can learn to sing them, and if the course were followed up thoroughly in the primary and other grades, the number of singers would be greatly increased. Possibly I have underestimated the Kindergarten in this matter.

LOCATION.

The ability to recognize or remember position is indispensable in the study of geography; and, besides, its value in practical life is very great. Having occasion to travel through the country somewhat in the winter, I found it necessary to make frequent inquiries as to the residences of parties it was necessary to see. And such answers as I received were astonishing! One would be led to think the people would get lost in their own neighborhood. Not one in ten seemed to know anything definite of the location of the houses or roads of the neighborhood. One little boy was an exception. "Can you tell us where Mr. P. lives?" we asked. "Yes, sir; go east about eighty rods, then turn north, and it's the first house on the left-hand side." "That," said I to a friend with me, "is the best direction I have received in my travels." But what do the Pestalozzians do to develop this faculty? Children are first taught the points of the compass, then the right and left hand. Then they are required to tell where things in the school-room are located. After this they are drilled in making maps of the school-room and school-ground; to tell definitely the direction to their neighbors' houses from home and from the school-room; to tell how far they live from school, and on which side of the road or street, not only as to points of the compass, but as to right and left hand when going in certain directions. Maps of the neighborhood are drawn; then of the township and county. They are to be drilled in giving directions from school-house to any house

in the neighborhood; from one house to another, or from one object to another; then in going from township to township, or from city to city in their county. This is extended through the whole course in geography.

EVENTUALITY.

This is developed mostly in connection with language. Children are required to tell what they have seen, what others have seen, or what they have read. The teacher will tell a story and the pupils will write it out on their slates, or they are called upon to relate the story orally. Sometimes they are required to read a piece from a paper or a book, and then to lay the book aside and write a full account of it, or recite it orally. If the first to recite leaves anything out another is called upon, and so on till the whole of the story is told. This differs from the old method of conducting a reading-lesson in this, that, under the old system, the pieces were all familiar to the pupils, and there was nothing to tax the memory; but the aim now is to give always something new. By this means the pupils form the habit of remembering what they read, thus laying the foundation for educating themselves. Parents who buy books and papers for their children, and encourage them in telling what they read, can assist in the culture of this faculty very much.

CONSTRUCTIVENESS AND IMITATION.

More attention is given to the development of these faculties by the Kindergarten than by primary teachers. Beginning with the third gift, children are taught to produce simple figures with blocks, and these increase in complexity very rapidly during the advancement with the next two gifts, until the uninitiated would be astonished by the beauty and diversity of the constructions. At first the children are required to reproduce the forms that are produced by the teacher, and then to reproduce them from pictures again. These forms, being simple at first, are easily made. Imitation really precedes Constructiveness, for the child at first simply imitates what it sees others do, or copies the design from

the pictures. All along the children are required to invent new figures and designs ; to deviate as much as possible from the copies. But in developing Imitation, the children are not required to imitate forms, figures, etc., only, but sounds, also. While being taught to articulate all the sounds of the language, they are also *imitating* the correct *expression* as given by the teacher. In reading, the teacher's voice precedes that of the pupils ; and the latter are required to *imitate* it as nearly as possible. The culture of Imitation is of vast importance, for it is by imitating others that it finally learns to act for itself. The singing, dancing, marching, gymnastics, and calisthenics exercise this faculty, for it must see before it can do ; and they help to attain physical perfection.

It is possible some of the readers may not understand the nature of the Kindergarten gifts ; and it may not be out of place, before passing to the reasoning faculties, to describe one of them. Little bundles of wire, sharp at both ends, one, two, three and four inches in length, are provided. Then peas are soaked in water, or pieces of cork may be used. Sticking the sharp-pointed wire into the peas or cork, figures in the form of chairs, bedsteads, houses, bridges, fences, gates, and a multitude of other forms are constructed. I advise all who have little children to procure a set of books explaining how to use each gift, and then procure the gifts as they are needed. There is scarcely a gift in the Kindergarten system that does not tend to produce skill in the use of the muscles, and cultivate Form, Size, Color, Constructiveness, and Imitation.

REASON.

We now get to the reasoning faculty, and I shall give a short, condensed sample of the oral lessons given to children to develop the reasoning powers, and at the same time give a lesson on the elements of science :

Teacher. John, did you ever see any kind of bird that is fond of swimming ?

John. Yes, ma'am ; ducks like to swim, and I have seen them, and have seen them while swimming.

T. Very well, I shall write the word "ducks" upon the board. Now, James may tell me of some other birds that he thinks like to swim.

James. Geese like to swim.

T. Yes ; we will put down the word "geese" also.

The teacher continues to call upon members of the class till she will have a list of words upon the board something like the following :

Ducks,	Geese,	Swans,
Brant,	Gulls,	Loons,
Petrels,	Albatross,	Auks.

T. George, you may tell me whether the ducks have long legs or not.

George. Their legs are short.

T. What have you to say, Fred, of the legs of the other birds we have noticed ?

Fred. I think they are all very nearly alike.

The teacher sets the class to investigating this matter. All that are known to have short legs are marked, and then pictures of the others are found by the children, and it is thus shown that birds that swim have short legs. Then the other peculiarities of the legs and feet of the swimmers are shown, not by telling them, but by having them find out for themselves. The feet of the non-swimmers should be noticed, and the children led by questions to see the harmony there is between the *forms* of animals and their *instincts*. Geese have web feet, hence geese like to spend a good share of their time upon the water. Chickens do not have web feet, and it will be found that they do not care to go into the water at all, in fact are afraid of it. In like manner the teacher can by questions get the pupils to discover that the forms of body, neck, bill, etc., of the swimmers are very much alike, that their feathers are compact, smooth, and oily, and can lead the children to see that their whole structure is adapted to a life in the water, and that the same is not true of the other birds. In subsequent lessons the teacher will have the class discuss scratchers, waders, climbers, perchers, etc., until the whole of the animal, vegetable, and mineral kingdoms have received attention. All through these lessons there is *compari-*

son of the various kinds of birds, etc., a *generalisation* and *classification* into orders and species, and *reasoning* as to the harmony of structure with the instincts. The teacher's aim is to give no information, but by furnishing the material and leading the pupils by questions to enable them to draw their own conclusions and compare things for themselves.

These last lessons complete the series which have for their object the development of mind. Of course some knowledge is given all along, but the main object is not the acquisition of *knowledge* but *power*, which will enable the children to think and act for themselves—to become capable of educating themselves. But some may ask, "Where is the harmony between the two systems of philosophy?" It will be seen that each and every faculty of the intellect as located by Phrenology receives its share of attention, and while several faculties are always developed at once, there are especial lessons and drills for each. Not a single intellectual faculty that receives a location on the "symbolical head" is omitted or fails to receive these special lessons. The fact that many of the faculties are developed at once only adds to the harmony. Mental Philosophy as taught in the schools does not admit the possibility of mind acting in two or more directions at once. Pestalozzianism admits that the mind can recognize the form, size, color, etc., of an object at once. As the eye, ear, and muscles can all be exercised at once, so can the various faculties of mind. As to their philosophy in regard to mind as given at the beginning of this article, none will deny but that it agrees with Phrenology perfectly.

The Pestalozzian system has not reached perfection yet. The appliances are crude in many particulars; but can phrenologists boast of one more complete? Have not the latter too long ignored the former? There is harmony nearly all through, so why should they be longer separated? Is it not time that the two were united in one? I am sure Phrenology will not be the loser.

The Pestalozzians have been at work

upon a system almost identical in many respects, and have placed this system in nearly all the schools of Europe, and in less than ten years will have their principles established in all the schools of America. Phrenologists have worked with individuals; Pestalozzians with the masses. There is this fault with the latter; their works are so written that few can see any harmony between their system and that of any other system of mental philosophy. In their lessons is jumbled together a mass of unclassified truth. Some pay particular attention to one set of faculties and others to another. The Kindergarten differs from the primary lessons in schools proper; but among all we find a complete system that agrees with Phrenology. Is it not time for phrenologists to enter the school-room? Let some phrenologist gather from the works of the followers of Gall, Pestalozzi, and Froëbel, all that is in harmony. Then classify this, and put it in a definite shape, and give to the teachers of the United States a system of object lessons founded on a definite system of mental philosophy. Then let an effort be made by all believers in Phrenology to place this work in the hands of teachers. Let us become missionaries of a higher gospel of learning, and not sit with hands folded while others are gathering the harvest.

LOREN E. CHURCHILL.

ROSES—A SONNET.

BRIGHT blooms, soft garnitured in velvet sheen,
Ye glad the senses with supernal grace,
Warm as the smile that dimples Beauty's face!
Gleaming from out your robes of shimmering
green,
Adown what gorgeous heights, the stars between
Shall we your Archetypal semblance trace!
Oh! if so fair in our terrestrial place,
Paining the heart to learn what ye enshroud,
How grandly fair! how gloriously bright
Must be the Real which ye shadow forth!
Eye hath not seen, nor human heart conceived
The fullness of that Beauty, shrined in light,
The slanting rays of which, adown our earth,
Gleam golden-hued through broken shadows
weaved.

ELIZABETH OAKES SMITH.

PHINEAS LYMAN BUELL,

PHRENOLOGIST AND EDITOR.

(BIOGRAPHICAL SKETCH BY NELSON SIZER.)

FOR more than forty years the writer has been the intimate friend of P. L. Buell. In that time he has traveled the lecture field with him, rambled mountains, shared the same purse, the same room, and often the same bed; has been with him in nearly every phase of life which reveals character and tests integrity, and during these years of professional, social and pecuniary intimacy there has never been an estrangement nor a jar. Moreover, I have never heard him make a proposition, or employ a word, or do an act inconsistent with honor, decency or integrity.

He is delicately organized; not very strong physically, and with a head always too large for his body, he has been obliged to work guardedly and husband his vital resources. We never knew a man who would get so much good-natured fun out of some droll, careless or awkward action or remark of strangers and others, and if the saying was a cut at his own cost, it made no difference.

His moral development gives him not only a severe and exact sense of duty and personal obligation, but his sympathy leads him to "devise liberal things," and to take up the cause of the poor, the ignorant and afflicted.

The drift of his intellect is toward the philosophical, rather than the practical, the forehead being high and square. While many objects in the realm of detail may escape the notice of his perceptive faculties, or be slow in making their impression, he yet has a good memory of ideas, and is full of quotations which are rich in force and appositeness.

His Mirthfulness being large, he quickly

recognizes the absurd and ridiculous, and delights in storing up droll facts for reference, "to point a moral and adorn a tale," as an entomologist impales butterflies and other specimens for preservation and exhibition.

He is not wanting in self-respect and dignity, is sensitive to the good or ill opinion of the world, but has the courage to push reformatory ideas and principles, though the majority may, through prejudice, interest or ignorance, oppose them.

His character is not tame and inefficient; he shows force not by a noisy, barking Combativeness, but by the thoroughness and severity originating in Destructiveness which makes temper hot and severe when provoked, more especially when his Conscientiousness and Firmness act with it, then he feels bound to see the legitimate end of matters, though it may cost him time, effort and cash.

He is domestic and affectionate in his spirit, and while his large Cautiousness, which occasionally gives him a touch of melancholy, may sometimes hold him back from making acquaintance with strangers, his friendships, when formed, are as constant and as cordial as the sun.

Mr. Buell was born in Granville, Hampden county, Mass., February 20, 1809, and is now more than seventy-three years of age. His father's name was Martin Tinker, a lineal descendant of Thomas Tinker, who came to America in the *Mayflower*. His grandfather, Phineas Tinker, removed from Lyme, Conn., to Granville, Mass., when the place was a wilderness. His mother's name was Spelman, a descendant of Sir Thomas Spelman, of England.

Mr. Buell's father died of fever, at the age of forty-five, leaving a wife and six children, the youngest, Phineas—our subject—being but three years old. More than a year later his mother married Mr. Asa Seymour, a wealthy farmer, with whom Phineas lived, working on the farm summers and

his native town, and the next summer engaged in the wholesale hardware store of Lewis Root, at Troy, N. Y. He soon found that mercantile life was not suited to him, and he attended, in the fall of 1832, the Westfield (Mass.) Academy, the principal being Rev. Emerson Davis. In that winter



attending school winters, until he was twenty one years old. At the age of seventeen he resolved to become a teacher, and by untiring perseverance at the common school and one term of the classical school of Rev. Dr. Cooley, of Granville, he entered upon his chosen work as teacher in his native district in the winter of 1831-2. He taught the next winter in another district of

Mr. Buell resumed teaching, and followed it continuously till the autumn of 1838. a part of the time giving particular attention to writing. In the winter of 1837-8, by his request, the Legislature of Massachusetts changed his name from Tinker to Buell.

In 1837, while teaching in Cabotville, now Chickopee, Mass., Samuel Kirkham, who was then associated with O. S. Fowler as a

lecturer on Phrenology, and in publishing a book entitled, "Phrenology Proved, Illustrated and Applied," gave a course of lectures on Phrenology, accompanied by examination of heads. Mr. Buell went to his rooms and had a private examination, and Mr. Kirkham described his peculiar idiosyncrasies so accurately, especially his predisposition to melancholy, which had ever been the bane of his being, that he concluded to make Phrenology the study of his life. He purchased Spurzheim's works, and soon found that the practical application of the science in the examination of heads was of great service to him in teaching and governing his pupils.

About eight months after hearing Mr. Kirkham lecture, while teaching writing in Blandford, Mass., he formed an acquaintance with Wm. H. Gibbs, and with him made an arrangement to commence giving public lectures on Phrenology in the autumn of 1838. This partnership lasted but a few weeks, after which each pursued his work separately.

His first trip lasted eighteen months, having in that time lectured in Pennsylvania, Delaware, Virginia, Maryland, Ohio, New York, Connecticut and Massachusetts, and it was a complete success in all respects, as he set out with the firm determination to place Phrenology on a moral, intellectual and truthful basis.

In the month of February, 1841, he met Mr. Nelson Sizer, Phrenologist, in the city of Washington, D. C., and formed a copartnership with him which lasted two years, and was afterward frequently renewed for a few courses of lectures at a time. After giving long courses of lectures in Washington, Georgetown, and Alexandria, they traveled and gave lectures in Virginia, Maryland, New York, Massachusetts, Connecticut, Vermont and New Hampshire, meeting with success. He closed his partnership with Mr. Sizer in the spring of 1843, after publishing a joint work entitled, "A Guide to Phrenology," by Buell & Sizer.

In August, 1851, he purchased of Elijah Porter a one-half interest in the Westfield (Mass.) *News Letter*, and continued working on the paper with Mr. Porter and H.

N. Carter ten years, and was sole editor and proprietor of the paper for ten years more, making twenty years of editorial life. The motto of the paper was, "Independent in all things, neutral in nothing," and he tried fearlessly to advocate the truth regardless of consequences. After the formation of the Republican party he contributed his influence to its support, which gave offense to some of his old line Whig friends, who were opposed to this new departure. The election of Rev. Mark Trafton to Congress, from the district since so long and ably represented by H. L. Dawes, awakened an opposition by some rich men against Mr. Buell, and the only local paper which had maintained a long existence in Westfield, which opposition culminated in 1869 by the starting of another paper with the avowed object to kill Mr. Buell's paper. But he had the people with him, and the circulation of his paper increased. After two years of successful opposition Mr. Buell's health became so much impaired that he sought rest by selling the *News Letter* to Mr. Sherman Adams, who at the end of two years more, consolidated it with the *Times*, which has since borne the name of the *Times and News Letter*. With the consolidation Mr. Buell became agricultural editor, which position he now holds.

In May, 1874, he was appointed Librarian of the Westfield Athenæum, and still retains the place.

Always a friend of public education, he has been an active member of the School Board in Granville and in Westfield, rendering efficient service up to the age of seventy-three. Mr. Buell has made Phrenology the study of his life, and confesses that he is indebted to it for his success and happiness, and teaches its doctrines by public lectures and in private circles.

As a lecturer he is sound, calm and deliberate, and always commands the attention and respect of his hearers; as an examiner he is careful, conscientious, and critical, and never forgets that he has an opportunity to give sound moral and secular advice to his subjects. In him and his

public work there is no false pretense, no quackery, no froth, and he never fails to leave a good impression of himself and of the science he promulgates. Not a few will

date their adoption of an honorable and successful course of life from their meeting with P. L. Buell.

SCOTTISH SHEPHERD DOGS.

THE dog is familiarly called the friend of man, for the reason, doubtless, that of all the brutes the dog seems to respond

There is enough of the savage nature in the dog left, notwithstanding his long domestication, to make him resent ill treatment, and where population is condensed he is subject when at large to irritation and often cruelty, but in the open country and on the farm his relations are circumscribed in most cases, having little to do with more than one family, and there he is made subservient to some useful end.



most to the needs of man. The horse, doubtless on account of his larger comparative bulk of brain, is a degree higher in the scale of absolute intelligence, but on account of his great size he has not been admitted to that familiarity with man which the dog has enjoyed from time immemorial. Hence it is that the characteristics of docility are more marked in the canine species. Efforts have been made from the beginning of time to train horses, to produce a high order of development, but the training has been in certain limited directions—to the increase of their strength, speed and beauty, that they might contribute the more to assist man in his labor and be a servant of his pleasure on the road. The dog has been made a companion. His docility and good nature have adapted him to all ages, from the crawling child to the decrepit veteran. In agricultural districts, the usefulness of the dog becomes most conspicuous, while in the crowded city he appears to be for the most part a superfluity, and often because of the peculiar influences by which he is surrounded there, a howling nuisance.

Of all species of dogs with which we are familiar, the Collie or Scottish Shepherd dog receives our best esteem. He appears to us to lead, by virtue of his superior intelligence, kindness and capabilities of usefulness. Our illustrations represent two dogs of this breed, which are owned by a gentleman of Natick, Mass. The collies differ much among themselves in form and appearance, but in the point of intelligence and docility they are very nearly alike. The body is of medium size, the head broad in the upper



part, the nose sharp, the ear small and upright. Some are shaggy, some smooth-haired, the tail bushy and the neck thickly haired. The color varies, but they are more

frequently inclined to black or darkly spotted and gray. There is one branch of the family entirely destitute of a tail. For the care of sheep this dog possesses an instinctive adaptation. There is an assimilation in the form of his head to that of the sheep's head. Whether this is an original property of organization, or the result of long association with shepherds, and familiarity with sheep, we can not say. Doubtless the disciple of Mr. Darwin would say yes. Analogously we have the wolf-dog, deerhound, the bull-dog, whose heads assimilate to those of the animals after which they are respectively named.

As compared with other species, the collie shows much more than average brain development, particularly in the anterior and superior regions, so that one familiar with the relation of brain organism to character would say that the collie possessed good perception, intelligence and kindness, and good nature in a marked degree. Their type of development is well seen in the illustrations. A bulldog or a terrier shows the greater bulk of brain in the central parts between the ears; there the collie brain is relatively narrow. The young collie, in company with a well-trained dog, and under the direction of the shepherd, soon becomes competent to the control of a flock. He gathers the nature of his master's wishes from a word or sign, and trots off at once to execute them. Many very interesting incidents have been related, which seem almost incredible to those who are unacquainted with the character of a collie. The story told by the Ettrick Shepherd, as the gifted poet, John Hogg, is often named in literature, is worthy of repetition here.

"One night, a large flock of lambs that were under the Ettrick Shepherd's care, frightened by something, scampered away in three different directions across the hills, in spite of all that he could do to keep them together. 'Sirrah,' said the shepherd, 'they're a' awa!' It was too dark for the dog and his master to see each other at any considerable distance, but Sirrah understood him, and set off after the fugitives. The night passed on, and Hogg and his assistant traversed every neighboring hill in anxious

but fruitless search for the lambs; but he could hear nothing of them nor of the dog, and he was returning to his master with the doleful intelligence that he had lost all his lambs. 'On our way home, however,' says he, 'we discovered a lot of lambs at the bottom of a deep ravine called the Flesh Cleuch, and the indefatigable Sirrah standing in front of them, looking around for some relief, but still true to his charge. We concluded that it was one of the divisions which Sirrah had been unable to manage, until he came to that commanding situation. But what was our astonishment when we discovered that not one lamb of the flock was missing! How he had got all the divisions collected in the dark is beyond my comprehension. The charge was left entirely to himself from midnight until the rising sun; and if the shepherds in the forest had been there to have assisted him they could not have effected it with greater promptitude. All that I can say is, that I never felt so grateful to any creature under the sun as I did to my honest Sirrah that morning.'"

Too much is sometimes expected from a shepherd dog, as an anecdote related of Thomas Jefferson illustrates. He had a very handsome imported shepherd dog presented to him. This dog was thoroughly trained, and the ex-President had invited numerous friends to call the day after the dog was received, as he intended to show off his wonderful intelligence. The friends arrived, and the dog was taken to the fields where there was a large flock of sheep. With a wave of his hand Mr. Jefferson sent the dog for the sheep. As soon as the sheep saw a stranger dog coming for them, off they went on a run, and it was with great difficulty that they could be folded at night. The whole proceedings so disgusted Mr. Jefferson that he gave the dog away. The reason of this failure, which was rather on the part of his owner than on the part of the dog, is obvious enough, for had the sheep been gradually accustomed to the dog, and the dog handled a little, to understand just how his master wanted the work done, he would have given complete satisfaction.



A TWILIGHT MEDITATION.

I TARRY long, and joy to hear
From happy voices far and near,
That darkest shadows of the Night,
Like shapeless phantoms, take their flight
In the fair Morning light.

The way was dark, and rugged too,
Up mountain heights from which to view
The Star-land of the Wise, who must
While living, love, and work, and trust,
With gentle souls and just.

I travel on my lonely way,
And, musing at the close of day,
Recall the scenes when life was new,
And blessed forms now lost to view,
Where life and love are true.

The sylvan aisles are silent where
Soft music voiced the vibrant air ;
The falling leaves are brown and sere,
And autumn days of life are here,
With mem'ries sad and dear.

The early summer birds have flown
To fair and sunny lands unknown ;

While music, from some higher sphere,
Comes softly to the souls that hear,
When angels hover near.

The singing birds in woodland bowers,
Returning with the early flow'rs,
Will cheer the passing hours—
While ministries of Sun and Rain
Bring to the valley and the plain
The perished Life again.

I linger where the shadows fall,
Beneath the cypress-shaded wall
Of a deserted hall ;
Where voices of the loved, once more
Recall the happy days of yore—
From their immortal shore.

In looking through the veil of Time,
To fairer skies in worlds sublime,
I hear the pleasant chime
Of joy-bells where there is no Night,
And happy faces, calm and bright,
Shine in the blessed light.

S. B. BRITTAN, M.D.

Newark, N. J.

A MORAL MIX.

"A FALSEHOOD is a falsehood," said Mrs. Devoe to her husband, with considerable spirit ; "at least it is so to me. If you can make anything else of it, I should be pleased to hear from you."

"As far as I am capable of judging, a falsehood is a falsehood," Mr. Devoe replied. "How can it be anything else?"

"Now you are evading, just as you always do," his wife remarked. "We both of us *profess* to keep the commandments," she went on. "Now, when I tell my servant to say to Mrs. A. or Miss B. that I am not at home when I am at home, I want to know if I am not guilty of a double sin? In other words, I tell a falsehood myself, and worse than that, I make my servant lie also. Now, isn't this so?"

"Unmistakably! if you so regard it," Mr. Devoe answered. "But, Sarah, I thought 'not at home' had come to be a universally understood and accepted society phrase. Mrs. A. calls when you are occupied with your dressmaker, or you have a headache, and don't feel like seeing her; so you send word that you are 'not at home.' In this way Mrs. A.'s feelings are saved, because, though she understands and uses the current phrase herself, there are several chances that you are really out, and Mrs. A.'s self-esteem prompts her to believe that it would be impossible for you to say, 'Not at home' to her."

Mr. Devoe drew a long breath, and his wife smiled.

"You have covered considerable ground,"

she said; "but you haven't touched the point. What I want to know is whether 'not at home,' when I am at home, is a falsehood or not?"

"When I told Jimmy Harris the other day that I hadn't got any more marbles, when I had, you shut me up for it!" said young John, who had been listening to the above conversation with his mouth as well as his ears.

"What made you tell him such a story, John?" Mr. Devoe inquired.

"'Cause he had won 'em *most* all!" the youngster answered; "and I guess I wanted to save some of 'em."

"Why didn't you tell him that you had played long enough? You could leave him, couldn't you?"

Johnny's mouth was stretched almost from ear to ear now.

"Yes, I s'pose I could," he replied, "after he'd been through my pockets and taken all my marbles away."

"John!"

Mr. Devoe looked at his son sternly. "Aren't you as big as Jim Harris?"

"Oh! for mercy's sake!" Mrs. Devoe broke in, like most mothers, frightened at the thought of her son's defending himself.

Johnny leaned back in his chair, and slowly and thoughtfully examined the muscles of each arm, and then with a sigh, which his father understood and appreciated, betook himself to his breakfast again.

"Papa don't mean that you are to fight Jimmy Harris or any other boy," Mrs. Devoe remarked softly and impressively.

"That's worse than your 'not at home,' Sarah!" her husband interrupted *sotto voce*. "This is what I mean," he continued, addressing his son, "that your pockets and your marbles are your own, and if you don't feel disposed to play with Jimmy Harris or any other boy, there is no reason why you should. Do you think you understand me?"

Johnny's left hand sought his right arm again, and there was a twinkle in his bright eye which, to the anxious mother, boded no good.

"Papa," he said, still pinching the undeveloped biceps, "most all the boys on this

block go to the gymnasium. I guess you'd better let me go too."

"You can go this very day, John," his father replied. "If you can't keep a boy smaller than yourself from picking your pockets, it is high time you went somewhere."

"You don't want your son to grow up a coward and a booby," Mr. Devoe remarked after Johnny had left the room. He had listened in silence to his wife's arguments for some moments.

"I want my son to grow up a peace-loving, conscientious man," she replied with tears in her eyes. "Suppose Johnny should be brought home some day half-killed by a fight with one of his companions, or suppose he should injure some other boy perhaps for life?"

This side of the picture was more than Mr. Devoe could stand. At any other time his merry laughter would have been instantly contagious, but at this moment it was only a fresh cause of irritation.

"If you had observèd as I did your son's minute examination of his arms," he responded, "you would have no cause for anxiety; and if you did not, it seems to me the gymnasium business ought to have settled it."

Mrs. Devoe made no answer. What with her conscience, always active enough, but just now particularly troublesome, her anxiety about her son, and her annoyance that her husband did not see the serious things of life in the same light that she did, made it impossible for her to say any more.

"I wouldn't take things so hard," the gentleman remarked, as he was leaving the house. "Really now this 'not at home' business seems simple enough to me. For my own part, I would rather tell this little society fib a hundred times a day than hurt one person's feelings."

Mrs. Devoe shook her head. This mute protest was all she was capable of at this juncture.

"However, my dear," her husband added, "act according to your conscience in this as in all other matters, only for pity's sake don't make a spoony of John. I want him to know how to take his own part, and anybody else's part who needs help; not to be

quarrelsome or vicious, of course, but just manly and courageous."

"Mamma, what's the matter?"

Mrs. Devoe lay on the lounge, her face buried in the pillow, sobbing as if her heart would break.

"Johnny, I want you to promise me that you will never fight as long as you live!"

Mrs. Devoe wiped her eyes, and took her son's chubby and somewhat grimy hand in hers.

"Mebbe there'll be a big war sometime, mamma," the youngster replied; "and then I'll have to fight, you know."

"Perhaps in such a case, my dear," the lady compromised; "but I mean that you will never fight with any of your playmates now that you are a little boy."

"I won't fight any feller, mamma, 'thout I think I can lick him," was the extremely honest answer.

"John Devoe, I don't want you to fight under any circumstances," his mother explained; "and if you don't stop using the language you do, I shall be obliged to punish you severely. How many times have I told you not to say 'lick' and 'feller'?"

"All right, mamma," said Johnny, passing lightly over the reproof; "but what'll I do if a feller punches me?"

"There it goes again! I'll tell you what to do; come straight home as fast as you can."

Johnny's smile was broader than ever now, but he said not a word. By and by he drew his lips into shape and whistled a little tune. Mrs. Devoe knew that at this moment her son was instituting a comparison between his father and mother, which was very unflattering to the latter; but she went bravely on with her task.

"And I want you to promise to tell the truth, Johnny," she added, "the whole truth, and nothing but the truth, as long as you live."

"I do most always," said the boy.

"You heard what papa and I were talking about at the breakfast table," Mrs. Devoe went on. "Now I am never going to say 'Not at home' again to any one. If I can not see all who call, I shall say that I am engaged."

"Or you don't want to see 'em!" Johnny suggested.

Mrs. Devoe reflected a moment. This subject of truth was certainly much involved. In the new light which she had brought to bear upon her past behavior, how deceitful and hypocritical she had been in her treatment of certain obnoxious acquaintances. In this mental review of her conduct she could not see but she had shown the same deference to those people as to those whom she really did like and believe in. "Was a life spent in this way anything but a lie?" she asked herself.

In the meantime, Johnny flatted through "Yankee Doodle" and "Baby Mine," apparently as deep in thought as his mother.

"Oh, Johnny! I do hope you'll be careful at the gymnasium."

Mrs. Devoe's thoughts had flown from the realms of truth and the contemplation of her son's pugilistic performances to the consideration of marred beauty and broken bones. Why was it that men always thought so much of muscular development? she wondered. For her part, she would much prefer her son's muscles to remain in their present crude and flabby condition than to run the least risk of an accident.

"I'll be careful," Johnny replied. "I'll bet I can do the trapeze in two or three times," he added, stretching out first one arm and then the other, and slowly and tremblingly drawing them back again. "Mamma," the boy went on, "you don't begin to know how much muckle power Jim Harris has got."

"And I don't care," Mrs. Devoe replied, now thoroughly out of patience. "Muckle power!" she repeated. "Isn't that a fine expression! Don't let me hear it again; and leave off that ridiculous movement of your arms, John. You began it at breakfast, and it makes you look very silly as well as very badly brought up."

Johnny's answer was a searching examination of his mother's face. Probably on account of some wonderment in regard to the very great difference between papas and mammias in general, and his papa and mamma in particular, Johnny's whistle was not quite as ready as formerly; but he tuned

up after a while, and in a few moments marched out in good order to the air of "The Girl I Left Behind Me," albeit in a somewhat melancholy and minor key.

If Mrs. Devoe at this moment decided that there was very little sympathy to be had from men and boys, she is probably not the first wife and mother who, under similar circumstances, has arrived at like conclusions. Johnny gravitated to the front stoop till it was time for his governess to arrive, and his mother shut and locked herself into her room to indulge herself in her misery.

In the meantime Mrs. Drummer's pony phaeton drove up, and the lady, brisk and active as a Drummer should be, alighted with astonishing alacrity. Mrs. Drummer was getting up a fair for the benefit of the church to which she belonged, and had called to secure Mrs. Devoe's assistance.

"Well, my dear!" this to young John, who regarded the new comer with a stare, in which his mouth took an active part, "is mamma at home?"

"Yes, she's home," John replied, getting his lips together with an effort.

"Then I may run right up, I suppose?" said the lady. To her dying day Mrs. Drummer will never know why she made this remark.

"You can run if you want to," John replied stolidly; "but mamma don't want to see you."

"What did you say?"

Mrs. Drummer could not believe she had heard aright, but she nevertheless halted with one foot on the sidewalk and one on the step, while she looked the little truth-teller sharply in the face.

"I said mamma didn't want to see you!" Johnny replied.

"Oh! you mean mamma is engaged or has other company?" Mrs. Drummer's voice was very sweet and coaxing as she made these suggestions.

"No, I don't," the boy replied. "Mamma aint busy, and she's all alone."

"You mean, then, that your mother don't want to see me?" and Mrs. Drummer tapped her breast lightly with her parasol-stick as she emphasized the—at this time—particularly objective pronoun.

"Yes, ma'am," Johnny replied. "Mamma says you give her a sick headache every time you come here, 'cause you talk so fast."

For a moment there was utter silence between young Devoe and his companion.

"Tell your mother, please," said Mrs. Drummer at last, removing her foot from the door-step as she spoke, "that if her head never aches in future till I make it ache, she'll never be troubled as long as she lives."

"Yes, ma'am," said Johnny quite meekly.

Then the lady walked with great dignity to her carriage and was driven away.

After this, Johnny's attitude was one of extreme dejection. He sat with his elbows on his knees and his head in his hands for some minutes. This had not been an easy task, and it didn't seem at all strange to the boy that people told falsehoods, when it was so much easier to do so than to tell the truth.

The next interruption was Mrs. Harris, mother to the pugnacious James.

"Mamma pretty well, Johnny?" the lady inquired.

"Yes, ma'am."

"Got any company?"

"No, ma'am."

"Going out anywhere?"

"Not's I know of."

"Then tell her, please, that I'll be in after I've been to market."

"I guess you'd better not," said Johnny.

"Guess I'd better not!" the lady repeated, quite as much astonished as Mrs. Drummer had been. "What do you mean, my boy?"

"Mamma don't like you, Mrs. Harris," said Johnny stoutly. "I've heard her say so lots of times. I'm going to the gymnasium this afternoon," the boy went on, "and papa says that if Jim tries to steal any more of my marbles, I'm not to let him; and mamma says the reason your children behave so, is 'cause you never stay home and see to 'em."

"Well, I am confounded!" Mrs. Harris exclaimed, looking as if it were the literal truth. "How dare you tell such falsehoods about my James, you naughty, wicked

boy?" she went on. "My James steal your marbles!"

At this critical moment Mrs. Devoe appeared on the scene.

"Good-morning, Mrs. Harris," said she cordially, unaware of the little comedy that had been enacted. "Are you going my way?"

"Which *is* your way?" Mrs. Harris inquired.

Mrs. Devoe smilingly pointed it out.

"Then *this* is mine!" Mrs. Harris replied with a queenly gesture in the opposite direction. "Good-morning."

"Good-morning," Mrs. Devoe replied quite as stiffly; and then the ladies parted.

Johnny still occupied his position on the stoop, and to him Mrs. Devoe addressed herself.

"What have you been doing?" she asked with flashing eyes.

"Just telling the truth, mamma!" John replied, looking more dejected than his mother had ever seen him. "I told Mrs. Drummer and Mrs. Harris, both of 'em, that you didn't want to see 'em, and all the things you said about 'em that I could think of."

It was well for Johnny on this occasion, and it was also well for Mrs. Devoe, that the ludicrous side of a disagreeable subject was sometimes the first to appeal to her. Johnny saw the smile that crept into his mother's eyes and around her mouth, and grinned in sympathy. He had had a miserable time of it; but at this moment the boy's heart was so warmed by his mother's evident appreciation of his conduct, that he would gladly have buckled on the armor of truth again and gone forth to fresh conquests. Mrs. Devoe saw the heroic purpose in her boy's eyes, and knew that he was racking his brain to remember various remarks that he had heard made of various people; and this only added to her hysterical merriment.

"Johnny," said she, doing her best to keep her face straight, "you will please not tell any more truths of this kind to-day! Do you hear?"

Johnny heard; but his puzzled face showed clearly that he did not understand.

"I will tell you by and by," she added.

"All right!" the boy replied; and then Mrs. Devoe went back into the house and sought the solitude of her own apartment, this time to have her laugh out.

It was a very bad affair, she told herself; and it was not plain how it was ever going to be anything else; but somehow this unfortunate occurrence had opened her eyes. In the first place, her criticisms of her neighbors and acquaintances were all wrong. What business had she to sit in judgment on other people? and then how contemptible it was for her to talk so freely before her young son, whose quick ear had doubtless caught everything she had said. Truth seemed now to take its legitimate place in the order of things; and while to tell the truth, and nothing but the truth, was as binding upon her as heretofore; yet the whole truth which she realized might sometimes be an opinion simply—and therefore very far from the truth—was neither kind nor necessary. The "not at home" business seemed more easy of solution now. If there were reasons why it was best not to see a caller, she would instruct her servant to give the proper excuse, and this with a conscientious endeavor not to hurt the feelings of her most sensitive acquaintance.

That evening Mrs. Devoe had a long talk with her husband, and then this gentleman set about making some things plain to his young son.

"But, papa, if I'm not to make anybody feel bad, what'll I do when Jim Harris goes for my marbles and slaps my face, mebbe?" John inquired.

"You'll come straight home, Johnny," said Mrs. Devoe decidedly.

"But s'pose he won't let me?" the boy inquired, looking as perplexed as he felt.

"You ought not to have anything to do with such a boy," his mother remarked sternly.

"I don't want you to strike back, John, unless it is absolutely necessary," Mr. Devoe put in at last; "but don't you think you could manage to hold Jimmy's hands at these times? You might tire him out, you know."

Johnny's eyes brightened.

"After I've been to the gymnasium a while," he answered. "Mr. Jermham says I'm as spry as a kitten, papa, and by and by I'll have as much muc"— Here Johnny glanced at his mother, and his sentence was never finished.

Mrs. Devoe looked out of the window and sighed, while her husband admiringly regarded his young representative, fully alive to the idea that his son ought to be able to defend himself if occasion required, and also certain that no boy of his could ever be so ungentlemanly as to pick a quarrel with any one.

Mrs. Drummer and Mrs. Harris demanded an explanation from Mrs. Devoe, which she very willingly and very truthfully gave them.

It must have had a beneficial effect, for both of these ladies have since been heard to say, that notwithstanding the fact that Mrs. Devoe has a very ill-bred and quarrelsome little boy, quite unfit to play with either of their children, and is a woman certainly without tact or breeding, they really believe she means to be conscientious.

ELEANOR KIRK.

THE WORK OF CULTURE IN THE FACE.

IT has been announced through the newspapers that a wealthy gentleman has made a gift of one million dollars to-

degree, has been demonstrated over and over again in his own African home. Here and there a native has been trained



ALONZO AS HE WAS.



ALONZO AS HE IS.

ward the education of the freedmen of the South. To dwell upon the fact of the urgent need of educational establishments in the Southern States, for the instruction of the negro, now that he has become a powerful element in our civil affairs, would be surplusage, but it may be repeated in this connection that the negro boasts a cerebral organization similar to that of the white man, and that, by the very nature of the case, implies capability of development into something better and higher than he is. That the negro is susceptible of education, to even an eminent

by missionary philanthropy, and has become exceedingly serviceable in Christian work. Here and there in our own society at home are illustrations of superior capability beneath a black skin. One that is fresh in public mind is that of the late Rev. Dr. Henry Highland Garnett, who was recently appointed by the Government of the United States as Minister to Liberia. His mental attainments would have been creditable to a man however light his complexion.

The two portraits which accompany these remarks are engravings from pho-

tographs of a negro in Africa, known by the name of Alonzo Miller. The first one represents him as he appeared when about thirteen years of age, the other when about nineteen. The intervening six years had been occupied in study by the youth, under the direction of missionaries to the country where he lives. Alonzo is a son of Tompo, a king of the Bassa tribe, in West Africa. Tompo governs a people of agricultural habits, and is said to be a kind ruler. In response to Tompo's own request, a missionary, the Rev. John Deputie, was sent by the Presbyterian Board of Missions to the Bassas, and commenced evangelical work among them. The youth above mentioned was handed over to the missionary to be educated, Tompo indicating a serious disposition to have his people instructed in the arts of civilization, and believing that having his son educated would help toward bringing about the change desired. Alonzo is now in Lincoln University, studying for the ministry, and has advanced as far as the junior class.

No one who carefully examines these portraits can help being impressed by the marked change, in form and feature, brought about by six years' training. On the one side we have the simple, natural negro boy. If we go into the negro quarters of any large city in America we shall find a score of just such looking boys playing around. In the other portrait we have indisputable evidence of culture. There are, to be sure, the features of the negro, but they have been greatly modified and refined. The forehead has become broad and full, the head in the superior region has filled out and rounded, the whole expression has become intelligent, earnest, thoughtful. We shall expect to hear a good report of this young man's course, after his return to his native country. Surely civilization has a wonderful power in moulding, not only mind, but body, and its agencies of benevolence, reform, and culture, if vigorously exercised, should bring to a speedy end the era of barbarism and ignorance in all lands.

WHISTLING GIRLS. WHY NOT?

"Whistling girls and crowing hens
Always come to some bad ends."

HOW many a merry whistle from the rosy lips of a happy girl has been checked by the repetition of the above lines in a reproving tone by some grandmother or Miss Nancy of a father! Many a girl has wondered why she could not be allowed to whistle as well as her brother. This is one of those things which seem to come natural to boys, like climbing fences and playing ball, but that they are not the peculiar property of boys is shown by the fact that there are none of them but what has been attempted, and successfully accomplished by girls who have been the exception to the rule. Let us see what there is in whistling that should debar any girl from indulging in the practice. Ask any boy why he whistles, what will he tell you? That he is lonesome and it is company for him, or that he has the

blues and it makes him cheerful, or that he can work better when he whistles, or no reason at all only that it seems to come natural. All these are very good and sufficient reasons. How many a boy has cheered himself during a long walk after nightfall by whistling some familiar tune, and the way did not seem half so long. As long as the mother hears the cheery whistle proceeding from the woodpile or barn, she feels sure her boy is happy and contented at his work, and when she does not hear the accustomed sound she feels sure something has gone wrong with the lad. Not long since one of our magazines contained a little story of a man and his wife who moved into one of two houses, which, as is often the case, were separated by a partition through which sounds made in one house could easily be heard in the other. The first evening after they arrived the sound of some one whistling

a merry tune was heard on the other side of the partition. They noticed it the next morning, and again in the evening, and so on every day the cheerful tones of the whistler might be heard; sometimes it was a merry tune, and sometimes a tender strain bringing memories of other days to the mind. At first the family were disturbed by this constant reminder of their neighbor, and wished that they had never moved to such a place, but in the course of a week or so they became interested in their unseen neighbor, and speculated on what manner of life he led that he should be always so cheerful and happy, and if for a time they missed the sound of his whistle they fell to wondering what had happened to him. Finally they became acquainted and found that their neighbor was an industrious tailor, who worked all day at his trade, and whose contented spirit overflowed at his lips. In the meantime the man and his wife, who had sometimes been inclined to grumble at their lot in life, had been encouraged to look on the bright side of things and think there was sunshine in their life as well.

If the mere act of whistling can help and cheer a man so much, why should it be denied to a woman? If whistling will drive away the blues and be company for a lonesome person, surely women have much more need of its services than their brothers, for to them come many more such occasions than to men. There are many who have not the gift of song. Why should they not whistle as they rock the cradle or perform their household duties, or accompany themselves on the piano?

For the same reason, but in this case it is a very specious one, men say they smoke to drive away melancholy or to keep them company. A good smoke, it is said, will put the most cross and tired man into a good humor, and make him approachable on any subject. Perhaps, but the final outcome of the tobacco poison, a dyspeptic condition, an irritable nervous system, is likely to render the good humor only a spasmodic or lucid interval in an almost constant habit of melancholy.

But there is a physical or hygienic advantage in whistling which should excuse it against all the canons of propriety or "good form." It is often remarked that the average girl is so narrow-chested and in that respect compares so unfavorably with her brother. May this not be due in some measure to this habit of whistling which every boy acquires as soon as he arrives at the dignity of pants, and girls seldom do? Let any one try for five minutes the inhaling and exhaling of the breath as occurs in the act of whistling, and the effect on the lungs and chest can not fail to be noticed. A daily practice of this kind would be of more benefit than all the patent inspirators and chest expanders in the market. An eminent medical authority says: "All the men whose business is to try the wind instruments made at the various factories before sending them off for sale are, without exception, free from pulmonary affections. I have known many who, when entering upon this calling, were very delicate, and who, nevertheless, though their duty obliged them to blow for hours together, enjoyed perfect health after a certain time." The action of blowing wind instruments is the same as that of whistling, consequently the effect should be the same, according to the amount of exercise taken.

ATTENTION IN READING.—Paul told Timothy to give attendance to the public and private reading of the Holy Scriptures, and to whatever might develop the gift in him received by the grace of God. He was not only to give attention *to* reading, but *in* it, that is, not only to remember the duty of daily reading, but while reading to put his whole soul to the task. "Meditate upon these things—care for them—give thyself wholly to them, that thy profiting may appear to all." *Totus in illis*, as Horace says, or *manibus pedibusque*, as Tarentius puts it, *i.e.*, "with might and main." F. W. Robertson, according to Dean Stanley, was "the greatest preacher of the nineteenth century, beyond question." Robertson says: "I know what reading is. I read hard or not

at all, never skimming. Plato, Aristotle, Butler, Thucydides, Sterne, Jonathan Edwards, have passed, like the iron atoms of the blood, into my mental constitution." The worst kind of idleness, he says, is that careless reading that allows thought to run through a thoughtless mind as water runs over gravel on which nothing grows. He gave six months to a small octavo on chemistry. Miss Martineau often gave an hour to a single page. That realizes the meaning of "giving attendance" to reading. That makes vivid the lexical sense of attention or "tension" of the mind, as a rope is tense when strained to its utmost power. This power of concentrating the attention of another, or one's own, is a coveted gift. Psychologists who use it become wizards in the eyes of those whom they enchain. As they concentrate the nervous energy to one point they call away consciousness from all other points, so that a pistol fired by the ear can not be heard; the knife or forceps leaves no remembered pain. Such is the wonderful witchery of

concentrated mental power in its supremacy over the intellectual faculties and physical functions of life. I speak not from hearsay, but only of what I have done myself again and again, with old and young, in this and other lands. The light burns when you get a focus. Some brains are better burning glasses than others, but all people can do more with themselves and others than they imagine.

There is no need of so much intellectual vagrancy in hearing, seeing, or reading. Give attention! It is the first call to the soldier under drill. Children should learn this as their first lesson. Stretch the cord to its fullest tension. Beware of reverie. He that has ears to hear let him hear. He that reads let him read, and not dream over the page. Lessons would be sooner learned, and commands sooner obeyed, if reverie and absent-mindedness were early conquered and the apostle's motto made a law—" *This one thing I do.*" Whatsoever thy hand findeth to do, do it with thy might. Success is certain. E. P. THWING.

SELF-CULTURE.

ONE of the most common faults of our erring humanity, and one that greatly deters our moral advancement, and the beautifying and strengthening of our characters, is that we persistently close our eyes to our own faults, and blindly follow the dictates of our own selfish inclinations. How very easy for us to see that our neighbor's actions are inconsistent with the true principles of a noble character. How many mental suggestions have we made in reference to his reform which we might wisely have adopted for ourself. And how much precious time have we lost in critically viewing and counting the real and imaginary weeds that we discover in our neighbor's garden, which we should have spent in tearing up the thorns and thistles that are rankly growing in our own. And these wasted moments roll onward, forming mis-spent hours and days that not only strengthen the evil traits of our characters and add

new ones, but close our eyes more tightly, making us more reluctant to commence any reform, and the task itself more difficult.

It is a very common thing for us to form habits and ways of thinking and acting which are radically wrong, and continue to indulge ourselves in them until we cease to regard them as anything but right. This is why so many fail who attempt to reform after they have passed middle age. They have no solid or safe foundation upon which to build a correct and noble character, and it is such a difficult task for them to tear down the old erroneous foundation which they have for years been building and strengthening. There are not many of us, could we only "see ourselves as others see us," who would not commence immediately to make some correction in our present mode of living. Would it not be a wise plan, then, for us to get outside of ourselves as much as possible, and take a careful view

of our individual characters and the general make-up of our entire manhood and womanhood?

This self-examination is rather difficult and requires careful work.

Above all it must be as correct and impartial as possible. Here we encounter two difficulties. In the first place, it is not easy for a man to sit as a juror in his own case and render a true verdict. The other difficulty lies in our incompetency. We have been taught by one that a certain thing is right, and by another that the same thing is wrong. And blinded as we are by the errors that have crept into our past lives, we are unable to tell, in many cases, just how far we have deviated from the line of right.

How, then, can we examine ourselves with any degree of satisfaction?

One good way is to take some leisure time, and, without thinking at all of ourselves, to write down all of the leading characteristics of what we regard a perfect man or woman, and then compare ourselves with every item, and see how far we fall below our own standard of manhood or womanhood.

A still better way is to carefully read some of the best books treating on the duties and responsibilities of mankind in his various relations, and see whether we can find no discrepancies between their teachings and our own lives.

This work is one that must receive our attention daily. We allow no day to pass without examining our outward appearance in a glass, to see if there is not some improvement we can make or some defect to be removed. Is it not more important that we should daily glance at our mental qualities for the same purposes? As we look over defects each morning we are the better prepared for the day's struggle in overcoming or removing them.

Again, all of our examinations must be thorough. This means that in our search we should leave no niche or corner unnoticed. There may be weak points in our character to which we have been accustomed to shut our eyes. Like the untidy housekeeper, who leaves the hidden nooks

of the kitchen unswept, we have been accustomed to pass by them until so much filth has accumulated that we don't seem to have the courage to face them. Let us remember, so long as we keep these faults, however much we may close our own eyes to them, that the world around us will not close theirs. These are the very points they will look at most. Shutting our eyes to these faults is acting as foolishly as the bird that tries to escape its pursuers by placing its head under its wings. Just here is the place to commence work. Lay bare the most defective points of character to the clearest sunlight. Let us place the ugliest side of our worst habits directly before our eyes, and keep it there till we are willing to abandon them. In making the work thorough, we must see that it covers the whole ground. We must go farther than to find out in a passive sort of way what we are, and must notice what we are doing. We must look about us and examine every relationship connecting us with the rest of mankind, and see whether we are fulfilling the various duties that devolve upon us in the sphere in which we move, to the best of our ability. And thus, instead of floating carelessly onward through life, attending only to such duties as are crowded upon us, and from which we can not hide, if we make it a daily study to seek opportunities of aiding others, we shall find ourselves amply rewarded in the improvement made within ourselves, and in the consciousness of having done all we can toward making the world a better one.

C. L. HILL.

SENSIBLE DRESSING.—There is a class of women, unfortunately not a very large class, whose dressing is above reproach. They go out to walk, not to show their clothes, but to add to their stock of health. They look as if they could sit a horse well, and as if they used often the luxury of a bath. They wear thick-soled shoes, with low broad heels, shapely and well-fitting. Their walking and church suits are of cloth, plainly made, but of excellent fit. Their gloves and bonnet-

strings are above reproach. The hair, well cared for, is prettily waved or curled above the forehead and worn so as to show the shape of the head—a style that artists love. Unless nature has been very niggardly, no false hair is allowable. The

bonnet is becoming, not a mere ornament, and the face is protected by a veil. An ample parasol or umbrella is ready as protection against sun and rain. What fault can the most censorious man find with a costume like this?

THE POWER OF MUSIC; OR, HOW MY STAIRS WERE PAINTED.

ONE day as I sat playing on the piano, a young lad, a painter by trade, was sent to the house by the agent, to paint the street door.

While thus employed, I occasionally heard a suspicious shuffling of the feet, that sounded very much like dancing, and to my surprise, I found that the music so affected the young fellow that it seemed impossible for him to keep still. After he had finished the job I went to him and asked: "If he was not going to paint the hall stairs?" "No, madam," he answered, "I have no orders for doing so, and couldn't possibly without." "Oh, I am so sorry," I rejoined, "but can you not do it on your own account?" "No, madam; my time is already paid for by my employer; sorry I can't oblige you!" And taking up his brush he was about to depart, when suddenly he halted, and snapping his thumb and finger over his head, exclaimed, "I have it!" then murmured something about "a fair exchange is no robbery," and turning to me, said, "I will do it, if I may be so bold as to make my own bargain. *I paint and you play.*" "But your employer," I ventured to suggest. "Oh," he answered with a shrug of the shoulders, "I'll make that all right by a little overwork. Is it a bargain?" The idea was such a novel one that I could not repress a smile as I answered, "Yes, we will commence at once."

I threw open the parlor doors, raised the top of the piano and began to play. First I struck up a medley of all the national airs that I ever heard. Then I imitated the banjo, harp, drum, music-box, the singing of birds, and many other little pleasantries with which the musician is familiar. Strauss waltzes came next, followed by little gems from favorite operas

with now and then a *fantasie* or *caprice de concert*. Next in order came the quadrilles and marches, ending with all the jigs and hornpipes found in my *repertoire*. Now and then I could hear the unruly feet of my handsome young painter as he performed a "double shuffle" or kept time to the music; and several times I felt a little concerned as to the safety of the paint-keg. But I played away, and he painted for nearly two hours. At the expiration of which time, he came to the door and bowing very low, said: "Madam, your stairs are painted. I am satisfied with my bargain, and hope that you are." "I certainly am, and thank you very much," I replied, as I glanced at the well-finished work, "and hope that you will have no trouble with your employer." "If I do," he rejoined, "I will tell him that I was bewitched by the power of music, and couldn't stop painting for the life of me. If he don't believe it I will send him up here to refinish the job." And taking up his keg and brushes, with another bow he departed.

SARAH E. DONMALL, (ANNA CLEAVES.)

A MOTHER stood over a stove cooking her dinner, when her little boy of five years old entered the room with a thoughtful look and asked: "Doesn't God make everything, mamma?"

"Yes," she replied.

"And didn't he make the trees and the little birds?"—"And the beautiful flowers," she added.

"And he made us too," he said. Then hesitated for a moment as he looked into the frying-pan, "and he made these codfish cakes too, didn't he, mamma?"

S. E. D.

GIRL AND EMPRESS.

THE CHILDHOOD OF THE CZARINA OF RUSSIA.

THE Princess Dagmar, as the Empress is still called in the land of her birth, grew up with her sister Alexandra, now the Princess of Wales, at the Danish Court with very modest surroundings. The Queen was an excellent mother, and sought to develop in her daughters the woman in preference to the princess. It used to be said at the capital that the princesses were made to help in making their own dresses, and that the furniture in their common bed-room was covered with inexpensive calico. A story of the naïve admiration expressed by Princess Dagmar on being shown the wedding trousseau of one of the noble ladies at court, and her longing wonder whether she would ever herself own "such handsome things," was told with a touch of sympathetic pride by the people of Copenhagen, with whom the two princesses were great favorites. Dagmar had won her way deepest into the people's heart, however. Her sweet disposition, the winning grace of her manner, and the perfect freedom with which she, like her sisters (and indeed the whole royal family), moved among all classes of the people were well calculated to gain for her an affection which followed her to her new home, and found expression at her wedding in a score of ways that touched the heart of the princess profoundly. At every subsequent appearance at her father's court she was received by the people with an enthusiasm that even embraced her husband, despite the rumors of his sinister character and violent temper, that from the beginning had threatened to make the match an unpopular one. The Czarowitz apparently took kindly to this popularity, and when at Copenhagen mingled freely with the populace. His bluff, soldierly way soon found favor, and when Dagmar's children, in little kilted suits and with dark hair "banged" over their foreheads, began to be seen about the park, at Fred-

ensborg, "grandpapa's" summer palace, the reconciliation to the foreigner was complete.

One of the causes that contributed to the popularity of the Princess Dagmar was, perhaps, her name. Her father had wisely given to all his children, except Alexandra, old historical Danish names, identified with the past of the nation. Frederick Christian, Valdemar, and Thyra, are all names that hold a high place in Danish history, and live in its songs and traditions. But of all the nation's great names none is dearer to the heart of the Danish people than that of Dagmar, the Queen of the victorious Valdemar, and the friend of the needy and oppressed throughout the land, whose goodness was so great that on her untimely death-bed, according to tradition, no greater sin weighed upon her conscience than sewing a lace sleeve on Sunday. The people of Copenhagen among whom the Princess Dagmar moved liked to compare her virtues with those of the beloved Queen, and, at her departure for her Russian home, the fervent wish followed her that she would prove in truth a veritable Dagmar—a "harbinger of day" to the unhappy people whose Empress she was some day to become. The Princess Dagmar was not a handsome child, her features being clumsy though pleasing; but she grew into a very beautiful woman, like her sister Alexandra. In every print-shop in Copenhagen pictures of her and her husband, with their children, are for sale. The children have little of their mother's looks, but bear a strong resemblance to their father.

NEVER be at your place of business when a person wants to borrow money of you; because, if you are in, you will be out, but if you are out, you will be in.



WARM BATHING VERSUS COLD BATHING.

ONE person in a hundred may be able to take a cold bath every morning, the year around. But we doubt if there is one person in a million who can do this without more or less damage to health, especially if the bathing is done in the evening.

It rarely happens in this climate that the water is over 65 degrees in the warmest weather, unless it is in some quiet place; certainly the Croton water of New York, or the Ridgewood water of Brooklyn, or the Cochituate water of Boston, or Schuylkill water of Philadelphia, are rarely as high as 65 degrees, while the human body is 98, and sometimes 100. With the water thirty degrees below the temperature of the body, the bath produces a shock and a tax on the system, which are not wholesome. We have known men who boasted that they took a cold bath every morning, but we never saw one of them with whom we should be willing to change places.

One might take a hand-bath, for the rubbing of the hand serves to modify the shock; besides, a quart of water does not require so much animal heat to warm it as a barrel of water does in a bath-tub. A shower-bath of cold water is a very severe test for the skin of a sensitive person. We know a few men who do not seem to be much shocked by a cold bath, but when we read of men being subjected to such a shower-bath as is inflicted at Sing-Sing prison, and other similar places, and kept on until the teeth chatter and the lips are blue, we think that cruelty has found its "perfect work,"

and we recommend that the administrators of such punishment be required to take a dose of their own medicine, and they would soon learn that the "cat-o'-nine-tails," applied with reasonable vigor, is much more easily borne than a cold shower-bath.

We want the water of a bath, even in hot weather, somewhat modified by warm water, so that in lying still in it for a minute it will feel neither cold nor warm. When the system has been perspiring abundantly all day, it needs tepid water for the bath all the more. If we must take cold-water baths let us have them in March or October, when the pores of the skin are not wide open and relaxed. But in July and August we would by all means have it tempered, so that one could stand and dry off without the use of the towel and still have a good healthy circulation and no chills.

BATHING INFANTS.

Some people subject their children to more bathing than is wholesome, and we would not apply cold water to them, nor that which is very warm; for a hot bath is as bad as a cold one, unless a person, having a chill, wants to promote capillary circulation and warm up the system. But the performance of bathing infants should not be the severe test to which many people think it their duty to subject them. Paralysis not unfrequently occurs from this treatment. Persons who bathe much in cold water acquire a rough, dry skin, and many people become fanatical on this subject of

bathing, both for themselves and for their children. Their idea is that every day of the year soap and water must be applied to all parts of the body. We doubt if that is necessary in most cases, and especially do we doubt it in persons of delicate health: those who have not blood enough to keep themselves warm, or vitality to promote the circulation after a bath.

There is a certain natural, oily softness to the skin, which the frequent use of strong soap tends to remove, and to leave the skin dry and parched.

If one would know what the effect of excessive application of water on the skin is, let him put his hand in water and hold it there for an hour, doing it steadily every day, and he will find that the skin will become rough and unnatural in condition, if not absolutely diseased.

Bathing two or three times a week is certainly enough for cleanliness, for a person who is not engaged in business which is dusty and dirty. If a person be engaged in such an occupation, daily bathing for the purpose of cleanliness is of course allowable. The parts of the system most exposed, such as the hands, face, neck, and in many cases the feet, if they perspire freely, need abundant ablution; but as to a daily full bath in cold water, we disbelieve in it *in toto*.

We have mentioned water at 65 degrees, which is about as high as it runs in the summer, especially in public water works; but what are we to think of it when it is down to thirty-five or forty? Consider the wonderful difference between that and the temperature of the body, and what a conductor of heat water is, how rapidly it depresses that of the body! In warm climates where the ocean and the streams are very warm, people bathe as a luxury and a pleasure, but in these sharp, frost-touched latitudes, thousands of people become martyrs to cold water.

We would not forego the frequent washing of the head. Nothing is more disgusting than dirty hair and scalp; and having much to do with heads, we sometimes find a partially bald head covered with an accumulation of dandruff, dirt, and the oil of the skin, and as it is neither ornamental nor useful, we would beg to suggest to elderly men especially, whose hair is somewhat thin, to keep the head clean. Many an old man who is scrupulously neat about the face, neck, ears, and nails, may have the top and back of the head offensively and disgracefully dirty, and not have the slightest idea of it. Let bald heads be carefully and frequently washed.—*Practical Phrenologist*.

QUACKERY WITHIN THE PROFESSION.

THE profession is probably unaware of the progress steadily made by medical quackery in its diverse forms and disguises. Quackery which is not medical—in the sense of being practiced by duly qualified men—is undoubtedly an evil, but its consequences are not comparable with the effects of such quackery as is growing apace within our own ranks, and slowly it may be, but surely, undermining the respect and confidence which the profession has hitherto deserved and received from the public.

We sometimes wonder that our calling does not command the warm recognition in certain quarters to which it seems entitled. For a sufficient explanation of

this default in the estimation of society, let us look to the prevailing and almost daily increasing popularity of "systems" and "cures" tacitly, if not avowedly, supported or countenanced by the profession. There is a sentimental and mock-heroic spirit abroad which burlesques the candor of "truth-seeking," and even mimics the impulses of chivalry. We hesitate to condemn any system, "lest there should be some good in it," and we are too tender-hearted and polite to deal honestly by its promoters, even though we recognize the fallacy of their pretensions, and more than suspect their motives. This is not a faithful line of conduct in reference to our profession, nor is it loyal to sci-

ence, which is one of the many constituent parts and aspects of truth. We know, or ought to know, that a perfectly just and truthful conception of the science of medicine must bar the recognition of *systems* and *cures* of any class or description. The art of healing is not a system, and can never be made one. It is simply an intelligent application of the laws of health in the remedy of disease. We study the "symptoms" of a malady with a view to the acquisition of precise knowledge as to its nature, course, and rational treatment. We pursue the investigation of disease over the boundary-line of death, and explore the cadaver with a view to ascertain the effect of the morbid state on the organism, and to elicit its organic causes, albeit we too commonly confound effects with causes. We test the powers and analyze the constitution of drugs, and we scrutinize and make careful trial of methods of treatment, to obtain a reasonable acquaintance with their natures and actions. In brief, we take any amount of trouble and resort to every means at our disposal to render the principles and practice of our art *rational*. This is our duty, and it is the only method consistent with self-respect and professional integrity; but, if side by side with this policy we cherish a spirit of credulity which renders us ever ready to countenance systems of which we can know nothing—because there is nothing to know—and take a false pride in showing friendliness to quacks and charlatans, the good work we ourselves may do is changed to evil by reason of the actual or implied sanction we give to the bad work done by others.

Nothing is so much needed just now as the rise in our midst of a stern and uncompromising apostle of sincerity in science—a man of unpitying animosity to humbug in all its forms, who will not hesitate at any bidding to denounce wrong-doing and untruthfulness, let who may be the offender. It is time that a spirit of manliness went out in our ranks to chase away the lying spirit of mock courtesy—the faint-hearted and time-

serving sentimentality—which makes us so ready to look kindly on any pretender and so reluctant to expose any pretense.

There can not possibly be a "system" or "cure" in medicine. There are no rule-of-thumb methods and no *mysteries* in true science. If we do not know what a remedy is and how it acts, we have no right as honest men to employ it. The time has passed for the working of cures by charms and the recourse to nostrums. We pander to the credulity of the unskilled community when we show ourselves credulous. We patronize and encourage quackery when we extend professional recognition to a quack. Every man is a quack—whether qualified or unqualified—who employs a remedy without knowing why, or who adopts a "system" in medicine.

The profession must speak out clearly and strongly on this point and without delay. From the highest places in society to the lowest ranks of the people there is just now a grievous readiness to "believe in" quacks and quackery. We have ourselves to thank for this most adverse "feeling" and "influence." It is the stirring of the viper we have brought in from the cold, where physicians and surgeons of more robust intelligence than those of to-day left it—the viper we have warmed and fed and brought back to life; and now it is preparing to rise and sting the hand that caressed it.

The way to encounter the charlatanism which is making head against science, is to be at once more candid and more conspicuously *honest* in our dealings with the public. We must lay aside the last vestige of the robe of mystery, and show by our words and works, our conduct and policy, that medicine is not a science that admits of inspiration, and that the practice of healing is not an art which can be acquired by the unlearned. There is no system or cure, or charm or nostrum known to the profession; our calling consists solely in the rational study and treatment of disease on common-sense principles. For those who pretend to a sort of inspiration we have no professional

friendship, and toward the promoters of systems and 'pathies we can have no leaning, or any feeling other than that of suspicion, if not pity and contempt. They can have no place in our professional intercourse, and we can have noth-

ing to say to them or their work. This is the only sentiment worthy of the medical profession in its dealings with medical quacks, and the time has come when the revival of its old spirit is most earnestly to be desired.—*London Lancet.*

INCONGRUOUS FANCIES IN DREAMING.

IN a work published by Dr. Symonds, of England, the author tells us that, in sleep—with the muscles relaxed, the senses at rest, thought and voluntary motion in repose—the work of the organic functions goes on, the blood circulates, is purified by respiration, and, for the time being, the body lives the life of a vegetable. But there are varied degrees of sleep. Some of our senses may be comparatively wakeful, whilst others are in sound repose. In this state one organ may receive impressions that will excite activity of association in others more or less wakeful. It is this incomplete state of sleep, this semi-repose of the faculties, which produces dreams.

Dr. Macnish, "happening to sleep in damp sheets, dreamed he was dragged through a stream." Dr. Symonds witnessed in his sleep what he thought was a prolonged storm of thunder, which he was afterward able to trace to the light of a candle brought suddenly into the dark room where he had fallen asleep. He relates that a person having a blister applied to his head, fancied he was scalped by a party of Indians. "I remember when a boy, sleeping in a strange house, in an old-fashioned room, with an oaken store-cupboard over the bed, I dreamt that I was being murdered, the assassin struck me on the head, and I awoke with a sense of pain in that region. Putting my hand to my forehead I found it sticky—with blood! I felt almost too ill to cry for help, but at length I alarmed the household; and, on procuring a light, it was discovered that some fermenting jam had leaked through the bottom of the cupboard and fallen upon my head in a sluggish stream. A

few months ago, shortly before going to bed, a friend had been discussing with me the peculiar instincts of animals, and, more particularly, their sense of the coming on of storms. After this he dreamed he was a Worcester short-horn grazing in a pleasant meadow on the Herefordshire side of Malvern Hills. He had a number of companions. Signs of a storm appeared in the sky; a misty vapor hung on the well-known beacon. He remembered distinctly, although he was a cow, watching, with a sense of great delight, the beauty of the preliminary tokens of the storm. With the other cows he quietly strolled toward the shelter of an adjacent tree and waited until the storm should break. He was chewing the cud, and he relished its herbaceous flavor. He distinctly remembered wagging his tail; yet all the time he had full reasoning faculties, and a lively sense of the beauties of the scenery."

Dr. Macnish says once his dreaming traveled so far into the regions of absurdity, that he conceived himself to be riding upon his own back; one of the resemblances being mounted on another, and both animated with a soul appertaining to himself in such a manner that he knew not whether he was the carrier or the carried.

These are odd examples of the incongruity of "the imperfection of the dreaming memory," which is most strongly illustrated when we dream of those who are dead. "We believe them still to be living, simply because we have forgotten that they are dead." A friend of Dr. Symonds dreamed that he was dead, and that he carried his own body in a coach to bury it. When he reached the place of

burial, a stranger said, "I would not advise you, sir, to bury your body in this place, for they are about to build so near it, that I have no doubt the body will be disturbed by the builders." "That," replied the dreamer, "is very true. I thank you for the information, and will bury it in another spot"; upon which he awoke.

USEFUL REMEDIES.—The following remedies being both safe and efficacious will be found valuable when needed:

Hiccough.—Saturate a lump of sugar with strong vinegar, and allow it to dissolve slowly in the mouth.

Look fixedly on the blade of an open penknife.

Swallow nine mouthfuls of cold water without taking breath.

Make a deep inspiration, and hold the breath as long as possible.

Swallow slowly as much cold water as you can get down, and thus distend the stomach.

A simple cure for obstinate hiccough consists in placing the hand flat on the pit of the stomach and making firm pressure. Should this prove unsuccessful, place a firm roll of muslin on the same place, securing it by a napkin bound tightly around.

Earache.—Closing the mouths of infants and children, and simply blowing into the nose, is often a very valuable method of relieving a severe earache.

Poison Oak, Ivy, and Sumach.—For the disagreeable effects caused by coming in contact with these plants, dissolve bicarbonate of soda in water—as much as the water will take up—and bathe the poisoned places freely every two hours. Muriate of ammonia may be used in the same manner.

Choking.—As the sufferer may die before the physician arrives, it is well enough to know that speedy relief sometimes follows getting upon all fours and coughing. Another procedure, often suc-

cessful, is for some one to blow forcibly into the patient's ear.

Foreign Substances in the Ear.—Children often get buttons, pebbles, etc., in the ear. In such cases dip the end of a suitable stick in melted glue, and carefully insert it in the ear until it reaches the substance. Then gently withdraw the stick, and the button or pebble will come out attached to its end. Another good plan is to take horse-hair of sufficient length, double it into a loop; then, placing the patient on his side, pass the loop into the ear as far as it will go, turn it gently, and, at the first or second withdrawal, the substance will come out in the loop.

Bleeding at the Nose.—A piece of brown paper, folded two or three times and placed between the upper lip and the gum, will, in many instances, at once stop the bleeding. A vigorous motion of the jaws, as if in the act of mastication, will often check the bleeding. In the case of a child, a wad of paper should be placed in its mouth, and the child instructed to chew on it hard. Pressing the finger firmly upon the little artery that supplies the blood to the side of the face affected will usually check the bleeding.

L. H. WASHINGTON, M.D.

O HEAVEN! for one generation of clean and unpolluted men—men whose veins are not fed by fire; men fit to be companions of pure women; men worthy to be the fathers of children; men who do not stumble upon the rock of apoplexy at mid-age or go blindly groping and staggering down into a drunkard's grave, but who sit and look upon the faces of their grandchildren with eyes undimmed and heart uncantered. Such a generation as this is possible in America; and to produce such a generation as this the persistent, conscientious work of the public press is entirely competent as an instrumentality.—DR. J. G. HOLLAND.

RESCUE WORK IN RELATION TO PROSTITUTION AND DISEASE.

BY DR. ELIZABETH BLACKWELL,* AUTHOR OF "THE MORAL EDUCATION OF THE YOUNG IN RELATION TO SEX."

IN treating of the subject of rescue work in relation to prostitution and disease, I will begin by stating certain propositions which are fundamental, and which are susceptible of ample proof.

First. By prostitution is meant mercenary and promiscuous sexual relations, without affection, and without mutual responsibility.

Second. Its object is on one side pecuniary gain, on the other side the exercise of physical lust. It is the conversion of men into brutes, and of women into machines.

Third. So far from its being necessary to humanity, it is the destruction of humanity. It is productive of disease, of gross physical cruelty, of moral death.

Lastly. It should be checked by legislative enactment, and destroyed by social opinion.

To amplify and enforce the foregoing propositions would necessitate a full consideration of the general subject, which I do not now propose to take up, but I shall confine myself to the special consideration of rescue work and of disease. And first I will speak of legislation, not for checking vice, but for making it respectable; the system which provides for, and not restrains. I solemnly declare that so far from this system being a necessary part of society, it is the greatest crime that can be committed against our common humanity.

Let me lay bare to you the root of the whole evil system of regulation which prevails in Europe, because, as a physician acquainted with the physiological and pathological laws of the human frame, and as one who has lived through a generation of medical practice amongst all classes of the community, I can speak to you with a positive and practical knowledge rarely possessed by women. The central point of all this mon-

strous evil is an audacious insult to the nature of men, a slander upon their human constitution. It is the assertion that men are not capable of self-control, that they are so dominated by overwhelming physical instincts that they can neither resist nor control the animal nature, and that they would destroy their mental or physical health by the practice of self-control. Now it is extremely important that you should understand exactly the nature of this dangerous falsehood. It is that most dangerous of all kinds of falsehoods—the perversion of truth. I think it was Swedenborg who said: "I saw a truth let down into hell, and forthwith it became a lie." I have often thought of this bold image, when observing in the present day the audacious *lie* which is announced as truth, in relation to that grand and universal force of humanity, the sexual power.

When you see a poor drunkard reeling about the streets, when you recognize the crimes and misery produced by intemperance, you do not say that drunkenness is necessary to men, and that it is our duty to provide clean and attractive gin-shops and any amount of unadulterated alcohol to meet the craving appetites of old and young. On the contrary, you form a mighty crusade against intemperance. And how do you go to work? You recognize the absolute necessity which exists in human nature for amusement, social stimulus, refreshment, change, and cheerful hilarity; and so you provide bright entertainments, bands of hope, and excursions for the young, attractive coffee palaces and clubs for the adults; in your entertainments you substitute wholesome drinks for "fire-water"; you repress the sale of alcohol by legislative enactments; you arrest drunken men and women; and you establish inebriate asylums for their voluntary cure. You recognize that drunkenness is a monstrous perversion of legitimate human necessities, and you set to work to reform public opinion and social

* A paper read before the Association for the Advancement of Woman, at its Women's Congress, held at Buffalo, N. Y., in October, 1861.

customs. Whilst on the one hand you legislate, on the other hand you educate. You perceive that the distinctive feature of humanity is its power of intellectually guiding life, and you train boys and girls in the exercise of this specially human faculty, moral self-control.

Passion unchecked, untransfigured by affection, is like fiery alcoholic poison to the human constitution. It constantly grows by indulgence; the more it is yielded to, the fiercer it becomes; an instinct which at first was governable, and susceptible of elevation and enlightened direction and control, becomes, through constant indulgence, a vicious domination, ungovernable and unrestrainable. When unsubdued it injures the health, produces disease, and grows into an irresistible, tyrannical possession, which converts human beings into selfish, cruel, and inhuman devils. This is what the great universal force of sexual passion becomes when we resolutely ignore it in childhood and youth; refuse to guide it, but subject it to accumulated vicious influences in manhood; and when even our churches and religious organizations are afraid or ashamed to deal with this most powerful force of our God-created human nature. Thus we suffer it to grow into a rampant evil—a real drunkenness—and then we have the audacity to say in this nineteenth century: "This is the nature of men; they have not the human power of intelligent self-control; women must recognize this fact, and it must be accepted and provided for."

Now, I say deliberately, speaking as a Christian woman, that such a statement, and such a belief, is blasphemy. It is blasphemy on our Creator, who has brought our human nature into being; and it is the most deadly insult that has ever been offered to men. Do not accept this falsehood. I state to you as a physician that there is no fact in physiology more clearly known than the constantly increasing power which the mind can exercise over the body either for good or evil. If you let corrupt servants injure your little children, if you allow your boys and youth to practice vice at school and college, if you establish one law of

divorce for a man and another for a woman, if you refuse to protect the chastity of minors, if you establish licensed houses, prostitutes, and procurers, you are using the power of the mind over the body for evil. You are, indeed, educating the sexual faculty, but educating it in evil. Our youth thus grow up under the powerful influence of direct education in vice; but so far, even in our so-called Christian civilization, we are ashamed to attempt direct education of those faculties for good.

I have made the above remarks as bearing directly on the subject of disease, as well as to call your attention to the proper place which "rescue work" must occupy in humanitarian work. As prostitution is the direct result of unbridled licentiousness, as it is an evil trade carried on between men and women, you may as well attempt to "mop up the ocean" as attempt to check prostitution, unless at the same time this root of the evil is attacked.

Let it be distinctly understood, however, that I would encourage, not discourage rescue work, and I would enlarge its scope. I honor the self-denial and beneficence even of those who can not see the source of the evil they are trying to mitigate; but I would much more strongly encourage those who, being engaged in this work, do at the same time clearly recognize that the warfare against licentiousness is the more fundamental work, and who, whilst engaged in rescue work, bid God-speed and give substantial encouragement to all others who are directly engaged in the great struggle against every custom, institution, or law that promotes vice. Such earnest rescue workers are not simply mopping up the ocean: they are also helping, by their encouragement of other fundamental work, to build up a strong dyke, which will resist the ravages of destructive evil forces. Thus, any efforts that can be made to teach personal modesty to the little boys and girls in our common schools all over the country would form a powerful influence to prevent prostitution. Attention to sexual morality in educational establishments everywhere, in public and private schools and colleges, among young men and young women, is of

fundamental importance. Illicit relations may and should be absolutely stopped in every place where the young are assembled; and the habit of private vice may be checked by moral influence. It is criminal that we do not thus guard the young. Also, efforts to secure decency in the streets, in literature, in public amusements, form another series of efforts which make a direct attack upon vice, and cut away another cause of prostitution. Again, the abolition of unjust laws and the establishment of *moral* legislation forms another series of effort, and a vital attack upon the roots of the evil. Always remember that the laws of a country possess a really terrible responsibility through the way in which they influence the rising generation. Inequality between the sexes in the law of divorce, tolerance of seduction of minors, the attempt to check disease by the inspection of vicious women, while equally vicious men are untouched, all these striking examples of the unjust and immoral attitude of legislation will serve to show how law may become a powerful agent for evil. Now, every encouragement afforded to such fundamental efforts, either through subscriptions of money, through expressed sympathy, or through active work, is also aid to rescue work, because such fundamental efforts attack the causes of evils.

I have said I would enlarge the scope of rescue work. It should apply to young men, as well as women. We do not sufficiently realize how immensely difficult it is for any young person who has once given way to criminal indulgence to give up the enslaving habit. The wisest and most persistent aid is needed to enable the weakened will to regain its mastery over the nature. The church has here a great work before it, and I am convinced that every Christian congregation should set apart some of its wisest men and women as counselors of the young, and train such counselors in this special and vital duty.

Having thus stated the aspect under which rescue work must be regarded—as a precious outgrowth of Christian charity, but not as a fundamental reform—I will take that point on which, as a physician, I can give you necessary information, viz., the

question of the diseases of vice as affecting individuals and posterity. This subject is a very painful one to the non-professional mind, and I would not bring it before an ordinary audience. But this is an assembly of experienced women, dealing with the questions which most vitally concern women. I think such persons are bound to inform themselves on this subject. It is needed to their effective work, and I consider it an honorable duty to furnish what necessary medical knowledge I can.

All forms of these diseases are injurious to the health of the diseased individuals, and to the health of the sexual partner, although but one form of disease may be transmissible to offspring. I shall not enter upon the question of the extent to which these diseases endanger the health of the community. My long public and private medical observation lead me entirely to concur in the opinion of Mr. Simon (formerly Medical Officer of the Privy Council), as to the exaggerated statements that have been made respecting the extent of these diseases. I fully recognize, however, the very grave character of such disease, and as a hygienist I consider that *any* danger from such a cause should be checked. These diseases are called the diseases of vice, because they spring directly from the promiscuous relations of men and women. They never arise from the single union of a healthy man and woman. We do not know the exact conditions under which promiscuity produces these diseases. Dirt, and excess of all kinds, favor their production; and we also know that, however apparently healthy the individuals may be who give themselves up to indiscriminate debauch, these diseases will speedily arise among them. Now, I wish to point out with emphasis (to you who may be often engaged with the criminal classes) this chief originating cause of disease—viz., promiscuity. It is a cardinal fact to notice in studying this subject, for it furnishes a solid basis of observation from which you may judge legislation, and all proposed remedial measures. If you will bear in mind that unchecked licentiousness contains in itself the faculty of *originating* venereal disease, you will possess a test by

which you may judge of the good or evil effects of any proposed measure. Ask yourself whether any particular legislative act tends to check license in men and women; if not, it is either useless or injurious to the nation, because it does not check that source of constantly increasing danger—viz., promiscuity. The effect of contagious diseases acts, of establishments and laws which do not tend to check the evil, is to facilitate, not stop such vice, and can not eradicate the diseases of vice. The futility of any system which leaves the causes of disease unchecked and only tries to palliate its effects, is evident. The futility of such a false method would remain, even if it compelled the inspection of vicious men, as well as women. But when a system attempts only to establish an examination of women, leaving men uninspected, and allows free scope to all, it becomes a direct encouragement to vice. It tends to facilitate that brutal custom of intercourse without affection, and without responsibilities, which is the disgrace of humanity—the direct source of physical disease, as well as of measureless moral evil.

But I do not advocate letting disease and vice alone. There is a right way as well as a wrong way of dealing with them. I consider that legislation *is* needed on this subject. It is unwise to propose to do nothing, because legislation has unhappily done wrong. It is out of the question to suppose that in this age, when we justly boast of the progress of hygiene or preventive medicine, that so great an evil as the unchecked spread of this disease should be allowed to continue. It was the necessity of providing some check which operated a few years ago, when the unjust and immoral contagious diseases acts were so unhappily introduced into England, by those who certainly could not have realized their injustice and immorality. All legislation upon this subject which can be durable, *i.e.*, which will approve itself to the conscience of a Christian people, must be based upon two fundamental principles, viz., equal justice and respect for individual rights. These principles are both overturned in the English contagious diseases acts, and in all legis-

lative attempts to deal with prostitution as a vice of one sex merely, instead of both—a vicious trade in which men are the capitalists. Such legislation must be abolished in all free countries;—countries which can only continue free when the love of liberty is guided and controlled by the love of justice. Respect for individual rights will not allow compulsory medical examination and treatment. The right of an adult over his or her own body is a natural fundamental right. We should uproot our whole national life, and destroy the characteristics of the Anglo-Saxon race, if we gave up this natural right.

Society, however, has undoubtedly the right to prevent any individual from injuring his neighbor. Interference to prevent such injury is just. The same sacredness which attaches to individual right over one's own person, exists for one's neighbor. Therefore, no individual suffering from these diseases has a right to contaminate other persons. In doing so, he goes outside his individual right and injures his neighbor. The wise principle on which legislation should act in dealing with the diseases of vice is therefore perfectly clear. Society has a right to stop any person who is spreading disease; but it has no right to compel such a person to submit to medical treatment. It is of vital importance to recognize the broad distinction between these two fundamental points, viz., the just protection which society must exercise over its members, and the inherent right of self-possession in each of its members.

We must accept, therefore, as an essential legislative principle, that the State has a right to interfere whenever vicious action injures society. What we must now seek for is the right *principle* of action, and such an enlightenment of public sentiment as will insist upon a *just* practical law upon this subject. Injustice in this vital question is immorality. This is fully exemplified by the marked corruption of every civilized country which has adopted unjust laws. In no country, at present, has any restraint been placed upon the most dangerous of all classes. The only class in society which is the direct injurer of the innocent, is now left

quite unchecked by the unjust legislation of Europe—I refer to viciously diseased husbands. It is essential to the welfare of any community that this class should be restrained. The time has arrived when the intervention of law is needed to place greater restraint upon those who trample on the plainest social obligations. A law, wisely enforced, making the communication of vicious disease by man or woman a legal offense would insure this necessary check. Such a law would not be the introduction of a new principle into legislation. As already stated, the principle of regulating sexual relations for the good of society has always been recognized, and must necessarily be developed with the growth of society.

It is the just and moral application of this principle that must be insisted on, instead of an unjust, immoral, and tyrannical perversion of the principle. The necessary safeguards in the working of such a law, the special inquiry, the protection of innocence, the avoidance of public scandal, etc., must be sought for with care. But the people have a right to require that legislators shall seek for and find the right method of enforcing any law which is just in principle, and necessary for the welfare of society. It is not only a duty, it is the greatest privilege of enlightened statesmen to embody the broad common-sense and righteous instinct of a Christian people in the institutions of a nation.

I would here, however, call earnest attention to the careful consideration which should always be given to a subject before any attempt is made to interfere by law in any social question. Hasty legislation is mischievous. It is very easy to say, make a law against any gross evil; but a point of practical importance is to carry it into execution. Always remember, therefore, these two points that must be considered: first, a wise and just law; second, the method by which it can be efficiently and persistently enforced; the latter point being quite as important as the former.

In France the law forbids the seduction of minors; yet in no country of Europe are such constant and infamous violations of

the law carried on with impunity. Therefore no sufficient aid can be expected from law alone. The education of the public conscience must keep pace with, and be expressed by the laws of the land. But I look with hope to the establishment of righteous law in the United States; for I believe that however much corruption and licentiousness appear to exist here, that the mass of the American people has really reached a higher general average of enlightened conscience than in any other country.

Laws which make it a legal offense for an individual suffering from venereal disease to communicate it to another person, and also a ground for divorce, are positively required, in order to establish a true principle of legislation, a principle of just equality and responsibility, which will educate the moral sense of the rising generation and protect the innocent. Any temporary inconveniences which might arise before the wisest methods of administering the law had been established by experience, would be as nothing compared with the elevating national influence of substituting a right method of dealing with the diseases of vice, for the present unjust and evil methods. The first direct means, therefore, for checking such disease, is to make the spreading of it a legal offense.

Secondly, a necessary regulation to be established in combating the spread of this disease is its full treatment in all general dispensaries and hospitals supported by public or charitable funds. Such institutions have often refused to receive persons suffering from disgraceful maladies, or have made quite insufficient provision for them. This refusal or neglect has left these more uncared for than ordinary diseases. It was a perception of this neglect which induced the establishment of special institutions. But no general hospitals supported by charitable funds given to cure the sick have a right to refuse to make adequate provision for any class of curable suffering which is not infectious, *i.e.*, dangerous to the health of other inmates. The rigid exclusion in the past of these diseases from our general medical charities, on the ground of their disgraceful nature, has done great

mischief in producing concealment or neglect of disease. This mischief can not be repaired in the present day by establishing special or so-called Lock Hospitals.*

These hospitals are established for the purpose of relieving human suffering, and such suffering constitutes a rightful claim to admission, not to be set aside. At the same time an important field of work is here presented to those who devote themselves to the rescue of unfortunate women and men. A special and wisely organized mission to influence those unhappy ones, and strengthen their lost self-command, might be of great utility.

While thus advocating the careful framing of a law to make communication of these diseases by man or woman a recognized legal offense, and while insisting upon the claim of this form of physical suffering to free treatment in all general medical charities, I would most earnestly caution you against the dangerous sophism of attempting to treat prostitutes as such. Never do so. The time is coming when Christian men and women will see clearly that this hideous traffic must be stopped. Men will see that they are bound to put a check upon themselves, and refrain from conduct which must be productive of injury to another individual. Serious consideration will then be given to the ways in which natural function may be rightfully exercised, and preserve its distinctly human features of affection and mutual responsibility. While social sentiment is growing toward such recognition, it is our duty as women unflinchingly to oppose prostitution and to refuse utterly to countenance it. The tenderest compassion may be shown to the poor creatures; the most beneficent efforts may be exerted, and sympathy for the individual human soul shown in the merciful endeavor to help every woman to leave this vile traffic, and let no one apparently countenance this inhuman trade in any way by assisting to make vice itself attractive and triumphant over

* A hospital in which infected women are confined for a certain time for an expected cure.

our human nature. I therefore earnestly counsel all those engaged in rescue work to keep this rule clearly in mind. Plead earnestly and affectionately with the unfortunate. Offer her remunerative occupation; every rescue worker should be able to do this.* If she has children whom society may justly remove from her deadly influence, work upon her maternal feeling to induce her to become worthy of the care of the innocent, and regain her children; but do nothing to raise the condition of prostitutes as such, any more than you would improve the condition of thieves as thieves.

There is, however, another suggestion which I will present to you, because it bears directly upon our way of dealing with the vicious and enforcing law, and I believe its acceptance is only a question of time. I refer to the introduction of a certain number of superior women into the police organizations, to act, among other duties, as heads of stations where women offenders are brought. I know the scenes which station-houses witness. I know that policemen themselves often dread more to arrest a half-drunken woman than a man, and that it requires more than one man to overpower the maniac who, with tooth and nail and the fury of drink, fights more like a demon than a human being. I know that such wretched outcasts rage in their cells like wild beasts, filling the air with shrieks and blasphemy that make the blood run cold. Nevertheless, wherever a wretched woman must be brought, there a true woman's influence should also be brought. When the drink is gone, and only the bruised, disfigured woman remains, then the higher influence may exert itself by its respect for the possible spark of womanhood which still is there.

There are many special advantages to be derived from the introduction of a few

* The necessity of being able to offer fair remunerative occupation is becoming more and more evidently a necessary condition of rescue work. The pitiful response, "It is my bread," is now often addressed to those many noble-hearted young men who, instead of yielding to, remonstrate with, the street-walkers.

superior women into the police force.* I think the services of a woman like the late Miss Merryweather, for instance, or Flora Foster, would be invaluable, both for the actual service such a woman would render in the management of female offenders, and also for the higher tone that such appointments would infuse into the police force itself. It is only the appointment of a few superior women that I should recommend, and these must be solely responsible to the highest head of the organization. The introduction of ordinary women, or those in any way subordinate to lower officials, would be out of the question, and extremely mischievous. But to secure the insight and influence of superior and proved women in dealing with female offenders, by placing them in positions of authority and responsibility, would be a great step made toward the solution of some of the most difficult problems of society. The problems which grow out of the relations of the sexes have hitherto proved insoluble—the despair of legislation. With the most conscientious endeavor to act wisely, even our ablest statesmen do not know how to deal with them. It is impossible that men alone can solve these problems, because there are two human elements to be considered in such questions, which need the mutual enlightenment, which can only result from the intelligent comparison of those two elements. The necessary contribution of wise practical suggestion which is needed from the intelligence of women, can only come through the enlarging experience gained by upright women. The reform now suggested is one of the steps by which this necessary experience may be reached, viz., the placing of some superior women in very responsible positions in the police organization; positions where their actual practical acquaintance with great social difficulties may enlighten as well as stimulate their intelligent devotion in the search of remedies.

* There are beginnings of this nature in New York, Boston, and Portland.

I think that America enjoys one special advantage in dealing with these important subjects. There now exists in the United States a large class of workers that is found nowhere else; a class that will, I hope, render valuable aid in the future solution of the problem of the elevation of sexual relations. I refer to the large and increasing body of well-educated women physicians. I look upon this body of women as my especial friends, and I should rejoice to see a moral medical Union—a St. Luke's Society—commenced by them. Such an organization, wisely planned, is needed to combat the growing heresy among us, viz., that morals have nothing to do with medicine. This false and narrow view of our noble profession was announced as a principle at the late International Medical Congress held in London. Morals were ruled "out of order" in the sections; and an eloquent foreign physician was called to order because he referred to morality in discussing certain medical questions. I shall rejoice to see our women physicians adopt a different rule, and recognize that Christian principle must guide the practical applications of medicine. I would gladly join with any earnest physician in forming such an organization.

In conclusion, let me heartily bid God-speed to your association in their efforts to study the serious duties which grow upon women in this age. Though far removed, we are working together for the same great object, and an unseen, but powerful aid will be with all earnest efforts to do right.

THE REMOVAL OF SCARS AND CICCITRICES.—The *Journal of Pharmacy* furnishes from good sources the following hints on this topic: The cicatrices, scars, or marks left by various diseases, burns, or wounds of divers kinds, are often less obstinately permanent than is generally supposed, and from some facts which have lately come under our notice we are inclined to think that their prevention or removal in many cases may be accomplished by some mild but effectual antiseptic.

Among the exemplifications of the efficacy of the formula we are enabled to lay before our readers, is the case of a gentleman of our acquaintance, whose face was so severely burned by the violent spurting of a quantity of melted lead (owing to a workman having incautiously dropped a *wet* pipe into it), that his eyes were only saved by pebble spectacles from utter destruction.

At first, of course, carron oil was the sole application, and as for *weeks* afterward particles of the granulated metal had literally to be dug out of the flesh, a deeply-scarred countenance was naturally predicted by all, except the patient himself. One mark of an almost imperceptible character alone remained after the expiration of six months, owing, as our friend says, to the whole face

being bathed twice or three times a day, as soon as the oil treatment could be discontinued, with a lotion of the simplest character, as is readily seen by glancing at its constituents.

Lint soaked in the same solution and allowed to remain on some little time will frequently mitigate the visible results of small-pox, and we have known one case of ringworm treated in this way to leave no scar whatever, while a sister of the latter patient, who had had the same disease in a lesser degree, but had not employed this lotion, still retains the evidences of the fact. The following is a convenient formula for a wash: Borax, half ounce; salicylic acid, 12 grains; glycerine, 3 drachms; rose water, 6 ounces.

KITCHEN LEAFLETS.—NO. 6.

THE DESSERT—CRACKERS, GLUTEN BREAD, GREEN PEAS, CAULIFLOWER, BEANS, ETC.

A COMMUNICATION lies before me in which the questions are asked "What do you really think of dessert?" and "When is the proper time to eat it?" Perhaps to answer this question we should first examine into the meaning of the term, "dessert." An appeal to my Unabridged is rewarded by the information that the word comes from the French *desservir*, which signifies to remove from, or clear the table, and is therefore that service or course which is placed before the company after the substantial viands, and their accessories, have received attention, and the dishes on which they were served have been removed. The dessert is the last course at dinner, and in this country it is usually some form of pie or pudding, although in some families of wealth it may be quite elaborate and made up of fruits, pastries, cakes, nuts, ices, etc.

As generally eaten in American families it is an appendage to the dinner, and not accounted as belonging to the essentially nutritive components of the meal—therefore something taken after the food wants of the system have been supplied. In this sense it is a superfluity and must

needs be something well seasoned and sauced, to tempt the palate.

As one who prefers the methods of hygiene, I can not subscribe to the dessert fashion, although I believe it wise to furnish one's table with food dishes whose appearance will be agreeable to the eye and the gastronomic senses. All food preparations should be nutritive and wholesome, and all should be eaten with a view to their effect as contributory to tissue growth, or complementary to systemic waste. So the dessert should be made a factor of the true meal, and prepared of such materials and in such a manner as will adapt it to the actual needs of nature.

I believe that the practice of serving the dessert as it exists in the great majority of families conduces much to the dyspeptic troubles of so many, and it were better, if the dominant authority of the household insisted on having the pie or the pudding, to have it set on the table at the beginning of the meal.

Fruit should be a component of dinner and liberally supplied, not as a dessert or last thing, but to be eaten with the more

substantial articles. Puddings and pies can be made hygienically and thus become true food, but they are to be considered rather as substitutes for other sorts of food and not as mere accessories to a dinner programme. For a hungry man of unvitiated stomach a dish of apple tapioca pudding with some good wheat-meal bread and a glass of sweet milk proves a delightful repast. Soft foods should be eaten with something hard enough to exercise one's teeth. A gluten or Graham gem, a slice of Graham bread two or three days old, or a few crackers, such as those for which I provide a recipe in the list below, will give the teeth something to do. The drift of fashionable cookery to-day is toward the disuse of teeth, since soups, stews, boned, braized, and hashed meats, soft biscuits, rolls, puddings, pastries, cakes, etc., appear to be taking the place of the older and more resisting forms of table dishes. This is providing business for the dentists, some of whom have courageously warned society of its eating follies. To have good teeth we must supply our systems with the materials of which teeth are made; but unless these materials are prepared in such forms as shall exercise well the masticatory organs, our expectations of tooth growth and durability will not be realized. Somebody has said that "a hard crust is the best dentifrice." Whoever it is, he has declared a truth which should be published everywhere.

GRAHAM CRACKERS.

One pint of cold water; Graham flour enough to knead very stiff. Stir the flour and water as stiff as you can with a spoon, then flour the kneading-board well and turn the dough upon it; knead Graham flour in until it does not stick to the hands; then roll out *very* thin, say to one-eighth of an inch or less, and cut in any desired shape—prick the forms with a fork to prevent blistering, and bake in a *very* hot oven twenty minutes. Put the crackers in a box, a wooden one is best, and set them in a dry closet; they will improve with age.

GLUTEN BREAD.

One quart of tepid water, or one pint of water and one pint of warm milk; one-half of a yeast cake dissolved in a little warm water. Take

gluten flour enough to mix as stiff as you can with a spoon. Make the dough as indicated in the recipe for Graham bread, and proceed for baking, etc., in the same manner. Or it can be kneaded like white bread, but not too stiff. It would be better then to make it one-third white flour.

GREEN PEAS.

Shell them; have the hands and dishes clean, so that it will not be necessary to wash them. Put them on to cook with boiling water enough to cover; cook them twenty minutes after they begin to boil or until they are tender. As the season advances and peas become older, they will need longer cooking, but they should be kept on the fire only long enough to make them tender. If done before needed on the table, set them where they will keep hot, but not cook. If you wish the full benefit of the sweet pea flavor, serve without seasoning.

STRING BEANS.

String and cut the beans in half-inch lengths, rejecting all that are not crisp and tender, and put them on to boil with an equal measure of water, *i. e.*, as much water as beans. Cook them three hours, or until they are tender. Another way is to prepare them at night by putting them to soak in water slightly salted. In the morning take them out of the salt water and put them on the fire and let them boil three hours, adding water as it boils off, and when the beans are tender, thicken with one teaspoonful of corn-starch previously dissolved in water to about one quart of beans.

STRING-BEAN SUCCOTASH.

When the beans are nearly done, add an equal quantity of tender sliced green corn; stew gently for fifteen or twenty minutes; mix thoroughly and serve warm. Do not put cornstarch in this.

BOILED CAULIFLOWER.

Pick off the leaves and cut the stalk close to the bottom of the bunch of flowers, and place in cold water slightly salted for half an hour. Tie a close net of coarse bobbinet lace or tarlatan around the cluster to prevent bruising or breaking, and put it into salted boiling water and cook until tender. Take the cauliflower out of the water as soon as it is done; remove the net and place on a hot dish. Have ready a large cupful of milk sauce, pour it over it and serve immediately, as it darkens if allowed to stand. Recipe for the milk sauce has been given.

STEWED CAULIFLOWER.

Cut the cauliflower into small clusters and lay them in cold salted water for half an hour. Then put them in boiling water and let them stew fifteen minutes. Turn most of this water

off, leaving half a cupful in the vessel in which it is cooked (which ought to be porcelain-lined); add to this half a cupful of milk slightly thickened with wheat flour and two tablespoonfuls of melted butter. Shake the sauce-pan over the fire gently until it boils; then skim out the cauliflower, and place in order on a hot dish. Pour the sauce over them and serve.

CURRANT JELLY.

String and wash the currants; put them in the preserving kettle over the fire, let them boil until the fruit is broken to pieces, occasionally stirring and mashing it. Strain the mash through a jelly strainer or coarse stout bag, pressing out all juice. To each pint of juice allow a pound of white sugar. Set the juice on the fire to boil; in the meantime divide the sugar into several different portions and put it into shallow platters or pans; place them in the oven to heat, stirring occasionally to prevent burning. Boil the juice just *twenty minutes* from the moment it begins fairly to boil, then add the hot sugar, stirring rapidly all the time. It will hiss as it falls in and melt very quickly. Withdraw the spoon as soon as the sugar is dissolved and let the jelly boil five minutes, no longer, and remove instantly from the fire. Roll the glasses or cups in hot water, and fill with the scalding fluid.

Raspberry or blackberry jelly is made in the same way, with three-quarters of a pound of sugar to a pint of juice however, as these berries have not the acidity of currants. It will not be quite so stiff, but more healthful not so sweet.

RARE DONE MEAT INJURIOUS.—There are no indications that the mania for undercooked beefsteaks is on the decline; in restaurants, only such are served. This refers to robust people, but weakly persons continue to patronize pounded raw chops and steaks, and the juice of

uncooked meat. M. Toussaint exposes the grave dangers of patronizing such a dietary, as, if the meat be unsound, the germs of disease will inevitably pass into the system. He states no contagious malady possesses greater virulence than tubercular affections, or consumption, and that is the form of the disease most to be encountered in meat sent to the market. In the slaughter-houses, an ox, etc., is not rejected as unfit for food, unless the lung be entirely affected, but gray granulations may still exist and produce infection. M. Toussaint took the lung of a cow not very much affected with consumption; he placed it under a press and collected the juice; he inoculated rabbits and young pigs with the liquid as it came from the press, and after he had heated another portion to 114° F., the result was, all the subjects died within a very short period. He extracted the juice in the same manner from the thigh of a pig, dead from consumption, previously cooking the flesh, to correspond with that served in hotels, etc., according to the latest fashion. Then he inoculated rabbits with such griddled juice, and they also invariably died of consumption. There are cases where the consumption of raw meat is necessary; here duty suggests to ascertain well the origin of such meat; in all other cases it is prudent to only eat meats suitably cooked, that is, meat whose interior has been acted upon by a temperature of 150° or 160°.—*Kansas City Science Review.*

WHAT IS THAT?

“What is that, mother, that comes from the urn,
Fragrant and strong, as we get it in turn?”

“An infusion of leaves from far Cathay,
Leaves of the alder and leaves of the bay,
With a twang, and full flavored, just as it should
be,
And I think that there may be some leaves of
the tea.”

“What is that, mother, so coldly blue,
Like a wintry sky of azure hue?”
“That is milk of the city, that mixture, my dear,
The milk of the chalk pit and pump that is near,
That would not be owned by a sensible cow,
For she never could make it; she wouldn't
know how.”

“What is that, mother, yellow as gold?”

“Butter, my boy; not the butter of old.
In the heyday of youth we said tit for tat,
'Twas a prophecy when we said butter for 'fat';
That is butter to those whom the scoffer calls
green;
To the elect it is oily margarine.”

“What is that, mother?” “'Tis the pepper of
trade.

But the Lord only knows of what it is made;
Of roasted meal, of dust and peas,
With a dash of cayenne, to make one sneeze;
It is hot and strong, but it's rather queer,
Of the ground pepper-corn there is none of it
here.”
—Puck.

NOTES IN SCIENCE AND AGRICULTURE.

Cost of the Electric Light.—Fears having been expressed that the mural paintings in the Lord President's Court of South Kensington Museum, London, might be injured by the gas used for illuminating purposes, it was determined to try the electric light, and in June, 1880, the Brush system was put in operation. The assistant director of the museum has issued a report upon the working of the light and its cost as compared with gas. He announces that he is having the gas fixtures removed, which may now be done with safety, as the electric lights have worked without any accident for so long. After giving the details of the expenses attendant upon the use of electricity, and the cost of gas from the 22d of June until the 31st of December, the report shows that the saving, as compared with gas, represents 42 per cent. Hereafter the picture galleries and art schools of the museum are to be illuminated with electricity, doing away with the bad state of the atmosphere caused by gas. The London *Engineer*, in commenting upon this report, says: "So far as we know, this report contains the first official statement as to the comparative cost of electric and gas lighting, and the Anglo-American company may be congratulated in having secured such powerful evidence as to the efficiency and economy of their system."

Illiteracy in the United States.—A paper read by Mr. Gardiner, at the University convocation which was held in Albany in July of last year, presents certain data relating to the educational needs of our general population, which should compel earnest attention. Mr. Gardiner presented statistics showing that in 1870 the voting population of the United States was 7,623,000, the voting population of the Southern States was 2,775,000. The illiterate voters in the United States were 1,580,000, and the same class of voters in the Southern States numbered 1,123,000. Twenty per cent. of the entire voting population of the United States, and forty-five per cent. of the voters of the Southern States could not read their ballots. The total vote cast and counted at the last general election in the whole country was 9,297,000. Advanced sheets of census reports and careful estimates say that from twenty-one to twenty-two per cent. of them were illiterate. Ten years ago one voter in five was illiterate. The proportion is larger to-day. Sixteen Southern States contain one-third of the entire vote of the country, and three-quarters of that vote was illiterate. There are 457,000 illiterate voters in the Eastern, Northern, and Western States. New York has 77,120 illiterate voters; Pennsylvania, 67,108; Illinois, 4,477; Ohio, 48,970. These 457,000 illiterate voters of the North showed their distinctive power in the riots of 1877, and they can decide every contested

election. The rapid growth of city population and illiteracy is an evil omen for American democracy. In 1870 illiteracy had grown to one-sixth of our population, and in 1880 it was one-fifth. In the State of New York alone nearly fifty per cent. of the illiterate live in cities.

A Chemical Stove.—An alleged improvement by a Dresden chemist is a new method of heating by mixing hyposulphate of soda with the acetate. The former melts more quickly than the latter, and retards crystallization in cooling. Herr Nieske uses one volume of acetate with ten of hyposulphate. The cases are filled to the extent of three-fourths, hermetically closed, and kept in hot water, till, on shaking, one no longer hears a sound from crystals within. The cases will then give an equable heat from ten to fifteen hours, according to size. A room stove, acting on this principle, as described by Nieske, consists of an inner and an outer cylinder, the latter having numerous small holes. In the space between the two stand three of the heating cases. These can be easily lifted out by the handles, and put into water in the central cylinder, which can be heated in position by means of a burner below (or removed to be heated elsewhere). This done, the cases are lifted into their places in the annular space. The water in the inner cylinder furnishes, by evaporation, a wholesome degree of moisture.

Silk Culture.—The recent exhibition of silk-worm products in Philadelphia by American women was a very happy example of successful enterprise in a most important sphere of industry. We give space readily to the report of the managers of the fair, which will be found very readable. The award of the premiums offered, through the Women's Silk Culture Association, for the four best specimen pounds of cocoons raised in the States of Pennsylvania, Delaware, Maryland, and New Jersey, was made at St. George's Hall, on February 8. The same offer is renewed for the coming year, and can be competed for by any of the readers of the PHRENOLOGICAL JOURNAL AND SCIENCE OF HEALTH in the States mentioned, who will raise one pound of cocoons and send it to the Association. Instructions for raising silk-worms, and the rules governing the competition for the premiums, can be had free of charge by addressing the Women's Silk Culture Association, Philadelphia. The fair of the Women's Silk Culture Association at St. George's Hall has proved to be a success in every particular. The public interest in the remarkable display was very great, and competent judges pronounce it the finest thing of the kind ever seen in this country. The great interest in the display consisted in the fact that nearly all the beautiful articles on exhibi-

tion were the products of American skill and industry, and rare silk fabrics were shown made in Philadelphia, even at St. George's Hall during the exhibition, that fully rivalled any of Oriental origin. There were twenty contestants for the premiums, which were awarded as follows: First premium, \$200, to Mrs. Rebecca Taylor, Kennett Square, Chester County, Pa., for the best specimen pound of cocoons, which averaged 157 to the quarter pound, and yielded $1\frac{1}{2}$ ounces of silk, and $2\frac{1}{2}$ ounces waste. Mrs. Taylor is the mother of the late Bayard Taylor, the poet and statesman, and is over eighty-two years of age. It was stated that she is a sufferer from paralysis, or she would have exhibited her interest in the work of the Association by her presence. Second premium, \$150, to Mrs. H. M. But-ton, Camden, N. J., her cocoons averaging 198 to the quarter pound, and yielding $1\frac{1}{2}$ ounces silk, and $2\frac{1}{2}$ ounces waste. Third premium, \$100, to Chas. Krauss, of Egg Harbor City, N. J., for cocoons averaging 157 to the quarter pound, and yielding $1\frac{1}{2}$ of silk and $2\frac{1}{2}$ ounces waste. Fourth premium, \$50, to Miss Lillie Titus, Camden, N. J., for cocoons averaging 205 to the quarter pound, and yielding $1\frac{1}{2}$ ounces silk and $2\frac{1}{2}$ ounces waste. The Association also awarded a fifth premium, \$25, to Mrs. Joseph Lennig, Bridesburg, Pa., for cocoons averaging 225 to the quarter pound, and yielding $1\frac{1}{2}$ ounces silk, and $2\frac{1}{2}$ ounces waste. Sixth premium, \$15, to Miss Hannah Taylor, Cambridge, Burlington County, N. J., for cocoons weighing 166 to the quarter pound, and yielding 1 ounce silk, and 3 ounces waste. Seventh premium, \$10, Mrs. J. B. Kemmerer, Bethlehem, Pa., for 200 cocoons, yielding $1\frac{1}{2}$ ounces silk, and $2\frac{1}{2}$ ounces waste.

James Vick.—OBITUARY.—The naming of three men who have done the most toward stimulating the practice among us of keeping flowers in the house and garden would include James Vick, whose death from pneumonia at Rochester, on the 16th of May, we are called upon to record. He was of English birth, but came to this country in 1833, then being about fifteen. He learned the trade of a printer, and was mainly employed on agricultural papers. Later he became editor and proprietor of the *Genesee Farmer*, then he purchased the *Horticulturist*, and soon afterward entered upon the practical illustration of the calling he promoted as a publisher. He had been gradually drifting into the culture and importation of flower seeds and bulbs, and at length determined to make this his sole pursuit. Bringing into it great energy and the experience in gaining the public ear acquired by the years spent as a publisher, he succeeded with remarkable rapidity. As a horticulturist Mr. Vick showed great tact in meeting popular needs, and in his annual catalogue and monthly publications exhibited remarkable liberality and taste in illustration and rare neatness of typography. On his annual catalogue alone he expended as much as \$50,000. All his

printing, binding, packing-box making, and other branches of work connected with the business were done on his own premises. The *Country Gentleman* very fitly says of him: "Liberal always in dealing with his customers and others—with an industry indefatigable in whatever he undertook—genial and interesting in personal intercourse—hospitable and attentive to all who called upon him at home—it is not strange that the deceased should have enjoyed the respect of a large circle of widely scattered friends, or that he should have won to such a degree, and held so firmly, the confidence of the seed-buying public. His establishment will now pass into the hands of his four sons, who have been educated in it from boyhood."

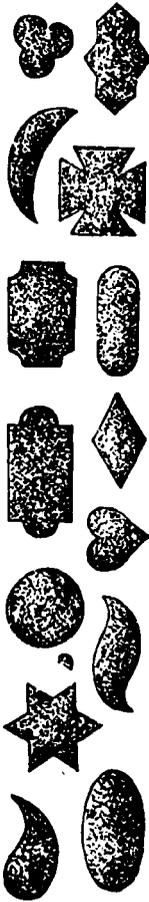
The Nervous Economy in Man

AND INSECTS.—Mr. Grant Allen writes in *Knowledge* that the nerves (worth mentioning) in the human body which are not under the control of the brain are those of the heart and other internal organs; and over these parts, as everybody knows, we have not any voluntary power. But all our limbs and muscles are moved in accordance with impulses sent down from the brain, so that, for example, when I have made up my mind to send a telegram to a friend, my legs take me duly to the telegraph office, my hand writes the proper message, and my tongue undertakes the necessary arrangements with the clerk. But in the insect's body there is no such regular subordination of all the parts composing the nervous system to a single central organ or head office. The largest knot of nerve matter, it is true, is generally to be found in the neighborhood of the sense organs, and it receives direct nerve bundles from the eyes, antennæ, mouth, and other chief adjacent parts; but the wings and legs are moved by separate knots of nerve cells, connected by a sort of spinal cord with the head, but capable of acting quite independently on their own account. Thus, if we cut off a wasp's head and stick it on a needle in front of some sugar and water, the mouth will greedily begin to eat the sweet syrup, apparently unconscious of the fact that it has lost its stomach, and that the food is quietly dropping out of the gullet at the other end as fast as it is swallowed. So, too, if we decapitate that queer Mediterranean insect, the praying mantis, the headless body will still stand catching flies with outstretched arms, and fumbling about for its mouth, when it has caught one, evidently much surprised to find that its head is unaccountably missing. In fact, whatever may be the case with man, the insect, at least, is really a conscious automaton. It sees or smells food, and it is at once impelled by its nervous constitution to eat it. It receives a sense-impression from the bright hue of a flower, and it is irresistibly attracted toward it, as the moth is to the candle. It has no power of deliberation, no ability even to move its own limbs in unaccustomed manners. Its whole life is governed for it by its fixed nervous constitution,

and by the stimulations it receives from outside. And so, though the world probably appears much the same to the beetle as to us, the nature of its life is very different. It acts like a piece of clockwork mechanism, wound up to perform a certain number of fixed movements, and incapable of ever going beyond the narrow circle for which it is designed.

Suggestions for Flower-Beds.—

One of our agricultural exchanges, the *Prairie*



Farmer, published in a late number the illustrations which the reader notices on this page, for the use of those who cultivate flowering plants or ornamental beds in their gardens. The designs are for the most part very simple in form, but may be arranged in such a manner as to produce a charming effect. It is by no means necessary that flower-beds or plots should be elaborate and complicated in design, adaptation to surroundings is the chief element of beauty and the mingling of color is the most important feature. The designs which are supplied can be varied in size according to the extent of one's garden or court-yards; where one has but a narrow strip on one side or both sides of his house, those forms which are long relatively to their width are the better suited to the case. If one have a square plot in front, and would set out plants, those designs which are oblong or circular are suitable. We have seen a plot of ground fifty or sixty feet square filled up with flower-beds of different designs, the whole forming a very agreeable parterre. crosses, circles, crescents, stars, spirals, etc., being made to blend together, and each plot being devoted to a particular class or series of flowering plants conducing to a contrast of color which was exceedingly beautiful.

voted to a particular class or series of flowering plants conducing to a contrast of color which was exceedingly beautiful.

A New Embalming Process.—

The process of embalming is as follows, and is called the "Brunelli process": 1. The circulatory system is cleansed by washing with cold water till it issues quite clear from the body. This may occupy from two to five hours. 2. Alcohol is injected so as to abstract as much water as possible. This occupies about a quarter of an hour. 3. Ether is then injected to abstract the fatty matter. This occupies from two to ten hours. 4. A strong solution of tannin is then injected. This occupies for inhibition two to ten hours. 5. The body is then dried in a current of warm air passed over heated chloride of calcium. This

may occupy two to five hours. The body is then perfectly preserved, and resists decay. The Italians exhibit specimens which are as hard as stone, retain the shape perfectly, and are equal to the best wax models. It will be observed in this process that those substances most prone to decay are removed, and the remaining portions are converted by the tannin into a substance resembling leather.

A Good Earth Closet.—

A writer in the *New York Tribune* thus describes a valuable arrangement which is in use on his farm: "Believing that I have a model for the farm-house, which, after a trial of eight years, gives the most perfect satisfaction, I present the following description: It occupies a space three by five feet in the back corner of the woodshed. It is thus convenient, the way to it under shelter, and there is no small suggestive addition on the back of the house to mar its beauty. It is on the same level as the kitchen floor, as is also the walk to it, and so it is easy of access to very old people and very young children. The seat extends across the back end, and is all hinged so as to be easily raised. There are two openings in the seat, one small for children, both of which are covered by lids which are hinged to the back of the seat.

"Just at the end and above the level of the seat is a small door, a foot square, which is hinged so as to swing up. This leads into a dry earth bin, which will hold a load of road dust. This bin so inclines that the earth will always be at the door ready to be shoveled out. An inclined board on the inside of the bin just over the door keeps the dry earth from falling out when the door is opened. A small shovel is kept under this inclined board always in place to shovel the earth from the bin to the vault. The hinged seat makes it easy to form a convenient and neat urinal, and permits the earth, or ashes, which we have sometimes used, when it was not convenient to procure the fine road dust, to be shoveled into the vault without causing any litter. The room above and the vault below are well ventilated, so that by using plenty of the road dust, or ashes, we have never found the proximity of the vault to the kitchen—though less than twenty feet distant—in any way disagreeable or unpleasant.

"The bottom of the vault is on the level of the ground, which is about six feet below the top of the seat. The vault is made of brick, the wall being thick and laid in cement. The floor consists of a box made of artificial stone, and so permits the escape of none of the liquid before the dry earth has time to absorb it. An arched opening on the back side, large enough to admit a shovel, permits the easy removal of the excreta, which is very easily done and in nowise an unpleasant task. The stone bottom of the vault might as well be replaced by one made of two-inch plank. The opening at the back is made close by use of a board that just fills it, and is covered by a lattice, as is the ventilation opening at the top. There is never any unpleasant odor to trouble about the vault."



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
JULY, 1882.

MENTAL VIGOR TO THE LAST.

IT is reported of Victor Hugo that he remarked to a friend, not long since, "I have more to do than I have done. It might be thought that age weakens the intellect. My intellect, on the contrary, seems to grow stronger, and does not rest. It seems to me that, as I advance, my horizon grows wider, and so I shall pass away without having finished my task. I should require several lives still to write all that my mind conceives. I shall never finish."

Most of the physiologists who have written on the subject of mental capability, have assigned a period to its fullest maturity and activity, indicating the age of fifty as the limit beyond which there is decadence more or less slow, more or less perceptible, nevertheless positive.

As we look over the field of civilization to-day, we are struck by the fact that there are so many minds of towering eminence which the age of seventy years has not apparently enfeebled in the slightest degree; Bismarck, Moltke, John Bright, Gladstone, Davis, Hoar, are the strong men in politics; while in literature, Tennyson, Browning, Bryant, Whittier, Longfellow, Emerson, and Holmes are or were the leading lights; and although far advanced in years, nevertheless

in the creation and outflow of thought commanding the delighted attention of the world.

We have claimed in other places that vigor of mind is preserved by exercise; that failure of the faculties depends upon their neglect or perversion, rather than upon a maintenance of their full activity. The remark of the great French poet is in point. We ought to have included in the list Bancroft, our historian, who is over eighty years of age, and still an indefatigable worker at the desk. And we could also cite the names of many diligently prosecuting their several tasks as instructors in the universities and colleges of Europe and America, men whose age exceeds seventy years, and in some cases reaching even ninety, yet so mentally fresh, so advanced, so ready in the appreciation of everything belonging to their special departments, that the idea of retirement from their charges would be regarded as preposterous.

We were intimately acquainted with a physician and scientist, well known in Boston and New York, whose erudition, versatility, and ready command of all his faculties, always seemed to contradict our knowledge of his being an octogenarian. He was for years at the head of a prominent scientific society in New York, and one of the most diligent of its members in promoting the special work of the society. He claimed a mind fresh as in the days of his youth, and it was no empty boast, for he was fully apace with the age, always a student, always a learner. We were surprised one day by the announcement of his death, and in reply to our question, "Was it not due to an overworked nervous system?" the answer came, "No, it was from undue exposure to exhausting weather."

The mental life is allied to, or is the spiritual nature of the man ; in either case it seems altogether reasonable to believe that there can be little or no falling off in power, if the faculties are exercised normally. It must be understood that our position in this matter rests upon the principle that there can be no normal exercise of faculty without a normal condition of body and of the organic functions with which the mental faculties operate. If the incidents of mental break-down at fifty, sixty, or even seventy in the case of men who were eminently esteemed for intellectual power were investigated, it would be found that the majority were invalidated or lacking in that physical energy which was essential to the abundant sustenance of their cerebral activity. As a general rule great men are well organized physically, and sudden failure of mind on their part is too often the natural consequence of habits approved or tolerated by custom, perhaps, but nevertheless destructive in time.

LAW A MORAL AGENT.

THE politician and men claiming to be political economists assert that proper laws are but the expression of the average moral sentiment of the people, and that laws which are in advance of such average moral sentiment are practically inoperative, or their attempted enforcement will be found impracticable. We have listened to statements of this sort from the platform, and we have replied to men who have made them in a casual talk on public affairs. They are specious and fallacious.

They are not in accordance with the principles of moral reform and social advancement.

Good laws embody principles of con-

duct the observance of which by the people will conduce to their improvement ; therefore good laws are in an essential degree educational. They may be in the main repressive of wrong doing, of crime, but they interpret the nature of offenses against social order, and teach— if in most cases only negatively, yet none the less clearly—honesty and justice.

Whatever is injurious to the community is a primary subject for legislative consideration, and it becomes the duty of those to whom the community has committed the trust of law-making to use their best endeavors to suppress by judicious regulations whatever is found to be damaging to public and private interests. The welfare of the private citizen is identical with the welfare of the community, but the welfare of the latter is paramount, hence when it is found that any individual or class of individuals is doing that which has a damaging effect on the moral and material interests of the community the officers of the law should be empowered to restrain or punish them. Common justice demands this. The right of every man to safety for his person, his character, and his property demands this.

Man is organized for growth and development toward a higher intellectual and moral condition than that which is his average as a member of society, and so has by virtue of organization a natural claim to that instruction, activity, and association which shall promote his growth. Out of this claim springs the right to expect from those vested with the duties of government the supply of all possible means for individual development. But when civil officers on one specious pretense or another permit things to be done which are subversive of every principle of order and decency ; when men are

allowed to build up into a great business practices which are openly detrimental to the health of body and mind, perverse of the very animal in human nature, what a shock it is to the unadulterated sense of justice! This is treason to the law of nature; treason to every sincere impulse of truth!

We are told that public opinion is on the side of many plain abuses; and therefore laws for their correction could not be enforced.

We can not believe this. We can not think that the masses are desirous of their own harm. On the contrary, we believe that they are desirous of improvement; that they would gladly avail themselves of the means to better their condition. This would be more in keeping with their selfish instincts. They need the counsel of wise and generous men, that they shall be led to a proper understanding of the significance of law and government, and so enlightened with reference to the needs of their moral natures.

There is too much law-making on the side of selfishness and vice; a state of affairs which is tolerated by the better and really stronger class among our citizens; for were the law-abiding, order-loving voters all to unite in one strong effort to secure the control of public affairs the cormorants and sensualists who have so long parodied justice in far too many stations of authority would be hurled into the mire of popular contempt; and then we could hope for a system of government which would co-ordinate what is reasonable in the teachings of those two great institutions, the Church and the school, and represent as well the wholesome facts which the leading societies for public charity and moral re-

form have gleaned from their many fields of labor. A writer in the *Christian Weekly* confirms the views just expressed, in the following paragraph:

"In the sphere of ethical politics the law-making power should ever be in advance of prevailing customs and usages. How shall communities get forward and upward in the scale of civilization if no aid is received from law itself in educating public opinion in the right direction? When rights and duties, privileges and benefits are embodied in the laws, there is a feeling of security which is impossible so long as the theory remains that law can not be enforced where there may happen to be a popular prejudice against it."

AN EDITOR'S BUSINESS.

(FOR THOSE WHO DON'T KNOW ALL ABOUT IT.)

IT is just possible that the PHRENOLOGICAL JOURNAL has a few readers who are not as well informed concerning the business of an editor as the majority of mankind, and for their enlightenment we give space to the following items:

First. It is the editor's business to have a perfectly harmonious temperament and a splendidly balanced organization, with a very conspicuous development of Benevolence and Suavity. Of course it is unnecessary to say that his intellect should be A 1, and his memory as tenacious as a spring bear-trap.

Second. It is his business to welcome with unaffected delight all who enter his "sanctum," to listen with absorbing interest to all they say regarding the weather, their health, their family and friends, their hopes and prospects. Should any be in any state of embarrassment it is his business to give them advice. Should any be looking around for employment it

is his business to furnish them with letters of recommendation, setting forth in vivid terms their eminent qualifications.

Third. It is his business to stop in the midst of a sentence if writing an important article or letter, when a visitor is announced who has "only stepped in" to inquire about the time the steamer leaves for Tuckerville, and the nearest route to the wharf. And when the visitor hints blandly that he is short just eleven cents of the amount necessary to carry him to his destination, it is the editor's business to declare that it gives him great pleasure to furnish the trifle demanded.

Fourth. It is his business to answer inquiries of every complexion with reference to writing for the press; to suggest topics for essays, stories, addresses, dramas, poems, sermons; to draft outlines of all such things for the inexperienced, and to feel abundantly compensated for the little trouble they give him by the information he gains in searching for data through cyclopedias and text-books.

Note: It is his business to be a "walking cyclopedia."

Fifth. "Variety is the spice of life." It is the business of the editor to appreciate this, and therefore to accept with equal heartiness a poem on "Sunshine," and a communication on "Potayter-bugs." His culture should be wide enough to grasp the richness of sentiment hidden in lines like—

The gorgeous orb of day ariseth in the east,
Announcing that 'tis time to wake to man as well as
beast.—

and to develop if necessary the scientific truths contained in this statement:

These reddish yaller vermin which is found in all our potayter patches is goin to be very injurus to man. They be appearing amongst us when the young sproutes have just onley peeked up

through the airth, and if theres any med-esin thats good for them Im one of the folks of Bonetown what wud like to know it.

Sixth. A great deal of nonsense has been published in some presumptuous quarters on the requirements of editors, *i.e.*, what contributors should know and do if they hope to have their contributions accepted and published. We have seen a string of demands in a literary contemporary occupying a page or more, and we have blushed for very shame while reading the barefaced acknowledgment of incompetence by one of our cloth. The man who would compel a seminary miss of eighteen to write metrical effusions with all the finish of a Lowell, who insists that manuscript submitted to his inspection shall be written with good black ink, in a clear hand, and on one side only of the paper, and that if any answer is requested an uncanceled postage-stamp shall be inclosed; the man who dares to issue such an arbitrary pronouncement is unfit to wield the scissors of our profession. He has mistaken his vocation; he deems the editorial chair a "flowery bed of ease" to whose comfort everybody must minister. His physical nature, his sensuous elements are too predominant—he's better fitted to be a hotel clerk or manager of a musical conservatory.

Seventh. It's an editor's business to have abundant leisure always at command, so that he can on the instant go to meetings, concerts, anniversaries, in town or out of town; and as such opportunities keep his mind fresh, and add greatly to his stock of general information, he should always be glad to pay his own way, and give extended complimentary notices besides. Indeed if he did not have such opportunities to "run out" he would

be miserable, like those so-called editorial fellows who run in a rut, who burrow in the rubbish of their dens like rabbits, and think that the world is greatly enlightened by their occasional deliverances; whereas the world thinks them one-sided and of drab complexion, and pays very little heed to their querulous notions.

Eighth. It is the business of an editor to have a problematic mind, we mean an instinctive capacity for getting at the meaning of the profound theories and wonderful discoveries which are so frequently submitted to his consideration. He should never turn his back on a seedy and voluble philosopher, and never own himself unequal to the complexity or vagary of a question by referring it hastily to the paper mill for solution. There might be "millions" in it.

Ninth. It is the business of the editor to have a good income that he may suit the action to the impulses of his great Benevolence, and set the example of generosity, magnanimity, etc., to the moneycrats of society; but in this respect, for reasons too numerous to mention, his business usually fails of the requirement, does not "pan out" the returns that should be his, and consequently society lacks, most unfortunately, that exhibition of liberality in the bestowal of pecuniary favors which every genuine editor would be glad to make.

Tenth. It is the business of the editor to do everything for everybody; to have no mind of his own, and to place the columns of his newspaper or periodical entirely at the orders of the public. The man who affects independence, and runs a paper for himself, or has any particular design in view in his writing and editing,

should not be tolerated in this day of common equality. Of course not.

READING MANKIND.—There is nothing that gives a man superiority over others, in the same field of effort, like being better able to understand mankind and to exert a pleasant influence upon them. The doctor who reads disposition and knows how to suit himself to it, gets the business; the merchant who knows men and women "like a book" will become popular as a man and merchant, and achieve success. The teacher, the lawyer, and the minister would double their power by learning what can be taught them in the AMERICAN INSTITUTE OF PHRENOLOGY in regard to human character and how to read it.

Men who canvass among strangers in any commercial way may greatly increase their power for effective effort in their respective lines of work, and save themselves a large amount of mental and physical wear and tear.

The next session of the Institute will be open for instruction on the first Tuesday of October. It is hoped that those who purpose attending will notify us at an early day, and that all will be present at the opening, as each lesson and lecture cover important ground, and those who would learn all they can should manage to hear all the lectures.

Those who have any interest in the subject may send to the office of this magazine for the "Institute Extra," which contains particulars with reference to the Institute, the course of instruction, the topics taught, best books to read as preparatory, price of tuition, expense of living while attending the course, etc.

Our Mentorial Bureau.

To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

MOTIVE TEMPERAMENT IN WOMAN.—

W.—Where you find the Motive temperament strongly marked in a woman, you will usually find characteristics which have been derived from the father so that she is positive, decided, and more or less independent. High organic quality is related more to the Mental temperament than it is to the Motive, and the combination of a high order of quality with the Motive is exceedingly rare in woman. Most authors on temperament appear to think that a predominance of the Motive temperament is inconsistent with a high degree of quality, but from our observations we have been led to think that there is no inconsistency between them. One may inherit a very marked Motive impression from one parent and a fine nervous organism from the other, the Motive contributing its strength and force to supplement the delicacy and activity of the other.

Such a mixture is by no means unhappy, but renders the possessor quick in perception, quick in all the processes of thought, besides enduring and energetic.

LOSS OF SLEEP.—F. H. A.—We think that the trouble in your case is a lack of vitality; twenty-four pounds under weight is entirely too much, especially where a man's business requires him to work at night. You should make it your business to improve your health, and regulate your diet, modes of exercise, and business so far as you can. Improve your digestion; its weakness is one important reason for your depression and fatigue after a single night's labor. Retire early as a rule, get eight or nine hours' sleep on those nights when you are not at work.

QUALIFICATIONS OF A PREACHER.—

One who hopes to make a good impression in the pulpit should possess a well-formed brain in general, and an even temperament. If we must specialize any qualities, they are good perceptive intellect, fair reasoning powers, good language, large moral organs, imagination, taste, and some force. The pastoral office requires a good social disposition, with independence enough to act upon one's sense of responsibility and duty.

HEREDITARY SALT-RHEUM.—J. I.—All hereditary diseases if permitted to run in the system until one has reached manhood are difficult to cure, yet a course of treatment having in view constitutional modifications if rigidly carried into effect will in time be beneficial if not absolutely curative. The patient will thus so alter his condition that he will enjoy a tolerable freedom from the disease in its worst phases. For salt-rheum local applications in the form of proper lotions, and constitutional treatment in the form of a well-regulated diet and bathing, are what we should recommend.

ORGANIZATION OF A STENOGRAPHER.—

A. B. N.—To become an expert shorthand writer the candidate should possess at the start an active temperament, a good intellect, and such an organization as will favor steady application. The great fault with shorthand writers to-day is that they lack general culture, whereas no profession so much demands a general education. One who expects to become a reporter should be conversant with science and literature. To be sure there are specialties for the exercise of shorthand capability, but he has the best chance who to expertness with the pen adds a liberal education. The same qualities which would aid one

in becoming a shorthand reporter would help in type-writing.

BITING THE NAILS.—*Question*: Is it injurious to bite the finger nails? **A LITTLE GIRL.**

Answer: It is a bad habit for one to get into, for the reason that those who become addicted to it forget themselves wherever they may be, and when embarrassed they are especially apt to indulge it. The injury which is done in most cases to the fingers is one of deformity—who likes to see the stubby, uncouth finger-ends which inveterate nail-chewers show? We have the impression that the practice has a mischievous effect on a person's mouth, distorting its shape, perhaps thickening the lips, possibly giving an abnormal tendency of growth to the jaws and teeth.

TEMPERAMENT IN THE NEGRO.—**M. M. C.**—Phrenologists of experience are able to discern differences of temperament in the negro, but no positive rules have been laid down concerning him as in the case of the Caucasian. It remains, therefore, for the physiologists and anthropologists to classify the Negro and the Mongol temperaments. Here is a good field for wide study. We should be glad to hear from those who have had opportunities to study the races of Asia and Africa, and to communicate their views through our columns.

IMPROVING THE MEMORY.—**G. N. F.**—All the methods of improving the memory are based upon the principle of attention. Whatever you study or observe should be earnestly regarded. The mind should not be permitted to straggle off to side issues. Outside matters generally should be ignored for the time being. Memory, of course, depends first, upon the organization, next, upon its use of training. A little book which we publish on the subject, entitled "Memory and Self-Improvement," contains a great many valuable suggestions for the cultivation of the faculty.

CONSTRUCTIVENESS AND FEAR.—**C. J. J.**—It was evidently a misprint; "Constructiveness" should have been Cautiousness, which contributes to fear. Constructiveness is simply a mechanical faculty and has nothing to do with fear.

THE HORSE-SHOE AS A SYMBOL OF LUCK.—*Question*: Why is the horse-shoe regarded by some people as a sign of good luck?

Answer: This notion is five hundred or more years old, and according to what we have been able to ascertain it was derived from an old fable, that a demon in the form of a horse once appeared in England and gave the people warning of an extensive conflagration which was about to occur. On this account the animal came to be regarded as especially friendly to mankind. His perspiration is said by some to

be a cure for epilepsy; a horse's tooth carried in the pocket would prevent tooth-ache, and a horse-shoe placed under a child's pillow would save it from an attack of colic; one fastened against a building was a good insurance against fire, and finding one was a sign of good luck. Some of these notions are rife now.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

PHRENOLOGY IN THE SCHOOL.—An experience of six years teaching in the public school, together with an extended course in private classes, has long since settled in my mind the conviction that a knowledge of the pupils' faculties, phrenologically considered, is desirable, to say the least; and were the instructor himself a phrenologist, he could the better judge of the training requisite, in fact necessary, to the accomplishment of the noble ends which are not unreasonably expected at his hands. It is well understood by those who have devoted their lives to the work of instructing youth that very different discipline and methods of training are required for different individuals. It may be asked, How is such a knowledge to be acquired? we are not all judges of human nature. True, every one has not the time or tact to become a phrenologist; but who has not the time to devote a few hours weekly, or monthly at least, in attendance on lectures and in reading good books on that subject? While it must improve ourselves, do we not owe as much to the profession which we represent? Why are we to waste our own time and that of the pupil in an attempt to make him an expert in things which it is not only impossible for him to perfect, but impossible for him to ripen into even a moderate degree of success? If your student is a born linguist, why insist upon making a finished mathematician or astronomer of him; or if born with a head for calculation and mechanics, why consume his time and energy in trying to acquire the beauties of the classics? Other things being equal, a well-balanced brain is most to be desired; but in this age of progression, when the common people must earn their living, is it not better, while cultivating all the faculties possible to a moderate degree, to allow their bent to have its sway—not to the exclusion of all others, but to a degree sufficient to become proficient? If it be better to be a good carpenter than a common "Jack-at-all-trades," why is it not better to be thorough in some one course of training and moderate in the others, than to average time with the whole?

T. S. PRICE.

A LETTER TO BISMARCK.—A correspondent of the PHRENOLOGICAL sends a copy of a letter sent by a German resident in England to Prince Bismarck, in reply to a notice that the German should present himself at a certain place in Prussia for military service under the conscription :

"MY DEAR BISMARCK :—I feel highly flattered by your kind invitation addressed to me at my native town, to join the German army, but I am afraid I shall not be able to accept it, for I am now in England, engaged in the more useful work (as I consider it) of expounding mental science and teaching people how to make the best use of their faculties. For the same reason, I scarcely feel myself at liberty to accept even the hospitality of six months' board and lodging at the expense of the State, which you considerately offer as an alternative. I much prefer basking in the sunshine of English liberty to being forced despotically into military servitude in my own country. I have altogether given up fighting since I left school. I do not know that I have anything particular to fight about now, and I hardly care to engage in fighting at any one else's bidding. If you have a quarrel with anybody I would advise you to settle it amicably if possible, or else fight it out yourself. If after you have 'fixed up' the army, you can make it convenient to run over here at any time to one of my phrenological lectures, I shall be happy to point out the superiority of life in England, and explain the nature and utility of the, as I say, more useful work which I am engaged in, and I will examine your head, either publicly or privately, free of charge.

"With kind regards to the Governor, I remain yours, faithfully,
GUSTAVUS COHEN."

THE PHRENOLOGICAL JOURNAL is much more than its name implies, dealing not only with the "bumptiousness" of individuals, but with facts of sanitary and general science, containing during the year an amount of useful knowledge far exceeding in value the subscription price.—*Sat. Eve. Spectator.*

PERSONAL.

HARRISON AINSWORTH, the author of thirty-four novels, died comparatively poor—and he wrote just the stuff that pleases the masses.

MRS. M. M. RICKER, who was admitted to the bar in the District of Columbia in May last, is said to have passed the best examination among seventeen applicants, all men but herself. She was especially well versed in the law of real property, a branch usually deemed to be a little above the feminine practitioner.

MR. WILLIAM THOMAS, of Plymouth, Massachusetts, is in his ninety-fourth year, and remem-

bers Ebenezer Cobb, who died at the age of one hundred and seven, and who in his time remembered Peregrine White, born on the *May flower*. Mr. Thomas is the oldest living graduate of Harvard College, having been in the class of 1807.

Six thousand workmen of Mr. Frederick Krupp, the great gun-maker, having refused to obey his order to be vaccinated during a small-pox epidemic, he gave them their choice of vaccination or dismissal; and as few poor men care to leave good pay, a cottage, a garden, a pension fund, an accident fund, and a relief fund, they submitted to the operation. A rather despotical fellow, that Krupp!

MRS. FLORENCE E. CORT, of New York, is credited with receiving \$4,000 a year for designs for carpets. She very aptly says that there is a wide field in this direction for the employment of woman's taste and skill. She makes designs for various houses in New York and Philadelphia, and is paid according to their value.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE fruit of education is the desire to learn.

Don't buy a piano for your daughters while your sons need a plow.

PRUDERY is often the mantle chosen to conceal triumphant vice.

I WILL listen to any one's convictions, but pray keep your doubts to yourself. I have plenty of my own.—GOETHE.

ADVERSITY has the effect of eliciting talents which in prosperous circumstances would have lain dormant.

TRUE repentance has a double aspect: it looks upon things past with a weeping eye, and upon the future with a watchful eye.—SOUTH.

THE man who is not living aright is sour within, and the sour works out. He who lives aright is your sympathetic and generous man.

ANON: The superiority of man to nature is outwardly 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 without one quill.

OLD thanks, old thoughts, old aspirations,
Oultive men's lives and lives of nations.

Dead, but for one thing which survives—
The inalienable and unpriced treasure,
The old joy of power, the old pride of pleasure,
That lives in light above men's lives.

—ALGERNON CHARLES SWINBURNE.

WHAT a man believes he will do; and if he has no faith to guide his practice and impel him to action, he will only drift—and no man ever drifted into a good and useful life, certainly not into salvation.

ALEXANDER THE GREAT seeing Diogenes looking attentively at a parcel of human bones, asked the philosopher what he was looking for. "That which I can not find," was the reply; "the difference between your father's bones and those of his slaves."

MIRTH.

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

PLACE your finger in a tub of water, and after removing it observe the size of the hole that remains. This is usually the impression the best of advice makes on men's minds.—BURDETTE.

INDIGNANT mother: "Surely you don't mean this for a likeness of my son? Why, the boy looks like an idiot." Photographer—"I'm very sorry, but I can't help that, ma'am."

THE infidel argys just as a bull daz chained to a post. He bellows and saws, but he don't get loose from the post, I notiss. Not much.

A TEMPERANCE SERMON.

If for a stomach ache you tache
Each time some whisky, it will break
You down, and meak you sheak and quache,
And you will see a horrid snake.

GEOGRAPHICAL.—The London *Academy*, in its notice of the February number of *Harper's Magazine*, explains that the articles by George Lathrop on "A Clever Town hult by Quakers," refer to "Pennsylvania."

NEVER despair. Many a boy who goes around with a yellow patch on his blue pantaloons may some day write a volume of poetry in blue and gold or have a silver plate on his door.

A SCIENTIFIC lecturer put out handbills headed "Know Thyself." A wag soon called on the lecturer and told him he was inducing a great many people to form acquaintances of a very low order. The lecturer looked at the wag a moment, and said, "My friend, you are right, but it never occurred to me until I saw you."

"MISS SNOWDROP," said a gentleman of color, the other afternoon, during a shower, to a lady of his acquaintance, "as de wedder is somewhat amphibious, will you do me de honor to step under my umbrella an' form a quorum?" "Tank you, Mr. Rillips, I will. In dis wedder an umbrella is radder cosmopolitan."



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 and physiological science. We can usually supply any of those noticed.

DRIFTWOOD. By Julia and Medora Clark. 12mo, pp. 172. Milwaukee: Magann, Keefe & Aldrich.

The West sends us a volume of poems now and then by one of her sons or daughters who has felt the monitions of the muse or imagined that he or she was called upon to give utterance to high and burning thought. Rarely though do we find, on opening the bright-bound pages, good cause for the book's existence. Rhymes there are, many of which are not poetry, but most of our writers of rhymes appear to think that they have only to match the terminal words of a couplet with like-sounding penults to make poetry. We opened "Driftwood" with that indifference peculiar to the reviewer who has had much experience with the flood of metrical publications which has been poured from the press during the last decade, but in turning over the pages we found here and there a verse which sparkled with lively sentiment, and we were pleased to note that the lines were in most cases carefully modulated and the rhythm harmonious. "My Answer," for instance, is a pretty little caprice, beginning:

"A music sweet as evening bells
Came floating thro' the autumn haze,
An echo from the perished years,
A measure from my girlhood's days,
The rhythmic language of thy heart
That spake to mine of after days."

And ending with:

"Oh, sweeter than chimes of the sea!
Oh, fairer than blossoms of faith!
And brighter than visions of hope,
The love thou hast kindled in me.
The zephyra repeat the refrain
And whisper my secret to thee."

"All in a Dream" is daintily fashioned. "After Death" is suggestive of practical thought, and not without its hopeful admonition:

"— our souls were never meant
To idly wander in content
Through sun-lit vales of honeyed breath.
A dream elysian after death.
If so 'twere better all to be
Earth life than immortality."

PROHIBITION DOES PROHIBIT; or, Prohibition not a Failure. By John N. Stearns. 12mo, 96 pp. Price, 10 cts. New York: The National Temperance Society.

A new and enlarged edition of a vigorous pamphlet with the same title published a few years ago. It is an epitomized argument founded upon solid data for prohibiting the sale of intoxicating beverages, and a complete answer to the snarling cry of liquor-drinkers that legislation will not stop drunkenness and reduce to a minimum the thousand and one evils which flow from free trade in rum. Let the tax-payer, the economist, the parent, the teacher, the clergyman, and everybody read it.

SUMMER GLEANINGS. Compiled and arranged by Rose Porter, author of "Foundations," etc. Oblong octavo. New York: White & Stokes.

A conveniently arranged scrap-book for the summer vacation, suggestive in itself of agreeable and useful employment in the hours of recreation. The author has divided her liberally spaced pages, allotting parts for notes, for pencil sketches, and for pressed flowers. The book is sufficient for three months' use, and one finds at the head of each page a sentiment for the day, which should be suggestive to the most heedless of summer loungers. We trust that the book will sell widely; it is certainly an improvement on the average summer reading.

MYSTERIES OF THE HAND REVEALED AND EXPLAINED: the Art of Determining from an Inspection of the Hands the Person's Temperament, Appetites, Passions, Impulses, Aspirations, Mental Endowments, etc. By Robert Allen Campbell. Illustrated. 18mo, pp. 203. St. Louis: J. W. Campbell & Co.

The hand, doubtless, expresses much of the character, but when one goes to the length of this new disciple of Desbarrolles in attributing to that valuable instrument the capability, by reason of its mere physical constitution, of declaring all the psychic elements of human character, as the author does on his title-page, we must enter our protest. We wish that he had given chapter and verse for his quotation from Job; we have looked through the references in our Cruden without discovering it. Possibly, however, it is a new rendering which has not found its way into Cruden.

Mr. Campbell has epitomized the subject of chiromancy well in his little book, and the curious will find in it all that they may care to learn; while to those who want a means of diversion altogether without profit it can be serviceable as a pastime.

PUBLICATIONS RECEIVED.

NANCY HARTSHORN AT CHATAUQUA. By Mrs. Nancy Hartshorn. 16mo, pp. 212. Price, paper,

50 cents, cloth \$1.00. This is a humorous sketch of this prominent summer resort, originally arranged for Sunday-school workers, but now become a point of attraction for a large number of our people. It is not an unlikely hit on the part of the writer, therefore, as we believe no one before has attempted to write up the place in a facetious manner. She tells not a few facts in her garb of pleasantry. J. S. Ogilvie & Co., publishers, New York.

MISS SLIMMENS' WINDOW. By the author of "A Bad Boy's Diary." pp. 150. Illustrated. Price 25 cents, paper. 60 cents, cloth. Miss Slimmens appears to be an ancient maiden, the keeper of a millinery-shop in a country town, and much given to scolding, gabble, and gossip, now and then getting off what appears to be out and out scandal, the fruit of jealousy, envy, and cupidity. All the time anxious to become known as Mrs. ———, she intimates a strong antagonism to enter into bonds of matrimony, and her very freely expressed opinions sometimes get her into disagreeable scrapes. J. S. Ogilvie & Co., publishers, New York.

IN THE POPULAR SCIENCE MONTHLY for May Herbert Spencer is rather severe in criticising certain remarks of Goldwin Smith, with reference to Spencer's "Data of Ethics." An interesting sketch of the development of the stereoscope, a reply to Miss Hardaker, on the Woman Question, Color Blindness, and Color Perception, are the leading *pieces de resistance*.

FIFE AND DRUM SERIES, No. 6.—THE OLD TAVERN. Published by the National Temp. Society, New York, at 10 cts. This is a good story and more adapted to interest young people than the average temperance stories. It teaches a practical lesson in every-day economy, and encourages habits of industry and cheerfulness.

THE SECRET OF WINGS. The principles of their inimitably exquisite mechanism, simply set forth, by Geo. B. Starkweather, with photographic illustrations, replete with seed thoughts for the aeronaut. Price 50 cents. Washington: H. W. Beadle & Co.

THE ECLECTIC MAGAZINE, published by E. R. Pelton, New York, continues to reproduce for American readers, choice selections from the British and other foreign periodicals, and is as worthy as ever of public support. Annual subscription, \$5.

MORE PUBLIC PARKS. How New York compares with other Cities; Lungs for the Metropolis. A pamphlet that discusses the financial and sanitary aspect of the questions. Neatly illustrated. New York Park Association, Publishers.

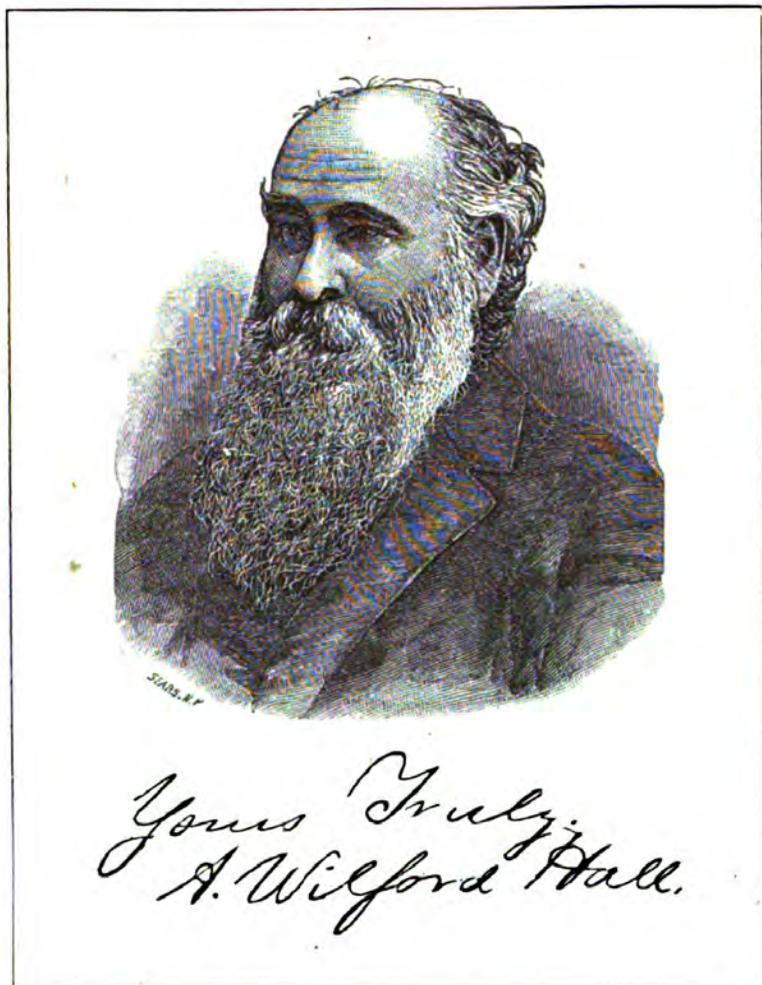
MANUAL OF EVANGELISTIC TEMPERANCE WORK, for all Woman's Christian Temp. Unions. By Mrs. S. M. D. Henry. Price, 10 cents. \$1.00 a dozen. National Temperance Society, New York.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 75. 1882.

NUMBER 2.]

August, 1882.

[WHOLE No. 525.



AUTHOR OF "THE PROBLEM OF HUMAN LIFE."

THIS gentleman has a large brain, weighing one hundred and seventy pounds, measuring twenty-two and three-quarter inches, and it is able to use the nutriment which a well-balanced body could give it, but as he weighs fifty-five pounds more than the requisite amount, his brain has a source of constant supply

to give it extra vigor in emergencies. It is like a balance in the bank for a business man, a reservoir on a good mill stream; when a supreme effort is required, the vitality is such that he can work two days and a night without very much suffering. In other words, he has a constitution that will endure hardship, labor, fatigue, and at the same time keep in a fresh and vigorous condition. Thus he is enabled to work always with a full head of steam in ordinary effort, and rarely comes to a point where all his vitality is demanded. Having so much of resource he could strike harder if he would, and oftener if required.

He has a very strong resemblance to his mother's family in his build, in his intellect, and in the power of his vitality. He has a feminine type of thought which gives him intuitive judgment of truth, without the necessity of always plodding; and then he has large Causality and Comparison, and the ability to reason sharply and soundly on subjects that are abstract; yet he is largely indebted to his ability to take as it were from an elevation a bird's-eye view of a matter, thus getting a general outline before he sits down to plow through it. When he starts into an investigation, it is after he has seemed to see the end from the beginning, and then the only labor he has to do is to put his sense of truth into logical form. This type of mind gives the ability to put philosophy and facts together and make them available.

He is remarkable for his memory. Whatever he touches sticks, and becomes incorporated with himself, and it is exceedingly easy for him to recall anecdotes and illustrative instances. He would have enjoyed Mr. Lincoln's little stories because they were always loaded with the honey of truth, and were gener-

ally sharp as the sting that protects the honey. He ought therefore to be good company for those who are permitted to be intimate with him, and he would be the life and soul of the company wherever he might chance to be, unless he falls in with a Gamaliel, then he would be as mum as a listener need be, and sit at his feet as Paul did, until he got all the master could give him.

He is a good student and a good listener; although when he gets started in talking and has a surrounding which needs instruction, he can fill the hour with his own thoughts and statements; yet if he meets a man that is his superior in any branch of knowledge, he knows how to be silent. He never has been accustomed to argue with men who were able to teach him, he would let them do the talking; but when he got away among those who needed the knowledge, he would incorporate the new knowledge he had obtained with his old, and thus become a teacher to them.

He appreciates the droll, the funny, and knows how to scathe and scarify. He is remarkable for his Firmness; few men have so much. He is remarkable for his love of justice and his desire for the truth. He is more cautious than the majority of men, and anxious that his statements should be well based; and in argument would make a free citation of good authors, and back up his thoughts and principles with the wisdom of others, so far as he could; as a preacher he would quote from the Scriptures and from the Fathers, if they were as wise as reverend. In other words, although inclined to be original, he calls to his aid the knowledge of others wherever it can be made available.

His Approbativeness is uncommonly

strong, and he suffers or rejoices greatly, as he may be approved or disapproved by those whose opinions are respected, and whose good opinion is to be desired. His Self-esteem is not wanting, hence, while he moves with apparent guardedness and modesty and sensitiveness respecting truth and other people's opinions of truth, he has a conscience of his own, and if he believes himself to be in the right he stands as firmly as possible, but never fails to get all the aid which the wisdom and experiences of others may render him; hence, the margin of his pages would be likely to bear numerous citations. He is remarkable for his social power; has always been a pet of woman. From a child the aunts and grandmothers believed in him; when he was ten years old they would apologize for him to the rest of the household and save him from blame from the stronger side of the family. If he wanted a favor or somebody to sustain him or his cause, he never found woman lacking in loyalty and fealty. As a minister the women would believe in him, as a merchant they would trade with him, as a citizen they would back him up, and as a politician would contrive to get him a full vote, and get some votes from the other party so that he should be elected; and the reason is that he inherits so much from the mother's side of the house, that womanhood has a normal sympathy with him. He is not bad-tempered, although a little quick; there is more powder than bullet; his words are sharper than his hatred, and he does not carry malice.

A. Wilford Hall was born in Bath township, Steuben County, N. Y., August 18, 1819. His childhood was passed in great poverty, his parents with five children,

being supported by the meager proceeds of day's work on farms by the father, in a wild, uncultivated country. Living on the coarsest fare and scantily clad in homespun garments, the product of the mother's industry, the subject of our sketch was required, as soon as able, to do farm work for the neighbors, so as to aid in the support of the family. Education was out of the question, as there were no schools near, and no money to pay for the school-books necessary, to say nothing of helping to support the teacher. Consequently the family grew up in utter ignorance even of the spelling-book. Wilford was thirteen years of age, and scarcely knew his letters, when his mother's brother, Abner Hathaway, paid a visit to the then wilderness of Steuben County to spend a month in deer hunting. The deer were abundant in those forests then, and Abner possessed a new percussion rifle, the first of that great improvement over the old flint-lock which had been seen in that country. He was a good marksman, and it is hardly necessary to say that the Hall family had richer fare that winter than was customary, and they all looked up to uncle Abner as a real benefactor sent to their lonely log-cabin from some far-off land of civilization.

During this winter's feast the uncle became attached to the almost naked boy of thirteen, and negotiated with his mother to let him go with him and drive horse on the Erie Canal, as the uncle was engaged every summer in doing a prosperous boating business in shipping lumber from Geneva to Troy, N. Y. The contract was not difficult to consummate, and the boy, with a substantial suit, obtained from funds advanced by the uncle upon his prospective wages, was off to Geneva to assume the responsible office of canal driver, in which, fortunately, very little "book-learning" was required for efficient service.

For five summers Wilford, known then familiarly as Aleck, plied the lash and curry-comb alternately to the horses in his care. But the small pay for which such service could readily be obtained,

with the countless temptations to spend money, left nothing at the end of each season of exposure and toil, and the boy, now nearing the age of manhood, found time flying rapidly, with no intellectual improvement to fit him for the duties of man's estate. One moonlit summer's night he had a friendly chat with an Episcopal clergyman upon the deck of a boat as it was leaving Rochester. The good man gave him some earnest advice, in which he said that the young driver had a grander mission to fill than a life on the canal, and this led him to resolve then and there to quit the towpath forever, and try what there was for him of more importance in the wide world. He settled up with the captain of the boat for the small amount then due, some seven dollars in cash, and started on foot across the country for the forest home where his mother was still ready to receive the wanderer with open arms. A short visit determined his stay at the log-cabin. In company with a younger brother he started on foot for Ohio, then the far West, to seek his fortune. The two walked for days in succession till out of money, then stopped and worked for a brickmaker till sufficient money was earned to help them forward on their way. While walking through the Western Reserve of Ohio, near Warren, the subject of this sketch struck his foot accidentally against a stone and sprained his knee so badly that it was impossible to proceed further. With the aid of his brother he succeeded in reaching the nearest house, and begged to be kept all night, assuring the owner that they had means sufficient to pay for supper and lodging. The proprietor of the comfortable log-cabin consented under the circumstances, although he had previously refused to entertain any strangers even for pay.

This was the turning point in the life of Wilford. The host happened to be a minister and a backwoods doctor, as well as school-teacher for a neighboring country school. In conversation with the boys he got their history, and became so interested in their adventure that he took pity

on the lame tramp, and proposed that while the younger brother should pursue his journey westward in search of a place to pitch his tent, the disabled Wilford should make his home with him and go to school, while earning his board by taking care of the cows and chopping firewood. This arrangement was gladly accepted, and the next morning the brothers parted, and while the younger was making his way toward Sandusky, the elder soon recruited, and commenced the first schooling of his life, being now about eighteen years of age. He pursued his studies night and day with great assiduity for a year and a half, and made such progress that he was advised to go for a term to the Farmington Academy, which was but a few miles distant. He settled with his generous friend, the doctor, and with such clothing as he could procure with the means he had managed to earn, he made application to the academy and was accepted. Here he applied himself with all his energy to books and to such labor as he could find to do. He cut cordwood for a farmer in the neighborhood to earn money with which to pay his board and tuition, and made up lost time by studying at night to keep up with his class. For six months he kept on in this way, and at the end of the term received from the principal of the Academy a certificate of qualification as teacher of a district school. This document proved a sufficient passport to the board of county examiners, who asked a very few questions, and soon after settled him over about fifty scholars, many of them young men and women, and some far better qualified even than himself, as he thought, to teach the school. But his industry at night more than made up for his deficiency in some of the branches he was forced to teach, so that his defective education did not come to open exposure, although more than once suspected by some of the more advanced of his pupils. The school term ended creditably to the teacher, the trustees giving him a certificate of thanks. For years he pursued the same general course (studying through

the summer and teaching through the winter months), until having become deeply interested in questions pertaining to the future life, he turned his attention to the study of the Scriptures, and finally entered the ministry.

For ten years he pursued the calling of an itinerant evangelist, holding meetings wherever an opportunity for doing good presented itself. During this period he wrote the work known as "Universalism against Itself," having held by request many public discussions with prominent Universalist clergymen. The result of the publication of this book was a complete success, and so great was the demand for it that in two or three years the author had sold more than 40,000 copies. The work was afterward published by the Methodist Book Concern at Cincinnati, many thousand copies more being sold. It has now been out of print for more than twenty years, although there is talk of the author's rewriting and republishing it. After his successful efforts with this book, Mr. Hall retired from public view on account of failing health, and engaged somewhat in secular pursuits, spending large portions of the past thirty years in the Rocky Mountain region of the far West. About three years ago, however, he came before the public again through the publication of a book entitled "The Problem of Human Life," by Wilford, in which the Evolution, Spontaneous Generation, and Materialistic theories of Darwin, Huxley, Haeckel, and others were attacked with such force and with such novel arguments, that it at once attracted the attention of the religious world, and especially the clergy, who had become perplexed by the difficult problems raised in Darwin's works. But the most marked and surprising feature of this book was its attack on the current theory of acoustics, a theory never before called in question. The arguments of the best exponents of the theory—Tyndale, Helmholtz, and Mayer—were taken up, dissected, and severely criticised, their experiments denounced as false, and many of their most important statements of facts denied as having any foundation in truth.

Whatever may be the merits of the positions assumed and the theories advanced in this book, the force and persistence with which the author sets them forth has compelled the attention and aroused the investigation of theological and scientific scholars and thinkers everywhere.

The book has had a most unprecedented sale, more than 33,000 copies of the revised edition having been sold in less than two years. As a natural consequence the wide reading of this book has caused much controversy in various religious and secular papers, especially concerning the author's attack on the current theory of sound, many professors of physics taking sides with the book, while others support the old view.

The success of his book and the open discussion of the scientific theories which it examines induced the author to start a monthly paper called the *Microcosm*, devoted to a general discussion of similar themes, and to be used as a medium through which he might reach the public ear in defense of his novel positions in science. His friends thought the paper would fail of support, and advised him not to make the attempt; but the first year of his paper is just closing, and so favorable has been its reception that an average of more than 2,000 subscriptions a month have reached the office from the commencement to near the close of the volume. More than 6,000 ministers of all denominations have their names already down on the subscription books of this paper. The last sensation of the author and editor is his attack upon Newton's law of gravitation. He is now in the midst of this controversy, and what the end of it is to be the forthcoming second volume of the *Microcosm*, just announced, will probably determine. It is a daring venture, as Newton's Principia is among the largest game in received science which one may attempt to bring down.

Lebanon Valley College at Annville, Pa., has just conferred upon Mr. Hall the honorary degree of Ph.D., or Doctor of Philosophy, in view of their appreciation of his scientific attainments.

IS CONSCIENCE INNATE?

NO fact is better settled than this, that men have a feeling which is gratified by whatever the common judgment of the world regards as right, and pained by anything which, by general consent, is regarded as wrong. This feeling is called Conscience. If the feelings of fear, of hope, of kindness, of anger, pride, ambition, love or hatred, be natural and in-born—and who dares deny that they are?—why is not the sense of right and wrong equally so? Everybody knows that some have a strong current of sympathy while others always show too little; some are gloomy, others hopeful, some rash, others extra prudent, and these traits are seen to be strong or weak from the beginning of conscious activity to the close of life. Now we assert, and believe every school teacher will agree with us, that there seems to be as much difference in sense of right and duty, or Conscience, in children, as there is in any other trait of character. How any sensible man, not sadly destitute of Conscience, could ever doubt the innate presence and power of the faculty, we can not conceive.

It is true that many eminent writers on mental science have tried to explain the trait we call Conscience by referring it to the force and activity of other faculties. Mandeville attributed it to the love of praise; Hume to utility, Dr. Paley to the desire for everlasting happiness.

On the contrary, Dr. Clark, Dr. Hutcheson, Dr. Adam Smith, Dr. Reid, Lord Kames, and Mr. Stewart maintain the existence of a moral faculty in man which produces the sentiment right or wrong, independently of any other consideration.

Human nature hungers for the right as really as it hungers for food. Imagine a man destitute of the idea of justice in himself and all others, and it would at a single sweep annihilate society and civilization—none could trust his fellow—each would look on others as robbers, and all he had, even to life itself, would be in imminent jeopardy. To live in society, man must believe in the integrity

of his fellows—locks and bolts, courts and jails are only for a few who have their native sense of justice and conscience either originally weak or blunted. Are we told that men refrain from theft and robbery solely through fear? Some may be, for there are those who are weak in one faculty or another, but whosoever tells us there is no honesty except that which is born of fear we would incline to dismiss at once from our company, count our spoons and chickens when they were gone, and be careful to lock our stable door whenever we expected them on our premises.

There ought to be no doubt that an innate faculty exists, the office of which is to produce the sentiment of justice, or the feeling of obligation, independently of selfishness, hope of reward, fear of punishment, or any extrinsic motive; a faculty, in short, the natural language of which is "*Fiat justitia, ruat cælum*"—let justice be done though the heavens fall.

Conscience is but a part of the human mind, as reason is another part. They may act with different degrees of vigor, or they may act in equality and harmony.

Instinct mainly governs animals and leads them always to do right in their own sphere; human training may modify their action by imposing rules which they fear to disobey, but they lack conscience as volition of their own, or the feeling which teaches them to do right because it is right. Man is endowed to a certain extent with instinct, but unlike the animal he is endowed with reason and conscience. These are specially human faculties, belong together though often acting in different degrees of strength, but ought to work together in finding out what is right and proper, and then feeling impelled to do it.

Joseph Cook says, "Conscience is that which perceives and feels rightness and oughtness in moral motives—that is, in choices and intentions." "Our sense of what ought to be, invariably requires us

to choose what conscience commands." "Conscience guarantees only good intentions."

We need the aid of intellect and experience to find out what is useful, beneficial and just between man and man, our own conduct toward the lower animals, but conscience comes in, to justify us in the motive to do right and to make us uncomfortable if we fail to do it.

We respect men whose intentions are good and whose efforts are earnest to do that which they deem to be right, though we may know their choice in the direc-

tion of effort is not sound or reasonable. Men often

"Know the right and still the wrong pursue,"

and try to conceal their misdeeds, showing that they acted without a consciousness of right intention. Such men we can not respect as we do him who means right, and still does wrong through ignorance or misinformation.

Conscience asks what is right? Intellect aids in finding out; then conscience insists that the right be done. This is conscience, and happy is he whose conscience impels him to obey its dictates.

NELSON SIZER.

SILK CULTURE AND THE SILK-WORM.

IT may be upward of forty-five hundred years since an empress of China dexterously unwound a silk-worm's cocoon and discovered the wonderful properties it possessed as a fiber for the loom, but the silk-worm was quite unknown to Europe until the reign of Justinian, or about three thousand years later. After that time silk production in the raw and manufactured forms made rapid progress, and spread over Southern Europe, a settled demand for the beautiful fabrics of the silk loom usually springing up wherever they became known. America has been for the most part dependent upon the factories of France for a supply of silk goods, although as early as 1718 the cultivation of silk was introduced into Louisiana, and special settlements were established for its promotion in that and other Southern States. In a few places in New England raw silk was produced in small quantities previous to the Revolutionary war, and manufactured into small articles like stockings, ribbons, handkerchiefs, etc.

The Revolution proved a severe blow to American silk interests, almost entirely breaking them up in the South and greatly embarrassing them in the North. They were, however, regarded as too important to be entirely given up, for in 1844 the silk product of the United States was reported to be 396,790 pounds, and valued at \$1,400,000.

For some reasons not thoroughly clear, there seems to have been a falling off in this line of industry, as the reports for 1850, 1860, and 1870 disclose a remarkable decline in silk products. It is probable that importations, the competitive influence of cotton, tobacco, and our great food products, to say nothing of the civil war, operated unfavorably upon the young industry.

The past five years have witnessed a revival in silk culture, and at the present time it promises to become an important branch of American industry. In California cocooneries have been established on a large scale, and in New Jersey, Pennsylvania, North Carolina, Louisiana, Missouri, and other States men and women are giving attention to the care of the silk-worm. The yearly returns of silk manufacture which show an advancing scale have much to do with this revival. The census of 1880 states the product of the 383 silk mills in activity that year to be worth *thirty-four millions* of dollars, the number of hands employed being nearly 35,000.

Data like these should stimulate practical attention to the production of the raw material needed by the silk weaver, especially as it is "as easy to raise cocoons as sheep—and easier."

That the silk-worm is a species of caterpillar the reader need not be told, but he

may not have seen that industrious spinner of the most precious fiber known to the loom. Fig. 2 represents the worm at



Fig. 1.—THE SILK-WORM AT DIFFERENT STAGES OF GROWTH.

work in the first stages of its spinning. The cocoon, or important result of its industry, is shown in the next illustration. In this, like other larvæ, the worm assumes the chrysalis state, and in the course of



Fig. 2.—SPINNING.

time the moth emerges. This is about an inch long, with a stretch of wing reaching two inches. It is pale yellow in color,

with two or three obscure streaks and a lunate spot on the upper wings. The male insect is active, flying swiftly about in the evening, and sometimes by day, but the female is inactive and lives a few hours only after depositing its eggs (Fig. 5). The whole life of a silk moth does not generally exceed three days, and never a week. During this period the female lays from four to five hundred eggs, which are about the size of a mustard-seed, and of a pale yellow color. They adhere to the surface on which they are deposited. (See Fig. 4). The eggs of those varieties which go through their changes but once a year may be kept in a cool place for seven or eight months without injury, and if carefully packed may be transported with perfect safety. When the season of the year arrives at which their food is ready for them, they are hatched. The young worm when it first emerges from the egg is not more than one-twelfth of an inch long, and about the size of a horse hair. It is of a blackish-brown color, but gradually changes to a creamy white, as it

advances toward maturity. If the circumstances of climate, food, and temperature are favorable, it develops into the full-grown caterpillar, in from twenty to fifty-six days, according to the variety. Dur-



Fig. 3.—COCOONS.

ing this period the worms cast their skins four times. And it is in the ten days of their life after the last moult that the cocoon is spun.

Fig. 6—*a* shows one of the double lattice,

frames used for the worms to spin upon, and the same Fig., at the side, represents a case in which they are kept and fed,

cocoons. They first make an outer covering of floss silk to keep off the rain; within this they spin fine silk, bending the head and body up and down, and crossing to every side, entirely surrounding the body as a protection against wind and cold; and within this a more delicate silk, glued firmly together for the inner chamber, resisting both cold air and water. The completed cocoon resembles a pigeon's egg, is from one to one and a half inches long and bright yellow in color.



Fig. 4.—MOTH AND EGGS.

showing their daily progress in growth. When they have attained their full growth they have increased in weight from the one hundredth of a grain to ninety grains, each consuming meanwhile an ounce of mulberry leaves, or 60,000 times its primitive weight. At this time they are ready to spin their cocoons, and seek a suitable place to deposit them.

The spinning apparatus is near the mouth, and connected with the silk bags, which are long, slender, and convoluted, containing a liquid gum; they are closed below, and end above in slender tubes, one on each side, which unite to form the single spinning tube. The gum from which the silk is produced, on contact with the air is elaborated by the long glandular organs; and every thread of silk is made up of two strands. It is customary to supply to the worms a piece of rolled paper or some hollow substance into which they can retire, or a convenient twig, or a frame such as has been mentioned, for the formation of the

In the management of silk-worms for the production of the silk of commerce the cocoon is allowed to remain until the



Fig. 5.—MOTH EMERGING AND JUST EMERGED FROM COCOON.

spinning of the worm has been completed, and the chrysalis fully formed, which can be ascertained by gently shaking the co-

coon. If the cocoon is ripe, the chrysalis will be found to rattle about inside.

The first process which cocoons undergo is called reeling, for which they are prepared by being placed in warm water and gently agitated to dissolve the gum with which they are bound together, so that the ends of the filaments may be gathered. Fig. 8 represents the operation of gathering the filaments together, and in Fig. 9 may be seen the manner in which they are conducted to the reel.

not at all. After reeling, the silk is sorted, that is, the threads of the different degrees of coarseness are separated, and each placed by itself. After having been sorted, the silk is cleansed from the gum, with which it is surrounded, by being soaked in hot water and then dried in revolving cylinders. It is next wound upon large spools. It then passes through the doubling process, in which two or more threads are joined together as required, and is again wound on to spools. The

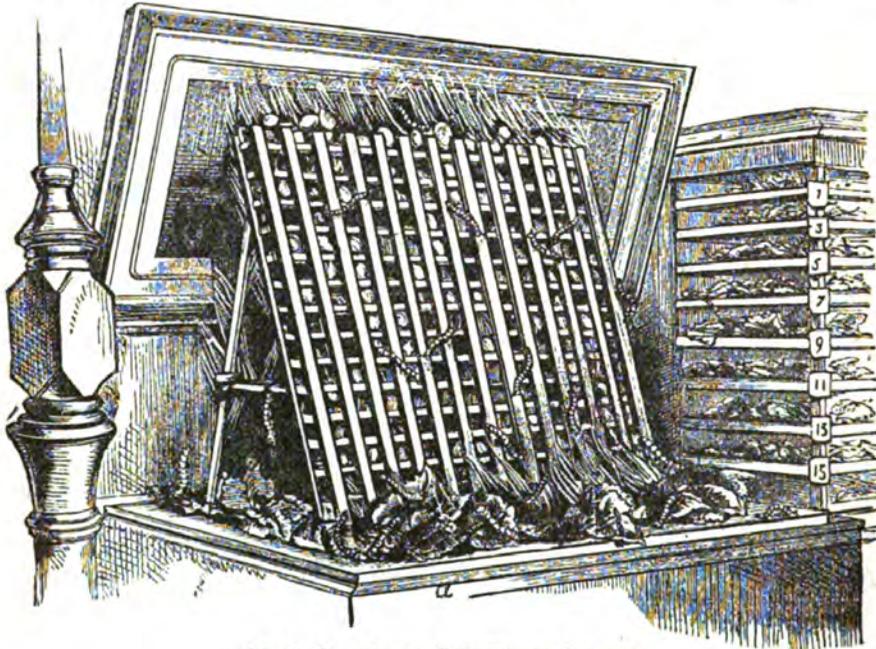


Fig. 6.—LATTICE AND CASE FOR THE SPINNERS.

Fig. 10 represents the hanks of raw silk as they are first obtained.

The reeling process is a delicate operation, inasmuch as the length of the filament in the different cocoons varies from three to thirteen hundred yards, thus requiring frequent joining. From six to ten filaments are generally reeled together to form a single thread of silk. The reeling must not be too close to the chrysalis, as that portion of the silk is inferior. There are double cocoons, soft cocoons, imperfect cocoons, and those in which the worm has perished from disease before its spinning was completed. These can never be reeled completely, and often

silk in this condition is put into the spinning machine, where the spinning is performed.

There are several species of silk-worm, but the best are of the genus *Bombyx*, most of which feed on the mulberry-tree. One or two varieties of the *Bombyx* feed upon the leaves of the alianthus and the castor-oil plant, but make an inferior sort of silk, and some whose cocoons are not used feed upon the oak, willow, and other leaves.

The silk-worms of China and Japan are mostly of the genus *Bombyx*, as are the greater part of those produced in Southern Europe and Asia. Reared in differ-

ent climates, they assume different colors, and vary in size. The color of most of the Japanese cocoons is a pale green, while



Fig. 7.—DISSOLVING THE GUM.

those of China vary from a pale white to a pale lemon color. The cocoons produced in France, Spain, and Italy are generally white or pale yellow, but occasionally tinted with a pale green. Those of Broussa and Adrianople—the best silk districts of Turkey—are pure white. The Asiatic cocoons and some of the European differ in another respect. The best breeds of silk-worms go through their changes but once a year. They yield large cocoons and are less trouble to the silk-grower, but there are some breeds which go through these changes two, three, four, and even as many as eight times a year, and yield as many crops of cocoons. A silk-worm called the *dacey*, which yields eight crops, is found in Bengal.

The exhibition of cocoons at Philadelphia last winter by American women who had become interested in silk culture was a very successful affair, and has awakened a growing interest in what must prove an attractive and profitable pursuit, for which



Fig. 8.—GATHERING THE FILAMENT ENDS.

women are well fitted. With a constant demand for the raw material by our increasing silk factories, it seems altogether

probable that the cultivation of the silk-worm should, and will, ere long, take an important rank among American indus-



Fig. 9.—ARRANGEMENT FOR REELING.

tries. There is but one difficulty in the way of successful silk culture in this country, and that is the reeling process, a hand employment at present, in which the high wages paid labor in this country is unable to compete with the European reelers. A writer in the *Philadelphia Public Ledger*, in commenting upon the rapid growth of silk manufacture in the United States, says:

"The intermediate stages between the cocoon and the factory have yet to be undertaken, but cocoons and eggs are both raised in this State, in North Carolina, and in Missouri, for sale and export. The shearing of the cocoons, or the filature, is the step that has to be taken on an extended scale. The great cocoon market for the world is Marseilles. The silk filatures are grouped in the departments around Lyons, and the French-raised cocoons are consumed in the immediate neighborhood in which they are raised; but the foreign cocoons, coming from all countries, are distributed from Marseilles, and there they are purchased to the best



Fig. 10.—HANKS OF SILK.

advantage. Consul Peixotto points out, in a private letter to the American Minister at Paris, in answer to some inquiries

made through Mr. Noyes by the Philadelphia silk school, that American-grown cocoons can be sold at Marseilles as readily as any others, as soon as the quality, and especially the uniformity, of the cocoons become known in the markets. By the efforts of this school American-grown cocoons will doubtless soon be placed on sale in this important depot to direct the attention of American silk raisers to this point.

"But why, asks the protective and otherwise thoughtful reader, need the cocoons be sent abroad to be sold, and this golden fleece sheared by French hands? Why can they not be kept at home, seeing that the silk manufacturer can, or at least could, take all that can be raised for years to come? That is the point which is now occupying the minds of *sericulturists*—seriously occupying them. Cocoons and eggs and all that, they know. They know that the mulberry will grow wherever the apple-tree does, and that the osage orange does about as well as the mulberry. They know that the season begins on the eleventh of May and lasts six weeks, and that it is possible, by skill-

fully retarding some of the eggs, to make two seasons in the year. What they have not yet reached is the perfection of reeling, although they are experimenting upon it. The hand reeling of Italy and France is an old story. Silk has been reeled by hand here, and is still, and if the farmer's daughter puts her reeling at the same price as her knitting or crochet, to fill up the unemployed time, and not for an occupation to live by, hand reeling would pay to that extent. For an extended business the great filatures are needed, where American cocoons can be reeled at home by machinery, the only thing that can come into competition with the cheap day labor of the Italians, French, and Japanese hand reelers. A young American engineer is at this time in France, experimenting on the reeling of silk by electricity, which is the motive power destined to lighten labor as well as streets. This is one missing link that is needed to complete the chain between Horstmann's fringes and ribbons and the New Jersey silk dress goods and handkerchiefs, the Connecticut sewing silks, etc., and the cocoon racks in American farmhouses."

D.

GENERAL GARIBALDI.

ON the 2d of June last Giuseppe Garibaldi, whom the world has been wont to call the hero of Italian unity and independence, died at Caprera. He had been an invalid for several years, and at length succumbed to an attack of bronchitis. His life was one of extraordinary adventure from his very youth. Born at Nice, on the 4th of July, 1807, he seems to have shown as a boy little disposition for study, although his parents offered the opportunities which their rather limited means could afford. His father and grandfather had been sailors, and it is therefore not altogether strange that young Giuseppe should have shown a strong leaning toward the life of a mariner. He at first tried to run away to sea; then was permitted to go on a

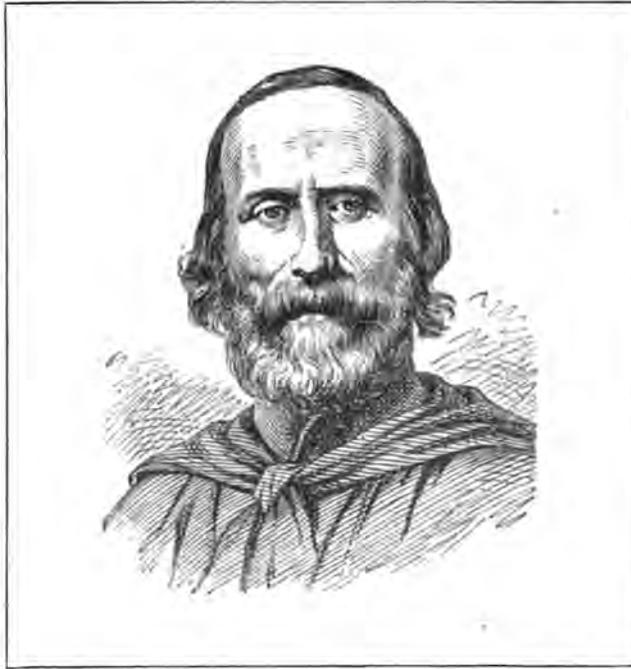
Mediterranean vessel, and for several years continued on ship-board.

In 1830 he had command of the brig *Notre Dame de Grace*, and some intercourse at that time with an Italian patriot increased the intensity of naturally strong patriotic sentiments. He became acquainted with Mazzini and other Italian Liberals in 1833, and in the following year he compromised himself by taking part in a revolutionary outbreak at Genoa. He escaped from the city, and his zeal gathered fresh impulse when he learned that he had been sentenced to death. Going to France, he made a voyage to the Black Sea and another from Marseilles to Tunis. From Tunis he sailed for Rio Janeiro.

There he met Rosetti, another Italian exile, and for a time the two were asso-

ciated in business, but they gave up commerce to help a province in its endeavor to free itself from Brazilian control, and very actively prosecuted the struggle which, however, proved abortive. During this time he married. After the war he engaged in cattle dealing, but without success, and then turned his attention toward teaching at Montevideo. When the war between Uruguay and Buenos Ayres broke out, Garibaldi gathered together the Italians in Montevideo and offered his

their arms, but made their way across the Po and entered the Papal States. Pius IX. had no sympathy then for the liberal cause, and ordered two Swiss regiments to march against Garibaldi. Before the order was executed the Pope had fled from Rome. The popular Government, which was then established in Rome, gave Garibaldi a commission, and sent him to protect the eastern boundaries of the States against the King of Naples. Not long afterward he was elected a member



services to Uruguay. He soon gave such proof of his talent for military leadership that he was raised to the supreme command of the military and naval operations. Before the war closed, however, Garibaldi heard of the Revolution of 1848 in Europe, and he at once set sail for Genoa with his Italian Legion, his ship flying the Italian tricolor.

On landing, Garibaldi and his friend offered their services to Charles Albert of Sardinia, but were coldly received. A few days later this proud king was defeated by the Austrians, and forced to sign an armistice. Garibaldi and his followers did not lay down

of the Constituent Assembly, and when the French landed at Civita Vecchia he went with his army to the defense of Rome.

At the city walls a sharp encounter with the French troops occurred, which lasted ten hours, and closed with the complete defeat of the French. Other engagements followed, in which Garibaldi had to contend with the King of Naples and a considerable army, and a Spanish force of 5,000 men besides the French, and was compelled to retire from Rome with his small command. He proceeded toward Venice. At San Marino he found an

Austrian army before him, while behind him were French and Austrian troops. A battle would have been madness, so he tried to escape with the small remnant of his men who, like himself, had refused all proposals of amnesty. Having embarked in small boats for Venice, they were pursued, and some of the boats were sunk and others captured, while that with Garibaldi, his wife, his two sons, and his most intimate friends, was driven to the shore. There the party disbanded and took their several ways. Two days later the wife of Garibaldi, who had heroically remained at his side in all his wanderings, worn out with fatigue, expired in his arms. Garibaldi made his way from the shores of the Adriatic to the western part of Italy alone, and at Chaviari he was arrested and carried to Genoa. Afterward he was banished from Sardinia, and in 1850 he came to New York.

Garibaldi was received in New York with much enthusiasm by his countrymen, and the people of the city generally welcomed the man whose career had awakened a world's admiration. He was asked to accept a public reception, but declined to receive the honors. Taking up his residence on Staten Island, he engaged in the manufacture of candles, and had not been there long when an opportunity for engaging in marine pursuits offered itself, and he made a voyage to San Francisco. He afterward visited South America and obtained command of a trading vessel in which he touched at several English ports, where he was received with many testimonials of respect. He then returned to New York, where, learning that his mother was dead, he immediately sailed for Italy. To his mother's care he had committed his two children on the death of his wife.

On the outbreak of war with Austria in 1859, he was invited by the Sardinian Government to form a corps to aid in the campaign, and was appointed a major-general. His forces became known as "The Hunters of the Alps," and, though their numbers never reached more than 10,000 men, they descended into Lom-

bardy and repulsed the Austrians repeatedly. The enemy was provided with artillery, but Garibaldi, having no cannon, gave them a hand-to-hand fight. His men fought with swords and bayonets, and the peasants used their pitchforks and cleavers. In a fight, known as the Calatrava, an Austrian army of 40,000 men was dispersed. After the peace of Villafranca, which brought the war to an abrupt close, with the cession of Nice and Savoy to France, Garibaldi retired to the Island of Caprera.

But the most extraordinary of Garibaldi's achievements were yet to be done, and the revolt in Sicily of 1860 furnished the opportunity. In May of that year he gathered in Northern Italy a legion of 1,500 men, and set sail for Sicily. In five days the little army reached Marsala, where they landed under fire of the Neapolitan fleet. Four days later he routed an army of 3,600 men at Calatafimi, thus striking the first blow of a war which was to end in an Italian Parliament, the first known in history. The victory opened the way to Palermo, across the island, and inspired the soldiers with unlimited confidence in their leader. Three days later Garibaldi occupied the heights commanding the city, and after a desperate conflict with the royalists made his way through its gates, and became the possessor of the town and its strongholds. A universal armament of the citizens took place, and on July 20, at the head of 2,500 men, Garibaldi gave battle to 7,000 Neapolitans at Melazzo, and compelled them to evacuate that fortress. On the 25th he drove them into Messina, where, on the 27th, he made his triumphal entry into the city, the garrison, alarmed at his approach, having compelled their general to submit. Garibaldi was now master of Sicily. While he was contemplating an invasion into Calabria, a letter arrived from Victor Emmanuel, directing him not to leave the island. Garibaldi declined to follow these instructions, and about the middle of August he made a descent into Calabria, and was immediately joined by volunteers from all

parts of the country. His forces soon numbered between 15,000 and 18,000 men. His son Menotti added 800 new men to the army, and other enlistments made the entire force amount to between 20,000 and 25,000 men. The forts commanding the sea and harbor approaches of that country were soon captured. As the army passed on from place to place, Victor Emmanuel was proclaimed King of Italy, with loud shouts of "Viva Garibaldi." The arms of the Bourbons were torn down amid rejoicings, and the women spread flowers and confetti in the road. The scene is described as having been one of marvelous enthusiasm, and it is said that not a single quarrel or theft took place, in a country unhappily famous for petty quarrels and petty thefts. As these successes became known in Naples the excitement which had prevailed for some days greatly increased. Francis II.—a well-meaning king suffering from the sins and misgovernment of his father—was powerless to control his people, and at last fled from the city. On his arrival in Naples, Garibaldi found no resistance, and, in order that he might show the world that he came as a liberator, and not as a conqueror, he entered the city's gates accompanied by only a few friends.

On Oct. 1, 1860, Garibaldi met the army of Francis II. on the river Volturno. It was the largest battle in point of numbers that Garibaldi ever engaged in. The king precipitated the conflict, which resulted in his complete defeat, although he had 30,000 men, while his conquerors scarcely numbered 15,000.

This was Garibaldi's last triumph, and when Victor Emmanuel met Garibaldi at Naples, after a triumphal march across the Papal frontier, the hero relinquished his command, and soon afterward set sail for Caprera.

In February following, the first Italian Parliament proclaimed Victor Emmanuel King of Italy, Garibaldi was elected to Parliament, but after a few years' service he retired. In April, 1862, he was made General-in-Chief of the National Guard, and in that position he made an attack

on Rome, where he was wounded and taken prisoner. In 1864 he visited England, and in 1866 fought against the Austrians. In 1867 he invaded the Papal States without the King's authority, and was defeated at Mentana. In 1870 he served France as commander of an irregular force in the Vosges. In 1871 he was elected to the French Assembly, but soon resigned. In 1875 he took his seat in the Italian Parliament at Rome, but in later years constitutional ailments precluded him from taking part in public affairs, and he was rarely seen absent from Caprera, where he lived with a peasant woman and his son and daughter. His last appearance on a public occasion was at the centennial celebration at Palermo last March of the Sicilian Vespers.

In personal appearance Garibaldi when at his best, was of middle stature, with broad square shoulders, herculean limbs, long brown hair, with slightly gray beard. He wore a coat and vest that buttoned up to the throat, a broad-brimmed hat and large trowsers. His complexion was florid, his head well developed in the crown and forehead. His manner was frank, impetuous, and sincere.

TWO MEN I KNOW.

I KNOW a duke, well—let him pass—
I may not call his grace an ass;
Though if I did, I'd do no wrong—
Save to the asses and my song.

The duke is neither wise nor good;
He gambles, drinks, scorns womanhood,
And at the age of twenty-four
Was worn and battered as three-score.

I know a waiter in Pall Mall,
Who works, and waits, and reasons well;
Is gentle, courteous, and refined,
And has a magnet in his mind.

What is it makes his graceless grace
So like a jockey out of place?
What makes a waiter—tell who can—
So very like a gentleman?

Perhaps their mothers! God is great!
Perhaps 't is accident—or fate!
Perhaps because—hold not my pen!
We can breed horses but not men!

—*English Exchange.*

HISTORIC PROBLEMS.

THERE are historic as well as mathematical problems, but there is no general similarity in them save in the name. Theorems in mathematics are susceptible of solution, if one can only get at the principles that underlie them. But there are no known rules by which the historical student can certainly and demonstrably solve the problems that are ever appearing on Clio's scroll. A theorem of Euclid however difficult consists of certain logical elements, and a series of mathematical processes will prove the truth or the fallacy of an operation indisputably and unerringly. None of the problems of history can be disposed of so readily. Assumptions of solutions can easily be made, but these in turn can be overthrown by the more subtle reasoning or the profounder erudition of another. And even the assumption of the last is not received as irrevocable. They are only speculations at the best, dependent on the animus of the writer, and can never receive the credence accorded to testimony irrespective of personal considerations.

Many of these questions are perhaps silly ones, the more so as it does not appear in all cases what should be the conditions of the problems. And still the amusement experienced in their examination is not surpassed by the interest and importance many times attached to them. An acute observer has declared that the study of history makes one wise. Accepting the truth of this apothegm as applied to history in its political and philosophical bearing, it must be no less true that an examination of its mathematical qualities, as we are pleased to term them, must render one subtle and profound. Take for instance that problem of Herodotus, what would have been the result if Xerxes had been victorious at Salamis? In order to arrive at any satisfactory conclusion, one must read through long annals, look at this and that authority, examine the religious and civil institutions of the rival nations, and not only

must he be conversant with all the details of contemporary history, but he must stand far enough off to judge of the effects *pro* and *con* upon his own age. In fact he must bring to the investigation a mind filled with the knowledge of long years of study. No novice, no empiric can sit in judgment upon the declarations of astute and experienced historians.

Sir Edward Creasy, in his "Fifteen Decisive Battles," maintains that Marathon was the important and decisive event of the Greco-Persian war rather than Salamis. How this could well be when the Persians were urged on to still more desperate undertakings by Xerxes, and the Greeks had all their glories to win over again, we fail to see. Nor do we accept the assertion that Europe was saved from a desolation greater than would have occurred from a deluge, by the destruction of the Persian armament. Greece rose indeed to unprecedented greatness and splendor, after the billows of that mighty torrent had ceased to roll, but has one ever thought what lay at the bottom of that majestic and brilliant upheaval? The inherent genius of the Greek alone would never have forced into such sudden action the arts and philosophy. Nor was it through the artificial and forced influence of the fierce struggle the Greeks had passed through. Sometimes, but not in this case, has civilization been matured by the energy of distress. What was it then that brought about this unexpected and glorious epoch that boasted of the Parthenon, of Plato and of Sophocles? We answer, it was the influence of the Oriental upon the Greek mind.

The results were brilliant but permanent, the process had been of slow growth. From the time of Croesus, from the time when Solon and Pythagoras had studied at Asiatic courts this influence had been going out, silently but slowly. The injection of the vast hosts of Darius and Xerxes into Greece forwarded this revolution. Mere contact alone would have done much, but doubt-

less many of the conquered, some of them mere Asiaticized Greeks, remained behind, and their influence performed no unimportant work. Greece threw off the Asiatic despotism, but succumbed to Asiatic thought, Asiatic manners, Asiatic religion. To the active, subtle, restless spirit of the Greek were now joined the gravity, the philosophy of the Oriental. All the Greek philosophers drank their wisdom from fountains in the East. All the Greek poets caught their imagery and inspiration from the Orient. Greek commanders copied the military system of Cyrus. Greek architects took their models from the grandeur, the beauty, the splendor of Eastern monuments.

In all this no evil was done to Greece, but much good. But would there not have been good of much greater abundance, had Persian and not Greek arms prevailed at Salamis? No, replies the modern democrat, Greek genius soared only for the reason that it was free. But when was Greece ever free? True, foreign domination did not always hold her in subjection, but her gigantic oligarchies, her rude democracies, her bad institutions were worse than foreign masters. Besides, if democracies and oligarchies were indeed so stimulative of genius, so patronizing of letters, why sought Plato the court of the tyrant Dionysius, Pindar and Euripides the court of the Macedonian Alexander, and Aristotle the court of Philip? Moreover, did not the first soarings of Greek genius take place under the early tyrants? Oh, no; genius is not dwarfed or fettered by anything. It flourishes at the courts of despots, under the rule of oligarchies, under the sway of democracies. Its habitat does not make nor mar it. Genius is divine, and God is everywhere.

But if Persia had conquered Greece, what then? What evil would have been done? The religion of Zoroaster was superior to that of Homer and Hesiod, less animated and picturesque indeed, but more simple and exalted. The Persians had no gods partaking of the worst char-

acteristics of a mortal nature. They worshipped their Great One not in statues nor in temples, but upon the sublime altars of lofty mountain tops. In many respects it resembled the religion of the Hebrews, and it was the only religion in the world besides that which was not defiled by human sacrifices and brutal worship. Surely it would not have injured Greece to have received this paternal, mild monotheism over their false though very beautiful system of polytheism.

Nor were the Persians inferior in mental vigor or graceful accomplishments to their Greek neighbors. They cultivated all the elegant arts. The remains of the palace of Chil-menar at Persepolis, ascribed by modern superstition to the architecture of genii, its mighty masonry, its terrace flights, its graceful columns, its marble basins, its sculptured designs stamped with the emblems of the Magian faith, show the advance of the Persian mind in the elaborate art of architecture. The Persian kings were in most cases men of ability, of broad benevolence, of active energy. Palestine renewed her former glory under their sway. Why should not Greece have flourished the same, nay, ten times more abundantly, the active Greek blood stimulated by Oriental magnificence, had she succumbed to Xerxes? Nor would it have been the first or the last time that Asia has conquered Europe. Everything good, exalted, and venerable has come from the East. It was the cradle of art, of poesy, of every civilizing agent. All the progressive religions of the world rose in the Orient. It would not have been so fearful after all if Greece had fallen. A hundred years more of glory might have been hers, and her wise men, her artists, her poets, and her statesmen, instead of having their genius cramped by the petty jealousies, the limited ambitions of their native states, might have developed their full powers under the fostering care and the brilliant courts of the great kings. In fact, Greece conquered by Persia, Oriental blood infused into her veins as well as Oriental thought, would

have been stronger than she could ever have been else. The Greek mind would not only have risen to greater affluence, but politically have been stronger, and the Roman might not have succeeded against the Perso-Greek. It is suggestive that it was not democratic Athens or oligarchal Sparta that withstood Rome the longest and the last, but Macedon and Etolia—Macedon whose king paid the tribute of earth and water to Darius, and Etolia whose wild tribes rushed to the aid of Xerxes.

It has always been a mooted question whether, if Alexander the Great had met the Romans, he himself or the Romans would have succumbed. Livy, the historian, in a marked passage undertakes to weigh the chances of success with which the mighty conqueror of the East would have encountered the growing Western Republic had he lived to lead his veterans across the sea into Italy. He decides in favor of Rome, but Livy was a Roman, and could well do no otherwise. Besides, he was not in a position to fairly examine the question upon its merits. Livy lived in the time of Augustus, and it was not easy to contemplate when Rome was the world that Rome could ever have fallen. Hannibal, Antiochus, Mithridates, had been conquered, surely, Livy argued, Alexander would have been conquered too. A modern scholar will hesitate before he accepts this decision.

Alexander concluded his Oriental conquests and died at Babylon in the year 324 B.C. At this time Rome was engaged in a life and death struggle with the Samnite league. Hardly did she succeed against the skill of C. Pontius, the Samnite leader, and when the war closed the victorious republic was reduced to the last stage of exhaustion. Had the Macedonian led his thirty thousand Greeks, flushed with the conquest of the Eastern world, into Italy and joined the Samnites, or had he alone marched up with the cities of *Magno-Græcia* and presented a second foe to Rome, what would have availed the valor of all her great captains, of a Fabius or of a Papirus, to save the Repub-

lic? Rome fell once under C. Pontius unassisted, and only the most desperate measures saved her in the end. Assailed by a second and far more formidable enemy, what could she have done? Even fifty years afterward, Pyrrhus beat her armies in three great battles when she had the Samnites under her feet, and had that hero possessed half the vast resources of Alexander, together with his persistence, he might easily have conquered Italy. Think you not then that a greater than Pyrrhus might have been the conqueror at this earlier date?

But, objects the disciple of Livy, mighty as Alexander's name is among military captains, there is little evidence of his capacity in conflict with equal enemies. Was not Porus an equal enemy, who was the monarch of a highly civilized Indo-European race, and who could fetch into the field a hundred thousand trained infantry, besides chariots and elephants? Yet the genius of the Macedonian overcame him. It is well to remember too, that the Macedonian phalanx was the most perfect instrument of warfare the world had yet seen; the Roman legion was nothing like it until Scipio improved it a hundred years later. None of the Greek soldiers showed fear before the elephants of Darius or Porus. How did the Romans withstand them in the ranks of Pyrrhus? In Alexander's day the Romans were probably not so civilized, certainly not so far advanced in military art, as were the Persians and the Indians. It was only through contact with the magnificence of the Greek cities of Southern Italy, and by the long campaigns with the Samnites their equals, that Rome in the time of Pyrrhus was the powerful state she was.

Hannibal was a greater general than either Pyrrhus or Alexander, and would not his ultimate failure teach us to doubt the Macedonian's success? We answer, no. There were excellent and logical reasons why the great Carthaginian hero met with defeat. In the first place he was not supported by the Carthaginian government. Hanno, the great enemy of

the Bascines, was all-powerful in the home senate, and Hannibal was forced to rely on the aid of the Italian tribes. In this also he was disappointed. Despite his diplomatic skill, despite his series of brilliant victories, the aid of the Italians was lukewarm and limited. Their subjugation and humiliation had been so complete that even the sentiment of revenge was obliterated, consequently Hannibal's accession of native soldiers was wholly inadequate to enable him to press on as he began. He then summoned his brother, but that brother's head alone reached him, his body and the bones of his soldiers lay rotting on the banks of the Metaurus. The home government inactive, his Italian allies lukewarm, his brother defeated, there was nothing for the Carthaginian to fall back on but his own genius, and that, unparalleled as it was, could not long avail him against the resources, the valor, the persistence of Rome.

In Alexander's case it would have been different. His authority was absolute in Greece, and his resources without end. Even had he been beaten in one or two battles, he could easily have summoned new contingents from Greece, from Macedonia, from his Asiatic territories. He could have piled in not merely thirty thousand Macedonians, but double that force, with myriads of Syrians, Persians, and Greeks, with chariots, elephants, and horsemen. He could have exhausted the Roman armies in a twelvemonth. Hannibal was always in need of a good engineer corps and siege apparatus. Alexander possessed an excellent supply of these accessories. He would have pressed right on to the siege of Rome itself, and the Roman capital would have fallen as Tyre fell. And the Republic would have expired when the capital fell.

Another question that has been the occasion of much dispute is the more familiar one of Hannibal's chance of conquering Rome if he had not stopped at Capua. It has always been fashionable to suppose that Hannibal was guilty of a great military error in going into winter

quarters and submitting his men to the luxuries and Circean blandishments of the splendid Campanian capital. He should have marched on while Rome was paralyzed by the defeat of Cannæ and attacked the capital itself. But had Hannibal done this latter thing, instead of fifteen years of victorious occupancy of Italy, he would have met with instantaneous and irrevocable defeat. In the first place Hannibal's men were mercenaries, Numidians and Spaniards, fierce desert men and wilder clansmen from the hills of interior Spain, that he and his father had trained. They were fitted only for fighting in the field, and had not the determination and the pertinacity to participate in the long and tedious siege of a powerful walled city. Secondly, Hannibal had no engineers or apparatus for a siege, and no means to organize a force of this nature. Thirdly, the idea of twenty thousand regular troops aided perhaps by as many irregular Italian allies, even if they had possessed all the necessary siege equipments, laying leaguer to a city whose men were all warriors and which could summon from her Italian tributaries two hundred and fifty thousand conscripts, is in itself preposterous. Hannibal would have been crushed in a moment.

Hannibal excelled in the qualities of a diplomat as well as those of a military chieftain. His emissaries were already at work among the Italian cities. His great project was to raise Italy in insurrection against Rome. The Roman conquests of that country had been so thorough, her system of colonization so perfect, that Italy, in one sense, was Rome, and Rome Italy. Therefore he could not hope to prevail against Rome while all the Italian cities were free and ready to aid her. He wished to detach them from their allegiance to the Republic, incorporate their soldiers into his army, and then he could march on to the capital with no enemy behind him. Meanwhile, he needed some city for headquarters, and Capua, the opulent, Capua, whose walls were seven miles in circumference, Capua.

the second city of Italy in strength and the first in wealth, offered suitable accommodations.

That Hannibal's plans did not succeed was through no fault of his. Only paltry aid was granted him by Carthage. The Italian tribes long held in subservience to the military despotism of Rome, were slow to rally under the Carthaginian banners. Lastly, the defeat of his brother, who was advancing from Spain to aid him, completely destroyed all chances of his success. "I see the doom of Carthage," groaned the chieftain when the head of the unfortunate Hasdrubal was thrown into his camp in Apulia. But he did not yet give up the field. Once, in fact, he appeared before Rome, but it was an act of mere bravado on his part. His army was small and he was unprovided with material for a siege. Rome was strongly fortified and would have laughed all his toils to scorn. He flitted from place to place, the Romans never daring to meet him in the field, and after a few years the needs of his own country, that was lying at the mercy of Scipio, called him home. As explanatory of his defeat at Zama, it must be remembered that he had only raw and inexperienced troops, many of them the merchants and the young patricians of Carthage, unaccustomed even to toil, to pit against the experienced legions of Scipio. The fact that he made as good defense as he did alone justifies the homage which is still paid to the genius of Hannibal.

Did Cæsar pause on the Rubicon? No, we answer, despite the assertions of many to the contrary. Why should he have paused? What reason was there for his doing so? We know none. Yet Plutarch says that he paused, enumerating the calamities which the passage of that river would bring upon the world, and the reflections that might be made upon it by posterity. At last exclaiming, "The die is cast!" he drove his horse into the stream and Rome was free no more. The tale reads like a passage from a romance, and is evidently a fiction. Although rhetorical writers of later times have de-

lighted to refer to this dramatic scene somewhat in the style of J. Sheridan Knowles, there are both critical and internal evidence that it is a fraudulent piece of history, either written for dramatic effect, or intended as a libel on Cæsar.

Let us glance at the authorities. Several writers give us the history of that interesting and important epoch. First of all is the unrivaled narrative of the great commander himself, who wrote as ably as he fought battles or practiced state-craft. Yet Cæsar, in his Commentaries, makes no mention of this incident. His simple narrative reads that at nightfall he left Ravenna secretly, crossed the Rubicon in the night, and at daybreak entered Ariminum. Of Livy's History of this age we have only the Epitomes, but these Epitomes form a complete, though of course far from a detailed narrative. Yet in them is no allusion to Cæsar's halting at the Rubicon. If such an event had happened Livy must have known of it, for he lived in the succeeding generation, and if he had heard of it there is no reason why he should not have recorded it. Nor do Dion Cassius or Velleius in their histories, the former living in the time of Alexander Severus, the latter in that of Tiberius, seem to know anything about such an incident.

Suetonius, in his lives of the Cæsars, was the first to mention it. Who was Suetonius? He was a Roman biographer who lived in the time of the Emperor Hadrian, one hundred and thirty years after our era, and was the author of the Lives of the twelve first Cæsars in eight books. They have little critical value, and abound in details and anecdotes of a questionable character. The next author who speaks of the incident is Plutarch, whom we have already quoted. Plutarch was a Greek writer contemporary with Suetonius, whose parallel Lives of Greek and Roman Commanders are among the most useful and popular of ancient compositions. But Plutarch has very little historical value, and he is not regarded as authority only when his statements coincide with those of other writers. In fact

he himself tells us that he does not write history; he writes the lives of great men with a moral purpose. His life of Julius Cæsar is the most imperfect in the whole series. It is a confused jumble of facts snatched from different sources, without order, consistency, regularity, or accuracy. The writer seemed to labor like a man under restraint. He skimmed over all of Cæsar's great actions, and manifestly showed a satisfaction when he could draw the attention of the reader to other characters and circumstances however insignificant. Where he derived his information concerning the dramatic incident of the great captain's anxious pause on the banks of the Italian river, we do not know; but this we know, that no reliable historian contemporary or otherwise has made mention of it.

The internal evidences are still stronger that Cæsar never acted the part ascribed to him on the Rubicon. Cæsar was not the man to hesitate after he had once determined on a thing. If he ever possessed doubts at all they were all settled before he summoned his legions to march out of Cisalpine Gaul. The idea of his stopping in full march and anxiously weighing the probable consequences of one irremediable step is not consistent with Cæsar's character. He had calculated his chances, examined the whole field from every point of view before he left Ravenna. He never undertook an enterprise until he had carefully examined the chances of success, and when once he had determined upon his course his audacity and his dispatch confounded his enemies and his genius overthrew them.

Why should Cæsar have paused on the Rubicon? You answer that he was a rebel marching to enslave his country. But Rome was already enslaved. The Rome of the Fabii and the Cornelii was no more. Her republican institutions had been deflowered by Marius, by Sulla, by Pompey. Ten years previous her territories had been parceled among the triumvirs. Cæsar was no upstart rebel. The strife was not between principles or

parties, but it was a strife for power between two individuals. That Pompey was the representative of the Senatorial party made it no better for him, but worse, for it had been the subserviency of the Senate that at first paved the way for the dictators and the triumvirs. That Cæsar was the representative of the people did indeed better his circumstances, for Rome was free, you say. Pompey and the Senate fled, the people welcomed him. Cæsar was no rebel then, or, if a rebel, Pompey was a tyrant. If Pompey was a tyrant, then Cæsar, instead of being a base, dishonorable wretch plotting to overthrow his country, was rather an ardent patriot, seeking to deliver her. Surely there was no more need of Cæsar pausing on the Rubicon than there was of Washington pausing on the bank of the Delaware when he was about to attack the Hessians, and as the latter did not hesitate, we have no reason to believe the other did.

It has been strongly doubted whether Jeanne d'Arc ever suffered the punishment that has made her a martyr, though details of her execution and last moments grace the civic records of Rouen. Several books have been published discussing the question. A Belgium lawyer is the author of one of these. He contends that the historians—who have done nothing but copy each other in the narratives of her death—err exceedingly in saying that it took place on the last day of May, 1429, the fact being that she was alive. There are good grounds, it is also asserted, for believing that the pretty tale of Abelard and Heloise is a pure fiction.

Nobody has yet unriddled the mystery of the man in the iron mask, and nobody seems likely to do so. Of the various theories advanced by different writers some are more probable than others. It is not likely that he was the Duke of Monmouth, or a bastard son of Anne of Austria, or a twin brother of Louis XIV. He was probably a political offender or else a rival of the King in one of his numerous amours. Still his identity re-

mains unsettled, a problem as uncertain as that regarding the identity of the writer of the famous "Junius" letters. These are two insoluble enigmas, impenetrable mysteries that baffle solution, and about which, perhaps, the public has become tired of surmises.

An extremely witty and characteristic anecdote told of the late Lord Beaconsfield will bear repetition in this connection. An adherent from a distant country brought his two sons to the then Mr. Disraeli, and asked him to give them a word of advice on their introduction into life. "Never try to ascertain," said the illustrious statesman to the eldest boy, "who was the man who wore the iron mask, or you will be thought a terrible bore. Nor do you," turning to the second, "ask who was the author of 'Junius,' or you will be thought a bigger bore than your brother."

Walpole wrote an ingenious work to show—taking for his base the conflicting statements in history and biography—that no such person as Richard the Third of England ever existed, or that if he did he could not have been a tyrant or a hunchback. "Historic Doubts Relative to Napoleon Bonaparte" was published in London in 1820, and created widespread amusement because of its many clear strokes of humor and satirical pungency. Napoleon, who was at the time a captive at St. Helena, admired the composition greatly. Archbishop Whately and Sydney were each reported to be the author. Since the publication of that sketch numerous imitations have been issued, but none have shown much originality or literary skill, and have, therefore, vanished into the darkness of merited oblivion.

FRED. MYRON COLBY.

A PORTRAIT GALLERY OF CONFEDERATE CELEBRITIES.—NO. 2.

ALEXANDER H. STEPHENS.*

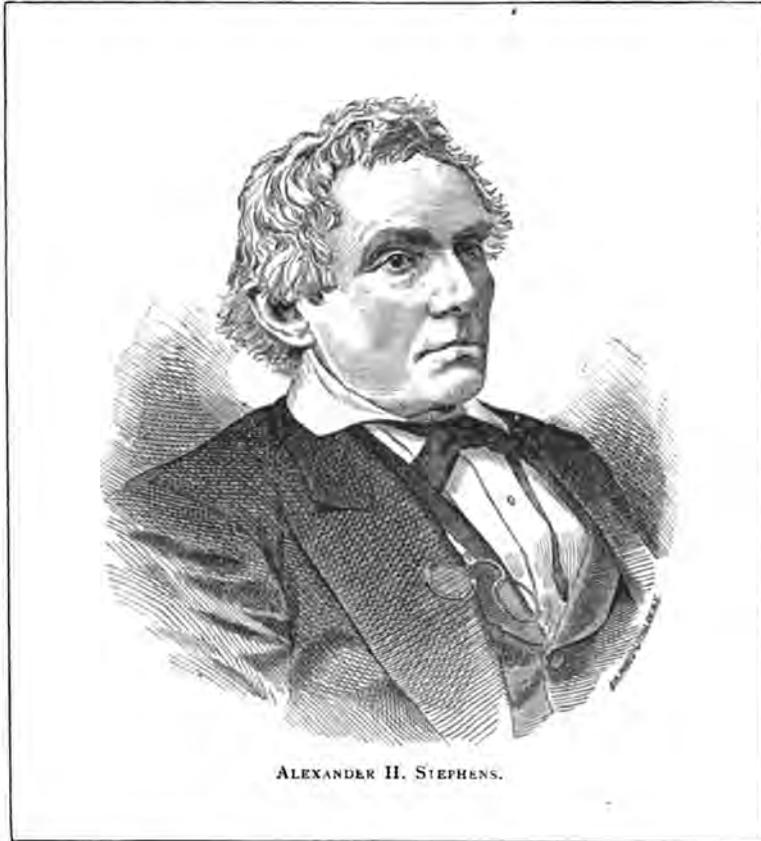
FOR years before the war there had been pointed out in the House of Representatives at Washington, to the curiosity of the stranger, a singular figure; his singularities, observed at a distance, being that in all weathers he was wrapped in a heavy overcoat, and that in his congressional seat he wore his hat. These eccentricities were allowed him as of tenderness for his health. The figure almost lost in the overcoat was that of a dwarfish man; the stooped shoulders and the bulging brow, with an effect of lowness, which was increased by the fashion of wearing the hair brushed straight down on the forehead, giving the singular idea of a growth mashed down, and restrained by an ungraceful pressure.

* The series of papers of which this is the second, was sent to the editor of the PHRENOLOGICAL JOURNAL a few months before their author, Mr. Edward A. Pollard, died. He was one of the most cultivated writers produced by the South, and an earnest sympathizer with the movement for a separate Confederacy, and a close observer of the events which occurred during the late struggle.

The face of this man is a study. Beardless, but too square to be boyish; a wan, bilious face that tells of a life-long invalid, not in the common marrings of wrinkles or furrows, rather a singularly smooth face with the querulousness of disease plastered all over it; superimposed upon this the air of a peculiar melancholy, not resentful enough to be that of the invalid, nor tender enough to be that of a sentimentalist, but a melancholy of purely intellectual aspects—that visage we often observe in profound thinkers, as mingling the expression of the patience of thought with its despairing unsatisfaction. The face is an unnatural one from these layers of expression, so to speak. We feel, at first, the instinctive pitiful withdrawal that is natural at the sight of life-long organic invalidism; but its "pale cast of thought" wins us back to a more interested and less painful observation of the wan face. Are we not always singularly attracted by the expression of melancholy in the face of a certain class of deep thinkers, the "in-

teresting" students of the lamp? There is no moral significance in it to disturb our sympathies, or to excite painful emotions; the suggestions are simply intellectual. We see in it not the puzzled expression or painful abstraction of a man who thinks only mathematically: rather that of one who has something of imagination coupled with his tasks of intellect, and who, although his problem is unsolved, yet goes on with the sublime patience of an endless thought,

noticed that, though the most powerful in convincing, they deal scarcely at all in the form of argument; the style is that of clear, strong, elaborate *statement*, where the forms or processes of reasoning are studiously suppressed. The most convincing of speakers and writers, he is yet apparently the least logical; scarcely ever formal or pretentious in his propositions. His style affords one of the best studies of the exceeding power of *Statement*, in the sense of *argument in*



ALEXANDER H. STEPHENS.

never ceasing the sense of importance, though it be a despairing one, of what he has undertaken to meditate.

Mr. Stephens' characteristic intellectual power is that of elaborateness; a thorough elaborateness, all the more remarkable that it does not display its methods, but is quite satisfied to state in the amplest way the conclusions it has reached through long and painful processes of thought. Of all Mr. Stephens' speeches and writings it will be

disguise; the argument in such case being all the more effective that it does not advertise itself, and put opposition on its guard by giving it a formal defiance, but rather captivates it, and secures conviction by unconscious methods. Such a style, whose simplest definition is "the way of putting things," is the most powerful to be found in the whole repertoire of rhetoric; it is that which makes all "strong writing," and the best triumphs of the orator; and it is espec-

ially to be remarked of it that, as its power consists in an apparent simplicity, it never affords a true measure of the labor necessary to produce it, or of the intellectual merit it involves. There are no evidences of the long processes of thought and of reasoning that have chosen to array themselves in a style of simple propositions; and, indeed, one that is studious to exclude the idea that there is anything disputable about it, and to have its positions taken as matters of course or at the readiest credence. But while such a style—that illustrating this superiority, this peculiar virtue of *statement*—is but seldom credited by the popular mind for intellectual ability, we repeat that it is that which is supreme in point of real success, and forms the best and most enduring triumphs of writer and speaker.

Mr. Stephens did not increase his reputation in the war. He was singularly, and even suspiciously silent during the contest; a reserve that was, in part, attributed to his dislike of President Davis, although sometimes accused of a deeper and more sinister meaning. As presiding officer of the Senate—in which position his office as Vice-President was alone conspicuous—he was grotesquely unfit; his figure was mean and graceless in such a position, he had none of that commanding presence of the ruler or moderator of an assembly, and he lacked that readiness of decision to govern a debate of which he was satisfied to be only the critical observer. His proper element was in the debate itself, and that he declined. His former reputation had been that of the Great Commoner in the lower house of the old Congress at Washington; and there, and in addressing popular assemblies, rather than those more critical, in circumstances where the weight of his peculiar style of broad, strong *statement*, disdaining alike the forms of the logician and the ornaments of the rhetorician, was most likely to tell, he was almost without a rival. He was an "orator" only in the limited sense—yet a sense by no means a low one. His style of delivery was characteristic. He scarcely used a gesture; there was no transfiguration, such as imagination looks for in the orator warmed in his address; his face was

luminous at times, yet plainly not from the heat of emotion, only from that vivacity of intellect, that rush of thought which supplies an illumination of a certain sort to the face, yet quite different from that of "the divine afflatus" of genius and passion; the only very notable change in the man, in the tides of his speech, was a voice that rose with them, the most remarkable ever heard, a miracle of clear, commanding sound from this wan, withered face, the arms hanging loosely by his side, no gesture to aid the expression of excitement, and yet from a presence so little imposing a note as supreme and stirring as that from "a trumpet with a silver sound."

Those most intimately acquainted with Mr. Stephens, allowing his great intellectual merit, yet say that he is afflicted with an inordinate vanity, which is all the more abject that he keeps it studiously concealed. It is a pity that a picture, otherwise so admirable, should be overcast with such an imputation; but the evidence which comes to us on the subject is too direct and minute to be doubted. There is a general impression, verified often enough, that vanity is the vice of small intellects, and the sign of such; but the rule does not hold unexceptionally good; that great intellectual power may abide with conceit is not an absolute logical impossibility, and a keen observation of human nature is sometimes surprised to find rare instances of their union in the same character. As the gentle author of "Elia," in his essay on "Bullies," has been at pains to show that of such are sometimes truly brave men, so in the ranks of the conceited it will sometimes happen—however rare the discovery, as opposed to our ideals—that we will find a great intellect, neither the reality nor greatness of which we can dispute.

To charge Alexander H. Stephens with vanity will, doubtless, be a great surprise to the general public, to whom he has worn the appearance of a man the farthest removed from such an imputation; one of those transcendental creatures, living in his own atmosphere of hyper-virtuous egotism, with a sublime indifference to public opinion, studious to ignore it, whenever it is brought into con-

versation, or resenting the idea that he pays any attention to the outside world, in which he has chosen such a reserved and isolated life. Now, there may be in this various world a few rare instances of souls which thus "dwell apart"; but we are constrained to observe that when this indifference to public opinion is worn as the mask of vanity, it is a vanity of a mean sort. In a somewhat extensive observation of public men we have always had our suspicion of a class who are especially fond of contemning "what the newspapers say," or of professing to ignore it. We are persuaded that the fact will often be found, that of these very men are those most eaten up with a secret anxiety as to what the newspapers do say, and who are often servilely alert to catch its least word of censure; that among these politicians and public men of our day appearing so savagely indifferent to public opinion, we may always be sure of finding the most careful consulters of its oracles. They are like *Sir Fretful Plagiary* in the play, replying to the circle that rigs him with their flatteries and deprecations of his critics, "D——n the newspapers, I never see them," and who, yet, is found, curiously enough, to be minutely aware of the least thing printed to his discredit.

Of Mr. Stephens' secret regard for the newspapers a single illustration is afforded. A gentleman who was his private secretary for a number of years, relates that one of his regular tasks was to clip from the journals, including the whole press of Georgia, the least paragraph in which his patron's name was mentioned, and to paste them in a book kept for the purpose. So exacting was the task that it was made to include even the least two-line item of the obscurest country paper; and when Mr. Stephens was absent in Washington, his secretary, who remained in Georgia, regularly mailed to him bulletins of these clippings.

The same gentleman who used his scissors and paste so industriously, relates a rather dramatic anecdote of Mr. Stephens, which goes further to illustrate the sensitiveness of his vanity, and, besides, offers an explanation of a somewhat curious piece of literary history. After the war, the pub-

lic was surprised by the emanation from Mr. Stephens of his bulky octavo volumes of the "constitutional" history of the contest, devoted exclusively to the vindication of the extremest doctrines of Secession, and of those peculiar politics which had precipitated the war; a surprise, because the work was so ill-timed, so written without occasion, and so contradictory of all that had hitherto been believed of Mr. Stephens' aversion to the secession movement and his former political courses. An explanation of this work, which merely "fought the war over again," and in which the author is so pronounced for the extremest of a past and dead school of politics, may, possibly, be found in the following circumstances: A few months after the surrender of General Lee, Mr. Stephens was released from a confinement in Fort Warren, and he returned immediately to Atlanta, the ruins of which were then unrepaired. He was met there by the gentleman referred to above. The darkness of night had just covered the city when Mr. Stephens alighted at his hotel; without waiting to sup or to change his dress, he expressed a great desire to walk over the "ruined district," which he had not seen since the war, and which had been formerly familiar to him as a place of opulent houses and happy homes. On his friend remonstrating that there was not light enough to make the melancholy survey, he suggested that a lantern should be carried between them, and thus equipped they sallied out. The painful and romantic pilgrimage was done in silence; through passage-ways tortured with ruins rendered more imposing by the imperfect and fitful light thrown upon them, the two walked, until Mr. Stephens stopped from apparent exhaustion, and sat down on a portion of the wreck about him. After some conversation expressing dismay and pain, such as might naturally be inspired by the imperfectly shown scene of the horrors of war and the weird circumstances in which the night-walkers surveyed it, Mr. Stephens turned abruptly to his companion and said: "Tell me what the people of Georgia think of me. I have been away, and feel as a stranger among them—alas! that I should revisit them in such a scene!

Tell me the truth, and don't spare me." "Well, sir," replied his companion, "if you will hear the bitter truth, it is that you have utterly lost the confidence and affections of this people. I tell you plainly that you, the former idol of Georgia, could not now be elected to a constable's place within the limits of this State. There is a feeling of positive resentment toward you; people accuse you because of the distance you kept between yourself and Mr. Davis. I hear them saying that your heart was not in the war, that it was, in a great measure, brought to its unhappy conclusion through your coldness and perversity. I tell you this as something as painful for me to speak as it is for you to hear; but you demanded the truth, and you have it." For the space of a minute, Mr. Stephens' face was buried in his hands; suddenly he rose, as if animated by an inspiration. "I know what I'll do," he said in words thick with eagerness: "I'll show these Southern people that they have misunderstood me, and I will do it in a *book!*—a book wherein I shall write up Secession, even from its grave, a book that shall be the great work of my life." This *magnum opus* the world has since had in two bulky volumes. It has been variously criticised. Among Southern secessionists, the personal friends of Mr. Stephens point to it as the monument of a fame recovered, if not of a "lost cause" regained. The present writer will attempt no inscription of his own upon it. EDWARD A. POLLARD.

SINGULAR RECOVERY OF LOST VALUABLES.—A writer in the Providence (R. I.) *Journal* tells the following story: "One autumn, in the warehouse of L. D. Anthony & Co., I was trying on a pair of fleecy-lined gloves, which did not suit me, so I bought another pair. A few days after I missed a gold ring from the third finger of my left hand. How long it had been gone I had no idea. I searched the house for it, and went into Mr. Anthony's store and other places to see if anything there had been seen of it. In vain the search, the inquiries.

"Months rolled on, till biting frosts reminded me it was time to lay in a stock of winter gloves. Once more I took my-

self to Mr. Anthony's and asked for fleecy-lined gloves. The first pair I tried on I found too short at the wrists. In taking off the left-hand glove I felt a ring in one of the fingers. While slowly disentangling it from the fleecy lining I said to the salesman, 'Here is a ring; whose shall it be, mine, as I have found it, or yours because it is found in your establishment?' The weighty question was decided in my favor. At that moment my lost ring came to my mind, and I said: 'Who knows but that is the very ring I lost nearly a year ago?' The answer was: 'That can not be, as I do not think we have a pair of gloves on hand that we had last year at this time.' Slowly I drew out the ring. Yes, it was mine; my initials on the outside, those of the donor on the inside! By that time every inmate of the establishment was looking on with the utmost eagerness, awaiting the result. The wonder was that the gloves had not been sent to some store off in the country, where they might have changed owners several times.

"Another strange incident happened to me somewhat similar in kind. Coming home from England a dozen years ago, I put some things I had brought for presents to friends in a bureau drawer in the spare chamber. Among them was a large carnelian I had bought in the Isle of Wight. After a while that stone was missing. I could not imagine what had become of it. I could only think it must have been dropped when the other things were taken from the drawer. More than seven years passed, nothing having been seen or heard of the stone. At length I decided to make a change in the sleeping-room up-stairs, and the bureau was removed into another chamber. Each drawer had paper on the bottom of it. On taking out one paper, which, being too large for the drawer, had a fold across the middle, I felt something move in the fold. Softly turning it, there lay my carnelian! And yet, each year, at 'house cleaning time,' every paper had been taken out, dusted and put back into the drawer, and how it happened the stone had never fallen out is more than I can tell."

ERRORS IN THE GOVERNMENT OF CHILDREN.

NAPOLEON ALAMETH was a man of superior abilities, taking his own testimony as evidence in the case. To hear him speak of himself—what he had done, what he could do, and what he designed to do—one would suppose that he considered himself a *little wiser* than the author of the book of Proverbs. He thought he knew more than his father and mother several years before he arrived at the lawful age to leave their guardianship. With this self-important feeling ever active in his mind by day and haunting him in his dreams by night, he at last came to the sage conclusion that it would be the part of wisdom to leave his father's house unceremoniously, without the knowledge or consent of his parents, and engage in some kind of business on his "own hook."

It may be proper to remark in this connection, that the parents of young Alameth were not remarkable for wisdom and consistency in the government of their children. They were tyrannical, overbearing, fault-finding, and petulant; never giving reproof with gentleness and love, but with harshness and anger.

The haughty spirit of Napoleon—made so partly by the hereditary transmission of mental qualities, and partly by the mode of government that he received—was impatient of the restraint thrown around him at home, and he longed for that freedom which is the native element of every human soul. Children who are treated kindly and affectionately by their parents seldom leave home without their consent. Love begets respect for parental authority, while fear of punishment will, as it were, *force* a child to seek sympathy among strangers by flight from a paternal prison.

Napoleon Alameth left his father's house at the age of seventeen, and, having been accustomed from childhood to labor on a farm, he found no difficulty in obtaining employment as a tiller of the soil. But his native independence of

character would not permit him to remain long at one place, and, in the course of two years, he had been a laborer in a dozen different families. During this period he became very much interested in the person of a young lady, whose affections it had been his good fortune to win. It may appear strange to some minds that one with his haughty, domineering spirit should be successful in winning the esteem of the gentler sex. But may it not be true that

"Woman, born to be controlled,
Stoops to the forward and the bold"?

Julia Howard, the prospective wife of Napoleon, was not remarkable for beauty or intelligence. She was educated at the district school, and made an average proficiency in the common branches of education. Until her acquaintance with Mr. Alameth she had entertained the noble idea of fitting herself for a school-ma'am, but he having made proposals to her to engage in a different sphere of usefulness, she abandoned the idea of becoming a teacher, and laid aside Smith's Arithmetic, Grammar, Geography, etc., and went busily to work piecing bed-quilts and comfortables, and making such other articles as are needed in housekeeping.

She possessed a kind of sprightliness and good nature which rendered her company agreeable; but she lacked that firmness, stability, and dignity necessary to control others. With these mental characteristics she would have failed in one of the most important elements of a good school-teacher, viz.: government. Her temper was like a whirlwind—one blast, and it was all over. She frequently got vexed with Mr. Alameth and declared she would never marry him, but in a few minutes would repent of her rash act, and make all the acknowledgments which an ardent lover could ask to bring about a satisfactory reconciliation.

I have heard it observed by persons

wise in matters pertaining to courtship and marriage, that if lovers have little petty quarrels before marriage, they are quite sure to have serious altercations afterward. This observation has one fact to substantiate its truthfulness in the case of Mr. Alameth and his lady-love. Their petty quarrels during courtship were only preludes to contentions—trifling to commence with, but of sufficient consequence in the end to mar their domestic tranquillity. The causes which produced this unpleasant state of things will be explained in the sequel.

N. B. Alameth and Julia Howard were married with due forms and ceremonies after a very interesting courtship of six months. They lived happily together for a few weeks, when a dispute, trifling to begin with, arose between them, which ended in hard words, and had a tendency for the time being to weaken the strength of their affection. After the affray was over, however, they saw the evil of their conduct, regretted the course they had taken, and mutually resolved never to let their passions get the mastery over their better faculties while life remained. But their good intentions were not sufficient to keep their tempers in due subjection to reason, and frequent altercations were the result. Notwithstanding this they really loved each other; and, if during the time that their war of words (for they never resorted to any harsher measures) was at the highest pitch they threatened to separate, the latent spark of genuine love which existed between them would kindle into a flame when the excitement of passion was over, and their past misconduct would be forgotten.

Years passed away and Napoleon the runaway boy was settled in life with a loving, *fretful* wife, and three as gritty, ill-governed children as ever lived in a New England village. In the first place, as has been intimated, these children had inherited a predisposition from their lawful progenitors to be irritable. But this could have been overcome, and they might, with judicious management and proper education and training, have been

made dutiful and well-behaved children. But as Mr. Alameth and his wife had never learned to govern *themselves*, it was impossible for them to govern others. It is of no use to tell your child to be moral, benevolent, and religious, and then in your intercourse with the world act in direct opposition to the precepts you have inculcated. "To present to the moral sentiments their appropriate exciting objects should be the first great aim of education." This is the only true mode to make children act well. Precepts may do something, but they are feeble, indeed, compared with example. Would you have your child benevolent, engage it early in acts of kindness, and be yourself kind. Would you excite its reverence, you must be respectful in your demeanor, treat all with due consideration, and be attentive to the duties of religion.

Mr. Alameth and his wife acted on a very different principle from the above in the management of their children. Whenever they reprov'd them for any misdemeanor, they were sure to do it in anger and in tones of harshness and severity. This mode of addressing them would excite their anger, and smother all the generous and friendly emotions of the soul.

Their oldest child, Evangeline, was endowed by nature with an active mind and considerable acuteness of intellect, combined with that firmness and independence which were characteristic traits in the family on the father's side. Her temper was quick, and when aroused by high excitement, impetuous as the torrent. Such a disposition needed great wisdom and gentleness to guide it aright, but the following circumstances will show the kind of government under which she lived.

Evangeline, with her natural impetuosity of temper, had given a younger sister a blow on the head, which, if it did no personal harm, aroused the anger of the little one, and she went crying to her mother, saying, "Eva has been striking me." The mother, instead of reproving

Evangeline in a reasonable manner, approached her with a look which exhibited the very personification of anger, and in language corresponding with the expression of her countenance, said: "You little wretch, you! what have you been striking your sister for? Come to me and I will teach you not to do the like again."

Eva, well aware of the lot which awaited her, was tardy in obeying the commands of her mother, and a short race was the consequence. The mother outstripped the daughter, who was soon caught by the hair, and in a very unpleasant manner led into the house, and, without a word being said to her about the injustice and cruelty of striking her sister, she received a brutal whipping, and the scene closed by an exclamation from the mother, in a voice of commingled rage and satisfaction, "Do the like again if you dare!" Now, it needs no argument to prove that such a course of training, long persisted in, will spoil any child.

Many persons consider the mind a complete mystery, which it is of no use for them to try to solve. Parents holding this view of the subject, if their children are vicious and ungovernable, lay the whole blame to their natural depravity or tendency to evil. They seldom blame themselves for their misconduct, although they may have been the means of their disobeying the fifth commandment in the Decalogue.

The sure result of such training, as before described, is to make children worse instead of better. It is a trite saying that "Like excites like." If you meet a neighbor with a smile and address him kindly, he will return the compliment in a like manner; but if you call him a rascal and a villain, in tones of harshness and severity, you will be likely to receive a bitter answer, accompanied perhaps with a blow. This rule holds good in the government of children. If you use harsh means and always appeal to their animal passions, you will increase the activity and strength of those faculties

which you desire to quell, and the effect is to make them worse instead of better. Appeal to their reason and sense of justice. Tell them of the consequences resulting from a life of disobedience, and it will excite the nobler faculties of the soul and stimulate to virtuous deeds. The former mode of governing children fits them for vagabonds; the latter prepares them for usefulness and happiness.

Napoleon B. Alameth and his wife pursued the former course, and their children became pests of society—a curse to their parents and the world. They disobeyed the commands of their parents when young, and, as they increased in years, they increased in wickedness and violated the laws of their country. The parents saw their own course of life and mourned over their misconduct when it was too late. Their sorrow was somewhat mitigated by their ignorance, for they ascribed the bad character of their children chiefly to the inscrutable decree of fate. If, like Eli of old, they had known that they had been the cause of their children's vicious conduct, they would have been miserable indeed. Eli has always been accused of having committed a great error in not governing his children aright, and it should be the first study of those who have the responsibility of governing immortal beings during the first years of their existence to learn to do it in such a manner that they may be fitted for honor and usefulness on earth and happiness in heaven.

P. L. BUELL.

BEAUTY OF CHARACTER.—Every variety of leaf has a beauty of form peculiar to itself. Beautifully blended shades of color adorn the flowers, velvety carpets of green cover valley and hill; clear waters go sparkling on their course; golden gems of light thickly stud the deep blue sky, or when dimmed by the sun's brighter luster a softened azure pleases the eye. Beauty, beauty everywhere! Whether great or the most minute, a form and coloring of beauty are given to all. The child of

nature has his soul filled and thrilled with the loveliness that is all about him.

In his imitative power man has wrought out numberless works of art, fairly rivaling dame Nature herself. In his love for the beautiful, man brings art and nature to adorn his home; charming pictures hang on the walls, the fairest of flowers are at the windows—everything to please the senses. Nor is the adornment of the mind forgotten. Books that please, instruct, elevate the mind, are not lacking.

Yet the world in all its beauty is not perfect beauty. Insects destroy the flowers, worms eat into the fruit, sickness and deformity mar the human family, sin creeps into our houses, into our hearts. Beautiful homes and surroundings greatly influence our lives for good. Yet debarred from the companionship of pleasant, congenial people, the sweetest charm is gone. Or even one ugly-hearted person in our midst is like the destroying fruit-worm, withering bright green leaves of joy, and drying up juicy fruits of happiness. Oh! there are some things—aye, some people in this world that are not beautiful. The form and features may be

symmetrical in their outlines; there may be even a whitewash of beauty over all, that time and eternity will wipe off, leaving only horrid ugliness to be seen.

Of all things the most ugly, is the ugly heart, disposition, character. And of all things most beautiful, is the beautiful heart, disposition; character. Colors and forms of loveliness are pleasing; wisdom and intelligence of mind we admire; but above all shines the beautiful character. From it there radiates a glow of beauty that shines through form and feature like a ray of sunlight brightening up things wherever it may chance to be. Nothing is so great in value as the true, kindly, gentle, Christian heart, that outshines and will outlast all things of time. When we feel the sweet, overshadowing influence of all that is beautiful about us, let us not forget the blessed influence of a beautiful character, and strive to "cultivate *first* the beauty of the heart, then second, the beauty of the mind, and third, the beauty of the person." Then shall we be truly beautiful. Heart first, and all else shall be added thereunto.

S. M. DIDDLE.

"FOR SALE."

"You're right! A charming girl! My daughter, sir.

Just name the price that you will give for her. You're rather old, but then it matters not; The only point is, how much gold you've got. She's going, going fast! A million as she stands!

Name the figure, gentlemen, and take her off my hands.

"You like your club! To that she'll not object, She's been brought up such trifles to expect. *Carte blanche* you'll have for poker or *carte*, She marries gold, you see, and not a heart! She's going, going fast! Another bid, I pray! The market's very active! Gentlemen, step this way.

"Oh! yes, you're talked about, but who is not? A wicked name, my friend, is common lot. But even if the hardest things are true, It's all the same to her, 'tween me and you!

She's going, going fast! A million as she stands!

Name the figure, gentlemen, and take her off my hands!

"We know you like your social glass, but she Knows all the ropes of good society.

She'll never taunt you if you're late at night, Or call you names should you be brought home tight!

She's going, going fast! So name your real estate,

Your jewels, and your equipage, or it will be too late.

"My daughter gives you youth, you give her gold!

Of course a man must pay for growing old!

She gives you beauty in exchange for name,

And if you're good or bad, it's all the same!

She's going, going, gone! A million as she stands!

The sale's over, gentlemen. My daughter's off my hands."

ELEANOR KIRKE.

GOING INTO BUSINESS.

HOW GEORGE SIDNEY HAD HIS OWN WAY.

"I DON'T want to go to that old school any more. I'm sick of it," and, throwing his books and hat upon the table, a boy of twelve years turned a hot and angry face to his mother, who sat by the one window of the little room, sewing.

"Why, George, what is the matter?"

"I don't want to go there any more. You know well enough, mamma, I don't. They're so rough—scarcely a nice boy in my whole class. They're teasing, or fighting, or doing something the whole time; making me miss my lessons when I know them ever so good, and making me lose marks for deportment when I'm not doing anything. And it aint any use to explain, 'cause Miss Whittlely thinks we're all alike."

"What has happened to-day to disturb you so much, my boy?" asked Mrs. Sidney, gently.

"Oh, mamma, I do wish you knew something about that school; then you'd see I'm just telling the real truth, and you'd let me go to the Institute."

"I should be glad to send you to the Institute if I could afford it; that I have told you before, George. But there are rough boys in all schools, and even at the Institute. You have spoken of one or two yourself who attend there."

"Well," replied George, his excitement having cooled down a little, "I know there aren't any such boys at the Institute as some in my class. Tim. Simpson made me laugh when we were reciting geography, and I got five discredits, and most missed. And after school Ern. Clark, Will Baldwin, and I were playing marbles, when up comes Gus Stobey with two or three of his crowd and grabbed up all there was in the ring and runs off. He is one of the worst boys you ever saw, mamma, and never knows his lessons. I don't see why Miss Whittlely allows him to stay in the class, for he's always talking or eating apples. Oh, dear

me! I wish I didn't have to go to school, anyway."

"What would you do, George?"

"Why, I'd just go to business like Abel Condit. He isn't a bit older than I, and he goes every day, and earns ever so much money. I don't see why I can't, too."

"My dear boy," returned Mrs. Sidney, "you know I am very anxious to have you well taught, so that when you go out into the world to work for yourself—and you must do that in a few years—you will be well prepared. We have often talked about this matter, George, and you are quite old enough to understand the necessity of a good education, if you want to get a good place and to rise rapidly in the esteem of your employers and associates."

"Why, mamma, you know Uncle Hector says that if a boy goes into business he has a good chance to learn all about it early, and can grow up in it and get rich."

His mother smiled half sadly as she answered:

"Ah, my enthusiastic and mistaken boy, your Uncle Hector was early compelled to work for his support, but fortune has not smiled upon him. Now, will you go to the store for me and get a pound of pilot crackers and two pounds of light-brown sugar, and if you are back in a quarter of an hour you shall have an apple."

"All right, mamma, I'll be back before you can count three hundred backwards," and, taking the money his mother handed him, George seized his hat and bounded out of the house.

"Hey, George Sidney, what's your tremenjus hurry?" shouted a lad who might have been two years older than our hero, and who was sitting on a fence on the opposite side of the road.

George looked across and seeing his challenger, replied, "Can't stop, Andy, got to go to the store."

"Guess I'll go 'long," said Andy, jumping down and running over to join George. "What you goin' for?"

"Oh, only two or three things; not much—but I promised to be back in a quarter of an hour."

"Huh! you can easy do that. Say, wasn't old Whit. cross this mornin'? Guess my average'll be low 'nough this week; but who cares! What's the use in goin' to school if you can't have fun? I aint a-goin' to be crammin' them plaguey lessons into my noddle all the time."

"You've got to study if you expect to be promoted, Andy."

"S'pose a feller must study some if he wants to go 'long with the rest—but, pshaw! it aint any use to be crammin', as Sam. Lathrop and you fellers do, just 'cause you want to be head. I guess if I know how to spell putty well and cipher in Discount and Interest, I can git a place good 'nough in a store when I'm ready. When you go into the world on your 'own hook,' then's the time you begin to git the *real genuine* education, my pop says. But, say, do you know," continued this young champion of easy scholarship, "that Dick Stevens is goin' to leave Pitman's?"

"Going to leave Pitman's," exclaimed George, with a sudden halt in his dog-trot, "who told you so?"

"Zeke, our man, just told me. He was over there this mornin', and he saw Dick outside a-rubbin' the winders, and he told him that'd be the last time he'd clean them glasses, 'cause he was goin' to Hartford day after to-morrow."

"Who's Mr. Pitman got to take his place, Andy?"

"Nobody's I know of. Guess it's rather sudden. I kinder heard that he and Pitman didn't get on very good together. Anyway, he told me t'other day he was a-goin' to leave if he didn't git more wages."

"How much did he get, do you know?"

"Yes, 'bout five dollars a week. Tain't much, anyhow."

"Seems to me, Andy, it's a good deal for a boy."

"Ho, ho, ho! it may 'pear a good deal to you, bub, but if you'd society worth havin', you'd have to treat 'em 'casionally or look mean, and that'd make five dollars look mighty small. But, pshaw! you don't smoke even cigarettes, and I shouldn't wonder if you're afraid to drink a glass of beer."

"All right," said George, but little disconcerted by Andy's tone of superiority; indeed, he was thinking more of the chance which seemed right at hand for him to "go into business" than of his companion's little sneer. "All right," he repeated, "you can smoke and drink what you like if you're bound to, but I don't like such things and I never shall."

By this time the boys had reached the store, and they entered it without further talk. George went up to the counter for his crackers and sugar, while Andy turned with a "Hello, Jeff.," toward a big youth of sixteen who was sitting on a barrel munching an apple and listening to a group of men who were discussing horses.

As soon as the clerk had supplied him with the articles he wanted, George shot out of the store and ran quickly all the way home, bursting in upon his mother with, "Oh, mamma, what a good chance there is for me! Dick Stevens is going to Hartford, and Mr. Pitman wants a boy in his place. I just heard it from Andy Tabor. Please, let me go and ask Mr. Pitman if he won't take me. I——"

"There, there, my boy; not quite so loud. Take off your hat and put those articles on the lower shelf in the closet; you'll find a 'seek-no-further' there."

George's lip quivered as he turned to obey. He placed the groceries on the shelf, but closed the closet door without taking the tempting fruit from its place, and went silently to the window and stood there looking out. After a few moments his mother asked pleasantly:

"Do you know, George, whether any one has applied for the situation?"

"No, mamma; but Andy thought no-

body had, 'cause Dick first made up his mind to leave only yesterday."

"And do you think you would really like to be in such a store as Mr. Pitman's?"

"Why not, mamma? Uncle Hector says the boot-and-shoe business is good; and Mr. Pitman, you know, has kept store here ever so many years."

"You will have to do a great deal of hard work there, George; Mr. Pitman keeps only one salesman."

"I know all about it, mamma; I'm sure. Anyway, I'd rather be almost anywhere than in that old school—and then I'd be earning some money."

"And could help mamma and Edith very much, I've no doubt, in making home comfortable," added Mrs. Sidney, smiling.

"Of course, mamma," said George, with great warmth, "I'd do all I could. I want to be earning some money as well as Edie; and oh, if I get the place, won't Edie be surprised when she comes home Friday night?"

Edith was George's grown-up sister, and the only other child of Mrs. Sidney. She was a teacher in a school in a neighboring town, and usually absent from home from Monday morning until Friday night.

"Well, if your heart is set upon leaving school, George, you may as well go down to see Mr. Pitman," said Mrs. Sidney, kindly.

"Oh, thank you! thank you, mamma!" shouted the boy in great glee, for this easy concession to his wishes was quite unexpected. "I'll go right off. I'm sure I can do Dick's work, 'cause when he went to school we were in the same class, and it isn't very hard, anyway."

And so it came about that George obtained the place in the boot and shoe store, and two days later entered upon its duties. Mr. Pitman was an old-fashioned business man; he believed in being busy himself and in keeping others busy who were around him. He had, however, for salesman a nephew who be-

lieved in "taking the world easy" when he could, and it was not long before George found that between his employer and the nephew he would be kept moving pretty much all the time. There were the fire to be attended to in the morning when he came, shutters to be taken down, floor and stoop to be swept, and chairs and counters to be dusted. Then during the day there were errands of one kind or another, goods to be delivered, stock to be brushed up, boxes to be unpacked, shelves to be arranged, windows to be rubbed, and many other odds and ends, which made him feel tired enough when half-past seven came at night and he could go home.

George was an ambitious boy, and wanted to be well educated. Edith was much esteemed by her friends for her intelligence, and George had long ago determined that he would make people respect him for his knowledge; and he had read about men and women who studied by themselves when young and made themselves well educated; hence he thought that he could study at night, and there would be a good many opportunities while he was at the store for reading. He had even laid out a plan for home-study, but he soon found that after he had eaten his supper and attended to the little chores which he had been accustomed to do it was after eight and he was too sleepy to read anything with attention. Even his Sunday-school library book could not keep his eyes open long.

When Saturday night came and he carried home four dollars—the earnings for a week—he felt in a great measure consoled for his inability to do his "schooling" on his own account. Mother and sister commended his diligence as a "business man," and said little to him about his loss of educational privileges, preferring that he should learn by experience what was best for him.

One of the frequent visitors at the store was a boy a year or two older than George. He attended the Grammar School, and being a lively, bright talker, Mr. Pit-

man liked to ask him questions about his lessons and doings at school, and George was always glad to listen. One afternoon, Philip Somers—that was his name—came in, and, after some playful remarks, asked the store-keeper if he had heard about the voyage of Schwatka, the Arctic navigator. Mr. Pitman replied that he had read or heard something about it, but did not remember particularly what it was. Philip then said his teacher had lately given an account of the voyage, and went on glibly to relate some of the incidents of the celebrated expedition in the regions of perpetual ice to discover remains of the unfortunate Sir John Franklin.

"Very remarkable and very interesting," said Mr. Pitman when Philip had finished, and, patting him on the head, continued, "Boy, you've got a level head and a teacher who knows how to teach; but just now I'm a little puzzled over a thing that's more interesting to me than Arctic travels. Perhaps you know enough arithmetic to help me out?"

"Oh, let me know what it is," cried Philip; "I'm in geometry now, and maybe if it's an example I can work it out."

"Well, it's a kind of sum in mensuration, and I shouldn't wonder if you could help me. I've just been buying a strip of land adjoining my farm to make the line straight, and I want to know how much there's in it. There can't be an acre quite, I know. It makes a sort of triangle, being 425 feet on one side, 361 feet on the other, and 224 feet on the road, while it runs to a point, only bending a little on the short side. William and I have been calculating, but we don't get anywhere near the same amount."

"Does the 361 feet make a right angle with the road?" asked Philip.

"I guess so; it looks about square."

The boy went to the desk and took a pencil and set down the figures.

"If it's a right-angled triangle I can do it easy," he said, and went on, "425 feet should be the hypotenuse; and, when squared, will be equal to the sum of 224 and 361 squared. Let's see if it is." He

rapidly went through the calculation, and said: "Yes, Mr. Pitman, it comes out pretty near. Now, by multiplying 361 by 224, and halving the product, you'll get pretty close to the true contents in square feet, and then it's easy to find out what part of an acre it is."

"Yes, that's the way, Uncle James," said William; "I'd forgot about dividing because it's a triangle."

"Well, go on, Philip, and let us see what you get," said the store-keeper, scanning the calculation over the boy's shoulder.

Philip then proceeded, and in a minute or two announced, "It's about three rods and twenty-nine rods."

"Within eleven of being an acre," said Mr. Pitman. "Very good. You must be about right. At any rate, it's near enough."

While Philip had been engaged in working out the problem, George had been an interested listener, and his eyes betrayed his admiration for the readiness with which the school-boy conquered the difficulties it had presented to his employer and the salesman. For the remainder of the day he was unusually quiet, and when he sat down at the supper-table that night, his mother knew from his face that something unusual occupied his mind. She, however, asked no questions. After awhile he broke out:

"Mamma, I think I'd better go back to school."

"Indeed, George! has there been any trouble at the store?"

"Oh, no," replied he, half-reproachfully. "I am sure Mr. Pitman likes me."

"Then my boy is already tired of business?"

"No, it isn't exactly that either; but I don't know enough. I want to learn more. I can't stand it to see boys like Philip Somers telling about countries and people I've never heard of, and doing examples right off I don't understand at all. Mr. Pitman asks me questions I can't answer sometimes, and there's Philip, you can't puzzle him about any-

thing. It don't make me feel a bit good, mamma."

He went on and told the incident of the afternoon, to which Mrs. Sidney listened attentively, and, when he had finished, she said, with an air of surprise:

"Why, George, you can study at home——"

"Oh, mamma," he cried, interrupting her, "you know I've tried and tried to, but I am so tired nights I can't, and I forget before next morning what I've been readin'. Besides, you know, mamma, you wanted me to stay at school."

"Yes, but you wanted so much to 'go to business,' George."

"I'll never do what you don't wish me to again," said he, earnestly.

"That's a good resolution, and I think my son can keep it if he tries; but if he leaves the store he will not have four dollars a week, and then it would not be treating Mr. Pitman very well if he left suddenly."

"No, no, mamma; I don't want to be like Dick, but I want to get back in school as soon as I can. What shall I do?"

The boy looked up in his mother's face with tearful eyes as he spoke, and she gently replied:

"Suppose you stay in the store until after the holidays, if Mr. Pitman will keep you. Christmas is only five or six weeks off, and we'll try to save as much of the money as we can, so that you can have new books, paper, pencils, and other things you often wanted."

"I won't be promoted then with my old class," said George, ruefully.

"It will not hurt you, my boy, to go back a little."

His face brightened up.

"No, it won't hurt me, mamma; I'll get along all the faster afterward." Then, catching a glimpse of a whimsical expression on his mother's face, he cried, "Now, mamma, you knew all the time how it would come out—didn't you?"

"Well, yes, my dear boy; I thought that if George had his own way he'd learn for himself very soon that 'going to business' was not so fine a thing as he had persuaded himself."

The next day George notified his employer of his conclusion. The old storekeeper muttered his customary "Hump!" and added:

"I thought Philip had given you an idea, for the way you went through those brogans was a caution. I guess, boy, you can stay till New Year's." CLARE.

GOING TO THE BEACH.

The waves roll over drifted sands,
White capp'd and jubilant as bands
Of sea-nymphs dancing on the floor,
Of the vast sea where tempests stride,
And scatter shells upon the shore—
The bluted blossoms of the tide.

Travel holds out its many arms
To bear us to the ocean's charms,
Where, unrestrained the billows leap
And voices come out of the sea;
"The deep calling unto the deep,"
In speech of rhythmic harmony.

Beware the treachery of the tide,
It spares not maiden fair nor bride,
It breaks hearts that should beat with bliss,
It scares the blood from the red lips,
Down in the deep then Death's cold kiss
Is followed by the dim eclipse.

O gentle visitor, beware
Masked dangers that may linger there
Will not spare maid, nor social queen,
Nor hero crowned on honor's throne;
In under-currents fate unseen
May drag thee down to realms unknown.

Let nothing tempt thy feet to stray
From the safe shore *too far away*;
Heed not the charm that thou may'st trace
In the bright mirror of the sea,
It may reflect thy radiant face
To flatter, and to conquer thee.

Where sea flowers hang on coral walls
And mermaids dance in crystal halls
And crown with shells their golden hair
Is not the fittest place for thee;
So kindly not their jealousy,
Nor leave thy lover in despair.

—GEORGE W. BUNGAY.



THE PULSE AND ITS SIGNIFICANCE.

IN the March Number of *Stoddart's Review*, Dr. E. J. Nolan published an article which contains in a condensed form much information concerning the action of the heart and other vital processes. The following is an extract :

So important are the relations of the blood to the animal economy, both as regards its composition and distribution to the various tissues and organs of the body, that modern physiology may be said to date from the discovery of the circulation by Harvey in 1616. The processes of life are all performed immediately through the agency of the blood. It not only supplies new material to repair the breaking down and decay which are always going on in the living animal consequent upon use or disease, but it also carries away the waste products and distributes them to the various organs designed for the work of separating them as dead or effete material from the body. When the processes of waste and repair are counterbalanced the result is health ; when the former predominates, which must some time in the life of every one occur, the result sooner or later is death. Our hearts are, indeed, "beating funeral marches to the grave," and it is not, therefore, strange that the first act of the physician in his endeavor to ascertain the condition of a patient, or the cause and progress of a malady, is to count the taps, for the frequency of the heart's action thereby determined is one of the

most important indications of the general condition of the system. The whole quantity of blood performing these important functions in the body of a well-formed adult man has been estimated at from 16 to 20 pounds avoirdupois.

One of the problems which has engaged the attention of the physiologist from the time of Harvey, has been the cause of the rhythmical contraction of the cavities of the heart by means of which the blood is kept in circulation. It is well known that the heart is a muscular bag divided by fleshy partitions into four cavities, the two auricles and the two ventricles. The muscular fibres composing the organ are involuntary in their action ; that is, no direct exertion of the will can retard or hasten their movement. The heart, moreover, differs from other involuntary organs, such as the respiratory and digestive, inasmuch as it will continue to act for a time after being removed from the body, dependent apparently upon the stimulus received from contact with the air, or upon a quality called by Haller its "irritability," and, in truth, it might as well be called by that name as any other, for after the lapse of more than one hundred years of patient inquiry we are as far as ever from knowing the cause of the regular performance of the heart's action. We know, however, reasonably well the causes which modify and regulate such action, and can assert with confidence that the regular and powerful contraction

of the heart is dependent upon the circulation of the blood through the cavities, although this does not confer upon the fibres their contractile power. Experiments made upon the hearts of frogs, alligators, and turtles demonstrate that although they continue to contract for some time after removal from the body, yet such action becomes rapidly feeble and irregular, but can be restored by introducing a few drops of fresh blood into the auricle. When water is introduced the same result is produced, but in a less marked degree, thus indicating the cause of the enfeebled action of the heart in exhausting diseases or where the blood becomes greatly impoverished.

It is well known that the finger, pressed gently over an artery, experiences a sensation as though something in the vessel were striking against it. This is primarily due to the contraction of the left ventricle of the heart which forces the blood through the arteries, or the vessels distributing it to the tissues after it has been exposed to the action of the air in the lungs. The pulse as perceived by the finger is dependent upon pressure and not in any material degree upon the elasticity of the arteries, although some distension of the walls of the vessels undoubtedly takes place after every contraction of the left ventricle.

The pulse can be felt at any portion of the body where an artery approaches the surface, but it is usually examined, for the sake of convenience, at the wrist where the radial artery curves to the outside of the hand in the space between the wrist bones of the thumb and forefinger.

Each pulse occupies about the seventieth part of a minute, and it is evident that little more than the general character and frequency of the beat can be determined by the pressure of the finger. It is, however, sometimes of importance to determine and record certain peculiarities of the heart's action with far more precision and delicacy than can be done by the sense of touch alone. To effect this an instrument, by means of which the secrets of one's heart can be recorded

without a chance of dissimulation, has been invented by Marey, a French physiologist. When adjusted to an artery it amplifies the changes in its caliber without distorting them, and traces the result on a slip of paper moved by clockwork under an indicator at a known rate of speed. This instrument is called a "sphygmograph," and, although not in general use by physicians, it has given to physiologists very important information which could not otherwise have been obtained.

Although the assistance of such an instrument of precision has been found of use by the working physiologist, the physician can determine without its aid various characteristics of the pulse which furnish important evidence as to the state of the patient. Thus the soft and compressible pulse, the firm pulse, the hard pulse, the wiry pulse, and the thready pulse, each tells its own story to the doctor, but all things considered the frequency of the beat is the matter of the most immediate concern.

To be able to draw inferences of value from the record of the pulse in disease, it is, of course, necessary to know something of the variations which may be met with in health. These variations are not inconsiderable, and depend upon such causes as age, sex, digestion, muscular activity, condition of the nervous system, position of the body, and individual peculiarities.

The normal rate of the pulse in the average adult healthy man is 70 beats in the minute, and from six to ten more in the female. It has been found from numerous observations that the pulse in healthy males of the age of 27 years in a state of rest, averaged 79 when standing, 70 when sitting, and 67 when lying; the difference between standing and sitting being nine beats per minute, between sitting and lying three beats, and between standing and lying twelve beats. When all exceptional cases were excluded the average was found to be, standing 81, sitting 71, lying 66. The increased frequency of the pulse while standing and sitting

over that while lying down is held by Dr. Guy, who has made the most careful and extended experiments on the subject, to be due to the muscular effort necessary to maintain the more upright positions. As the posture of one suffering from marked febrile condition is generally recumbent, the differences above noted do not essentially complicate the problem presented to the physician.

There are, however, many cases on record where the pulse was much slower, or much more frequent than the average above noted without furnishing any indication of deranged health. The normal pulse of Napoleon I., for example, was said to be never more than 40 per minute, while Dr. Dunglison reports a case which came under his own observation in which the pulse was on an average 36 per minute, and an Italian authority states that he knew a person in whom it was not more than ten a minute. In the latter case it may well be believed that every pulsation of the heart was not perceptible in the arteries, or that the extreme slowness of the pulse indicated some organic derangement of the heart not otherwise to be detected. On the other hand, it is stated that the pulse of Sir William Congreve when he was in good health never fell below 128 beats per minute. Elliotson states in his work on physiology that the quickest pulse he ever felt was 208 in the minute. This was easily counted, he says, at the heart, but not at the wrist.

The normal pulse is most frequent in infancy, and least so in healthy old age, ranging from say 128 in the former to 53 in the latter. It is habitually more rapid in warm weather and in warm climates than in cold. The influence of a hearty meal or of any momentary excitement in accelerating the pulse is well known. The mere visit of the physician to the bedside of a nervous patient will sometimes raise the beats 10 or more a minute, so that in examining the pulse as an evidence of the extent or nature of impaired health this and the other causes of variation must be borne in mind.

If the ultimate cause of the normal heart-action be a problem yet calling for a solution, the effects of morbid or diseased conditions upon the circulation of the blood are, as regards their cause, even less understood. There is no reason to doubt that the phenomena of many diseases resulting from the presence of actual poisons in the blood, such as pyæmia and the specific fevers, whether the pus of the one or the bacteria or germs of the other, are the effects of the action of such poisons upon the nerve centers. Even where this is not the case the mechanical and functional sympathy existing between the various organs of the body would be a sufficient reason why a disturbance of one should affect the others. If the excitement of the stomach during the natural processes of digestion can send up the pulse 8 or 10 strokes a minute, there can be no difficulty in believing that the action of the heart may be still more accelerated by a morbid excitement of that or any other large organ, and particularly will this be the case if the disturbing agent be in the blood itself.

It is at all events a fact established by years of observation and experience, that the abnormal frequency or slowness of the beat is, as a rule, in proportion to the degree of excitement or the impairment of vitality, and the pulse therefore becomes the most reliable measure of the violence or danger of the disease. How far, whether the stroke be above or below the normal standard, the pulse may vary from its natural number without indicating serious complication, depends, as we have said, upon a variety of circumstances which must be left to the judgment of the experienced physician.

GOOD-NATURE'S EFFECT.

How welcome the seeming,
Of looks that are beaming,
Whether one's wealthy or whether one's poor;
Eyes bright as a berry,
Cheeks red as a cherry,
The groan and the curse and heartache can cure.

THE GLOOMY BROTHER.

SOME weeks ago we were called to lead the most prominent prayer-meeting held stately in New York. Generally the brief addresses were good. Two or three of them were very striking; but soon after the meeting began a brother, with an atrabilious complexion, arose and delivered a very denunciatory harangue.

He commenced by saying that he was not going to speak from knowledge (which soon became manifest), but that sometimes we spoke from impressions, and he was going to speak from impressions. He did not know that it was so, but he had the impression that very few, if any, amongst the Christians present, believed the Bible; took what it said in the Sermon on the Mount, and elsewhere, as being exactly true in what it said. He could not speak from knowledge of the audience present, but his impression was (how he got it he did not state) that there were scarcely three, perhaps not two, in that audience that believed every word of God as being true.

After this statement he sat down, and we could not forbear making this observation to him: "Dear Brother, I feel like saying to you what Dr. Cox did to the blasphemous conductor (of whom he asked a question, and who replied, 'Keep still, as we may all be in hell in a minute') '*Speak for yourself, sir; speak for yourself!*'" The brother very promptly replied: "Well, I do believe every word of the Bible with all my heart." It was a very pleasant assurance to us that at least there was *one* man amongst us who believed the Word of God.

But the puzzle to us has been how that good man could have such faith in the Word of God, and yet suppose that in a large assembly, which included a number of the most active Christian laymen and a few clergymen, there were not at least two others who had faith to believe just what *he* believed. If there were two or three others in his condition, then he was greatly mistaken in the impression he had as to that audience.

The fact is, that the best of men, in their zeal for the cause of God, in the midst of general coldness and neglect, come to have the prophet's experience, and to feel that every man except themselves is bowing his knee to Baal; but the Lord our God knows hundreds who in secret places are keeping themselves unspotted from the world.

The state of one's health often has great influence upon one's outlook upon the world. Whenever a Christian man is in a low state of health, especially if it come from any obstruction of the biliary ducts, he ought to be very careful how he speaks in promiscuous assemblies, or even among select companies of the people of God, in regard to religious matters. But we have noticed of late years that it is that identical class of Christian people who, when they come into this condition of obstruction, seem to think that every man outside the church is a scoundrel, and every man inside the church is a hypocrite. The relief they seek for themselves is to deliver a denunciatory address at some prayer-meeting. This is a hygienic mistake. What that Christian needs is abstinence from food and quiet rest in his house that day, meditating on the goodness of God, to be followed on the succeeding day by a thorough Russian bath. If this treatment were observed, the excellent man would be in a better condition to speak edifyingly to his brethren.

If, however, he will not submit to this, but will insist on venting himself on the prayer-meeting, let his brethren have patience. He may be a good man; and that his brethren may have patience, let them read the selections from the scripture histories of those whom we know to have been devoted servants of God, but who had hours of deepest depression when the cause of God seemed to be failing in the world; such men as Moses, Job, Daniel, Elijah, Isaiah, Ezekiel, and others. Our Lord is very patient.

REV. DR. DEEMS.

MEDICAL WOMEN IN CHINA.—Much has recently been written on the labors of medical women in India, and we find that such work is not without its reward also in China. According to the *Celestial Empire*, in the summer of 1879, the wife of Si Hung Chang, the great Viceroy of Chihli, was dangerously ill at Tientsin, and foreign medical assistance was called in. Chinese etiquette forbade the two doctors engaged obtaining sufficient knowledge of the case for treatment, and Miss Howard, an American lady with a medical diploma, was at once called in. Under her care Lady Si soon recovered. The result of this successful treatment of the illustrious Chinese lady, was the establishment of a large hospital, under a foreign physician, the funds for which were provided by voluntary contributions from the native literati and gentry. The institution has just been opened by the Viceroy himself. When the news of Miss Howard's success reached America, a wealthy gentleman of Baltimore subscribed funds to build a hospital for Chinese women at Tientsin, and the two buildings—one erected by Chinese, the other by American philanthropy—now stand side by side in that town. Si Hung Chang and his lady have both presented commemorative tablets to the hospital. One of them runs thus: "The skillful statesman and the skillful physician are alike in this: that they give their thought to cure what is ill. In the act of administering government and of dispensing cures, what hinders China and other lands from being one family?"

The above is from the *U. S. Med. Investigator*, and we can add to it the fact stated in the last report of the Woman's Board of Foreign Missions of the Presbytery of Newark, that in Canton there is a missionary hospital in which there are three native women studying medicine, and more are expected to join the class.

SKIN DISEASES CAUSED BY MEDICINES.—Anspitz, in his valuable "System der Hautkrankheiten," gives the following list

of eruptions liable to follow the use of certain remedies:

Quinine.—(a) Scarlatinous erythema, (b) morbillous papular erythema, (c) hæmorrhagia and purpura, (d) wheals, œdema, pruritus.

Cinchona, Belladonna, Strychnine, and Stramonium.—Manifestations like papulæ sudorales.

Digitalis.—Erythema after a few days' use.

Aconite.—Vesicular exanthema.

Santonine.—Vesicles, wheals.

Rhus Venenata and Toxicodendron.—Vesicular eruption.

Opium and Morphine.—Erythema, papular eruption, with much desquamation and pruritus.

Pilocarpin (?).—Augmentation of the perspiration.

Phosphorus.—Purpura.

Phosphoric Acid.—Bullous eruption.

Mercury (internally).—Erythema, eczema.

Arsenic.—Erythema and papules, eczema.

Carbolic Acid.—Erythema, vesicles, or wheals.

Salicylic Acid.—Purpura, vesicles, with laryngeal catarrh, wheals.

Chloral Hydrate.—Erythema (well colored), pruritus, desquamation, purpura, and petechiæ, eczema with crust and scab.

Balsam Copaiba, Cubebs, Turpentine.—Vesicles, erythema, eczema.

Cod Liver Oil.—Acne.

Iodide of Potash.—Papules, vesicles and bullæ, pustules and ecchyma, eczema, ecchymoses, and purpura.

Bromide of Potassium.—Papules and pustules, deep tubercles and ecchymoses, vesicles, ulcers.—*Virginia Medical Monthly.*

COMMENT.—Whether these results be in accordance with the law of "contraries" or of "similars" they are significant enough to the reflective.

QUANTITIES of excellent food are thrown away hardly tasted from abundantly supplied tables, while many families in our midst are troubled from day to day, not only to know what they shall eat, but how they can obtain even the commonest food.

KITCHEN LEAFLETS.—No. 7.

WARM-WEATHER FARE—POTATOES IN VARIOUS FORMS—RASPBERRY PYRAMID—WHITE PUFFS.

WE are in the midst of the "heated term" when care must be taken to order our habits, especially those of diet, in that intelligent and temperate fashion which shall not weaken or derange the organism. Excessive heat relaxes the tissues of the muscles and nerves, and accelerates the action of the glandular and excretory functions; consequently there is a more rapid wastage of the proximate principles which enter into vital operations than in cool weather. The working man, whether he employs chiefly the brain or the muscles, is usually conscious of this, for he usually loses weight in summer. Now I think that good habits and a well-arranged diet should repair all waste and add somewhat to the solid avoirdupois of a man, so that at the close of the warm season he will find himself in good condition to meet the abrupt changes and exposures incident to autumn and winter.

The food of summer-time should be nutritious, easy of digestion, not abounding in heat elements, but rather in those which cool and refresh while they respond to the wants of the body. Nature intimates by her bountiful supply of fruits and vegetables what is appropriate for the human stomach in summer. And they who live for the most part on the cereals, fruits, and the fresh produce of the garden appear to enjoy the best health, and experience least discomfort from the heat. Speaking for myself I can say that such a diet has been found the most sustaining and comfortable. Probably the housekeeper has as much trouble in cooking potatoes so that they will please her family, as in preparing any other article. I know that one of the objections to restaurant fare often urged by those who are compelled to dine away from home is the unpalatable condition in which potatoes are stewed. A good potato when well cooked is a delightful article

of food. I give in this installment a few recipes for preparing this common tuber. In answer to inquiries, suggestions are given for supplying the table at breakfast, dinner, and supper with such articles as are appropriate for warm weather. For instance:

BREAKFAST.

Warm Graham or gluten mush or rice, served with milk or other dressing; potatoes boiled, baked or stewed; fresh fruit, strawberries, raspberries, cherries, blackberries, etc., stewed if too tart; Graham or gluten gems with a little fresh butter or cream; crust coffee, made from toasted Graham gems, or "Cambrie" tea, made simply of boiling water with milk and sugar added, is relished by those who need a warm drink. The mushes and grains should be cooked the day before, as they require considerable time for proper treatment (see recipes in late Numbers of the *PHRENOLOGICAL*). After cooking pour them in large bowls or dishes, which can be placed in the oven the next morning and warmed through, and then turned out into the dish used for the table. Cover the dishes when placed in the oven, to prevent their contents hardening.

DINNER.

Potatoes stewed or baked; potato balls; poached or baked eggs; macaroni; asparagus; green peas; green corn; string beans; lima beans; lettuce; cauliflower; Graham and white bread; corn-meal gems; strawberry or raspberry shortcake; queen bread pudding; raspberry pyramid. Fruit in season.

SUPPER.

Graham or gluten bread or gems; Graham or pilot crackers; stewed fruit; sponge cake (see recipe in April No.); Cambrie tea.

NOTE.—This meal should be very moderate if one wishes to sleep well on a close night with the thermometer at 90°.

BOILED POTATOES WITH SKINS ON.

Select potatoes of nearly equal size, wash thoroughly, cutting them as little as possible; put them into cold water (slightly salted) nearly sufficient to cover them. Let them boil rapidly until a fork will pierce them to the heart easily, then pour off the water and let them stand uncovered on the side of the stove or range for five minutes. Potatoes should not be covered close-

ly after being boiled or baked. If it is desired to retain the heat they may be covered with a napkin, or the dish containing them may be placed uncovered in the oven. If the potatoes are old and withered, they may be improved by soaking in cold water for a few hours before cooking. The glory of a potato is its mealiness, and much of the meal or starch lies near the skin, so they are more healthful cooked without peeling.

TO BOIL NEW POTATOES.

If very young, rub off the loose skins with a rough towel. If ripe, scrape with a blunt knife and lay in cold water for one hour; then cover with cold water slightly salted, and boil half an hour or until done. Drain and dry for a few minutes and send to the table plain.

PEELED BOILED POTATOES.

Peel very thin and lay them in cold water half an hour; have ready a pot of slightly salted boiling water, drop the potatoes in and boil rapidly until tender, then pour off every drop of water; set back on one side of the range, with the pot lid off; let them dry about five minutes; then remove the pot from the stove and give it a vigorous shaking, they will then assume a white, flaky appearance. Serve immediately. Peeled potatoes are never good if allowed to stand.

WHIPPED POTATOES.

Whip boiled mealy potatoes light and dry with a fork. Then whip in milk until you have a creamy compound. Pile irregularly upon a hot dish and serve.

MASHED POTATOES.

Old potatoes are better for mashing than new. Pare and let them lie in water half an hour; boil in hot or cold water, according to the toughness of the texture. A coarse potato is better cooked in cold water. Drain thoroughly when done, sprinkle with a pinch of salt, and mash them well with a potato-beetle, working in a tablespoonful of butter and enough milk to make the paste the consistency of soft dough. Leave no lumps in it; when smooth, dish; form into a mound and serve, or, if liked, brown by setting in the oven until a crust is formed.

POTATO BALLS.

Use mashed potatoes left from the dinner, or mash them for the purpose; add the yolk of an egg, and make into flattened cakes. Dip these in egg and cracker crumbs, and place upon a greased griddle and brown evenly on both sides.

BAKED POTATOES.

Be sure to have them scrupulously clean, so that the skins can be eaten if desired. Use those

of a uniform size. Place them in a quick oven. It takes longer to *bake* than to boil them. Try them by squeezing in a folded napkin. As soon as you can crush them easily by breaking the skin, thus allowing the steam to escape, they are done. Serve immediately.

RASPBERRY PYRAMID.

Wash one-half pint of good, hard rice, put it into one quart of soft hot water, boil up quickly for five minutes, and then set where it will steam or barely simmer, without stirring, for half an hour. Then, while hot, spread on a large dinner-plate, one-fourth of an inch thick, and cover this with ripe raspberries. Put a similar layer of rice over these, then another layer of raspberries, and so on, making each a little smaller in diameter than the preceding, so that the whole will form a pyramid. Let it stand until cold, when it will form a handsome ornament for the table. Serve in perpendicular slices, or half slices, trimming with sweetened cream or strawberry or raspberry juice.

CRUST, OR CEREAL COFFEE.

One even tablespoonful of the crumbs to each half pint of boiling water. Put them in a flannel bag and pour in the water. Set the pot where it will steep, not boil, ten minutes, then move where it will boil gently five minutes. Serve as soon as possible. Heat the milk—the more cream in it the better—and pour it into the cups before filling them with the coffee. This is a nutritious and non-stimulating beverage.

WHITE PUFFS.

Two and a half pints of white flour.

Two pints of sweet milk.

Four eggs.

Half teaspoonful of salt.

Beat up the eggs, stir in the milk, then add the flour and salt. Bake in hot gem-pans in a quick oven twenty minutes.

MIRIA EATON.

A DRUNKARD'S WILL.—I leave to society a ruined character, a wretched example, and a memory that will soon rot.

I leave to my parents during the rest of their lives, as much sorrow as humanity in its declining state can bear.

I leave to my brothers and sisters as much mortification and injury as I could bring upon them.

I leave to my wife a broken heart, a life of wretchedness and shame, to weep over my premature death.

I give and bequeath to each of my children, poverty, ignorance, and low character, and the remembrance that their father was a monster.

NOTES IN SCIENCE AND AGRICULTURE.

What our Coins Weigh.—One million dollars in gold weigh 3,685½ lbs. avoirdupois; 1,000,000 trade dollars weigh 60,000; 1,000,000 of 412½ grains weigh 58,928½; 1,000,000 in fractional coin weigh 55,114½; 1,000,000 in five-cent nickels weigh 220,457½; 1,000,000 in three-cent nickels weigh 142,857; 1,000,000 in one-cent pieces weigh 685,714½. A coinage of 4,000,000 of the new silver dollars per month would amount in a year to 2,838,572½ lbs., or over 1,414½ tons, and if the pieces were laid side by side they would form a continuous string 1,136½ miles in length.

Little Things of Great Moment.

—It is a small matter to take the horses across the field for their water; it seems to cost nothing, yet if a farmer's time, or that of his hired man, is worth anything, it costs a great deal in the course of a year. It is a small matter to chop each day's wood upon the day it is used, and thus have it all fresh; but fifteen minutes in harvest-time is worth more than in January; besides, there are vastly more economical methods of making fire-wood than an axe. It is a very little matter to tighten a loose nut, but it sometimes costs life and limb not to do it. A pear-tree here, and a peach-tree there, cost so little that one is inclined to think they are of no account, but when the fruit is ripe they are appreciated. A single step from one room to another is "only one step," but the thought of a stairway made out of these steps during a lifetime, is enough to almost make a woman's back ache. Look well to the details, that the little things are right, for it pays in the end.—*American Agriculturist.*

Gold Mines in the Air.—Under this title the *Industrial Review* publishes some statistics which would seem to surpass the dreams of even the most enthusiastic advocate of orange culture. During the last year the State of Florida produced and shipped over fifty million oranges. This is ten times as many as were produced in 1861, when the culture of the pulpy fruit was just beginning to make headway. But this enormous growth is only in its infancy, for, according to a careful census by Mr. Harris, Speaker of the Florida House of Representatives, in five years Florida will ship five times as many oranges as were shipped last year, and in twenty years it is assumed that one billion oranges will be shipped from this one State. But as we imported eight hundred million foreign oranges in 1878, in addition to those produced at home, and as the consumption of the fruit is constantly increasing, it is believed that even this enormous amount will be readily absorbed by the demand, and that the Florida orange will gradually drive the foreign orange from our markets.

The Sweet Potato in the North.

—The cultivation of the sweet potato in some of our northern States is steadily increasing. Last year the crop raised in Glazenbury was quite a large one, and was in every way a success. One farmer reports a yield of twenty bushels from five rods of land, or at the rate of six hundred and forty bushels to the acre. The potatoes were as dry and sweet as most of the potatoes that find their way to our northern markets. Many others report large yields of extra fine sweet potatoes.—*N. E. Homestead.*

Compacting the Soil.—"How is it,"

once asked a young friend of us, "that every cutting you touch will grow, while only a small part of mine succeed?" We were both amateur gardeners, and as neighbors indulged in a friendly rivalry. We gave him the secret of our "touch," which was to always press the soil firmly around the cuttings; after this he had no cause to complain of failure. This matter of bringing the soil in close contact not only with cuttings, but with rooted plants and seeds, is of the greatest importance, and its neglect is a frequent source of failure. If the soil is left loosely around a cutting or around a seed, the minute root in either case, as it pushes, may fail to come in contact with the needed moist soil and perish for the want of it. When ripe wood cuttings, such as those of the currant, are set out in the open ground, and have the earth thoroughly pressed against their lower portion, even pounded down to make sure, every one will grow. If this is neglected more or less will fail. So in setting out plants, such as those of cabbage, celery, etc., the market gardeners make sure that the soil shall be brought close to the roots by going along the row and pressing it firmly to the plant with the feet. In an article we printed a few years ago, Mr. Peter Henderson showed that success with raising his crop of celery plants was due to the fact that, after sowing the seed, he had the whole surface of the soil of the bed well patted down with the back of the spade. The end is accomplished on a large scale by the use of a roller, but in small beds the spade is an excellent substitute. In setting out trees or shrubs, the more carefully the soil is filled in and worked in among the roots, and firmly pressed—not stamped—down with the foot, the greater the chance of success. Even in laying turf or sods, the roots of the grass should be brought in close contact with the soil by the use of a "beater," a piece of heavy plank with a handle, or by beating down with the spade back.—*American Agriculturist.*

How to Keep Furs in Warm

WEATHER.—A furrier says: "The only way to keep furs safely is to clean them thoroughly before putting them away, then to put them

in very close boxes, and every week in the case of delicate furs, or two weeks at most with the hardest, to take them out, shake and beat them well, air them thoroughly, and replace them in their boxes. Nothing can be put in the boxes with them which will enhance their safety without doing them injury. Camphor, in which many persons have such confidence, is very injurious to the furs of sable, mink, and others, even to some of the colored ones, and its unpleasant odor clings to furs much longer than to clothing. There is a tar paper, especially prepared for the purpose, which is said to keep moths away, and is largely used in keeping clothing; but we can not use it, even if it were certain to exclude moths, because it gives the garments the disagreeable odor of tar, which would cling to them a long while. Tobacco and cedar chips are of little or no value, and we certainly would never trust to them for safety. In fact there is nothing on which we can rely confidently except constant care in airing, beating, and packing away. Hatters generally, at the close of their winter-goods season, pack in pasteboard boxes, with paper tightly pasted over the cracks, all the fur caps, gloves, tippets, collars, and such things that they have left over, and say that the plan works satisfactorily. Perhaps it does with such small articles as they handle, but it would be impracticable of application to the care of great silk and velvet circulars, lined with fur, heavy fur cloaks, and other goods of the most expensive class. They would be ruined by such keeping, even if the moths did not get at them, which they very probably would. The keeping out of creases is quite as important and as difficult as the keeping out of moths."

The Summit of the Earth.—Adolphus Schlagintweit, the unpronounceable explorer of Central Asia, calls the highland of Pamir "die Welt-Zinne," the roof of the world. On the road from Punjab to Yarkand four passes have to be crossed that are higher than 17,500 feet, and for a distance of 280 miles the halting ground is not below the height of Pike's Peak. On the eastern plateau of the Beloor-Dagh there is a shelter house near a cliff from whose summit the main chain of the Himalayas, with all its giant peaks and immeasurable ice fields, is in full view, from the highlands of Lassa to the sources of the Indus, while in the west the head-waters of the Oxus and Jaxartes can be traced to the borders of Cabool, where the peaks of the Hindoo-Koosh lift their crests of everlasting snow. In the spring the echo of the avalanche resembles the boom of continuous thunder, and in midwinter, when the storm wind sweeps the tableland, whirling pillars of snow scud along the ridges, and often seem to dance together like specters in their fluttering winding sheets. Our "Land of the Sky," in the southern Alleghanies, must be as a mere piazza compared with that top roof of the earth.—*Popular Science Monthly.*

The Cruelty of the Blind Bridle.

—We have spoken in these columns more than once against the use of blinds on horses, and will add some fresh testimony from the *American Farmer* for the sake at least of keeping the subject before the people:

"We know not who invented this instrument of horse torture, but we know he did not understand the anatomy and physiology of the eye of a horse. Human vision is binocular—that is, we see the same objects with both eyes—and so adjust the axis of vision that the object appears single, though seen with both eyes. But the eyes of the horse are placed on the side of the head and the axis of each eye is nearly at right angles with the longitudinal line of the body, so that it is impossible that the same object can be distinctly seen with two eyes. Now, by blinding the eye in the direction in which it was intended in its construction that it should see, it is forced to use an oblique vision, as if we should cover the front of our optics and be compelled to see only by the corners of our eyes. This unnatural and constrained use of the eye must, to a greater or less extent, impair vision, if not entirely destroy it. The object for which the blind bridle is used is not accomplished by it. A horse is more readily frightened when he can not see the object of his dread than if he can have a fair view of it. But it is surprising to observe with what tenacity men hold on to an absurd and cruel practice, when a moment's reflection would teach them better. Nineteen out of every twenty horses you see in harness have blind bridles on, and if you ask the owner to explain its benefits, or why he uses it, he will be utterly unable to give a rational answer. We are not surprised that draft horses are subject to diseased eyes—we wonder that they are not all blind."

American Coal Fields.—The entire production of coal in Great Britain last year was 154,000,000 tons. The Wyoming Territory coal fields cover a wider area than the whole State of Pennsylvania. Bituminous coal in veins several feet in thickness has been discovered in Ross County, Ohio. In the last ten years the production of coal in the Southern States has more than doubled. All the coal used in China has heretofore been imported, but good paying mines have lately been opened near Peking. But twice since 1866 have the wages of miners in the Cumberland region been reduced. The present strike is against a reduction of fifteen cents on every ton mined. No special effort has yet been made to develop the Texas coal lands, which embrace 30,000 square miles, and contain many veins that are twenty feet thick. The coal is very rich in oils. In the United States 187,030 men are employed in mining coal, while the total amount of invested capital in coal mining is \$256,502,373. The total output of coal last year exceeded that of the previous year by more than 10,000,000.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAVTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
AUGUST, 1882.

THE LATE EDITORIAL GATHERING AT JAMESTOWN.

IN the early days of last June we attended the twenty-sixth annual convention of the New York Press Association, at Jamestown, an enterprising little town away down in the south-western corner of our State. The far-off reader may not have heard of this Jamestown, but it is quite likely that he or she has heard of Chautauqua, because of a beautiful sheet of water so named, which lies close to the Pennsylvania line, and is much frequented by summer travelers, not only on account of its natural attractions, but also because of a certain educational enterprise which has grown into prominence within a few years, and which makes that water its summer rendezvous. This enterprise is commonly known as the "Chautauqua idea," the main purpose of which is to provide facilities for the intellectual and moral culture of the masses in their homes, and a place of summer gathering which will combine woodland freedom and recreation with mental improvement. But more of this noble undertaking in another place.

Jamestown lies at the foot of the sil-

very lake, and is the commercial and political center of the region. Its railway connections are good; and its mills of cotton and wool and numerous factories indicate a tendency to rapid growth. A small town to be sure, but it has excellent promise of future prominence. We were told that there were upward of twenty steamers employed on the lake, and the glimpse we had of half a dozen of them during an excursion, showed that while adapted to the peculiar geography of the lake and its tortuous outlet, they are of liberal dimensions and apace in convenience of accommodation with the craft of larger waters.

The committee of the Press Association should be credited with sagacity for selecting a time which has proven thus far most favorable in meteorological respects, for the exercises and diversions which characterize the annual convention. In the early days of June, a temperature neither too cold nor too warm for positive comfort, usually prevails, and seekers of summer rest have not fairly begun to show themselves numerous in their favorite retreats, hence the considerable party which a New York editorial convention makes, has matters pretty much according to its own humor—be they hotel accommodation, railway and steamboat transportation, telegraph and postal facilities, etc. This was especially the case at Jamestown, where the enthusiastic citizens gave us the freedom of their picturesque town, and unobtrusively supplied many conveniences for our enjoyment. All thanks to them without attempt at cavalier expression.

The programme of the first day ended with a large gathering at the Opera House, where Mr. A. W. Tourgee, editor of *Our Continent*, delivered an address on the

moral responsibility of the Press, and Mr. Will Carleton recited a poem entitled "The Sanctum King." Mr. Tourgee's vigorous treatment of his subject placed in a clear light the relation of the editor as a motive element to the growth of vice and corruption in society, and we doubt not that his unpretentious but trenchant logic impressed upon many minds a consciousness of duty, never before experienced in so vivid a degree. A sentence or two taken from any part of the long address discloses the spirit of the whole. For instance :

"What is the effect of a newspaper upon a community, upon the world itself, depends entirely upon the character of the man who wields it. If he is a good man it will do good. I do not mean good in any goody-goody sense ; I don't mean to say that prayers and provender can not be mixed up ; I do not mean to say that it shall be constantly volunteering advice in regard to manners and morals ; but I mean to say that it is the control of a good moral man, an earnest, honest man that makes a newspaper fit to come into a decent man's house. This responsibility can not be avoided, brethren, by putting to our hearts the unction, 'I merely supply my market, I furnish the wares that are in demand.' The question of how far a man has a right to help his neighbor along the road to damnation is a very delicate one, I admit. The rum-seller declares that he has the inalienable right not to cast out evil, but to pour it in. But the rum-seller upon the most eligible street corner in the world can not do half the harm in a year, that a bad man at the long end of the press lever can do in a week ; not nearly so much."

This citation shows where Mr. Tourgee stands on the temperance question, and the cause of moral reform is not likely to want a "square-toed" advocate while he has any part in wielding the long arm of the press lever. Mr. Carleton's poem con-

tained similar points to those emphasized by Mr. Tourgee. It was fairly up to the average of Mr. Carleton's compositions, and like the bulk of them, admonitory in a practical sense. The pen or the pencil or the type, the waste-basket, or any other adjunct of the editorial office, is not the "king of the sanctum," but the Public Heart, and it is the duty of the editor to mould that heart into a higher and nobler form of knowledge and aspiration.

"We must from day to day and week to week,
To elevate our monarch's motives seek,
That he may with an open, liberal hand,
Higher and higher things of us demand."

The exercises of the second day terminated with a reception at the mansion of ex-Governor Fenton, who is president of the town council. This was largely attended, and provided a very agreeable opportunity for acquaintance with prominent citizens of Jamestown, and, perhaps, closer social correspondence among members of the Association, and their wives. It should be noted that a marked feature of these annual assemblies of the "Empire" editors is the presence of charming women, for the most part the wives of the members, and not a small proportion of the real enjoyment of the affair is due to the very active participation of the ladies in every feature of the gathering.

The morning hours of the second day were devoted chiefly to an excursion up the lake to Chautauqua, a distance of about seventeen miles from Jamestown. There are several beautiful settlements on the water's edge, which were passed as our steamer moved rapidly along on the crystal clear surface, but our destination was the center of the "Chautauqua idca," or that town in the woods which has sprung into existence within a few years, under the energetic administration of the

Chautauqua Assembly. On arriving at the dock our large party, swollen by a hundred or more of Jamestown folk, was met by Dr. Vincent, the superintendent of instruction, and Mr. Warren, the business manager, and conducted to the large hotel, which has been recently erected on a commanding site. In the wide dining hall an excellent lunch was quickly served, and after that an open-air meeting was held in the auditorium, where Dr. Vincent addressed the company, setting forth, in well-chosen terms, the purpose of the "idea," which is to achieve "the possibility of turning summer recreation into opportunity for personal religious culture, that one may be more useful; broaden that culture by all studies, secular and religious, throughout all the year and through all the years, for the old as well as for the young, that life may be made a brighter, broader, diviner thing."

Certainly a noble object, and so far wonderful progress has been made toward it, for upward of thirty thousand people, distributed throughout the country, are interested in its system of instruction, a system divided into many Institutes—and its summer meetings are attended by ten thousand or more of those who were profiting by its liberal and convenient methods of home study.

We were told that on the 12th of August the first commencement of the Chautauqua Literary and Scientific Circle would be held, when 1300 of its many thousand students would receive a diploma, certifying to their having completed a four years' course of reading in all branches of English education, and met successfully all the requirements of the circle.

We can not but express our hearty approval of this undertaking; maintained

with the vigor which now characterizes it, the school and the college will be supplemented by a growing taste for mental development among the masses whose need of culture the "Chautauqua idea," like the Boston system of home study, but on a larger scale, practically meets. Would that every State in the Union, especially those States where common schools are few, had a similar institution.

On our homeward return journey we passed through the Indian Reservation in the neighborhood of Salamanca. Our spirit had been much elevated by what we had heard at Chautauqua; but when groups of idle, dirty, ignorant Indians met our view, we experienced a sudden revulsion of sentiment; we were chilled and depressed by the sight, and by the reflection which was forced upon our attention, that the great State of New York has made no provision for the education or protection of the few remnants of the former owners of its territory, but left them in a state of shameful degradation. A few months ago this fact was forced upon the attention of our Albany authorities by the Christian Indians themselves, and a few charitable citizens of the State, but we have not heard of any good result. It is said that the majority of the Indians live in a manner that might not be regarded as extraordinary in a pagan tribe in the jungles of Africa. In a proud community which boasts its educational establishments and its benevolent enterprises, this seems incredible. But seeing is believing. Out there, close to the center of the "Chautauqua idea," and swept by the same cool breezes which kiss the crystal waters of the lovely lake, is the Reservation, with its beautiful contrasts of natural scenery and its mournful spectacle of neglect and degradation.

THE ALLOPATHO-HOMŒOPATHIC MUDDLE.

THE discussion of the question whether or not allopathic physicians shall be permitted to consult with legally qualified practitioners of other schools has been brought into such prominence by the action of the American Medical Association, in excluding the New York delegation, which favors such consultation whenever deemed expedient, that we are inclined to make a note anent it. So far as we can see, *per* our readings in the many medical periodicals which come to us among our exchanges, the most dust is kicked up by the allopathists; the part taken by gentlemen and ladies who list themselves under other scholastic titles being in the main passive. In allusion to this the *New York Tribune* remarks, that "among the most disinterested spectators of this trouble in the 'regular' ranks will be found the homœopathists themselves. They think they are in a position to ask no favors."

We readily believe this, having some knowledge of the growth of homœopathy in the United States, and its apparent readiness to meet the older system by comparison of statistics or otherwise. We believe also that the eclectics and the hygienists are also in a similar position of independence. The attitude of most eminent physicians of assured income is, we think, independent of society or association rulings; several we know personally claiming the right to decide for themselves the propriety of their course in the matters of treatment and consultation. We can not but respect such men more than those who submit to be bound by an iron code, or pent up behind a barrier of class exclusiveness. Somebody might

ask, however, "Has not a given organization of scientific men the right to make such rules as the majority wills for their individual governance in professional practice?" Hardly, we must answer, for if such practice relates to the public at large, the sentiment of the public should be considered, not their own private sentiments as individuals or a society. A physician is not a ruler or a master, he is rather a minister or something of a public servant in a department of high importance, and it is essential to the best performance of his duties that he have much latitude of action.

THE FOREIGN INFLUX.

THE arrival of twenty-five to thirty-five thousand of immigrants per month the past spring, and their continued coming in great swarms as the summer advances, has awakened fears in the minds of some American writers with reference to the effect of so large a contribution of foreign elements to our population. One is apprehensive of a disturbing and injurious effect upon our industrial interests, wrought by so large an accession of laborers and artisans.

In the midst of this flood-tide of immigration great strikes for increased wages have occurred in several of our industrial centers, and are maintained with a persistence which only a sanguine expectation of success could bolster up. This fact does not indicate much anxiety on the part of our working classes lest the new-comers shall oust them from their places by stepping in at what appears to be an opportune moment. Then, too, there is the fact that since 1860 upward of six millions of people have landed at our docks and been absorbed into our

multifarious industries without reducing the rates of pay. In fact, the wages of operatives and laborers are higher in all the branches of manufactures which are most open to the foreign workmen. For instance, the wages of woolen mill operatives average 40 per cent. higher in 1882 than in 1860, those of cotton mill operatives about 35 per cent. higher; of mechanics in wood and iron about 25 per cent. higher; while the wages paid by farmers are 30 per cent. higher.

It is feared by some that our social interests will be reduced in tone. We think that past experience has shown that the great majority of our immigrants—who come from Germany, Sweden, France, England—are practical, industrious, quiet-loving men and women, and if any tendencies exist for their reduction in moral tone they are due to the corrupt work of the politician in the State legislatures.

It is feared by some that the country will suffer by premature crowding; that homes can not be provided for the immigrants fast enough, and thus they will become a burden upon the community.

In considering an assertion of this sort we would merely remark that it has been estimated that an able-bodied immigrant has a money value to our country of between two hundred and three hundred dollars. The great majority who come to us are able-bodied, the bone and sinew of their respective countries, and nearly all bring money with them, some a considerable amount. Probably to say that each foreigner brings an average of \$40 in money would not be excessive; thus the addition to the absolute wealth of the country is no trifle.

To one who lives in New York City and who observes the incoming tide of immigration, the thousands almost daily landed

at Castle Garden by the great ocean steamers, it is truly wonderful how quickly they disappear. No sooner landed than they separate, whole companies going North, West, and South, to destinations previously marked out, and families or individuals finding their way to friends who have already provided for them, at least, in part. The extent and resources of our country, in contemplation of this grand movement of human life, loom up in proportions which were never before realized. We think that because we have fifty-five millions of people we are a great nation, but we scarcely comprehend our possibilities of growth and greatness, when among our thirty-nine States there are many which could maintain within their respective borders a thriving population almost as great.

A CONTRIBUTOR'S OPINIONS.

THE work of the draughtsman and engraver is associated with the pen-delineations of Mr. Pollard which have appeared and may yet appear in our pages, so that the reader may, according to his knowledge or his intuition, compare form and face with textual description. Mr. Pollard writes with the emphasis of a Southern temperament, but we think all who are acquainted with his work will agree in the opinion of his fidelity to his conscientious deductions. Probably few cultured men south of Mason's and Dixon's line more keenly regretted the failure of the Southern attempt to establish a new nation, but he was not the one to waste time in vain repinings. He deemed it the part of wisdom to accept the inevitable and to make the best of results though apparently adverse. At the same time as an observer, as one ac-

customed to analyze the relations of things political and social, he considered himself warranted in scanning the course of events which made up the history of the great Southern movement and the civil war, and in pointing out the more salient features of mistake or incompetency which led to disaster and final ruin.

The "pen portraits" are given to the phrenological public as the views of a man who had won desirable position as an author, and whose name had acquired a certain degree of authority in a large circle of the reading public. They are not given as in any way reflecting opinions entertained by publisher or editor of the PHRENOLOGI-

CAL JOURNAL, or as representative of the views entertained by a large number, or any of this magazine's patrons. What our readers think of Messrs. Davis, Stephens, and Company, we have never asked. And if any of them differ essentially from Mr. Pollard, and have good ground for their opinions as students of Southern history during the past twenty years, and desire to express their dissent, we shall accord them opportunity for a dispassionate statement. As in science so in everything else which comes within the purview of our publication we aim to set forth what is true, and that impartially.



To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A 10-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

ORGANIZATION HEREDITARY.—*Question:* I have had an argument with a friend and am unable to come to an agreement with him. What I contend is: All persons, when born (except idiots), have perfectly-formed heads (not developed), and have the same chance to develop the different organs as others.

My friend claims this is not so, but that it is hereditary. I also claim that if two babes grow up together, are governed and educated by the same people, study the same subjects, take the same interest in those subjects, keep the same companions, each taking the same interest in those companions, developing the same vices (if any) as those companions, and being in each other's company constantly, they will have developed the same organs. My friend claims this is not so.

If it is not too much trouble, I wish you would enlighten us on this subject, as we have agreed to leave it to you.

L. W. H.

Answer: Your friend is nearer right than you. Scarcely does it happen ever that two infants are born with similar organization; and although similar means of instruction have been many times provided for two or more children, and the same associates have been theirs, they have grown apart, exhibiting unlike capabilities and powers.

Nature's plan is differentiation—variety from the very germ up, and physiologists generally accept the view of the influence of inherited character. Your opinion savors much of the old idea entertained by Locke and others, that differences are due to education. Education although of great importance only impresses or helps to give tone, use, and direction to character.

CHESS-PLAYING.—*Question*: What faculties are exercised most in playing chess and checkers?

Answer: The observing and reasoning faculties, with Constructiveness and Caution. Chess being much the more profound game, requires a greater exercise of the reflecting organs.

HEMORRHAGE FROM THE LUNGS.—

WARREN.—Among the causes of lung hemorrhage are congestion of the lungs and consumption. Persons of a scrofulous diathesis may be subject to the trouble. In your case, being a farmer, it may be due to protracted strain, which has finally resulted in weakening the capillary vessels, so that there is occasional rupture. If the bleeding is frequent you should take treatment at once; what that treatment should be must depend upon the condition of the lungs, and the general state of the body. Perfect quiet in bed with the head and shoulders elevated is one of the necessary measures. Cold applications to the chest and hot applications to the back and extremities are helpful toward checking the hemorrhage. In severe cases the limbs are bound by ligature, and the vacuum treatment is found remedial. The diet should be non-stimulating, of course.

INFLUENCE OF PLANETS.—*Question*: It seems to me the planets have something to do with the nature of a person. Will you please be so kind and tell me if it is true?

Answer: Modern science recognizes no special relation between the planets and individuals. There are some relics of old notions still among us with regard to a planet or a star governing a person's life, and now and then we meet with a book which rehashes the views of old astrologists and fortune-tellers on the effects of Mercury, or Venus, or Mars. If you wish to know the nature and movement of the celestial bodies read a good work on Astronomy. You would but waste your time in trying to work your destiny by the-sublunary vagaries of a dreamer.

STRAINING THE EYES.—*Question*: May the health be impaired by straining the eyes, or are the eyes only injured by it? And, are glasses calculated to practically remove the strain?

Answer: The eyes are the chief sufferers in using them to the extent of strain. If any use

tends to strain them there is some defect which well-fitted glasses may compensate. In some conditions of the body reading or other steady employment of the eyes causes pain. In such cases they should be used as little as possible. Consult an experienced oculist if your eyes trouble you.

WORKING THE WHOLE BRAIN.—*Question*: How can you advise me to bring the left and right hemispheres into that condition which will enable them to work at once well? P. D.

Answer: A harmonious temperament and organization will be the most conducive to this end. If your health be perfect and you can exercise with almost equal facility both sides of the body, can use the right and left hands with almost equal dexterity, then we think you will be able to use the forces, in other words, the organs of both hemispheres of the brain. We think it is a fact that for most of the purposes in life but one hemisphere is much exercised, but it seems to us that if there were a way positively known (we have not reached that knowledge yet) for exercising the organs of both sides, that one's power would be doubled.

A GOOD DENTIFRICE.—*Question*: Can you not suggest something which will serve for a dentifrice, that is, keep the teeth clean and promote their health?

Answer: For cleansing the teeth we know nothing better than pure water and the best toilet soap. To promote the health of the teeth, first keep them clean; next eat tolerably hard food or let a portion of the food of each meal be hard, so that the teeth shall have some genuine exercise. We think that the dentists owe the greater part of their patronage to the fact that people generally take food into their stomachs which requires little or no chewing. Those nations or peoples that eat hard food, the primitive substances, have excellent teeth. The South-Americans, the Arabs, the Hindoos, the South Sea Islanders generally have splendid teeth; they eat coarse food, and chew it, so that their teeth and jaws are fully exercised, and the teeth growth is stimulated by pressure. We are in the habit of having a crust of bread at hand when we eat oatmeal or cracked wheat, so that there shall be some mastication.

VACCINATION.—*Question*: Does vaccination prevent or moderate an attack of small-pox? If so, why? D. F. S.

Answer: It is claimed by the advocates of the practice that it produces a substitute or milder form of the disease. If it does so we can not tell why, nor have we been able to find any authority on the subject who can tell why.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

A LEARNED OPPONENT.—COLORADO SPRINGS, Col., May 20th, 1882—Dear Editor: When we regard the criticisms which the various sciences are continually undergoing, we are reminded that of Phrenology in particular it may be said, its critics are generally those who know not what they criticize. Of this fact we have had several illustrations in our amateur experience as a Phrenologist; cases in which the most sweeping condemnation of the "Science of the Mind" came from individuals entirely ignorant of what they unsparingly declaimed against.

Sitting in the evening of a beautiful day, in the summer of 1879, on the piazza of the Commercial House, Ogden, Utah, we were in pleasant converse with a friend, who, on a turn in the conversation, to more strongly emphasize his assertion, exclaimed: "Now I believe that as strongly as you do Phrenology!" "Well, I hope you do not believe that!" was the almost instant rejoinder of a gentleman who sat near us, but who had not, until this moment, taken part in the conversation. He was appareled perfectly, in appearance pompous, self-esteem greatly preponderating over natural or acquired capacity, and this was evidently his first trip among the barbarians of the West.

To his "Well, I hope you do not believe that!" I instantly replied, "I certainly do." As soon as his astonishment at my audacious utterance had subsided sufficiently to give him vocal control, he put in a sledge-hammer blow by asking, "Have you ever read the *Popular Science Monthly*?" I replied, "Yes, sir, I have read the *Popular Science Monthly*, and I read in that journal, not many days ago, an article which, if it were possible, would make still stronger my faith in Phrenological Science." This was trying his patience. He no doubt looked upon me as intolerably ignorant and impudent. After a few more questions and answers, I determined to make a bold stroke, even at the expense of strictly delicate courtesy, to fathom his knowledge, which I believed shallow enough in this direction, but of which he had an overmastering sense, as being beyond the reach of a lead-line, unless cast into his intellectual sea by a Tyndall or an Agassiz, and I plumply put this query, "Who is the editor of the *Popular Science Monthly*?" He could not tell me; but gathering himself up for another onslaught, he discharged a heavy-caliber siege gun, loaded with the hackneyed, yet presumably chain-shot phrases, "There are no men of prominence who

do believe in Phrenology." Now we were fairly at war. I told him that I had heard that charge before; but that I knew of a number of "not prominent men" who by their patience, their energy, and other such non-essential qualities as immense perceptive power, commanding strength of reflection, and towering moral force, had won renown, of which the proudest of any period might be envious. I told him of one Franz Joseph Gall, a German student, wonderfully precocious beyond his fellows, who graduated with high encomiums, entered on a rich practice in the imperial city of Vienna, astounded his medical contemporaries by the acuteness and profundity of his mental powers, was called to be physician extraordinary to the royal household, discovered the grandest of the sciences, first demonstrated by dissections of the human brain its fibrous character, gathered around him a host of admiring scientific friends, worked in the then dark domain of mind until the human cranium became illuminated with a splendor dazzling to the mental vision, so long accustomed to fogs and mists, and in the course of his professional career, to use the words of the distinguished Hufeland: "Added more to the fund of our knowledge in the anatomy of the brain and its nervous connections, than he thought it possible for one man to perform in a life-time." And there was another obscure German known as Spurzheim, who became an associate of Gall, went to Britain and spread the doctrines among the acutest of reasoners, the most critical of observers, and the most inveterate opponents; taught the savants how to dissect the brain without the usual slicing process, unraveling the mind organ as one might a mass of intestines, and won the just and high tribute of having made the most satisfactory exposition of brain function ever given to the world, up to that time. Coming to America, he had but just commenced to pour out his floods of learning to as brilliant an audience as our country could afford, when death ended his grand career, and this not prominent man was followed to Mount Auburn by the homage of an entire city. And there was that unpretentious Scotch lawyer, George Combe, upon whom the mantle of Spurzheim descended with just fitness, who wrote a wonderful book, a handbook of the natural laws, styled as ubiquitous by Harriet Martineau, translated into five languages, run through hundreds of editions, the delight of thousands of master minds. We might add more names of not prominent men—referring him to Vimont and Broussais of Paris, the former the recipient of a gold medal from the Royal French Institute, for presenting the finest collection of crania, illustrative of brain physiology. We could name grand old Elliotson, shrewd Abernethy, brilliant Barrows, conscientious Hoppe, colossal Chal-

mers, and logical Whately. In our own country we proudly point to such men as John Bell, M.D., Dr. Nathan Allen, Dr. J. V. C. Smith, Dr. Samuel George Morton, author of "Crania Americana," and Dr. J. M. Carnochan, one of the most distinguished surgeons in the United States. Our opponent, however, had not heard of these men, nor had he the remotest knowledge of one Dr. Ferrier, of London, who caused such a ripple in metaphysical circles by his experiments a few years ago. But we forbore to press him further. Yours for truth, C. M. ALEY.

PERSONAL.

THE Vice-President of the Lyons Bicycle Club has just made an extraordinary tricycle journey, accompanied by his wife, on a two-seated machine. They went from Lyons, through Nice, Genoa, and Rome, to Naples, returning *via* Florence and Turin—a journey of 2,300 miles, at an average of fifty to sixty miles a day on the road. Score one for the tricycle.

DR. ALICE BENNETT is chief physician in the female department of the Norristown Insane Asylum; Dr. Agnes Johnson, of Zanesville, Ohio, is assistant physician in the Athens (Ohio) Insane Asylum; Dr. Margaret Cleves is the chief physician at the State Hospital for the Insane at Harrisburg, where Doctors Jane Carver and Anna Hugley are assistants; and Dr. Emma Boon has lately been appointed as assistant to Dr. Richardson in the insane department of the Philadelphia Almshouse.

COLONEL GEORGE WASHINGTON JONES, member of Congress from Texas, is the tallest man in the House of Representatives. He wears blue flannel or checked gingham shirts, without collar or cuffs, coarse boots, and homespun clothes. He lives, in Washington, in a half-furnished, unpainted, uncarpeted, and unswept back-attic room lighted only by a gas-jet in the hall. While his colleagues feast daintily in the Capitol café, he eats a lunch of apples and gingerbread at his desk. But this crude, harsh life is invested with pathos and nobility by the fact that its sacrifices are made for the sake of needy ones at home.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

HE who thinks for himself, and rarely imitates, is a freeman.—KLOPSTOCK.

CHARACTER gives splendor to youth, and awe to wrinkled skin and gray hairs.—EMERSON.

OPPORTUNITIES are very sensitive things. If you slight them on their first visit they seldom come again.

THE best way to discipline one's heart against scandal is to believe all stories false which ought not to be true.

THE science of life may be thus epitomized—to know well the price of time, the value of things, and the worth of people.

ALL dreams might be trusted if men would only bring their bodies into such a state, before going to sleep, as to leave nothing that might occasion error or perturbation in their dreams.—PLATO.

MOST men call fretting a minor fault, a foible, and not a vice, but there is no vice known besides that of drunkenness, which can so utterly destroy the peace and happiness of a home.

MIRTH.

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

"YOU are as full of airs as a music box," said a young man to a girl who refused to let him escort her home. "That may be," was the reply, "but I don't go with a crank."

GERMAN friend: "De bicture you haf bainted is most pitiful; dere is only von vord in de English lanckguige vich describes it, and I haf vorgotten it."

"WANTED, a distinguished and healthy-looking man to be a 'cured patient' in a doctor's waiting-room. Address I. B. R., Poste Restante."—*French Advertisement.*

A MILLIONAIRE, who was looking at a level tract of land which he had just bought at an extravagant price, said to the agent who had made the sale, "I do admire a rich green flat." "So do I," significantly replied the agent.

"I CALL that very rare," said Jones to a workman who had done some work for him. "Ah!" answered the workman, highly pleased. "Yes," went on Jones, "rare, very rare, not half done." That cooked the workman, and he retired.

A LADY in town painted a plaque in the most exquisite manner, and sent it by express to a friend. Soon after a note of acknowledgment came, in which the lady stated that "it is altogether too nice to use every day, so I only use it for a bread plate when we have company." Practical!

THERE is a wealthy brewer in Montreal who built a church and inscribed on it, "This church was erected by Thomas Molson, at his sole expense. Hebrews X." Some of the McGill College boys got a ladder one night and altered the inscription so as to make it read, "This church was erected by Thomas Molson, at his soul's expense. He brews XX."

"PROGRESS AND POVERTY."

HENRY GEORGE'S BOOK REVIEWED.

THE problem presented for discussion by Henry George is this: "Why have not labor-saving inventions lightened the toil and improved the condition of the laborer vastly more than they have?" He proposes to solve this problem by the methods of political economy, which he considers as exact a science as astronomy, *i. e.*, the kind of political economy, the basic laws of which he has "discovered."

In Chap. I. he asks: "Why, in spite of increase in productive power, do wages tend to a minimum?" It should be stated right here that from the standpoint of the writer and all other Socialists of all schools, this question has very little interest, because we all propose to do away with wages, at least as a limit to income. To us, then, this political economy, running on the old lines, is a mass of dreary, obsolete rubbish—of incongruities and absurdities. That is the character given by George to the works of the economists who preceded him; and yet he walks right on in their footsteps, proclaiming rather loudly (for a man who is really quite modest) that he is hewing new paths through the jungles of error, in which all mankind may walk.

But his book is very useful as a thorough exposition of the evils of land monopoly; and there are many bright and noble utterances in it. He wastes a great part of it in whacking at the old economists, as with a stuffed circus club. He hits their systems softly with his imperfect weapon, instead of killing them outright with a real club, as they deserve. The people have seized upon George because they were very hungry for a new economist, just as they seized upon McClellan when they were longing for a military giant.

Much of "Progress and Poverty" is dismally dull reading. George has soaked himself in the old economists, and befogged himself with their sophistries. He has a mighty struggle with them at first on a question that does not interest true radicals, *viz*: "Are wages fixed by the ratio between the number of laborers and the amount of capital devoted to the employment of labor?" Socialists, of all sorts, propose that the laborer shall be a joint owner in all the means of production and distribution, and have ceased to discuss such ratios.

As a defender of usury George is simply *frightful*! He has two pets—the capitalist and the laborer; and it is "wages and interest, interest and wages" all through the book. No wonder; when he founds so much of his philosophy upon the teachings of the Jew banker, Ricardo, who

helped the younger Peel to bring specie payment and ruin upon England fifty years ago. Even the mildest of Socialists wish to bring usury, rents, and profits to the lowest possible point. The next noticeable feature of the book is an able and thorough argument to show that wages are drawn from the product of labor. This is useful for his conservative readers; but radicals need no such argument. He shows that Adam Smith made the mistake of his life in not clinging to his doctrine that "*The produce of labor constitutes the natural recompense or wages of labor*;" and then makes the same mistake himself by fostering interest.

He next attacks Malthus, who, he says, came just in time to bolster up aristocracy. So does he, with his pro-usury arguments. He shows that if Malthus was right, the sacred Confucius family would now number 800 septillions instead of 22,000; and testifies that the Hindoos have only (under British rule) suffered from "financial famines"—lack of money; food being abundant.

One hundred and forty-five pages of what he considers very close logic bring us to a hunt for the "somebody" who is destroying Christendom in the "Distribution of Wealth." He begins again to search for the "law of wages," the existence of which all thorough radicals deny. He is led into vast labyrinths of useless argument by first admitting that the produce of labor is to be divided among land-owners, laborers, and capitalists. This is all that the British House of Lords demands. No wonder the elegant people who gave the Henry George benefit in Stoinway Hall are ready to "swear by George." His mistakes arise from his lack of a clear idea of human rights.

In Book III. he seeks the supposed laws of rent, interest, and wages, founding much upon Ricardo's law of rent, which is part and parcel of the rubbish that goes overboard when justice is inaugurated, by either land limitation or its collective ownership.

He follows the old economists through these mazes, because he thinks that he has a epic-span new attachment to their machine, that will make it work smoothly, *viz*: "the abolition of all taxes except upon land." This he supposes will destroy land monopoly. The plan was advocated by Quesnay and Turgot in France in the last century. I look less to such coercive measures than to co-operation and other spontaneous and non-coercive methods—the growth of unfettered human association.

His defense of usury is glaringly inconsistent.

Mark these three points: 1. The burden of this book is that private property in land should be practically abolished. 2. On page 145 he says that "land includes all natural opportunities or forces, and labor all human exertion"; and yet 3. His grand point in defense of interest is given on page 162, where he says: "And it seems to me that this is the cause [or justification] of interest, or the increase of capital over and above that due to labor, viz: There are, so to speak, in the movements which make up the everlasting flux of nature certain vital currents, which will, if we use them, aid us, with a force independent of our own efforts, in turning matter into forms we desire—that is to say, into wealth."

Oh, lame and impotent conclusion! Lo and behold! because bees gather honey and cattle increase and corn grows while we sleep—because bountiful mother nature gives us something for nothing—therefore we are justified in extorting something for nothing from those of our fellow-mortals who have not the same access to her fertile bosom that we have! In other places, as on p. 376, he directly contradicts this and says: "*Nature gives to labor and to labor alone.* In a very Garden of Eden a man would starve but for human exertion."

Again he goes into long disquisitions about the milk of a cow being interest on the capital expended in raising her. This is nonsense. In a free country, where all who wish have access to land, these spontaneous products soon become a drug, compared with the artificial products, and people rush into manufactures and other pursuits where there is a chance to get a better return for labor. Milk is valueless on the South American pampas. It is a strange fact that George continually, as in the milk argument, turns over to capital what according to his own showing belongs wholly to land, viz: that spontaneous outcome of the vital forces of nature.

As he passes on it is land, land, land. Its margin of cultivation, its rent, etc., etc., control all human events. When we reach Book IV. (half through) he has got us, by what he considers the sternest logic, to the conclusion that "rent is the receiver of the increased production that material progress gives." But the clear-headed reader must say, "Not proven."

He wallows ever in the mire of Ricardo. He ignores our greatest American economist, Henry C. Carey, whose central doctrine, that "*the chief object of true political economy is the removal of obstacles to human association,*" affords a splendid basis for the system that I advocate, viz: CO-OPERATION PLUS LAND LIMITATION. For instance, that each occupied township should be owned by a co-operative society, containing about as many people as would give each family 160 acres, or whatever limit the law might provide.

At the close of George's chapter on "Improvements in the Arts," he makes the assertion that if our Government became a model of purity and economy, the effect would simply be to increase the value of real estate, and "not to raise wages or interest." He seems not to see the plague of usury. Could anything be more preposterous than his statement that the increased wealth of England has all gone to rent? England, that plunders the world by its system of finance, trade, and manufactures. Excepting a few immense proprietors, the English landholders are mere paupers compared with the bankers, merchants, and manufacturers. What is a Marquis of Westminster to a Rothschild—an Astor, with his \$50,000,000—the plunder of four generations—to a Gould, with his \$200,000,000 or more, the absorption of fifteen years? Fawcett estimates English soil at \$20,000,000,000, a growth of 2,000 years; while her other wealth—mostly gathered in fifty years—is \$40,000,000,000. Now the income from \$20,000,000,000 can not be over three per cent., or say \$600,000,000. And since \$3,000,000,000 of income pays income tax (not levied on the poor) in England, it is plain that much less than *one-fifth of the income of the English capitalists is DERIVED FROM LAND.*

On page 241 he makes the wretched mistake of saying that the political economists have proved that speculation and forestalling simply act as a fly-wheel, to steady the interplay of production and consumption—a doctrine for which all least excuse has passed away since steam and electricity have made it possible to speedily put surplusage where it is needed. Even the rotten Chicago Produce Exchange lately fixed a limit to the price of wheat, and broke the ring. Wealth obtained by speculators is a mortgage upon labor. His next argument, as to the effect of increased production in enslaving laborers—because forsooth all surplus goes to rent, and increased production tempts employers to drive laborers—suggests to me what is, perhaps, my strongest argument against his land taxation, viz: that the latter would no more benefit the laborer, when ownership was not limited, than taxing slave property would benefit the slave. A heavy tax on slaves would drive the bulk of them into the gangs of the rich slave-owners, especially those having the most fertile lands. These, having capital and machinery and a multitude of hands, could work the latter on a narrower margin of profit than small owners. So also a heavy land tax, instead of bringing a greater division of land among small owners, would only turn over to poor buyers such land as could not be worked profitably by anybody. Of course it would produce a cheapening of agricultural products, and a demand for hired labor; for the proprietors would strain every nerve to make their great possessions pay, rather than let them go for taxes. But so long

as immigration remained unrestricted, our great land-owners would go on enticing all the oppressed races of the old world into their vast plantations; and the price of labor would not rise much. How differently land limitation would work! If it became the law that no person was to own more than say 160 acres, all this fever of land-grabbing would subside, and every industrious person would be insured access to a living portion of the earth.

He tries to back up his theory by giving facts about California mining lands. But bonanza kings would laugh at his surface tax, were it forty-fold what he proposes. Nothing but Government ownership of mines and graduated taxation could curb such monstrosities. The fact is, rent takes what is left by the other monopolies, minus the minimum that labor must have.

He thinks he makes a point of the fact that the potato—a cheap food—brought only benefit to Irish landlords, and even caused the famines. These effects were caused by the fact that England had brutally refused to allow Ireland any but agricultural industry. His doctrine and his remedy have a considerable application to such a country. He is "the right man in the right place" in going to Ireland. He properly instances China to prove that education without justice will not lift a race. He actually devotes three entire pages to "co-operation" as a remedy and wonders that people make such a fuss about it—co-operation, the king of all reforms.

He has this queer passage about the graduated income tax: "It is evident that whatever savors of regulation and restriction is in itself bad." As if his land tax was not exactly that! But co-operation is spontaneous. He is perfectly right where he says that machinery has doomed the small farm; "so that any measure that merely facilitates the greater subdivision of land would be inoperative."

He faintly sees the need of great co-operative farms. Here is his one poor little admission, away over on p. 421: "I am inclined to think that the result of confiscating rent [by his tax] would be to cause the organization of labor—wherever large capitals are used—to assume the co-operative form; since the more equal diffusion of wealth would unite capitalist and laborer in the same person. But whether this would be so or not is of little moment"!!!

I am happy to agree with him and the Social Democrats in thinking that the soil of a municipality should be practically owned by it. I would have it simply rented; he would take the round-about method of a high land tax. A striking disproof of his doctrine that the landlord takes all surplus, is found in the fact that all through Europe the Jews—denied the right to own land—get a very disproportionate share of everything else, and are practically masters of the situation;

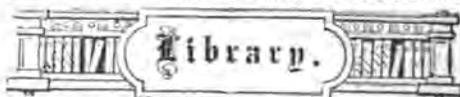
and will be here and there unless we have a new and righteous civilization.

George's plan amounts to this: The whole community is to put its hand into one pocket and take out the rent, and put it in its other pocket! His confiscated rent is to be divided between those who work and those who do not; while our "co-operation plus land limitation" will give each man something like the fruit of his own labor. The limitationist believes, with the most radical, that the earth belongs to the living generation. He demands limitation as the most expedient, practical, and permanent cure of land monopoly. A chief obstacle to George's tax would be, the impossibility of getting the money back into the hands of those real producers from whom it was robbed.

As the rents of the United States would greatly exceed the present taxes, he has schemes for expending the surplus in magnificent improvements that would require an army of officials, and yet he upholds his plan as much better than Government ownership of land, because that "would involve a needless extension of Government machinery!" (p. 363). He incidentally admits that railroads and telegraphs should be controlled by Government.

He draws a dismal picture of the evils coming from taxing everything but land. Practical people know that pretty heavy taxation is pleasing to the large operators in any industry, because it kills off the small ones. Agriculture, as shown, is no exception. He admits that assessors are now continually bribed to undervalue real estate. How much worse would this be where the land tax was the only tax, and owners were making frantic efforts to evade it!

Upon the whole, we may conclude, that if George's double-back-action tax is nature's balance-wheel, nature has, in this regard, adopted a very round about method—through her methods are usually very direct. SAMUEL LEAVITT.



In this department we give short reviews of such New Books as publishers are 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 and physiological science. We can usually supply any of those noticed.

WHAT IS BRIGHT'S DISEASE? Its Curability. By Seth Pancoast, M.D., author of "Treatise on Consumption," "The Kabbala," etc. With illustrations. pp. 150. Price, \$1. Published by the author at Philadelphia, Pa.

The alarming increase of diseases affecting the kidneys warrants the special attention of the

writer on medical topics, and we are pleased to welcome this small volume from a specialist who entertains an encouraging view of the curability of what has been regarded by the medical profession for the most part a deadly disease. He describes the structure and functions of the kidneys, and the modifications wrought by disease in the acute and chronic stages. The symptoms and phenomena of Bright's disease are detailed, and while we should have welcomed a more generous discussion of the causes, we are pleased to note the emphasis laid upon *moderate drinking* as a "potential cause," not only of Bright's disease of the kidneys, but also of gout, heart trouble, and liver derangements. The advice given for treatment is in the main of the hygienic class, and with but one or two exceptions, we cordially approve it—those exceptions, however, are far from offsetting in any material degree the value of the book to the public.

THE DEEMS BIRTHDAY BOOK. Selections from the Writings of Rev. Charles F. Deems, D.D., LL.D., Pastor of the Church of the Strangers, New York. Arranged by Sara Keables Hunt. pp. 396, extra cloth. Price, \$1.25.

A very neatly printed and bound volume this is, exhibiting excellent judgment on the part of the compiler and taste on the part of the publisher. The "idea" Mrs. Hunt has wrought out is a pretty one. Each day of the year is represented by a selection always illustrative of some practical truth in moral or secular affairs, from sermons delivered by Dr. Deems. And opposite to these selections are blanks which may be filled up by autographs. Some signatures in facsimile of prominent clergymen and authors illustrate the method. The selections are in many cases jewels of condensed thought, and appropriate for instruction and admonition. We regard the book well adapted for daily reference; the reading of one of the brief selections at the beginning of a day would help a person along the way of life.

Orders for the book will be supplied by Mrs. Hunt, who is editor of the *Christian Worker*, at 758 Broadway, New York.

THE VOICE OF THE HOME; or, How Roy went West, and How he came Home Again. By Mrs. S. M. I. Henry, author of "The Pledge and the Cross," "Victoria," etc. 12mo, pp. 406. Price, \$1.50. New York: National Temperance Society and Publication House.

A bright and eloquent book which must please the young reader and impress its lessons of pure morality upon the dawning mind. To describe its plot we can scarcely do better than use the language of Miss Willard, who finds in Mrs. Henry a valuable coadjutor in circulating temperance truths:

"As the Home speaks so is the Boy—this is the key-note of the present volume. It illustrates

how alcohol kills in spite of Gospel teaching; what power it has to defeat the best effort of the most honest Christian mother; and how surely it will do *its own work* in spite of all her efforts—if she give it a chance. The story places emphasis upon the solemn fact that the wine-glass and cider-mug are not rendered harmless because they stand on the same table with the family Bible; nay, their curse is all the more deadly because of the height from which their devotees must fall in such a case.

"Roy, the central figure in the picture, is a model of physical strength; has a true and tender heart, and cherishes the dream of noble manhood. But the physical law of cause and effect written in his members, defeats him at every point; his *mother's wine* which she taught him to love, being the earliest 'procuring cause' of his resultant ruin. Precisely what is needed, and all that is essential in most Christian homes, is an *arrest of thought*; and the parents who would not find in this story an arrest of the most emphatic character are few and far between."

FOR GIRLS. A special Physiology, being a supplement to the study of general physiology. By E. R. Shepherd. Illustrated. 12mo, pp. 200, cloth, price \$1.00. Published by Fowler & Wells, New York.

The number of volumes on medical topics adapted to popular uses is vastly on the increase. Within a year or so we have been called upon almost weekly to examine some new treatise. In many cases these books have been prepared by physicians of extensive practice and experience in response to a popular demand which has been increasing. Treatises of the special or private type are few comparatively, on account chiefly of the difficulty found by most authors in setting forth the matters within their range in such a way as only to instruct and aid the young and inexperienced. There are valuable works in print which are much marred by their fervid style, and there are many which have been published merely as advertising experiments, and which, in the hands of the indiscreet and ignorant, are productive of positive harm.

The present work appears to us to contain as few defects in the way of presenting the subjects to which it is specially devoted as could be expected in any case, while, at the same time, it is comprehensive in its range of instruction, meriting commendation for the particularity with which it impresses upon the mind of the young reader the importance of a knowledge of personal physiology to health and happiness. A book designed for girls, to be perfect, should be written by a woman, it being understood, as a matter of course, that she possesses a thorough familiarity with the subject she discusses.

Publishers often receive inquiries from solicitous parents, with regard to a book of physiolog-

leal character, which may be placed in the hands of a young daughter, and furnish her with that information which is so essential to normal development in that critical period of life which occurs between the ages of twelve and seventeen. We have received many such inquiries, and have regretted much that there was not just such a treatise at command. We have examined Mrs. Shepherd's contribution to this line of literature with much care, and are pleased to say that we can heartily commend it, and that it will meet the want just alluded to, as no other book we know has met it. The author indicates an unusual acquaintance with the anatomy and physiology of the feminine organization, and also a ready acquaintance with the other phases of social relationship belonging to woman in her every-day life. She claims nothing new, and she claims no special originality, but she can claim an extensive examination of the general field covered by her subject, and a more than common discrimination in gleaning just such material from general professional experience as is best adapted to her purpose.

The sixteen chapters cover such topics as counsel to mothers and teachers—for the author would prefer that a girl read the book under the eye of her mother or a solicitous friend—the physiology of woman, what constitutes a fine figure, how she should dress, motherhood, derangements of function, love, marriage, etc.

The style of the book is clear, simply colloquial, and has nothing garish or prudish or morbid about it; it is bright without being flippant in thought; agreeable reading without awakening anything of the sensual or exciting. It is a book well designed to instruct and benefit young women, and we feel that its broadcast circulation can not fail to benefit the community in a most vital respect.

"GYPSIES": WHY WE WENT GYPSYING IN THE SIERRAS. By Dio Lewis, M.D., author of "Our Digestion," "Our Girls," etc. 12mo, pp. 214, price —. New York: M. L. Holbrook & Co.

This is an amusing book in many respects. The Doctor's rollicking humor comes out in the portrayal of many lively and ludicrous incidents during a late tour in the mountains of the Pacific coast, yet Dr. Lewis always writes for a purpose, so in the midst of his fun, he sows good thought, suggestions of value for the mind and body. He touches upon the bad habits of Western men with sharp irony, and contrasts the life of abstinence and moderation with that of indulgence and appetite. A pleasant summer book.

PUBLICATIONS RECEIVED.

The July number of the *Atlantic Monthly* is promptly at hand as usual. It continues the story of "Two on a Tower," in which science and sentiment are agreeably blended. Among

the substantial articles are "Care for a People Under Despotism," "Naval Grants," Marshal and Appointing Power; the political consumption of seventy-three millions of dollars, in which the writer deals trenchantly with certain well-known leaders in railroad management and stock combination, showing neither fear nor favor. A fresh installment of the interesting and practical studies of Southern life contains some paragraphs relating to the history of the famous Ku Klux Klan.

LIPPINCOTT'S MAGAZINE for July abounds in summer reading, the sort which those who are at the seaside or on the mountains find helpful toward the enjoyment of their "douce far niente." There are some instructive papers like "In the Heart of the Alleghenies," and "The Coal Mines of the State of Dade," but the proportion is much smaller than usual.

THE KANSAS CITY REVIEW has just entered upon its sixth volume, which indicates an increasing interest in scientific matters West, and has become a thing indispensable to Western scholars. Among the most notable articles which have appeared in late numbers are those on meteorology.

READINGS ON BEER. A course of readings on beer, for local unions, or for temperance organisms proper, by Miss Julia Coleman, Superintendent of the Literary Department, by request of Miss Frances E. Willard, President of the Woman's National Christian Temperance Union. This is a pamphlet of 48 pages, comprising three articles on the nature of malt liquor, the effect of its miscellaneous drinking on crime and social depravity in general. The drinking of beer costs the American people over \$250,000,000 annually, which is four or five times as much as is expended for the education of our children. Comment is unnecessary as to the wicked waste of money in such a direction.

THE SUGAR BEET, devoted to the cultivation of the sugar beet. Has this industry grown so rapidly within a few years as to require a special organ? There are some who think so, and the data contained in this specimen number convinces us that the publishers have made no injudicious venture. Beet sugar is much more extensively used, as a substitute for cane sugar, than most people, deemed intelligent about general matters, have any idea.

THE WOMEN OF MORMONISM; or, The Story of Polygamy, as told by the victims themselves. Edited by Jennie Anderson Frolseth, editor of the *Anti-Polygamy Standard*, Salt Lake City, Utah. With an Introduction by Miss Frances E. Willard, and Supplementary papers by Rev. Leonard Bacon, D.D., LL.D., Hon. P. T. Van Zile and others. 12mo, pp. 460. C. G. G. Paine, Detroit. The spirit of this warmly-written volume is indicated sufficiently in the title, and needs no further description.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 75. 1882

NUMBER 3.]

September, 1882.

[WHOLE No. 526.



RUDOLPH VIRCHOW,

THE EMINENT PHYSIOLOGIST AND ARCHÆOLOGIST.

THIS portrait indicates power arising from health, bodily vigor, and a large brain so developed as to be its own engineer. With those immense perceptions indicated by fullness of the lower part of the forehead, and by length from the opening of the ear to that region, he does not need so much co-operation and assistance as most men; he does not need a tutor, a teacher, a helper; he

helps himself, hunts for the facts, and knows them when he finds them, and how to arrange and co-ordinate them.

He is a critic of critics; has the power to analyze truth, to compare and arrange facts and things, and make knowledge practical. He has the power to read character both in men and animals; he would understand and teach the horse or dog or child better than most men can, and he has a feminine intuition, an instantaneous appreciation of his surroundings. He forms judgments so rapidly that he is not always able to trace the pathway of thought by which he reaches results. His language, and memory, and perception, and power of analysis, are the strong parts of his intellect, and he has more talent to gather and organize facts than he has in the domain of dry, hard logic. His head appears to be broad above and about the ears, hence he possesses force of character, influential selfish impulses, power to smite his way through opposition, courage to meet, and a strong desire to master, that which may oppose him. The crown of his head is high, showing great ambition, persistency, steadfastness, pride, self-reliance, consciousness of his own worth, joined to integrity and justice. He has a spirit that will follow truth regardless where it may lead; and though he may dislike to be blamed and to become unpopular, he feels as much compelled to follow his convictions of truth and duty, as a telegraph message does to follow the wire, however zigzag or roundabout the course. He appears to have very strong social affection, especially the qualities that make a man fond of his family, wife and children, home and its associations. The middle section of the top-head seems rather too low for a good

balance, hence he has not reverence enough for the past, and for the commandments of men, religiously considered, to feel obligated to follow or accept them. He is more honest than pious, more generous than devout; more philosophical and critical than credulous, but he has a world of push and bravery. Such a head would make a capital leader of an army, especially in active service. He has wonderful memory as well as power to gather knowledge, and therefore the ability to recall his knowledge and make a decided impression upon the age in which he lives.

RUDOLPH VIRCHOW, the celebrated anatomist and physiologist, and also known to some extent in German affairs as a politician, was born at Schivelbein, in Pomerania, on the 13th October, 1821; he pursued a course of medical study from 1839 to 1843, at the Pépinière, in Berlin, where he became assistant physician, and in 1846 prosector at the Charity Hospital, lecturing meanwhile as Professor of Pathology and Chirurgery at the University. He was the favorite pupil of the great physiologist, Johann Muller. Later he became editor of the widely known and important periodical *Archiv*, in the departments of pathology, anatomy, physiology, and also of clinical medicine. In consequence of pronounced political views in opposition to the Prussian Government he lost his university professorship, but accepted in 1849 the chair of pathological anatomy at the University at Wurzburg. In 1856, however, he was recalled to the Berlin University, and made Director of the Pathological Institute of the Charité.

In 1848 the Prussian Government sent him into Upper Silesia to investigate the nature of a famine-epidemic raging there, and in 1852 the Bavarian Government also invited him to investigate the cause of a similar epidemic in the Spessart. In 1859 he explored the

western provinces of Norway at the request of the Norwegian Government, to observe a leprous disease prevalent there.

In 1862 he was elected a Member of the City Council at Berlin, and also a Member of the House of Representatives for the District of Saarbruck-Saarlouis, where he stood foremost as a leader of the liberal party. As an extreme liberal in the session of 1865 he defeated the Minister von Bismarck, who was prosecuting a measure to obtain money without the sanction of the House of Representatives. During the Austrian wars of 1866, and the French of 1870-1871, he was a Director of the Hospital service.

Recently his attention has been turned to anthropological studies; and he has investigated the lake habitations and other prehistoric settlements in Germany; lectured on some characteristics of the skull of certain human races, and conducted an interesting contest with the French ethnologist, Quatrefages, who maintained in his work, *La Race Prussienne*, that the Prussians proper are of Finnic descent.

His views with regard to the origin and growth of man, contrast in their moderation with those of the ultra physiologists like Haeckel and Huxley; and he is much quoted by defenders of the Bible and

Christian theology as an authority on their side.

In 1881 Prof. Virchow visited Tiflis and made some valuable discoveries in the tumuli called Koorgans, along the course of the rivers, especially that of the Kuban, on the north range of the Caucasus.

Prof. Virchow is the author of a great number of works in his special branches of medical science, all of which have acquired a wide circulation. Among them are "Handbook of Special Pathology and Therapeutics," "On the Nature of Constitutional Syphilitic Affections," "Goethe as an Inquirer of Nature," "Lectures on Pathology." His "Cellular Pathology" is the treatise on which his fame mainly rests. In it he discusses the formation of tissues in conditions of health and disease, advancing views which at the time of their utterance were novel and opposed in substance to received opinions. This and other works of his have been translated into English.

He is still Professor-in-ordinary of Pathological Anatomy, General Pathology, and Therapeutics in the University of Berlin, and Director of the Pathological Institute. In 1856 he was made an honorary member of the Royal Society of Medicine of London, and in 1859 corresponding member of the French Academy of Medicine.

FISHING FOR MEN.

THE Great Teacher said to his Apostles after their call: "I will make you to become fishers of men." He would empower them to become the winners of souls. To Peter, the fisherman, he said: "From henceforth thou shalt catch men"; the catching being for salvation, not destruction. Ordinary piscatorial endeavors comprise the death of the prey, but in this moral labor the *caught* are transferred from a lower element into a higher, from one kind of a life into a better.

These fishers of men are not all of one

kind; neither are the fishers of fish. They are of various grades; being physical, intellectual, moral, and spiritual. Some address themselves to a part of the faculties of human nature; they seem to labor in ignorance whether any department was made for other realms than the natural, being profoundly agnostic of any light brighter than the sun, or any worlds beyond the cosmic spheres above. But those who go down into the waters of life covering these mortal shores are seeking to find man as he is to know what he should be, and so work out their great

ideal to the most attainable perfection. Let every man be in his own order, ignoring all strife and selfish rivalries, that each in his own way may contribute to the general success of all. The anglers in the brooks and rivers, the trollers on the great lakes, the salmon fishers in Alaska waters, the cod fishers off the New England coast, the fishers with nets where the finny tribe go in schools, as well as the hardy toilers in the Arctic seas, serve as but examples of the variety of endeavors needed in all parts of the ocean of existence.

In our view one of the primest qualifications for success in this moral-aquatic sphere is love for fishing. Old Isaac Walton went into ecstasies over its pleasures, saying, "God never did make a more calm, quiet, innocent recreation than angling." A loved employment, propelled by a strong will, will never fail to reward the worker. A good piscator can never be made to order more than a good poet from one utterly destitute of imagination and sublimity. A sense of duty will never make a Mozart out of a Dr. Johnson; and there are many employed as teachers of men who need others to initiate them into the principles of common sense. Many a fisherman fails because of the absence of the fish; but in villages and cities the crowds are moving uncaught by the attractions of virtue, because there are so few to so present her excellencies as to win them into obedience. The man must be adapted to the calling and the calling to the man. His meat and drink must be the doing of what his conscience and heart prompt. He must have self-knowledge in order to know others. A piscator who does not know the nature and habits of the fish he is in search of will return with but few of them as his reward. Human nature is a great study for the winners of men, and wanting it many whose profession is the benefit of their fellows become repellants rather than attractives. They never find the road to human hearts in order to enthroned reformatory good. It is largely owing to the want of skill in the fishers

of men that the fullness of the seas, with all its tide of life, remains unreached.

Good fishermen go to the fish. They rarely wait for the finny tribes to come to them. They go to their grounds, seek them in their haunts, and wait for them in their passage. The corrupters of youth, the destroyers of men, throw out their baits where men most congregate. They spread their nets and allure with their decoys. Like the illegal salmon fishers of Scotland, so graphically described by Sir Walter Scott in his "Guy Mannering," they attract them by their torches within range of their slaughtering *leisters*, or three-barbed prongs, and carry off their unsuspecting victims. It won't do to stand on formalities when men are perishing through an ignorance that may be enlightened, or swept away by a destruction that may be stayed. We need a host of *amateurs* preparing the way for the professionals, proving their fitness for the catching of men in order to their installation for it as their life-calling. He should be regarded as the best fisherman who gets the most fish, but one who had tried his skill upon all waters and yet caught nothing should not be slow in concluding that he had mistaken his calling; to say that he had here and there taken in one should not be regarded as a corrective.

In angling, a great deal depends upon the bait. It should be adapted to the wants of the fish. The bait should not be too large, neither the line too long. We may well be amazed at what was thrown to the young in former years. The little ones were whipped because they could not take in the baits of knowledge given in incomprehensible rules and the driest of all definitions. Catechisms were too often given as soul-food made up of dry bones having not a particle of nutriment. Teachers talked in dead languages. The school was made a house of correction. Biting and digestion were out of the question. Few would expect fish to bite at the naked hook; but the little learners were too often given no better; and how often have children been addressed in a language which pretty

well educated adults could not take into their understandings without a lexicon. Gospel fishermen have let down their baits from the pulpit with nothing worth biting at. A nibble or two might be given followed by a general turning away. The baits were too large for ordinary swallowing. What a vast amount of preaching is worse than lost because too high and dry—too far removed from human want and comprehension!

The fishing should be always according to the fish. Some swim in deep waters and need a long line to reach them. Some keep well to the surface; others go in compact bodies, hence we speak of schools of fish. Some keep by themselves watching for prey near the rocks or under the shelving banks. Some are bold and fearless, others shy and suspicious. Some can be driven into the net by shouting and splashing the waters. The larger number can be caught after a gentle rain in the early morning, or after the sun has passed under a cloud, all of which is strikingly suggestive of appropriate times and seasons for the winning of souls. Bearing in mind the varieties of human nature as calling for diversity of treatment, Paul tells us that he became all things to all men—to the Jews as a Jew, to the Greeks as a Greek—that he might catch some, though liable to the charge of catching them by guile. Some moral fishermen proceed upon the supposition that the fish ought to bite because it is their profession to angle for them; but to the subjects of this labor the matter does not appear in this light, and he who would benefit the character of his fellows must make it as clear as he can that the catching will be their gain; that he seeks not theirs, but them, for better things in the present and the future. All those who make it their business to win men over from a lower to a higher plane of life must study their make-up, their physical, intellectual, and moral qualities. A man can not angle for smelts as he would for flounders, for trout as he would for perch, or for rock bass or cod as he would for pickerel or muscal-

longe; the hooks, lines, baits, and treatment must be as diverse as the fish sought. Adaptation is a prime requisite for success in the leadership of mankind, and a great many pretentious and fancy anglers, with all the latest improvements for piscatorial enterprises, return as empty as they went, while some rustic, with an extemporized pole and simple line, will leave the waters with a string heavy and shining with their spoils. Often the failure results from a want of observation of the signs of the skies, seeking for that which is unattainable because absent, letting the lines down too low when the subjects are near the surface, stopping just where there should be a beginning, or beginning where there should be an ending.

A good fisherman will never continue in a way in which he has repeatedly failed. If the fishing-ground changes he will follow it up; no need of letting down lines and nets where there is nothing to be caught. The changing seasons will require a change of bait, from worms to minnows, or from one kind of flies to another. In the most of industrial pursuits the instruments of labor are in advance of those of ruder times, and the mind-workers of to-day can not regenerate the world with usages and forms no more adapted to the times than the arrow of the middle ages is for modern warfare. The needs, the truths remain the same, but the modes of application require a readjustment. He who can say, "Behold I show unto you a more excellent way," and can demonstrate it by fact, as did Arkwright, Stevenson, and Morse, with the cotton mill, the railway, and the telegraph, should receive a unanimous following. But the new methods must be approved by their results. If less fish are taken by some recent tackle than by the old Waltons of piscatory fame, then let us angle as did the fathers.

In common-school teaching, in college instruction, in gospel preaching, in all efforts for the improvement and reformation of men, the supreme desire should be, "In what way can I best meet the

ends of my calling?" We have read of sorrow being upon the seas. Ships have passed through floating masses of dead fish slain by some commotion of nature. Our ocean of life is filled with dying, dead, and hopeless humanity. Yet the waters may be healed as the Prophet saw the Dead Sea teeming with life from the inflow of aqueous healing from the Temple gates. The fishers of men in all departments of reformatory work should study the best methods. The failures largely lie in conservative ignorance, which ought to be and must be enlightened if the world is to be saved. A treatment that will fail with some will succeed with others. There are thoughtful and secretive natures that, like the finest trout, keep themselves in some shady retreat, who need to be sought out, their sensitiveness overcome, their confidence secured, and, with the needed instruction given, may be brought to do grand service for their race. Combative natures need to be won with no show of authority, but by sympathizing words from warm hearts, and by the exhibition of a true brotherly regard; a slumbering conscience may be revived and their dormant aspirations for better things invigorated to corresponding action. There are lethargic, sluggish individuals, slow to think and slower still to move, who, by some appeals to their leaden hopes, may be aroused to attempt something in the way of improvement. There are some people very easily discouraged; they lack enterprise; they have been thrust into the corners of human life and kept there by habit and circumstance; hope and imagination seem to have no part in their being. Yet even these by a little kindly manipulation with kindness and truth properly presented may be encouraged to attempt some good thing, and from some little strength attain to more. The development of acquisitiveness may be so exorbitant in some that it may be found difficult to turn the upward gaze. Yet by wise appeals to self-love, benevolence, and the reasoning faculties, the lesson of wisdom may be set into fermentation and essentially modify the

character. That mental attribute which is strong should be set at work to help that which is weak. There are some so far down in the depths of degradation that to human view no line of helpfulness can reach them; yet in the lowest deep many have been brought to the surface to see the sun and rejoice in a brighter day. In the floods of humanity pouring over our land and filling our tenement houses in narrow and filthy lanes, our settlements in the oil regions, and the murky mines, there will be found all orders of mind and character calling for all varieties of workmen and skill in operation. That grand old soul-angler, the parabolic writer of "Bedford Jail," from his post of observation over the River Ouse, thus quaintly says:

" You see the way the fisherman doth take
To catch the fish ! What engines doth he make ?
Behold ! how he engageth all his wits ;
Also his snares, lines, angles, hooks, and nets ;
Yet fish there be that neither hook, nor line,
Nor snares, nor net, nor engine can make thine.
They must be groped for, and be tickled too,
Or they will not be caught, whate'er you do."

No other fishing requires so much practice and art as that for the catching of men. It is the highest of all human callings. It does not come by pedigree, by manipulation, or by royal charter. It is acquired in the school of experience and by long consultation with wisdom. Such are the patriarchs, prophets, priests, apostles, witnesses, and kings of the Great Ruler of the universe. They do not seek recognition among the orders of nobility; it comes by divine right. They are engaged by the side of all waters, on the highway of nations, by the surging tides of foreign immigration, by the dirty waters of politics, in order to save the drowning anglers for office; by the tide-flow of youthful life, to save the young and inexperienced from the torrents of social corruption issuing from garret and cellar, rendering existence itself but one asphaltic lake; by the tides of trade and commerce, to bring the riches of the seas as ministers to virtue. And this they do not for social distinction, for human applause, for coveted wealth, but that those

sinking in the waters of ignorance, the floods of intemperance, the rapids of vice, or being carried over the frowning falls of despair, may be transferred to knowledge, sobriety, goodness, and hope. The greater portion are unknown to fame; they pursue their work in obscurity and silence. They may be found in the school, the pulpit, the platform, at the desk, in the tenement house, the miner's cabin, in the slums of festering city life, in the fetid atmosphere of the hospitals, and by the dying bed of the outcasts of society. They fish with the earnest appeal, the warm persuasion, the benevolent

smile, the supplicating prayer, the consecrated purpose to get a hold upon the human heart and transfer it from the abyss of death to the source of all true life. Blessed be these fishers of men! They are more numerous than we reckon. They are hard workers, faithful students of success in their vocation, among the most self-denying of their race, and yet upon the whole the most contented and happy. Their chief solicitude is to save some from going down into the depths, and in the eternal morn, when their account will be given, they will blush to find it fame. REV. JOHN WAUGH.

EDUCATION THE TRUE PRINCIPLE OF REFORM.

IN social, political, and moral circles no word is more frequently passed around than Reform. It is becoming the stock term of those classes who are moved by the prevailing tendency toward change and progress. From press, pulpit, and platform its warning voice resounds far and wide; and judging from the earnestness with which it is urged and the agitation its constant repetition causes, we conclude that an age of reformation wide-spread and perhaps deep-seated is dawning.

Probably at no period of civilization has there been such a universal demand for an amendment of defects in political opinions and practices, a rectification of the evils of social life, and a fuller knowledge and better application of moral principles than just now is being felt. Every day presents some phase of special reform for consideration and action. The "civil service," Mormonism, divorce, intemperance with its kindred vices, suggest active reformatory thought.

But the vital question that demands most careful attention is not so much the *what* as the *how* in reform. Methods and means are proposed that involve conflicting and often wide differences of opinion. Widely separated standpoints, preconceived notions, policy, and the ag-

grandizement of sect or party, influence the *modus operandi* of all reformers. Going back of these we seek a general principle of reform that shall admit of the broadest interpretation, be adapted to all conditions and exercises, and effect thorough and permanent results.

In the single but potent word EDUCATION is the reformatory mainspring sought. Here alone is the remedy for existing abuses, corruptions, and bigotries that will go to their root. Says Ralph Waldo Emerson, "The true principle of reform is to learn what nature requires, to obey her laws; what we call our root and branch reforms of slavery, war, gambling is only modifying the symptoms. We must begin higher up, namely, in education." And this education should have reference to the primary causes which have created a demand for reform. Locating these causes we are brought directly into contact with the ignorance and selfishness of the people. From these sources flow the wrong opinions, bitter prejudices, loose ideas of moral and social life, and corrupt politics that call for prompt and effective measures.

With the physical, intellectual, moral, and social character of the people our reform must begin. This means their education in its most comprehensive and

practical sense. Applying this principle of education which we claim to be the true and fundamental one in reform; we can only indicate here the course to be pursued, leaving it for the interested and thoughtful to enlarge and fill up our outline. For moral and social purposes there should be:

1. A knowledge of the laws of physical being and development: in other words, a thorough acquaintance with *self*.

2. Such training as shall develop legitimately the moral and social nature to its fullest capacity, and impart a keen and ready discrimination between right and wrong, and truth and error.

3. The practical significance and bearing of the law of reciprocity should be as familiar as the alphabet.

Among the requirements for reform in our political system it is very obvious that there should be:

1. Sufficient education to enable every voter to read and write; to which we would add a knowledge of the Constitution of our Government.

2. The acquirement of an exalted sense of the *dignity* and *responsibility* of American citizenship.

3. A systematic study of political economy, and a special preparation and moral fitness for the duties of every Government office.

The successful operation of the principle of reform herein indicated, is, we believe, only a question of time. Its superiority over the spasmodic and superficial methods inaugurated too frequently for selfish ends, every fair mind must recognize. Salves and plasters may heal an eruption on the surface of the body; but more potent remedies are necessary to remove the seeds of a fatal disease from the blood. Certain laws, moral restraints, or public opinion may check bribery, theft, and intemperance so far as their open practice is concerned; but something deeper and more effective is demanded to modify our avaricious dispositions and cure a strong and perhaps inherited appetite.

The true education of men and women from generation to generation will ultimately effect a genuine and lasting reform in actual conditions as well as "symptoms," the fruits of which shall be truth, liberty, and progress.

J. EUGENE CLARKE.

THE TRUE WIFE AND THE USURPER.

CATHARINE OF ARRAGON AND ANNE BOLEYN.

HENRY THE EIGHTH, "bluff King Hal," or "merry King Harry," as a certain class of biographers familiarly call this woman-loving and this wife-killing monarch, was the husband of six consecutive wives. Two he divorced, two he beheaded, one died a natural death, and the last one outlived him. Their lives, together with that of their royal spouse, cover a very important period in English history. It is not our purpose, however, to examine very closely into the events of Henry's long reign, interesting as that might be, or to concern ourselves with the history and character of his last four consorts. Our subjects now are Catharine of Arragon and Anne Boleyn; one

the true and loving wife, the other the vain, ambitious, unloving usurper.

The serious aspect and sad look of Catharine is strongly at variance with the proud, vain look of Anne. One was almost a saint, the other was an adventuress. With a truly Spanish piety, Catharine rose at midnight to take silent part in the prayers of the monks. She knelt without cushions or carpet. At five in the morning she was up again to attend divine service in the church. It is doubtful if Anne ever offered a serious prayer in her life. Her inclinations led her not to pray or to fast, but to flirt and to court rich apparel and the smiles of gallant men. Gay, volatile, fashionable, she had no re-

ligious tenets of any kind. She was not stable, and nothing in her life became her so well as the leaving of it. She was insolent in prosperity, and in adversity she knew not how to bend serenely. Her life was that of a butterfly, without noble impulses, lofty thoughts, or worthy deeds. On the other hand, were we to ransack all the storehouses of information, we could find nothing to surpass, nothing, in

When Catharine of Arragon became the wife of Henry Tudor she was a young widow of twenty-three. She had married his elder brother Arthur, who died within nine months after his marriage. Henry was her junior by six years, a young man of seventeen, lusty, vigorous, the pride of the English knighthood, but he was won by the beauty of his sister-in-law. The marriage was deferred through the schem-



CATHARINE OF ARRAGON.

our thought, to surpass the lofty character of Catharine of Arragon, who in the days of her prosperity combined all the charms of exalted womanhood, and in her latter days, when sorrow, humiliation, and indignity were heaped on a virtuous and almost perfect woman's head, bore all with unswerving constancy and patience, with unruffled temper, with more than manly dignity, yet with the grace, the tenderness, the feminine affection of the most delicate and gentle woman.

ing policy of Henry the Seventh, but two months after his own accession to the throne Henry the Eighth married Catharine. In a letter that he wrote to the bride's father, he added as a climax that "if Catharine and he were still free he would choose her for his wife before all other women."

Catharine was Spanish born, and her early days were passed in the glorious Alhambra of Granada, the luxurious home of the old Moorish kings, at that time the

abode of her royal parents, Ferdinand of Arragon and Isabella of Castile. She had the dark beauty of a Southern land, and the stately, grave manner of a Spanish *senorita*; a certain feminine reserve tempered with mildness pervaded her general deportment. There was nothing frivolous or puerile in her character. Trained in the severe etiquette of her mother's court, which forbade her to dance, to hunt, or to sing like the less fastidious princess of England, Catharine lacked indeed some of the graceful accomplishments that distinguished the most prominent ladies of the Northern court, but she compensated for this by an education which had no equal even in Henry the Eighth's court, by a proficiency in the art of needlework, and by a lofty rectitude which in that age of jest and license was never once subjected to calumny.

The dark Spanish face of Queen Catharine is very attractive. The features are peculiarly womanly. How sweetly tender and expressive are those eyes! What an elegant nose, straight almost as that of a Greek statue! The lips are beautiful; the chin is delicately rounded. Then observe the height of the forehead and the beauty of the coronal arch. Its shapely contour is something like that of her mother, though there is less approbateness and self-esteem than is visible in the portraits of Queen Isabella. That is a fine top-head. The organs in the moral and spiritual groups are prominent, benevolence and veneration being largely developed. The social group, comprising friendship, love of children, of friends, of home, and of husband, is well evinced by the physiognomy.

In contrast with Catharine of Arragon, as we have said before, we have a woman of quite a different stamp.—Anne Boleyn was a true woman of the world. She had the beauty, the graces, the fascinations of a finished society woman. As a maid of honor to two French queens, her early training was the exact reverse of Queen Catharine's. At the French court all was glitter and show, external accomplishments went further than solid attain-

ments. Anne was an accomplished belle. She was clever and vivacious. "Beauty and sprightliness," says an old chronicler, "sat upon her lips; in readiness of repartee, skill in the dance, and in playing upon the lute she was unsurpassed."

The face and head of the Boleyn is not so pleasing as Catharine's. Anne also was a brunette, with black hair and dark hazel eyes. The face is oval and the nose is slightly aquiline. The mouth has rather an unpleasant expression, owing to one of her upper teeth projecting a little. There is something voluptuous in the cheek and chin. She had a large brain, well associated with a sound body which amply sustained it. There is considerable dignity, pride, will, and sense of character indicated by her physiognomy. A woman with Anne Boleyn's face would scarcely be content in private and domestic life, but would crave a high and even stately position where her pride and love of display would be gratified. The most flattering of her portraits give a harsh and rather coarse expression to her face. With her education she could be lady-like and refined. Had she been uneducated there would have been much obstinacy, mendacity, and sensuality exhibited. Approbativeness, caution, ideality, language, firmness, and combativeness are all conspicuously developed in Anne Boleyn.

The love of pleasure and the love of power were the ruling passions of this woman. To enjoy the delights of life, to be waited on like a queen, to receive the adulation of the great and powerful, to sway, to reign—to win these she was willing to risk her fair fame, her delicacy, her honor, and her self-respect. The cursed pride of the Howards which she inherited through her mother, and the ambition which made her father one of the most hateful characters of his time, hurried Anne Boleyn on to that moment and that condition of mind which permitted her to violate common decency and usurp the place and title of the royal Catharine of Arragon. We do not once believe that she ever cherished the least love for her royal lord. Henry was over forty, and

already deformed by corpulence and bestiality. It was not his person that she cared for, but the station, the power, the brilliancy the alliance gave her. In other words, she sold herself for the crown jewels of England. Nor do we choose to believe the horrible and sickening accusations brought against her by the king when he had tired of her and wished to sacrifice her for Jane Seymour. Anne

ples of morality known to us by which Anne Boleyn can be extolled for superlative modesty and virtue. She spurned indeed Henry's dishonorable proposals, but she did not scruple to encourage his clandestine addresses and to walk over Catharine's broken heart to the throne. For seven years prior to the king's divorce of Catharine, Anne lived with him in the style of a publicly acknowledged



ANNE BOLEYN.

Boleyn was not a wise nor a noble woman, but she was too shrewd an intriguante to have run the risk of losing her position and her life by any folly like that which the petty malignity of Sanders and the weighty accusations of Froude would insinuate against her. She was a woman of consummate prudence, as all selfish women are, and every other sentiment was stifled by the overweening passions of love of display and love of power.

On the other hand there are no princi-

mistress. She held daily levees with all the pomp of royalty. She had two ladies in waiting, her train-bearer, and her chaplains. Everybody who wanted favors in church or state resorted to her. She was made a peeress under the title of Marchioness of Pembroke—the first instance in English history when a peerage was created for a woman. She was all this while Queen Catharine was yet her nominal mistress. No true woman would have so departed herself; no true woman

would at last have sold herself for the jewels of empire, trampling on the rights of another of her sex. That it is done, that it is of common occurrence even, does not excuse anybody.

Anne Boleyn had no heart, or at least all the heart she ever had turned to stone when she was ruthlessly forced from Lord Percy's arms. From that time she had lived for self alone. The splendor of a throne dazzled her vision, and all her blandishments, all her fascinations, and doubtless she had many, were used to accomplish her destined usurpation. She succeeded, but even then the fact that Catharine was still alive harassed her guilty mind. She had no peace until the unfortunate Queen died. Then in the arrogance of her power, in the complete perfection of her triumph, she exclaimed: "Now am I indeed Queen of England!" an exclamation which shows how completely hardened Anne's conscience had become.

The vision of that other sad, mourning figure standing desolate, neglected, sinking into the darkening twilight, cut short by sorrow, is a picture that awakens our deepest sympathies. The grand abilities of Catharine, her unstained integrity of word and action, her womanly dignity united with her sweetness of disposition and her benevolence and piety, commanded even the respect of her enemies, but they could not hold the fickle heart of the eighth Henry.

It is the misfortune of the female sex that superior moral qualities, though necessary to insure esteem, are not sufficient to preserve affection. Compared with the witty tongue and winning manners of Anne Boleyn, Catharine's exemplary virtues counted as nothing with the sensual Tudor. Her mild, staid, prosaic ways did not furnish a sufficiently exciting social pabulum for her husband. Worse crime of all in his eyes, however, was the fact of her remaining sonless.

We do not think that Henry ever lost all of his early love for his first consort. Many times during the progress of the trial and divorce he was won to her side. When he perused her last letter to him written but a few days before her death,

in which she said in the closing line "Lastly do I vow that mine eyes desire you above all things," he shed bitter tears. The day of her funeral he observed with solemn obsequies, all his servants and himself attending them dressed in mourning, and he commanded the whole court to do the same. But passion was strong within him, and to that leading propensity he sacrificed the happiness of a whole-souled woman and a true and loving wife for the caresses of a soulless intriguante, an ambitious, unloving, selfish woman whose only care for him was for the position he gave her.

"The mills of the gods grind slow, but they grind exceeding fine," is the old proverb. In this case they were not so slow. When Catharine breathed her last Anne's power was waning with her faithless spouse. She was scarcely four months dead when the signal-gun from the Tower announced that the head of her rival and supplanter had fallen upon the scaffold. The injured Catharine was avenged.

Anne Boleyn met her fate with that audacity with which she had met and triumphed over every obstacle of her life. On the scaffold she was still the consummate actor. Her nerves were steel. She had neither been true nor untrue to any man, but she was true to herself. She was calm amid her weeping attendants. Her great courage all untamed, she refused to have her eyes bandaged, preferring to see the death by which she fell.

But which is the pleasanter scene, that of the brazen-faced adventuress surrounded by the hooting, hissing crowd, suffering that cruel death in the blazing noontide of a summer's day, stripped of her royal ornaments, deserted by the fawning nobles whose flattery she loved so well, or that of the patient Catharine dying calmly in her bed at Kimbolton Castle, with the good bishop praying at her side, and her friends and her loved young daughter near by to cheer her heart? Verily, who would not prefer to die like Catharine, the true wife and loving woman, rather than like Anne Boleyn, the schemer and the usurper?

FRED. MYRON COLBY.

MAN AND THE APE.—A writer thus comments in the *Mining and Scientific Press* on the evidences of nature with reference to the analogies between man and the higher apes: "The teaching of nature in regard to the genesis of species seems to be that similarity of structure frequently arises without the forms which resemble each other having any genetic affinity. It is rather to an internal cause—an innate tendency, an idiosyncrasy, a marvelous potentiality—than to surrounding conditions, that the origin of new specific forms is to be traced. The apes of the Old and New Worlds respectively appear to spring from different types, and what they have in common may be regarded as only parallel developments. Human beings, who in one organ or feature resemble one of the ape tribe, differ in other organs and features from others of the apes and half apes, the *Simiada* and the *Cebida*. It does not follow, therefore, that because we resemble this or that ape in this or that particular we therefore spring from one of his race, though 'it is conceivable,' as Professor Mivart has said, 'that the physiological units of a living organism may be so influenced by surrounding conditions (organic and other) that the accumulation of these

conditions may upset the previous rhythm of such units, producing modifications in them—a fresh chord in the harmony of nature—a new species!' None of the gifts of man are found in the ape. Ages have not sufficed to develop in him the gift of speech, and perhaps no length of ages would or could develop it. It is mere irony to compare our bones and brains with those of baboons, when we have arts and sciences to show which seem to affiliate us to higher intelligences, such as many have called angels and gods. The surprising faculties which we possess seem not to be the result of our material organization, or of merely natural evolution, but to have been divinely implanted, and to have contributed greatly to the production and perfecting of the frame we tenant. It is impossible to deny that the body influences the formation of the mind, but it is no less certain that the mind in part modifies the body. 'The organs of the brain,' says Dr. George Harris, 'are molded and influenced in their growth by the soul'; and Sir Matthew Hale, in his 'Origination of Mankind,' remarks that the body could not be reduced into that orderly frame in which it is constituted without the plastic and formative power of the soul."

GUILTEAU'S BRAIN.

SOON after the execution of the sentence passed upon Guiteau an autopsy was made in the presence of several physicians. The following notes of the examination of the brain were taken by Dr. D. S. Lamb, of Washington, who conducted the examination. The diagrams are from Ecker's "Convolutions of the Brain," an authority generally accepted by neurologists; they will assist the reader in locating most of the parts to which reference is made. It will be observed that no extraordinary departures from normal condition were observed in the tissues of cerebrum and cerebellum, nothing to warrant a specific inference of disease, and, therefore, a physical cause for

the insanity pleaded by his counsel. The conformation of the skull in the region designated by some of the witnesses in the trial as showing lack of balance or asymmetry was found to correspond with the contour of the brain. The membranes were slightly diseased, but not to an extent implying any serious effect of disturbance upon the mental integrity.

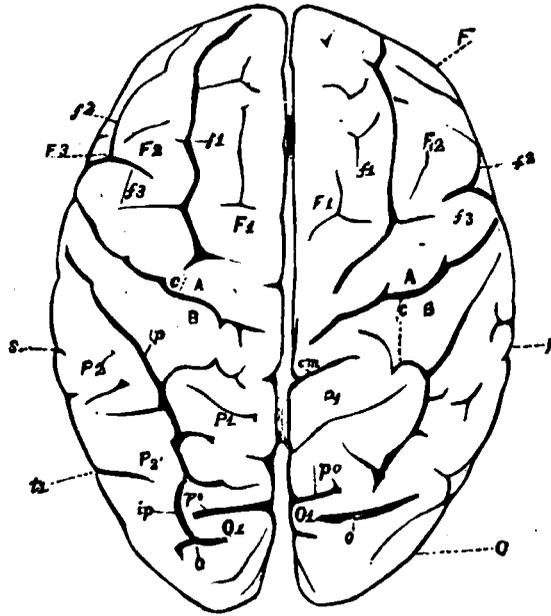
The result of the autopsy appears to be disappointing to neurologists generally, and it is claimed by some that the examination was wanting in thoroughness, "owing either to lack of opportunity or of knowledge on the part of those directly responsible." It is to be regretted that no phrenologist of ability was pres-

ent. The *New York Medical Record* thus summarizes the result :

"As to the brain itself, and its convolutions, there was a high degree of fissural ornamentation, a well-marked asymmetry of fissural arrangement on the two hemispheres, and an absence of the confluent fissural type. There was a well-marked fissural and general development of the frontal lobes. These also, we are told, had a peculiar shape. There was

terparietal; there was a slight flattened elevation on the corresponding internal surface of the calvaria. The frontal suture was obliterated; the others quite distinct. A number of Pacchionian depressions were observed near the groove for the longitudinal sinus. In thickness the skull presented nothing remarkable.

"*Membranes of the Brain.*—The dura mater was firmly adherent to the ante-



VIEW OF THE BRAIN FROM ABOVE.

F, Frontal lobe. P, Parietal lobe. O, occipital lobe. S, End of the horizontal branch of the fissure of Sylvius. c, central fissure. A, anterior central convolution. B, Posterior central convolution. F1, Upper; F2, Middle; F3, lower frontal convolution. f1, upper; f2, middle; f3, vertical frontal fissure. P1, upper; P2, lower parietal lobule. P2, also called gyrus (convolution), supramarginalis. P2', gyrus angularis. ip, Sulcus (fissure), interparietalis, cm, Sulcus calloso marginalis. po, Sulcus parieto occipitalis. ts, upper temporal fissure. O1, First occipital gyrus. o, Sulcus occipitalis transversus.

no gross evidence of disease anywhere in the brain-tissue. It is not at all likely that the microscope could have revealed anything. Under the unfortunate plan of unsystematically cutting the brain in pieces, hardly anything can be expected from the microscope now."

Dr. Lamb's notes are as follows :

"*Skull.*—The right parietal bone was slightly flattened over a space about two inches square, just back of the frontoparietal suture and to the right of the in-

terior portion of the calvaria in the vicinity of the longitudinal sinus.

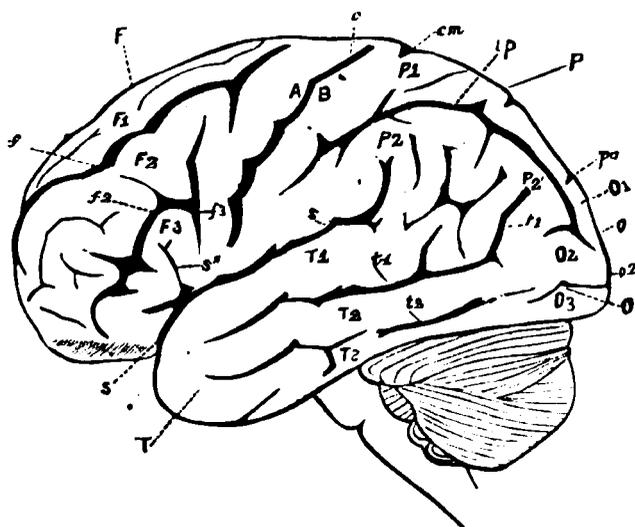
"There were adhesions of the dura also to the base of the skull; they were quite firm and situated in the several fossæ, and most marked in the deeper parts of the fossæ, where also there were small patches, abruptly limited, or immovable arborescent congestion, with, however, no attendant thickening or pigmentation; this stagnation was again most marked in the left anterior and middle fossæ.

There was no congestion of the dura except at the points just noted.

"The dura and pia mater were adherent to each other and to the brain on both sides along a limited portion of the longitudinal fissure in the vicinity of Pacchionian granulations.

"The dura was slightly thickened along the longitudinal sinus. It was also slightly thickened and opaque along a portion of the line of the middle meningeal artery on each side.

"The Brain was firm. Its weight, including the cerebrum, cerebellum, pons, and medulla, and a portion of the dura, was 49½ ounces. It was slightly flattened in the region corresponding to the flattening of the parietal bone above mentioned. On section of the cerebrum there was an appearance as of slight thinning of the gray cortex; the measurements taken, however, gave depths of $\frac{1}{8}$ to $\frac{1}{4}$ inch in close proximity to each other. The white substance was almost absolute-



VIEW OF THE BRAIN ON THE LEFT SIDE.

F, Frontal lobe. P, parietal lobe. O, occipital lobe. T, temporal lobe. S, Fissure of Sylvius. S¹, Horizontal branch. S¹¹, ascending branch. c, central Fissure. A, anterior; B, posterior central convolution. F₁, upper; F₂, middle; F₃, lower (or third) frontal convolution; f₁, upper; f₂, middle; f₃, vertical frontal fissure (or precentral). P₁, upper; P₂, lower parietal lobule. Pa¹, gyrus angularis. ip, Inter-parietal fissure. cm, end of the sulcus callosomarginalis. O₁, First; O₂, Second; O₃, third occipital convolution. po, parieto-occipital fissure. o, Sulcus occipitalis transversus. o₂, Sulcus occipitalis longitudinalis inferior. T₁, first; T₂, second; T₃, third temporal convolution. t₁, first; t₂, second temporal fissure.

"The arachnoid of the upper convexity of the brain presented in many places where it covered the sulci small patches of thickening and opacity; elsewhere it was normal.

"The pia mater was anæmic anteriorly; posteriorly there was slight hypostasis.

"The cerebral vessels appeared to be normal in all respects.

"The orbital plates were well arched, and presented many conical eminences of large size. There was no roughening anywhere of the inner surface of the skull.

ly anæmic. The cerebellum and island of Reil were both covered on each side.

"The Fissures.—The fissures generally presented a considerable depth; in many places, as in the right fissure of Rolando, amounting to $\frac{1}{4}$ inch.

"The right fissure of Sylvius was typical; the left was separated from the first temporal fissure by a slight bridge deeply situated. The right fissure of Rolando did not connect with the fissure of Sylvius; the left was separated only by a small bridge deeply situated. Both were separated from the longitudinal fissure.

"The first frontal fissure on the right side was not connected with that of Rolando, but at the posterior part was crossed by a secondary fissure. The same on the left side, except that the fissure was crossed by a small bridge near its center. The second and third frontal fissures presented nothing remarkable. There were numerous secondary fissures.

"The præcentral and retrocentral fissures, on each side, were well defined, and were unconnected with other fissures. The inter-parietal fissures, on each side, terminated in the transverse occipital, separated only by a slight bridge. The parieto-occipital was well marked on each side. The transverse occipital fissure on the right side was ill-defined; it began on the median surface and extended well outward. The first temporal fissure was well developed on the right side; on the left, was not of the usual length. Wernicke's fissure was well marked on the left side, but not confluent.

"The calloso-marginal fissure was double on each side; the upper of the two being probably the true one. On the right, the upper one extended back to the anterior margin of the paracentral lobule; on the left, not so far. The lower one extended on the right side to a line about half an inch in front of the parieto-occipital fissure, from which it was separated by a small bridge; on the left side, also, by a bridge of larger size.

"*Orbital Surface.*—On the right side were seven fissures, radiating from a circular fissure surrounding a small isolated convolution; on the left side were five fissures radiating from a small shallow depression. The left collateral fissure was well defined, extending to the anterior extremity of the temporal lobe; the right was also well marked, but did not extend so far back as the other, and there was an attempt at confluence anteriorly with the temporo-occipital, a small bridge intervening. The left temporo-occipital fissure was well defined.

"*The Convolutions.*—The following alone call for remark: The ascending frontal was well defined on each side.

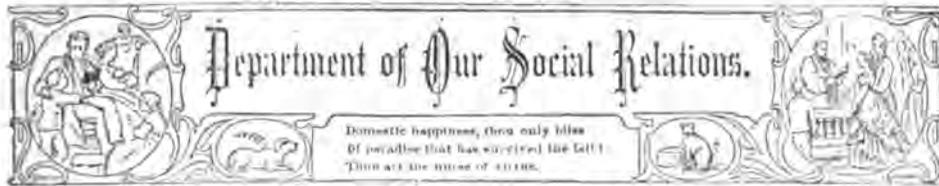
"The ascending parietal on the right

side was well developed in its lower three-fourths, but narrowed in the upper fourth. On the left side the narrowing was less marked. The island of Reil presented on the right side five fissures and six straight gyri; on the left side, seven fissures and eight straight gyri. The paracentral lobule was well marked on the right side; small on the left."

THE "LAWS" OF NATURE.—The following letter was written by the late Charles Kingsley, December 23, 1862. It contains a hint of value to many in the church to-day:

"You are a sanguine man, my dear sir, who ask me to solve for you the riddle of existence, since the days of Job and Solomon, since the days of Socrates and Buddah; the especial riddle, too, of our time, with its increased knowledge of physical science. But what I seem to know I will tell you. Knowing and believing a great deal of the advanced physical science of Darwin's school, I still can say I do not believe in the existence of Law. 'Laws of nature,' 'laws impressed,' or 'properties impressed on matter,' are to me, after careful analysis of their meaning, mere jargon. Nothing exists but Will. All physical laws and phenomena are but the manifestations of that Will—one orderly, utterly wise; utterly benevolent. In Him, 'the Father,' I can trust, in spite of the horrible things I see, in spite of the fact that my own prayers are not answered. I believe that He makes all things work together for the good of the human race, and of me, among the rest, so long as I obey His will. I believe that He will answer my prayer, not according to the letter, but according to the spirit of it; that if I desire good, I shall find good, though not the good which I longed for. And 'law' and 'necessity' I look on as phantoms of my own imagination, always ready to reappear, but always certain, likewise, to vanish again, before one sound blow of careful logic or of practical life.

"Yours, very truly, C. KINGSLEY."



WOMEN IN FLOOD AND FIRE AND FIELD.

ALL the way down from Milton's "Paradise Lost," and I know not how much longer, the popular notion regarding women seems to have been that they should be timid, shrinking, nerveless, and therefore dependent; so their clothing, their education, all their conditions of living, have been such as to foster the corresponding characteristics, while the attributes of courage, nerve, and self-reliance have been made to appear unfeminine. Why this should be so when among men,

"The bravest are the tenderest;
The loving are the daring,"

is not quite clear.

Moreover, considering that the lack of self-helpfulness on the part of women often leads to most disastrous results, there appears to be good grounds for questioning the commonly-held view of the much-discussed sex. In this article I intend to show some reasons for doubting its correctness.

Women are powerless to help themselves in case of accidents on the water. The truth of this is so nearly universal among civilized nations that the exceptions need not be noted. For illustration, let us look at a disaster which occurred on the Mississippi river not long since. Part of the head-lines announcing it in the papers were: "Appalling catastrophe on a Mississippi steamboat," "Wholesale fatality among the women and children," "A gallant engineer dies at his post."

The books of the boat were lost, so a perfectly accurate list of the dead could not be made out, but, as far as known, twenty-seven were lost. Of these, thirteen were women and six children, leaving eight as the number of men who were not saved. Then come the "saved," and

in all that long list, seventy-eight, there are only three women and seven children.

To summarize: Out of a boat load of one hundred and five persons—seventy-six men, sixteen women, and thirteen children—eight men, thirteen women, and six children are lost. Think of the proportions!

Of these men one at least was not lost because of inability to save himself, for the account says, "Kelly (the second engineer) could easily have saved himself, but he stood to his engine until the boat had been landed, and then it was too late to escape. One of the crew saw him for an instant as he stood at his post of duty with the fierce flames burning all around him. His form 'seemed a mass of fire,' said the man, 'as he sank down, never to rise again.' His death was a truly heroic one, as he sacrificed himself at his post of duty to give others a chance of life."

Among the other lost men were two whose wives were lost with them, from which we may safely infer that these, as well as the engineer, perished in an effort to save others; thus leaving only five out of the eight who can be supposed to have been lost because they could not save themselves. Knowing what is expected of men under such circumstances, may we not conclude that these also were destroyed in attempting to rescue helpless women and children?

Now, what of the three women who were saved? Two were with their husbands, and the third was rescued by a boy of seventeen, as the following account shows: "Wm. McKinley, a youth of seventeen, was in state-room No. 23. His grandmother, Mrs. Percival, and his aunt, Miss Matsin, were in No. 17. When he heard the cry of 'fire,' he rushed back

through the cabin, and, opening their room, found them both up. Grasping his aunt by the arm, he pulled her along down the cabin. . . . Knowing the safety of all depended on their reaching the bow of the boat, he dragged his aunt through the flames. . . . He had barely time to get down-stairs with his aunt and was compelled to jump with her to the coal barge as the burning boat floated away." So we see that not one woman saved herself.

"Felix Lehman . . . was awakened by the bursting of his state-room door, and he heard the cry of fire. Seizing his clothes, he ran forward and reached the barge just in time, as the next minute the vessel floated down the stream." Had this man been as modest as the heroine of "Paul and Virginia," doubtless one more man would have been numbered with "the dead," instead of with "the saved."

I have been thus particular in giving these accounts in order to emphasize the utter helplessness of women in accidents on the water. We might conclude from this pitiful story—and if we take the trouble to look we can find many another like it—that a boat load of women would all be lost if their boat should upset or take fire on a river; while a boat load of men would nearly all be saved.

Elizabeth Stuart Phelps, in allusion to this subject, quotes the saying of a looker-on when the survivors from the wreck of the steamer *Atlantic* went by: "My God! not a woman among them all." Of another shipwreck it was said, "Every effort was made to assist the women up the masts and into places of safety till help arrived, but they could not climb, and we were forced to leave them to their fate."

A party of nine were sailing on a small body of water when a sudden squall nearly upset the boat. One of the young ladies began to wring her hands frantically and (in her fear forgetting her grammar) exclaim repeatedly, "Four men and five women, and me not saved!" "Four men and five women, and me not saved!"

Fortunately the boat did not capsize, but what did the girl mean? She meant that in the water a man was expected to be good for himself and another one, while a woman was good for nothing. Each woman there would depend on a man to save himself and her.

If the facts relating to all the sad and terrible scenes enacted at shipwrecks were made known, no doubt it would appear that thousands of brave men have lost their lives in the attempt to save women, whom nature has provided with as good facilities for saving themselves as it has those to whom they ignobly cling with fatal dependence. What is the reason of this? Is it not something for women to be ashamed of? Suppose an equal number of male and female cattle, sheep, hogs, or any other animal but the human, were pitched into the water: would there be any such inequality? Under ordinary conditions should we not expect to find as many of one sex as the other gain the shore? Then is it fair to claim that the sex of women causes their inability to help themselves in the water since the sex of other animals produces no such result? Why can not women swim and climb and jump and run?

Having considered women as related to perils by water, let us for a moment consider them in the fire. Has a woman as good a chance of safety in a burning building as a man has, even supposing her to have as steady a nerve and as well-trained muscle, which is not probable? Think of a person running through a hall and down a stairway where the tongues of flame reach greedily out to lick up their terror-stricken victims: which style of clothing would such a person be safer in—that worn by men or that worn by women?

A little while ago, about four miles from where I live, a woman died after ten days of excruciating agony, leaving four little children. Her dress caught fire from the grate of the cook stove, and the house took fire from the dress, and the little children were scarcely saved. There are many instances, recorded and unre-

corded, in which a woman's dress-skirt has been drawn into the fire of an open grate.

Coming to the field, we may not find anything so plainly and directly disastrous liable to happen to women as we have seen in flood and fire; though a woman pursued by a mad bull or "a she-bear bereft of her whelps," does not stand as good a chance of escape as a man does, especially if her way lie through briers and thorns and over a fence. But on account of their dress many a mile of health-giving ramble is lost to women. Or, if the exercise is taken, it changes over from health-giving to disease-promoting, because of the fatigue induced by hindering, burdensome, and otherwise unhealthful clothing. Persons who set themselves for the first time to thinking seriously of the manifold ways in which women are injured and fettered by their clothing, will be amazed that they have been so long thoughtless on the subject.

In Florida the law compels ten-rail fences. Fences are more plentiful than roads, so that often, to reach a given point a great distance can be saved by going through the fields, which necessitates climbing the fences. I once saw a lady and her male companion walk half a mile—more or less—around one of those fences because she "could not adjust her dress to get over that fence."

That may seem a trifling matter, but it is a fair example of a woman's disadvantages under present conditions. It is a trifle compared with the fact that many a precious life is lost in marine disasters because women have been so dressed and are so dressed that they have never learned and can not have the free use of their limbs. The locomotive organs of men and women are operated on the same principles, and were it not for the prevailing ideas of what is womanly in dress and conduct, there is no reason why, in any emergency, those of the woman should not stand her in as good stead as those of the man. Science and conscience ought to be summoned in council and show us some better way. Were this

a matter of propriety or convenience simply, it might be well to let it alone, but when it is shown to be a matter of life and death, ought we to regard it indifferently?

It has often been said that a long-established custom traced to its origin will be found to have good reasons for existing. Whether this be true or not its acceptance has often been influential in preserving many customs for which no present excuse can be found. We are often told that this utter dependence of women on men always did and always will exist, but there are many who refuse to believe either one of these statements. It is one thing to assume that a thing "always has been," and another to prove it. Proving that it "always has been" does not prove that it always will be.

When I was a little girl my home was a mile from the village, and half of the way, to shorten the distance, we went "across lots." The path we trod was a very crooked one. When I first walked it I wondered at its windings and turnings. After I grew older and learned that a straight line is the shortest distance between two points, I wondered still more that so crooked a path should have been marked out. As the years went on and I saw a rock or a stump or a tree removed from beside crooks in the path and still the crookedness remain long after its original cause had ceased to exist, I realized that the other crooks in the path had also been made to avoid contact with some obstacle which had disappeared before I trod the crooked path. And when we struck out a new path one spring by walking around an unusually obdurate snowbank which lay across the old one, I saw that so short-lived a thing as a pile of snow might determine for many years the way in which people would walk who came to where it had lain.

And many a custom grown gray with years, so old that its age is forgotten, has, on investigation, been shown to have begun in some mere accident—the caprice or tyranny, or selfishness or lust of some person influential at the time of its ori-

gin. Let us trace to its source this helplessness of women in times where help is sorely needed, and see if there are not among our customs many that have no right to existence in this day and generation. Perhaps we shall find that even if at their origin they had justification, that

passed away long ago, and the customs only remain because of thoughtless, inert prejudice. If we *are* walking in devious ways for whose twistings and turnings there remains now no excuse, let us set to work to make straight paths for our feet.

CELIA B. WHITEHEAD.

“HER LITTLE BEAU.”

IF more thought were given to cause and less to effect, certain reforms which the philanthropists of the world are anxious to bring about would come more speedily. In fact, by this reversion of the common process, there would cease to be any results to correct. If the fountain-head be pure, there can surely be no necessity for purifying the streams which flow from it.

Marriage is universally considered in our present state of civilization, the most important matter in life. Love may be “to man, a thing apart,” and “woman’s whole existence,” but the fact remains that upon marriage is founded the permanent happiness or misery of each man and woman who enters that state.

If this be so—and no one who takes an impartial and intelligent survey of existing social conditions can deny the fact—it certainly follows that of all the matters upon which human sense and foresight is to be exercised, not one should exact more than this. All facts, observation, and experience proving this theory to be a perfectly sound one, what do we find to be the common social practice?

The kindest mothers, with a lack of consideration and common sense in exact proportion to their kindness, do their children the greatest harm in apparently the most innocent ways by the false and silly notions early put into their young heads. “He’s your little beau!” the mother simpers to her daughter, of the eight-year-old youngster who draws her on his sled to school, or singles her out as his companion in any game. “She’s your little sweetheart,” she remarks with a smirk to her son who shows an affection

for some little girl in the neighborhood, or a desire to do her some little service.

In consequence of this soft of suggestion, all natural companionship—that sweet unconsciousness of self and sex which should distinguish the boy and girl period of life, at least—is blighted at the outset by the addition of an artificial element which rapidly degrades and destroys it. The girl no longer looks upon the boy simply as her companion and playmate. He is invested with a certain mysterious quality which draws a distinct boundary line between them, something she can not discern and still less define, yet tangible enough to convert the little boy into the little beau, and thereby change the entire relation. The boy on his part becomes even more mystified. He can not so readily adjust himself to the new order of things. Sentimentality is with him less readily developed, even under the most favorable conditions. Generally this state of things proves to him awkward and uncomfortable. He is easily teased about it, and often, as a result, turns from the society of his girl friends to those of his own sex, with whom he can at least be himself, free and natural in all his associations. Such an effect is to be deplored, for separation is a loss to both of them.

With the girl, this same hint, suggestion, consciousness, is kept up without intermission through the following years. Life is made synonymous with love—not in the exalted sense in which it is and always must be so—but only so far as love is synonymous with matrimony and matrimony synonymous with wealth, position, leisure, and independence. The boy

is early released from this bondage to social custom. He releases himself, in fact. Before the desire for a mate and a home gives him an incentive for labor and self-denial he develops a hundred ambitions in different directions, and for years leads an existence as free from all purpose of marriage as if no such institution existed. But every new male acquaintance of the girl is looked upon as a possible husband. His personal appearance, his business and his prospects, his relatives, his social influence and connections, are considered with an idea of their desirability in a matrimonial alliance. It is not alone the young girl who so speculates upon them. Her friends and relatives, in a flutter of curiosity and anticipation, are quite as ready and eager to canvass the same matter.

As the years go on and the young woman is so unfortunate as to reach the advanced age of twenty-five—to "turn the first corner," in the elegant and expressive metaphor of the day—still unmarried, the fact is a cause for constant remark and unconcealed regret. On that point, society seems to be unanimous in opinion. It is interesting to speculate how many mothers feel in their secret hearts what one—a leader in society, and considered a woman of more than ordinary intelligence—was frank enough to say openly, "I am sure I would rather my daughter would marry miserably than not to marry at all. It's so much less disgraceful!"

With the theories universally held on this subject, who can wonder that so many daughters do marry miserably? that the precept so much inculcated, a husband at all hazards, should make them willing to run enormous risks in this all-important business of life? Surely, the connection between cause and effect can never be more easily traced than in this matter. But not now, any more than in the historic ages of the world, do men gather grapes of thorns. As a man soweth so shall he reap. Our newspapers are filled with stories, infinite in their variations, yet all upon the same theme and in the same keynote of matrimonial de-

ception, cruelty, desertion. Our courts, from highest to lowest, are kept busy in regulating these evils, in deciding how much abuse or torture husbands and wives must legally endure from each other and under what circumstances they are at liberty to go their several ways. Our land is filled with broken hearts and broken homes—to say nothing of the broken heads which occasionally precede both of them—miserable men, wretched women, neglected children, who, from our human standpoint, might better never have been born than come into the world as the fruit of such unions, these are the inevitable and infinite results—not wholly, it is true, but very largely—of the pernicious doctrine: "Get everything you can, but with all thy getting, get a husband; a rich one if possible, but some kind of a one, at any rate."

It is a common notion, and one the wisdom of which is verified by experience, that the best way in which to keep a child out of mischief is to give him something to do. Just so long as girls are educated to believe that marriage is the only aim of a woman's life, and that failing of marriage, life has nothing left of occupation, interest, usefulness, or success, just so long will mistake and misery lie in wait for them. It is a logical sequence. Educate them to the true value and significance of life; to the belief that marriage can bring happiness only when it is the result, first, of respect, and then of the love which hopeth, believeth, and endureth all things; then perhaps this great problem will solve itself. So much at least will be gained that women will not feel compelled to marry to satisfy public opinion or for the sake of the home and support they are amply able to provide for themselves. Even an optimist would feel compelled to admit in view of existing social conditions that things could not be much worse. For the sake then of possible and probable improvement, it would seem the part of wisdom to bring about some change in this direction as speedily as possible, even to the extent of sacrificing "her little beau."

CAROLINE B. LEROW.

"THE CHEROKEE ROSE."

["Many moons ago," says an old Indian legend, "a young Seminole chief was captured by the hereditary foes of his tribe, the Cherokees, and condemned to die by torture at the stake. The night before his intended immolation a youthful maiden of the latter tribe, moved by love for the warrior's manly beauty and unflinching fortitude, stealthily loosed the cords that bound him, and bade him be free. The warrior, however, refused to escape, unless his lovely liberator would consent to fly with him and become his wife. This she assented to; but after they had gone some distance from her home she besought him to allow her to return, and bear away with her some memento of the loved ones she was leaving forever. So, retracing her footsteps, she returned with the flowering branch of a white rose, which she had plucked from the spot where it grew beside her father's tent. This branch she preserved, and planted it by the door of her new home in the land of the Seminoles. And from that day, says tradition, this beautiful flower has always been known in Florida and throughout the Southern States, by the name of 'the Cherokee rose.'"]

SHE severed his bonds, and she whispered low,
 "My warrior, thou art free.
 We will fly, my brave; and with thee I'll go,
 From the land of the Cherokee;
 I will leave the tents of my tribe behind,
 And the realms that my fathers sway,
 To follow my love, like the trusting hind,
 To the South-land far away."

Then they silently stole through the forest dim,
 'Neath the shade of the summer's night,
 While the whippoorwill sung his eerie hymn,
 And the silent stars gleamed bright;
 But when the flush from the dawn's young face
 Came over the eastern hill,
 Her thought looked back to her native place,
 And the hearts that loved her still.

"Oh! warrior love! thy heart is high,
 And thy proud eye scorns to weep;
 But a maiden's heart was made to sigh,
 And her love of home is deep;
 And, yonder, I leave my girlhood's home,
 'Tis there my dear ones rest;
 They will miss their bird, while her wing doth
 roam
 So far from her early nest.

"My sire is there—the white-haired chief;
 There, too, my mother mild;
 Their hearts will shrink, like the withered leaf,
 For their loved and vanished child;
 Then let me go, my warrior, back,
 To gather one pale, white rose,
 And bear it away, on my far-off track,
 To the land of my kindred's foes.

"I know that thy bow can strike the game
 To feast thy chosen bride,
 That thy strong right arm will guard my fame,
 In the life-path by thy side;
 I shall nestle close, like the turtledove,
 In the shelter of Love's green tree;
 But the tender days of my childhood's love
 Can never come back to me.

"I have left my all, for the love of thee;
 Then grant me this sole request,
 To gather one rose to bear with me
 From my childhood's tender nest;
 It will talk to my heart of the days gone by,
 And tell of a mother's care,
 And I'll dream that my loved ones still are nigh,
 When its white leaves greet me fair."

So, she gathered that rose from her father's tent,
 And gilded away once more,
 And they never knew where their loved one went,
 Whom their captive from them bore;
 But she plucked the rose by her warrior's cot,
 And it grew and budded there,
 When the name of the maiden was long forgot
 Whose love had borne it there.

For many a moon hath passed and gone,
 And many a summer's glow,
 Since that rose first shed its petals wan
 O'er her grave, in the long ago;
 But still, in the "land of flowers" bright,
 Where the tribes have ceased to be,
 That flower of love blooms pure and white,
 The rose of the Cherokee.

The race of the red man hath faded long
 From the still Floridian shades,
 And hushed is the dark-browed maiden's song,
 'Mid the silent Everglades;
 But still that delicate flower grows
 Their unknown graves above,
 And an emblem pure is the pale, white rose,
 Of the Indian maiden's love.

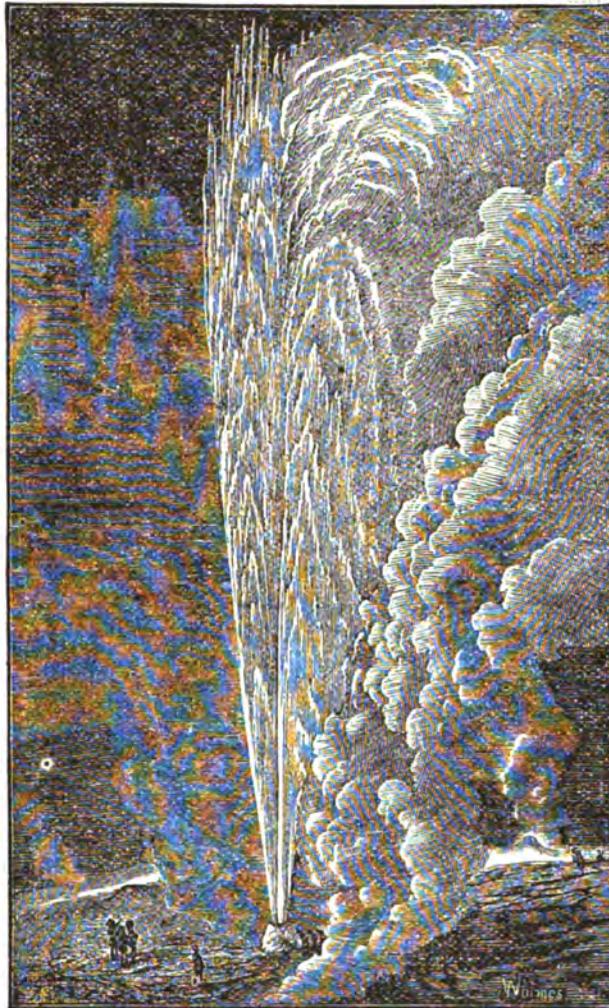
B. FRANK TAYLOR.

A REMARKABLE GEYSER.

IN a work recently published by Prof. Joseph LeConte, on geology, he describes a geyser which far exceeds in grandeur the natural fountains of Iceland. He says: "This wonderful geyser region is sit-

uated in the northwest corner of Wyoming on an elevated volcanic plateau near the headwaters of the Madison river, a tributary of the Missouri, and of the Snake river, a tributary of the Columbia. The basin is only about three miles wide. About it are abundant evidences of pro-

digious volcanic activity, secondary volcanic phenomena being developed on a stupendous scale, and of every kind, viz: Hot springs, carbonated springs, fumaroles, mud-volcanoes and geysers. In



uated in the northwest corner of Wyoming on an elevated volcanic plateau near the headwaters of the Madison river, a tributary of the Missouri, and of the Snake river, a tributary of the Columbia. The basin is only about three miles wide. About it are abundant evidences of pro-

this vicinity are more than 10,000 vents of all kinds. In some places, as on Gardner's river, the hot springs are mostly lime-depositing, and in others, as on Firehole river, they are geysers depositing silica.

"In the upper geyser basin, the valley is

covered with a snowy deposit from the hot geyser waters. The surface of the mound-like, chimney-like, and hive-like elevations, immediately surrounding the vents, is, in some cases, ornamented in the most exquisite manner by deposits of the same, in the form of scalloped embroidery set with pearly tubercles; in others, the silicious deposits take the most fantastic forms. In some places the silica is deposited in large quantities,

three or four inches deep, in a gelatinous condition, like starch paste. Trunks and branches of trees immersed in these waters are speedily petrified."

The engraving is taken from Prof. Le-Conte's book. It represents the Beehive, so called from the shape of its mound. This geyser shoots up a splendid column, two or three feet in diameter, and to the height by measurement of 219 feet, and plays 15 minutes each time.

POETRY AND POETS.

THE ancient and superstitious notions that poetic genius or a genius for poetry was something superadded to the human mind, in rare and particular instances—that poets were endowed with some faculty that distinguished them from common mortals, and that poetry was incapable of any form of expression other than the literary form—that the inkstand was the sole fountain of poetic inspiration, the pen the sole conductor of the *divine afflatus*, and the written page its sole repository, have long since given place to more rational ideas. We are all poets nowadays, the difference, in this respect, between one person and another being one of degree rather than of kind, and poets, so styled, are endowed with no faculty or faculties different in kind from those of other people—poets *not* so styled—yet poets all, since all possess in some degree of development the same kind and number of faculties that any one does. The recognition of painting and sculpture as branches of the poetic art, however, is about as far as the world in general has gone in this direction, while poetic sentiment, feeling, and genuine poetic art have steadily advanced until they have pervaded and possessed every department of human interest and even of practical enterprise. So insatiable has the desire for harmony, beauty, become that every instrument, even of the humblest utility, must have the sign and symbol of some kind or degree of poetic sentiment inscribed or wrought upon it or it

can not find a market. No person, however unpoetic he might consider himself, would accept as a stove a plain box of iron, which would answer every practical purpose of a stove just as well as one of a more ornate pattern and graceful design. The lady who does not read poetry doesn't like it, and thinks herself devoid of poetic feeling or sentiment, ten chances to one can take an ugly wooden frame and, by her constructive skill, taste, and perception of harmony in color and form, upholster it and transform it into an elegant and inviting couch fit for the gods to recline on, and so prove herself as true a poet—perhaps a truer in her sphere—as she who wrote the translation of Mozart's Requiem. For what is poetry but the perception and feeling of beauty and harmony, and what is poetic art but the power and skill to give it expression—whether with tongue or pen or with any other tool? For two things the world was made—for use and for beauty, and somewhere within the circumference of that word, beauty, lies all the meaning and all the applications of the word poetry, and true proportions and just relations of use to beauty, and beauty to use, make harmony. Poe was not a harmonious character on the whole, yet a real poet—one of wonderful power and wealth of imagination. His case is a good illustration that the poetic element is but one element in a harmonious character, and that when in great excess it may cause great inharmony in the life of

the individual. His world-famed poem, "The Raven," is, perhaps, the plainest and worst case of deviation from true poetic harmony to be found in the sphere of pen-written poetry. It has much beauty, but absolutely no use; and beauty without use is frivolous and vain, just as use without beauty is hideous and bald. And beauty is not "its own excuse for being"—the sage of Concord to the contrary notwithstanding—at least not its *sole* excuse, neither in the literature of poetry or elsewhere. There, as everywhere, it has another excuse or reason for being—its relation to use. A mountain of naked rock is a thing of itself hideous, though all compact of use, covered with verdure, in sun or shade it is changed and glorified. So the beauty of the living shrub and vine has itself to show and the baldness of the mountain to hide—its own and another's excuse for being. Nevertheless, the Emersonian theory of the independence of beauty is, consciously or unconsciously, adopted by the majority of poets. One notable exception, at least, is to be found among American verse writers. I know not whether he has ever given the subject a moment's special thought, yet his writings everywhere furnish illustrations of a grave, not to say severe, subordination of the element of beauty to its just relations to use in poetic composition; and he himself has correctly stated one side of the question of the true scope of ornamentation in literature as follows:

"The graven flower makes not the blade less strong."
—WHITTIER.

He might have told us that the blade, which is a form of use, is one-half the flower's excuse for being a form of beauty, and that, graven too oft, and too deep, ruins alike the sword and the song. A less consummate artist than the author of "Evangeline," the Quaker bard is, in the highest sense of the term, the truest poet of the age—not merely that he possesses a juster sense of the proportions of the various elements that enter into poetic composition than many others, but

that in all his work there is seen a higher sense—that of the grave responsibility of his office. To make the good and the true beautiful also, is surely a better and truer conception of the purpose of poetic art than that which so many poets are possessed of—the vain-glorious desire of saying something handsome, and art, a means to that end. Of all modern poets Whittier alone deserves to rank with the great bards of antiquity. The unknown author of that incomparable poem and undoubtedly the most marvelous production of all ages, the Book of Job, was not inspired with a more serious and sublime purpose than he. The wrathful lightning of Isaiah's pen was not more terrible upon the enslavers of his people, nor his pity for the enslaved more tender and true, than the hatred of human slavery and sympathy for the wronged and oppressed everywhere, as expressed in the verse of his one true successor in the cause of human freedom and human rights. It is this consecration of his genius to the welfare of his fellow-men, this dedication of his divine art to human weal that makes and marks Whittier the truest poet of the age. Slowly but surely we are coming to realize that the one true standard of greatness and goodness is the amount and kind of work a man does for his fellow-man. With the exception of Byron, the most pitiful case of utter failure to lift and inspire his readers to higher levels and with loftier ideals of human life and conduct on the part of any professor of the art beautiful whose record I am familiar with, is that of the author of "The Raven." I speak of Poe as the author of "The Raven," because that is the one sole production of his pen by which he will be remembered for any great length of time. Poe was maddened and consumed by the heat of his own imagination. The universe throbbed and beat like a vast and many-voiced drum on his morbidly sensitive hearing. The inner world was a constant tintinnabulation of mingled and mysterious sound, and he was crazed with the desire to catch and reduce it to a form tangible and audi-

ble to others. In his hours of silent meditation no man ever plunged deeper into the abysses of gloomy imagination, and none ever wandered so far and so lone, away from the healthful light of the outer world, lost and entranced in the caverns and aisles of the inner world, from whence he came forth, haggard, wretched, and despairing, that he could not reproduce the visions and the voices of that enchanted and resplendent palace of the soul—his own imagination. Nothing was more natural or necessary than that he should "quaff some kind," though coarser, "nepenthe" on such occasions. So the poet drank and died a drunkard. What says the physiologist to such a case as this? Was he not the victim of a too highly-wrought and over-sensitive organization rather than a willful wrong-doer? Such meaningless and marvelous music as his poetic productions are, never came from any but a distempered mind, yet some parts of Poe's intellectual organization were pre-eminently sound; a clearer-sighted or more sagacious critic the poetic fraternity of this country never produced. I doubt if any one of them ever thought of Bryant's "O Fairest of the Rural Maids"—that short and simple piece—as "the truest poem written by Bryant," until Poe made the statement, and I doubt if any one of them doubted its correctness after it was made. So eminent a poet as William Cullen Bryant must have written quite a goodly number of "true poems" in his time—beginning with "Thanatopsis" at the age of eighteen, and continuing to write poetry until past eighty. And if the poem which Poe said was the truest he ever wrote, is really so, it must be a remarkably truthful production. It might be interesting and worth the while for any lover of true poetry, and particularly so if a special admirer of Bryant's work, to read "The Rural Maids," and see if his judgment confirms the critics. If so, the instance might serve to give a clearer insight as to the intrinsic qualities of poetic composition forever after, and serve as a basis for future judgments and comparisons as

well. The first stanza, which runs as follows:

"O, fairest of the rural maids—
Thy birth was in the forest shades—
Green boughs and glimpses of the sky
Were all that met thy infant eye,"

is not poetry at all, only a rhymed prelude thereto. It might have been as true and as significant of a pig or a puppy as of a rural maid. The poetry comes in afterward; here, for instance:

"Thy step is as the wind that weaves
Its playful way among the leaves,
And all the beauty of the place
Is in thy heart and on thy face."

And nothing in the English language, I think, could be more crystal-like in its clearness, or more naturally and simply beautiful than:

"Thine eyes are springs, in whose serene
And silent waters heaven is seen;
Their lashes are the herbs that look
On their young figures in the brook."

If these are selections from the truest poem written by one of America's most distinguished poets, then the youth of America have the study of the qualities of the truest of much true poetry always at command. Yet if any one is disposed to cavil at the judgment of one of the most acute critics that ever lived, let him take a kindred topic, slightly easier to handle if he chooses, and see what can be made of it. Take, for instance, "The Fattest of the Rural Pigs," or, "The Sleekest of the Rural Pups"—one that curls his tail and fiddles jigs after the manner of the one of nursery-rhyme celebrity, or that barks at the calves and licks the cups. Burns could make a good poem on "Twa Dogs," and surely almost any one who thinks "The Rural Maids" a simple thing, could make a tolerably fair one on one, with a pig for choice, if preferred. If this is the truest of all the poetry written by a poet who wrote long and much, and through it all "uttered nothing base," it would seem that it ought to be tolerably easy to find out, with the example before us, just what constitutes true poetry, and how infallibly to distinguish

the true from the false in this department of literature. You step to a clear spring and see your face and form clearly reflected in its crystal depths; and you know whether it is a true or a false reflection. Yet, although you are familiar with the terms refraction and reflection, and know all about light and shade, there is something mysterious still about it. You see the subject of this poem as you see your face in the spring—moving with it, mingling with it, a part of it—and not, as most artists would have pictured the maid, a separate object with a distinct and separate surrounding like the frame of a picture. She is the spirit of the whole scene, or the embodiment of the spirit of the place. The conception is extremely subtle; its execution equally so. No part of the picture is sharply outlined, but all parts blend like light and shade.

"The light shade of the trees and rocks
Is on thy brow and in thy locks."

While this little poem consists principally of a few simple comparisons, they are so close, so exact, and clear that, like your face in the spring, they cease to be mere comparisons and become *reflections*. Let some artist paint a human figure with light lying not on it, but shining through it and blending with it in such a way that the light shall appear to resolve itself into a human figure, or the human figure to have resolved itself into light, so that you can not tell which, and he will have accomplished a piece of work analogous to the poet's in his picture of "The Rural Maids." One largely prevalent notion of opinion is that poetry flourishes best in a barbarous or semi-barbarous state of society; that the infancy of a civilization is its most favorable period for the development of its poetic genius, and that as civilization advances the muse of song, as though she could not bear the light of day, skulks into obscurity and lapses into silence. This opinion is, of course, founded on the fact that all or most of the great masterpieces of poetic composition have been produced away back in the morning twilight of the world's civiliza-

tions, and on that conception of poetry which limits its expression to a single form—the literary form. But there is another, or other, aspects of the subject which make it appear that the poetic sentiment is founded on certain innate faculties of the human mind and which are common to all in some degree of development, and that what it lacks of expression in the form of literature, it will supply and does supply through other forms. The development of the practical arts and sciences, so far from diminishing poetic sentiment, minister to and encourage its growth. Through their agency the day is not far distant when iron may become more fluid than ink, and a more universal exponent of poetic fancy, for poetry need not be written, it may be wrought. When Mrs. Browning, the poet, wrote in her "Song for the Ragged Schools" of London—

"Put a thought beneath their rags,
To ennoble the heart's struggle,"

the world applauded it as a wise and beautiful thought, and called it poetry. But when Elias Howe, the inventor, said, "Put a thing beneath their roofs to lighten the burden of the common lot," the world called it, when done, a patent right. Yet his was essentially the same wise and beautiful thought as hers; only the one was written in ink and the other wrought in iron; and the world must see it in black and white before it will acknowledge it to be poetry. But which was the truer poet of the two, if there was any difference, she who only wrote the wise and beautiful thought, or he who wrought it? There was a world of pathos in Hood's "Song of the Shirt." There is a world of promise and prophecy in Howe's "Song of the Sewing Machine." It sings of emancipation as rhythmically as the other of slavery. Machine poetry and the poetry of machinery are quite different articles, and there is no need of confounding them. Who that hopes for that great new day for humankind, when all slavish and compulsory toil for bread shall end, when the mills of necessity

shall cease to grind men's bones into bread, while their wheels are run by human blood, when time and opportunity shall be given for souls to live as well as bodies—who that thus hopes and believes but invests the many beautiful and wonderful inventions and appliances for maintaining life at a less expense of time and toil than was ever possible heretofore—with a halo of romantic, poetic, and prophetic light that turns them into the good genii who shall multiply thicker and faster, until they shall do all the bidding of men, their lords and masters, and men shall be easy masters of all the yet hard conditions of life. The submarine cable is the Iliad of the nineteenth century—greater, grander than the old Greeks—and the trans-continental railway shall yet make the prairies of the West another "Paradise Regained." There is something more than power in the locomotive, something more than speed in the telegraph. They are moral and spiritual agencies, types of the swifter and closer on-coming of the better day. You see in the one the symbol of the brute forces of human nature subjected to the God-like in man, and not the symbol merely, but the thing itself that is symbolized. In the other you hear the hum of spirit voices—swift intelligences that flash from sea to sea, and from shore to shore. If it is poetry when Shakespeare describes Prospero sending Ariel, the spirit, through the air to the sea to stir up a "Tempest" that shall wreck a ship, what is it when Prosperos sit in their rooms all along the highways of traffic and travel, and, by a touch of the finger, foretell the coming of the tempest from the west to the east, and save ships from wreck?

If the ancient prophets who foresaw the glories of a great and complex civilization like ours, and beyond were poets, what are they who act the drama they wrote—we, who are doing what they dreamed? You can not confine poetry to paper; you can not separate that innate principle from any form of human enterprise, any more than you can separate the grain from the wood, or bleach

the color from the clouds, or take the sublimity out of Niagara. Nature blends the beautiful or the sublime with all her work; and so does man with all of his. Whenever, wherever, and however the bleakness, bareness, and baldness of use is offset, clothed and garmented with beauty, then, there, and in that manner the office and mission of poetry is seen and performed. And with whomsoever the beautiful is an abiding presence, the same is a poet forevermore.

IF HE CAN, WHY NOT SHE?—A man said to me the other day, "This is a very good work for the women to be engaged in, but it's poor business for the Governor of a State." I replied: "My dear sir, I wish you could stay at home and bend, like your wife, over the wash-tub, nurse the babies, darn the socks, and attend to the duties of the house, and everything else of that character which tends to wear out the physical strength of women, while your wife could loaf for a while around some grog-shop; you would then be a 'fanatic' yourself upon this question." If there is one of you here to-night who should catch your wife loafing around a saloon, you would apply for a divorce inside of twenty-four hours; you would think, if she were guilty of so infamous a thing, she would be unworthy such a specimen of manhood as yourself; and yet for all this you can linger about these places week after week.

GOV. ST. JOHN.

MEN WITHOUT OCCUPATION.—The man who has nothing to do is the most miserable of beings. No matter how much wealth a man possesses, he can not be happy without occupation. We were born to labor, and the world is our vineyard. In occupation we forget our cares, trials, and sorrows. If we have enough for ourselves, we can labor for the good of others; one of the most delightful duties a man or woman can possibly engage in.



ARE HOUSE-PLANTS UNHEALTHFUL?

THE effect of house-plants on health has been the subject of much discussion lately, some writers of eminence taking the ground that it is injurious, while others stoutly maintain it to be beneficial. Dr. J. M. Anders, of Philadelphia, has been investigating the matter and published a paper containing the results of his observations, from which we take the following:

"Three of the chief functions in plant life are the absorption of carbonic acid, the exhalation of oxygen, and the generation of ozone. Now, it has been conclusively shown that variations in the amount of these gases from the presence of any number of plants have no appreciable effect on the air of an apartment, the absorption and exhalation of these substances being carried on too slowly either to improve or to vitiate the air.

"There is, however, yet another process in plants, which in this connection is of far greater importance, viz., that of *transpiration*. By this term is meant the exhalation of moisture by the leaves. In order to convey some notion of the great activity of this function, it might be stated that at the above rate the Washington elm, at Cambridge, Massachusetts, with its two hundred thousand square feet of leaf surface, would give off seven and three-quarter tons of water in twelve hours. In the twenty-four hours an indoor plant will transpire more than half as much as one in the open air. It would

appear to follow naturally from these facts that growing plants would be capable of raising the proportion of aqueous vapor of the air of closed apartments. And this was conclusively shown by experiments in the Episcopal Hospital.

"During the summer months, when the windows are thrown widely open and the doors kept ajar, the influence of transpiration is quite inconsiderable; on the other hand, when the interchange of air is not too rapid, a sufficient number of plants, well watered, have the effect of increasing the amount of moisture to a considerable extent. This point, as will be presently seen, is of special importance where houses are heated by dry-air furnaces.

"Although science can not readily determine the exact relative humidity most conducive to health, still, according to the best authorities on the subject, it is considered that about seven-eighths of what the air will contain at a given temperature is the proper standard. By repeated testing the writer has recently found that the degree of humidity is generally below that standard in this latitude. It was also found that air warmed by an open fireplace, or air heated by steam, gave a complement of the dew-point from two to four degrees Fahrenheit greater than the external air, and in the case of rooms heated by a dry-air furnace the complement was from five to seven degrees greater at the same temperature.

From this exhibit it will be seen that the atmosphere of a room warmed by dry air contains far too little moisture to be healthful. The peculiar effects of dry air on human beings are well known to the progressive practitioner.

"It is true that in special states of the system—*e.g.*, in chronic rheumatism—dry heat is beneficial; but this is no argument against the benefit ordinarily derived from a proper amount of moisture in the atmosphere. On the other hand, if the presence of a certain number of thrifty plants in an occupied room warmed by dry air would have the effect of raising the relative humidity to the extent indicated, it is clear that we possess in them one of the readiest means of obviating these evil consequences. In all instances, then, in which artificial heat is used, but particularly in the case of dry air, as that furnished by furnaces, plants become, under proper regulations, hygienic agents of special value.

"Of course it is chiefly in diseases of a chronic nature, and particularly those affecting the lungs and air-passages, that we should expect to derive good results from such a measure as stocking the sick-room with growing plants, for it is in such cases that dry heat does the most harm. House-plants have, however, a sphere of usefulness which is independent of atmospheric humidity. In nervous disorders of the functional class, such as melancholia and chlorosis, in diseases of the mind proper, and in other allied conditions (excessive grief, ennui, etc.), where it is necessary to divert the mind or relieve tension, nothing is more efficient than the pleasing occupation of studying and caring for plants.

"But it is in that sweeping disease, phthisis, that plants offer the best hope of success as therapeutic agents. The importance of this point demands that it should receive careful attention.

"On this subject, my friend, Dr. Hiram Corson, of Conshohocken, Pennsylvania, writes: 'My mother, her two sisters, and only brother all died of consumption under fifty years of age. All the children

of my mother's sisters and brother, though they lived to a good age and enjoyed good health, finally died of consumption. On my father's side there was not a taint of any disease, but great strength and vigor. Three of my brothers, active, energetic men until within a few years of their death, died of consumption at the ages of fifty-five, fifty-seven, and seventy-eight respectively; and a sister died of the same disease at sixty-six. I mention these cases to show that the germs of the disease were with the family. Thirty years ago, my eldest sister, then above fifty years of age, was reported by her physician, Dr. J. P., a victim of tubercular consumption, to which disease she would succumb before the coming summer. She was a lover of plants and flowers, and cultivated them in-doors and out. The spring saw her again moving among her plants, and the winter found her confined to the house, and sometimes for weeks to her bed-chamber, which, like the sitting-room, was literally a green-house. Visitors and friends often spoke to her of the impropriety of having so many growing plants in her room, reminding her of the tradition that they were injurious. Still, every spring found her again on her feet, in the yard and garden, nursing her plants, and every winter confined to her room. And thus she lived, year after year, until two years ago, when, at the age of eighty-five, she passed away. I have seen a few others have plants growing and blooming in their chambers, but never one who so lived among them as did my sister. Winter after winter we looked for her death, the cough, expectoration, and weakness justifying our apprehensions, and yet her eighty-fifth year found her cheerful and happy, living among her plants and enjoying the society of her friends. May we not believe that the vast exhalation from these plants—water purified and medicated by their vital chemistry—prolonged her life?'

"Next, I began visiting the gardeners and florists of Philadelphia, requesting answers to a list of questions bearing on this subject. Only a brief summary of

the results obtained can be here given. Thirty florists have already been visited in this way. Twenty of these, with ages ranging from twenty-five to eighty years, are strong and vigorous, and have always enjoyed good health. They all work from ten to sixteen hours daily, and have followed this pursuit for periods ranging from six to sixty years. Of the remaining number, four are occasionally attacked with rheumatism of mild type, ascribing their symptoms, and doubtless justly, to wettings, the result of carelessness while watering the plants, or from contact with the wet leaves.

"One of the gardeners, a boy, aged fourteen, has been at this occupation for a year, working steadily ten hours daily. Prior to taking up his present employment he had been working at the drug business for a year. While thus engaged his health failed considerably, and he became pale and emaciated. He had never been strong previously, though not to say diseased. No sooner had he adopted his present avocation, than he began to improve in vigor, and now he is the picture of robust health.

"Another florist, aged thirty-one, says that prior to going into the business he had 'weak eyes,' but that as soon as he became a florist, eight years ago, his eyes began to improve, and in a few years entirely recovered. Still another of the remaining ones has been subject to severe colds since he has been working among plants, but he admits that he has been exceedingly indiscreet about clothing, etc., in going from the hot-house to the outer air.

"Mr. W., aged thirty-five, has been in the business for twenty years, and is among his plants at least ten hours daily. Phthisis is hereditary in his father's family, and my informant himself (Mr. W.) has long since been pronounced a consumptive by his physician. He states, however, that he has always had good health, except simply the annoyance of a slight cough and a little expectoration occasionally. He is still nursing his plants and enjoying life.

"This gentleman kindly related to me a brief history of his deceased brother, and also that of their father, likewise deceased; and, for the sake of convenience, I have classed them among those whose histories I obtained directly. The brother died at the age of thirty-six years. He was engaged in gardening from boyhood up to within a year of his death—continually at work among his plants. During all the time he followed this vocation he enjoyed fair health. A short time prior to his death he forsook his calling and took a store in the same city, and almost simultaneously he became a victim to consumption, which caused his death in a short time.

"The father of these two patients, although he was predisposed to phthisis, followed the occupation of florist from early life to the age of sixty, and during all those years was in good health. When about sixty years of age, while he was assisting at the erection of a church, he met with an accident which injured his ribs (so the son says) and disabled him for work. But a few months later he went into consumption, which quickly proved fatal. Now, may not the fact that he was unable to be among his plants have had something to do with the causation of his last illness?

"From the above cases it will be seen that what we had deduced from experimental results concerning the health-giving effects of plants (which is owing to transpiration increasing the humidity of the air—the plants acting as natural and perfect 'atomizers') is entirely in harmony with what is observed concerning the effect of sufficiently moist warm air in many cases of phthisis. Furthermore, though the keeping of plants does not 'cure' confirmed cases of phthisis, it is nevertheless very useful to prolong life, and by ameliorating the distressing symptoms renders existence at least endurable—an office not to be despised in such a wide-spread and lingering disease.

"Observation teaches that advanced cases of phthisis (as, for instance, where cavities exist) are benefited by a more de-

cidedly moist atmosphere than is required in health, and hence they will require a much greater profusion of plants in the room than those who have the disease in a more incipient stage. The plants should be well selected and kept in a thriving condition. The chief points to be borne in mind in the selection of the plants are, first, that they have soft, thin leaves; secondly, foliage-plants or those having extensive leaf-surface are to be preferred; thirdly, those which are highly scented (as the tuberose, etc.) should be avoided, because they often give rise to headache and other unpleasant symptoms.

"In order to facilitate a practical application of the data gained by experiment, the following formula has been carefully prepared: Given a room twenty feet long, twelve feet wide, and ceiling twelve feet high, warmed by dry air, a dozen thrifty plants with soft, thin leaves and a leaf-surface of six square feet, each would, if well-watered, and so situated as to receive the direct rays of the sun (preferably the morning sun) for at least several hours, raise the proportion of aqueous vapor to about the health standard. [It is scarcely necessary to add that care should be taken to keep the receivers, saucers, and pots clean and fresh].

"It should be stated that, to obtain the best results, both the rooms occupied during the day and the sleeping apartment should contain plants. It was for a long time the opinion of scientific interpreters generally that plants in sleeping apartments are unwholesome because of their giving off carbonic acid gas at night; but it has been shown by experiment that it would require twenty thrifty plants to produce an amount of the gas equivalent to that exhaled by one baby-sleeper; so this is no valid objection to their admission, and not to be compared with the benefit arising from their presence.

"New health-resorts (many of them comparable only to the patent nostrums) are constantly being pressed upon the public, but too often a trial of them brings only disappointment, and the consump-

tive is rendered more miserable by the annoyance of travel and the anxiety of being separated from all the endearing relations of home. And even where travel is desirable, it is, for financial or other reasons, quite impossible in a large proportion of cases. To have always at hand and readily available so complete and withal so agreeable a health-resort at home as that furnished by a room well stocked with plants must prove an inestimable boon to the despairing invalid."

A GREAT EXAMPLE.—The State of Iowa, by the decided majority of 40,000 of its voters, has expressed its will to have the provision incorporated in its Constitution, that no person within the bounds of the State shall manufacture for sale, sell, or keep for sale as a beverage, any intoxicating liquors whatever. The question has been discussed in every city, town, and village. Immense sums of money have been sent into the State by the liquor interest of the country to influence the people in favor of continuing its destructive and monopolistic work—but in vain. The rural population, clear-headed and discerning, see that it is an incubus on their material and moral prosperity, and have determined to be freed from its oppression. The Temperance men claim that considerable progress has been made by their cause during the past three or four years. No candid observer, especially with the results of their work in Kansas and Iowa and some counties of Illinois and other states before him, can deny it. The people in nearly all our active, enterprising neighborhoods are thinking on the subject, and their thinking is in the practical direction. 'Casual conversations and the tone of the press reflect this. May the example of Kansas and Iowa, from an economical standpoint alone, to say nothing of the higher benefits that will result from their action, effectively influence the neighboring States and the East to banish the great producing cause of pauperism and crime, with their accumulating burden of taxes.

THE DYSPEPTIC'S SOLILOQUY.

To eat, or not to eat—that is the question :—
Whether 'tis woven in a man to suffer
The pains and pangs of a diseased stomach,
Or to diet with a law of discretion,
And, by hygiene, end them?—To stuff—to
gorge ;—

No more ; and, by gorging, to say we cause
The heartburn, and many unnatural shocks
That flesh isn't heir to—'tis a consummation
Devoutly to be damned. To stuff—to gorge ;—
To gorge ! perchance to cramp :—ay, there's the
rub ;

For from that mass of stuffs, what cramps may
come,

When we have ruffled up the liver's bile,
Must give us blues. There's the main-spring
That makes dyspepsia of such prolonged life ;
For who can bear the morbid appetite,
The terrible thirst, the awful inward craving,

The stale bilious hanker, the back-aching,
The blood's slow sluggish action, and the burns
That come to face and head from indigestion,
When he himself might his health quite regain
With a bare control ?

Who would headaches bear,
To groan and sweat under a sickly life,
But of a lack of knowing how to live—
That undiscovered process, from whose charm
No dyspeptic returns—puzzles the will,
And makes men rather bear those ills they have,
Than to attempt a cure by right treatment.
Thus ignorance makes wretches of us all ;
And thus the native hue of sweet healthfulness
Is sicklied o'er with the pale cast of taint ;
And enterprising men of much mental worth,
By disregard their forces are consumed,
And lose the name of action.

ARTHUR J. BENSON.

IMPROVED HEALTH OF AMERICAN WOMEN.

AMERICAN women have gained the reputation at home and abroad of possessing a less degree of health than other women. They are reputed to possess a very delicate sort of beauty when young, which soon fades and leaves them colorless and devoid of personal charms. It has become the custom to regard each generation of American women as weaker and more nervous than the preceding. Their grandmothers have a reputation of having been a hale, hearty, and healthy race, and the present generation are reproached as being their degenerate progeny. Attention is often called to some example of great endurance of some of the women of the Revolutionary period, and the impression seems to have gained possession of the minds of many that like these examples were all the women of that period. Such, however, was not the case. There were some women in the time of the Revolution who were capable of great endurance, and who lived to old age and continued to retain their ability to do and endure nearly to the last ; but all were not like them. They were the few, while the many of whom we hear little said were not very much, if any, superior to the average women of to-day. There are

American women to-day who are capable of doing and enduring all that their Revolutionary ancestors ever did, and they will be cited in times to come as notable examples of the superiority of the women of the present age to those of a hundred years hence.

That we do not underrate the healthfulness and strength of the average woman of the Revolutionary period the testimony of some who described the women of that time will show. Abbe Robin, a chaplain in Rochambeau's army during the Revolution, in regard to the women of that time, writes as follows : "They are tall and well proportioned ; their features are generally regular ; their complexions are generally fair and without color. . . . At twenty years of age the women have no longer the freshness of youth. At thirty-five or forty they are wrinkled and decrepit. The men are almost as premature."

Chevalier Louis Felix de Bunjour, who resided in the United States from 1804 to 1814 as Consul-General and Charge d'Affaires, subsequently wrote a book entitled "A Sketch of the United States at the Commencement of the Present Century," in which he said : "The women have

more of that delicate beauty which belongs to their sex, and in general have finer features and more expression in their physiognomy. Their stature is usually tall, and nearly all are possessed of a light and airy shape—the breast high, fine hands, and their color of a dazzling whiteness. Let us imagine under this brilliant form the most modest demeanor, a chaste and virginal air, accompanied by those single and unaffected graces which flow from artless nature, and we may have an idea of their beauty; but this beauty fades and passes in a moment. At the age of twenty-five their form changes, and at thirty the whole of their charms have disappeared.”

These descriptions of the grandmothers and great-grandmothers of the present generation of American women are almost in the very words applied to the women of to-day by those who are disposed to disparage them as being inferior to those of the “good old time.” The descriptions given, if applied to the women of to-day, would be regarded by fair-minded persons as exaggerating to some extent the frailty and the quickness with which the women fade. If these descriptions were accurate as to those to whom they applied, and there is no good reason to doubt their correctness, we must infer that the women of the present time, instead of being inferior in physique or personal charms to those of the former time, are really superior, having in fact considerably improved.

The increased attention which of late years has been given to diet, dress, and general care of the health, has produced a change for the better in the physique and general health of our women. The women are better developed, show a greater tendency to plumpness, evince better health, and do not fade so quickly as formerly. It is not uncommon to meet with women thirty, forty, or even older who still possess to a considerable extent the personal charms of their youth. Colonel T. W. Higginson, in his new book, entitled “Common Sense about Women,” in speaking of the improvement of the physique of American women, says that

recently a New York physician long retired from practice, who had been absent in Europe for twelve years, but had returned to this country within a year, volunteered the remark that nothing had so impressed him since his return as the improved health of Americans. He said that his wife had been equally struck with it, and that they had noticed it especially among the inhabitants of cities, among the more cultivated classes, and in particular among women. Charles Dickens, in comparing his second visit to this country with his first, in answer to an inquiry as to what points of difference had most impressed him, said: “Your people, especially the women, look better fed than formerly.” Colonel Higginson says: “The truth seems to be that nature is endeavoring to take a new departure in the American, and to produce a race more finely organized, more sensitive, more pliable, and of more nervous energy than the races of Northern Europe; that this change of type involves some risk to health in the process, but promises greater results whenever the new type shall be established.”

It is evident to any careful observer that the health and physique of American women have undergone a marked improvement during the past score of years, and if a like improvement is effected during the next score of years, American women will compare favorably as regards health and strength with the women of any country, and as regards personal attractions will be unequalled. Girls are better fed, better cared for, better protected from the weather by means of warm clothing than formerly, and consequently their health is better and they make better developed and healthier women. Judging from present appearances the improvement is likely to continue.

HENRY REYNOLDS, M.D.

2,589,924,383 grains of opium were imported into the United States in 1877. Deducting one-fifth for medical uses, there remain for opium eaters, 6,125,383 grains daily. At thirty grains each, there are among us, 200,000 opium-eaters.

THINGS OUT OF PLACE.

UNDER this caption a writer in the *Prairie Farmer* gives some good advice with regard to the treatment of children who have swallowed improper things or got a button, marble, bean, or other substance in the ear:

"Two classes of objects are sometimes placed by infants in the wrong place, namely, hard and soft. Among the hard are buttons, coins, cherry-stones, pebbles, small shells, bits of glass, and others. Many of the soft are hard, when dry, but become soft on exposure to moisture and so swell, that it is easier to put them into the ears and nose than to get them out. The cavities in which infants make deposits are the ears, the nose, and mouth. Objects in the ears and nose can go but a little way, but are often difficult to remove. Objects placed in the mouth may be easily removed if they remain in that cavity, and do not descend to the shades below.

"Hard bodies that do not swell may usually be easily removed, and mothers need not be anxious about removing them. Soft, absorbing, and swelling bodies should be removed at once. The sooner they are removed the less they swell, and so the more easy it is to relieve the child from pain or fears.

"Objects placed in the mouth may remain quiet for a short time, but usually they are so much out of place that the infant naturally tries to expel or swallow them. Two ways of swallowing at once appear—the one down the gullet, and the other down the windpipe. If they go by the gullet they may or may not reach the stomach, and then, if they leave the stomach they must pass the pyloric orifice, an opening that allows food, properly reduced in size, to enter the duodenum, or upper portion of the intestines, and then take a meandering course through the small intestines until they reach the large intestine, or colon. At this point cherry-stones, grape-seeds, peas, and beans, baked hard, and other hard objects, instead of entering the colon, and

so moving quietly on their way, may enter the blind intestine, gradually fill it, more or less, and ultimately induce inflammation of that organ, whose use is yet unknown. Nearly always, if not quite, the inflammation, begun in the blind intestine, extends until it embraces the small intestines and the large, and in a few days produces death. And still wonderful to say, and difficult to be believed, many objects easily pass this dangerous place. Bullets, coins, marbles, hard beans and peas, buttons, and even bits of glass, have a free pass from the Overseer of the Universe.

"Some ten years ago a young mother wished to leave her infant in its cradle, and gave it a vial to amuse it. She had hardly left the room when the child struck the vial on its cradle, broke it, and placed the fractured end within its mouth. Its cries soon brought the mother to its cradle; its clothing was sadly besmeared with blood. We reached the weeping mother and bleeding infant in ten minutes, more or less. On examining its mouth the glass could not be seen. It had entered the gullet. Within thirty hours it passed the bowels, apparently unbroken by its winding course. It was examined, and measured and found to be a triangle of nearly half an inch on each side. Another child swallowed a two-cent bit. It reached the lower opening of the gullet, imbedded itself in the mucous membrane, and there remained for over thirty days. During this time the child swallowed nothing but milk, or some other fluid. At the end of this time it moved away, and in a few days reached the extremity of the bowels.

"A third case of interest was that of a girl of twelve years of age, who, in attempting to remove the meat from half a walnut, swallowed the shell. It entered the windpipe, passed down the right bronchial tube, and there remained for four or five months, induced a severe cough, and created the secretion of a large amount of pus. When much reduced in flesh, so

that her friends gave up all hopes of her recovery, a violent cough occurred and expelled the shell. She at once began to gain flesh, and is now a robust and healthy woman.

"Pins and fish-bones may adhere to the mucous membrane of the gullet. Masticating a crust of bread, swallowing it, and following it with a large draught of water, will probably wash them down.

"Objects in the throat may sometimes be pushed down, if they can not be reached by the thumb and finger, or some proper instrument.

"It remains now to say what mothers may do, when accidents of this general character occur. How can foreign objects be removed from the nose? The following is a simple way: Apply your open mouth to the child's open mouth, and blow strongly. The object will thus be expelled from the nostril in which the object is. The other nostril must be closed. Simply pressing on the empty nostril and blowing hard may force the object out. Often an object may be withdrawn with a pair of tweezers, or the blunt end of a hair-pin, passed carefully below or above the object, may enable one to hook it out. Be careful not to push it

further in. A pinch of snuff may produce sneezing, and so force the object out.

"If the object be in the ears, lay the head so that the ear containing it may be undermost. Place the nozzle of a syringe at the distance of an inch from the ear, and syringe it out, or give a strong box upon the upper ear, which may start it out. One should not probe for it, lest it be driven farther in.

"Peas, beans, and corn should be removed at once, before they swell, and increase the difficulty of abstracting. A curious case occurred a few years ago. A gentleman walking with some friends was gnawing a brittle twig. It broke, and a part went down his gullet. He coughed until he was quite exhausted. The twig could just be seen, but could be reached but by a very little hand. No surgeon could be found within a mile. A very little girl came along. The sufferer offered her fifty cents if she would run her hand into his throat and take it out. His mouth was opened wide, and a plug was placed between his jaws. She run her hand in, seized the fractured twig, and pulled it out. He paid her twice fifty cents, and said, 'Cheap enough.'"

BARLEY.

I WISH to say a word of favor for barley as a general article of food. It is certainly superior to oatmeal as a regular breakfast dish, and will be liked better by many persons—especially ladies and children. It takes a medium position between brain and muscle feeders, and supplies equally well both needs, while wheat is essentially a brain-feeder and oats is largely a muscle-feeder. Oatmeal as brain food is apt to produce a "horse" brain, that is, a brain that can think other people's thoughts but does not generate original ones. The many preparations of malt that are now extensively used by physicians, indicate that barley possesses special qualities, which distinguish it from other cereals, and I

have found a specially beneficent influence on the voice and respiratory power. In ancient times barley was the staple cereal; the old Homeric heroes used barley mainly for bread fruit, and the Roman soldier received his ration in barley. The temple at Eleusis, where the highest esteemed festivals and religious mysteries were celebrated amongst the ancient Greeks, was dedicated to the goddess Ceres, the protectress of the grain fruits not only, but the deified impersonation of the cereals in their benignant influence on man, and ears of wheat and barley were the sacred emblems used in processions and games honoring the deity. Our Saviour fed the multitude with barley loaves and fishes, and I love to extend the

meaning of the symbolic act to that point, that barley constitutes a food which will best engender faith and love in the soul.

For intellectual work wheat constitutes the king of the cereals, but one might call barley the queen, and artists will prefer it if they closely observe the effects. I believe the most effective way of combating the use of alcoholic drinks will be the general use of cereals in undivided and undecomposed form as food; it has been proven in England in many cases that the taste for liquor entirely disappears when cereals in their entire substance as grits or unfermented bread form a regular component of the meals. Man has to educate and train himself into regaining the lost instinct for what constitutes his proper food, and once regained one is surprised how it was possible to feed only on the decomposed appearances of food instead of on their full realities.

JULIUS ASHMAN.

A GREAT MERCHANT'S FAILURE AT CHARITY.—In the *July Century* the story is told of Mr. Stewart's attempt to found a working-women's home.

"It had been urged upon him that he owed something to the working-girls who had done so much to build up his fortune; and so, tardily and ignorantly, he set about a scheme in their behalf. He built a huge structure, capable of housing a thousand people. Every feature of this structure, in view of the purpose for

which it was designed, was a glaring incongruity; and then, when he had completed it, he condescended to ask the counsel of experts as to carrying his scheme into practical execution. He was informed by those whose counsel he ought long before to have sought, that the very character of his building prohibited it from being useful. He was shown that to assemble one thousand young women under one roof, in a working-woman's house, was to necessitate one of two things: either a police so vigilant and so intrusive as to be to any decent girl intolerable; or else, a laxity so provocative of evil, as almost to guarantee it. He was shown that he ought to have built a series of small houses, each with a matron or housekeeper of its own, and each to contain a dozen girls, at most, where the surveillance could have been constant without being obtrusive, and where something like domesticity would have made a home in name a home in fact. But Mr. Stewart believed supremely in Mr. Stewart. Successful men generally believe in themselves. He showed this in his architecture, which was hideous, where it might as easily have been graceful and pleasing. He showed it in his charitable plans, to which he gave but little thought, and in which he chose to be sufficient to himself. And so his great wealth has resulted in no service to his fellow townspeople, and in scanty honor to his memory."

KITCHEN LEAFLETS, No. 8.

A CHANCE FOR THE COOK—TOMATOES, BLACKBERRIES, WHORTLEBERRIES, AND PEACHES.

WHEN the summer days are fairly come, all whose circumstances are favorable retire for a season from the activities of business and seek change and recreation. Some go to the mountains, some to the lakes, some to the seaside. A list merely of the names of the best of resorts which are yearly thronged by city people, say New Yorkers alone, would probably fill several pages of

the PHRENOLOGICAL. It has become with society a matter of course to go out of town in summer, and a matter altogether in reason for a lady or gentleman, in business or not, to expect a "vacation" or a relief from the routine of life which has been pursued for nine or ten months. The class of people, however, who most need the summer rest or vacation do not get it—the great working-class in the

factories, stores, and shops—to say nothing of the women who do the work in the kitchens of our city houses. If the young lady who spends most of her time in the airy upper room finds the heat oppressive and longs for the cool and leafy piazza of a country house or a sea-side cottage, what is the feeling of the house-keeper or cook who must bake, roast, and stew in the close and steaming kitchen day after day when the thermometer is in the nineties?

Some people are considerate for the drudge who prepares their dinners, giving her an occasional holiday; but the majority expect constant service, and are slow to make any change which will lighten her toil in the hot season. In this matter of eating, how much better it would be for the comfort and health of all did they in summer give up their hot and heavy breakfasts and dinners! What relief would ensue to Mary and Bridget if instead of the steaming steak and fried potatoes and scalding coffee they were required to serve a simple, refreshing breakfast of fresh milk, bread, and fruit! Such a meal could be quickly and easily prepared, and most of the vexatious and tedious features of morning work in the average American household avoided. People can scarcely be persuaded that in bread and fruit reside all the essentials of human nutrition, and that the flesh of beast and bird and fish are unnecessary for strength and activity especially in summer. The experience of every one who has tried it is to the effect that he feels more sprightly, has a clearer head, and is less affected by the heat when subsisting on a vegetarian diet in summer.

In the prescriptions which follow, I give attention to those things which constitute a change from the simple fruit or vegetable fresh from the garden, and also furnish a hint or two on preserving fruits now in season:

Propos of tomatoes, for a few forms of which I give recipes in this Number, I notice that Mrs. Wager-Fisher alludes in one of her contributions to the *Rural New-Yorker*, to her ill luck with canned

tomatoes, losing the greater part, although air-tight and kept in a cool, dark place. I had just such an experience last year, although the cans used are regarded the best in the market. And my experience with regard to tomatoes keeping better in dark-colored bottles is the same as hers, and I think also that there must be something in the color of the glass which affects the preservation of canned fruits favorably or unfavorably. Bottles or jars with narrow necks and mouths, made of dark green glass and stoppered with the patent device used by mineral-water manufacturers would probably give more satisfaction to the housekeeper than the "can" in ordinary use.

STEWED TOMATOES.

Pour scalding water over them to loosen the skins; peel and cut them up, extracting the cores at the stem end, and remove all unripe portions. Stew in a porcelain kettle or stone pipkin, *never in tin*. Cook half an hour, then add a very little salt, a little white sugar; thicken slightly with grated raw potato or bread crumbs, and cook half an hour longer.

Another method is to put one-quarter as much green corn as you have tomatoes into the kettle when it is first put on the fire, and stew gently, omitting the potato or bread crumbs.

TOMATO TOAST.

Toast slices of Graham bread and lay them on a dish; then pour on tomatoes stewed as above, without the addition of potatoes, bread, or corn.

TOMATO PILAU.

Scald, peel, and slice fresh, ripe tomatoes; place a layer of them in a porcelain-lined kettle, then sprinkle a layer of rice over that, and then another layer of tomatoes, and another of rice until there is as much as is wanted; cover the kettle closely; set it over a gentle fire or in the oven, and cook until the rice is perfectly tender, which will be in about one hour from the time it begins to boil. Serve as a side-dish for dinner.

BAKED TOMATOES.

Select those of equal size, fresh and ripe; wash and cut out the hard center; place them on an earthen pie-dish; put a little sugar in the core of each one (as you would for baked apples), and bake in a quick oven about one hour or until tender. They are best placed on the oven-shelf first, and when half done transferred to the bottom to finish and reduce the juice.

Grated cracker or bread crumbs can be sprinkled over them if liked. Well prepared, this is a most welcome addition to the table.

BLACKBERRY JAM.

Select good, ripe berries, and put them in the stewing-kettle. To one pound of berries add three-quarters of a pound of sugar. Boil until they are thick; stir and mash occasionally. Let them cook slowly; do not have the stove cover off, as they are apt to burn if in too close contact with the fire. When cooked to a stiff mass, put it into a stone pot, and when cold cover tightly and set away in a cool, dry place.

BLACKBERRY AMBROSIA.

Make a batter precisely as for gems or batter-cakes, and spread it half an inch thick on the bottom of an earthen pudding-dish, and then cover that with a layer of blackberries. Place a little more of the batter around the sides of the dish, sprinkle over the berries sugar enough to sweeten them, and if very juicy, wheat-meal enough to whiten them, and then add another layer of berries. Put more batter around the edge, sweeten as before, and if the dish is deep enough, put in more meal and another layer of berries. Sweeten again, and then cover thinly and evenly with batter. It should not now quite reach the top of the dish. Put in a good oven and bake from forty-five minutes to one hour. If the juice runs out, lift the edge of the crust with a fork and let it run back. The sides of the dish should be high enough to prevent its running away. The juice is the best part, and if lost the ambrosia will be a failure. Serve warm or cold, with or without a fruit sauce. This is good enough and wholesome enough to make one of the main dishes at a hygienic dinner. For a dessert, most persons would probably desire it with sauce.

BLACKBERRY PUDDING.

Make a crust by wetting two cups of wheat-meal and one cup of fine corn-meal, with boiled rice enough to make a paste that can be rolled out one-third of an inch thick. Then mix about one quart of blackberries with one-half cup of wheat-meal, pour them into the rolled-out crust, draw the latter over them and pinch together, then sew up in a cloth and steam one hour and a half. Let it cool a few minutes, then dish with a spoon, and trim with sugar. Serve warm.

WHORTLEBERRY BREAD-PUDDING.

Take stale batter-cakes or Graham gems and steam or soak them in a little water until quite soft. Then crumble finely and place a layer half an inch thick in a nappy, and over that place a layer of juicy whortleberries. Sprinkle over the latter sugar enough to sweeten them,

and then a layer of bread crumbs, so alternating until the dish is full. Bake half an hour or more, according to the size of the dish and the heat of the oven.

CANNED PEACHES.

Select ripe, *solid* peaches; pare, cut in half, and stone them. Drop each piece in cold water as soon as it is pared. The large white freestone peaches are the best for this purpose. Allow a heaping tablespoonful of sugar to a pound of fruit. Put them in a porcelain stew-kettle and heat slowly to a boil; cook about ten minutes, or until each piece is well heated through. Can and seal quickly. Peaches are nice canned whole; they then keep the flavor of the pit. If canning a good many at once, put a cupful of water in the bottom of the kettle to prevent burning.

PEACH MARMALADE.

Peaches too ripe for canning will do for marmalade. Pare, stone, quarter, and weigh the fruit; heat slowly to draw out the juice, stirring up often from the bottom with a wooden spoon. Let it boil three-quarters of an hour, stirring often; then add the sugar, allowing three-quarters of a pound to each pound of peaches. Boil up well for five minutes, taking off every particle of scum; then add the juice of one lemon to every three pounds of fruit, and the water in which one-fourth of the kernels have been boiled and steeped. Stew all together about one hour, stirring to a smooth paste. Now take from the fire and pour into hot, air-tight cans, or, when cold, into stone or glass jars, with tissue-paper fitted neatly on the top of the marmalade.

PEACH JELLY.

Crack one-third of the peach-stones and put the kernels in a jar with the peaches, which should be pared, stoned, and sliced. Heat in a pot of boiling water, stirring from time to time, until the fruit is well broken. Strain, and to every pint of juice add the juice of one lemon. Measure again, allowing a pound of sugar to a pint of liquid. Heat the sugar very hot, add it to the juice after that has boiled twenty minutes; then let it come to a boil again and continue about three minutes, and then take instantly from the fire and pour into jelly-glasses.

MYRA EATON.

FOR CHAPPED HANDS.

Powdered starch is an excellent preventive of chapping of the hands. It should be rubbed over them after washing and drying them thoroughly. It will also prevent the needle in sewing from sticking and becoming rusty. Place a small box of it in the work box or basket, and have one near your wash basin.

NOTES IN SCIENCE AND AGRICULTURE.

The Tunnel from Sicily to Italy.

—The length of the submarine tunnel between Italy and Sicily will be about 43,296 feet. The minimum depth of the sea above the line of the tunnel is 360 feet, and the thickness of rock between the roof of the tunnel and the bottom of the sea is 114 feet. The direction of the tunnel from St. Agata to Punta del Pizzo is almost due northwest to southeast, the two inclines leading to the tunnel running parallel with the above for some distance and then descending to the lowest level by spiral tunnels. The length of each of these inclines is 14,640 feet, and the degree of inclination will be about 35 per 1,000, this having been found by experience to be perfectly practical. According to the opinion of all geologists, the bottom of the Straits of Messina consists of crystalline rock (granite gneiss and mica schists). Neither in Calabria nor in Sicily can the upper strata that cover this crystalline rock be so thick as to reach the level of the bottom of the descending inclines. Geographical and hydraulic considerations agree in the conclusion that the submarine isthmus between Punta del Pizzo and St. Agata can not consist of material that is compact or easily corroded.

Where Old Rope Goes.—Pittsburgh is known among makers of paper flour sacks, as one of the best points in the country for the sale of these modern holders of the raw material for the staff of life. "About ten thousand quarter-barrel sacks a day," said a well informed manufacturer a few days ago, "is the number Pittsburgh millers and others demand." In convenience to points from which raw material for making these bags comes, Pittsburgh enjoys a peculiar advantage. The oil regions furnish the material, and every pound of flour that goes to the thousands hereabouts (except flour in barrels) is encased in what was once a big rope, from which hung a drill that sought for oil in the regions of petroleum.

A single firm of bag makers, and in fact the only one in the city, takes daily 22,000 pounds of old rope from the oil regions, which powerful machinery up the Monongahela converts into 10,000 pounds of paper per day. When oil is seventy-three cents per barrel, as is the case at present, old rope is rather plentier than new, and when the Sheriffs of Butler or Venango or McKean counties, have their neat little amusement notices tacked upon a derrick, three cents per pound for good rope and one and one-half cents for bad is quite an object. This rope is gathered and shipped by the car-load to this city, and at the mills is cleansed of oil and dirt, and then ground and otherwise changed in nature until it is mere yellow pulp. This becomes strong paper as it passes through the paper-making machine, and to-day a strip an inch wide was seen which held together in

the rack of the testing machine until the indicator pointed at ninety-five pounds.

Many accounts have lately appeared of an agricultural school for girls, which was begun in Normandy, near Rouen, by a Sister of Charity and two little waifs discharged from prison, homeless and friendless but for the good Samaritan, who had herself no money. The school is now a farm of over 400 acres, in all worth \$100,000; and is worked entirely by the pupils and a teaching staff of twenty-five sisters. The girls are from eight to eighteen years of age, and now 300 in number. They are in great demand all over the country, on account of their skill and good training, but if out of a home they have the farm always open to them.

The Use of Birds.—In speaking of the value of birds to the farmer, President Chadbourne said through the *Springfield Republican*:

"From my window, this spring, I have been able to look down on the apple trees that almost touch the house and see how they have been daily visited by this eager band of searchers. First came nut-hatches trim and bright, eyeing every suspicious point upon the trunk or limb, followed by the brown tree-creeper that, with his long, slender bill, probes beneath every loosened slip of bark. Then came the warblers, hunting for refreshments as they pass on to the north, and the vireos passing from branch to branch, peering into every opening bud and flower, looking at every joint and angle of the twigs. The little kinglet, scarcely larger than the humming-bird, flits from branch to branch to see if some choice morsel has escaped the eye of his larger friends. And then comes the oriole in all his wealth of beauty, working as faithfully as the plainest bird in peasant garb. Royal robes give him no exemption from the task of gathering his daily food. And like a careful, skillful workman he goes about it. His stout, sharp bill opens every cluster of new-formed leaves, and nothing in the form of insect life could escape the scrutinizing search. The benefit to the farmer of such inspection of his fruit trees by such sharp eyes and greedy bills is beyond calculation. Should the birds 'strike' for a single year, they would bring the world to terms! The farmer neglects his interest when he fails to protect the birds and encourage them to surround his home, and the farmer's boy loses one of the finest fields of observation and enjoyment when he fails to study their habits and become familiar with all the birds that visit his place. To do this successfully, the birds should as much as possible be left unmolested, not be driven wild by the murderous gun. Good eyes and careful watching will do much; a cheap opera-glass, that will cost one-quarter as much as a gur,

will show him more by far as the bird flits among the trees than any dead bird can reveal. When he reaches that point in his study that a dead bird will be worth more to him and to the world than a live one, then he can have license to kill."

A Home-Made Hammock.—A good hammock for less than seventy-five cents.

1. Obtain two and a half yards of thin or light "duck."

2. Two sticks about two feet four inches in length, and say one and one-half inches in diameter.

3. Two yards of galvanized telegraph wire (rope will answer the purpose, though the wire is the best).

4. About four to six yards of "marline" (small-sized tarred rope).

5. About five yards of rope (same to be about one-half inch in diameter—good strong rope that will be equal to the weight to be sustained).

6. Four small pebble stones about three-quarters or one inch in diameter (small bits of wood will answer—anything that will enlarge the corners of the canvas in order to tie to).

Cloth, 2½ yards at 15c	\$.38
Wood (may be picked up almost anywhere, especially if one is in the country).....	.00
Wire, 2 yards.....	.05
Marline, 6 yards.....	.05
Rope, 5 yards.....	.14
Pebble stones (4).....	.00
	<hr/>
	\$.62

The cloth will not need any sewing.

Enclose in each corner of the cloth a pebble stone, and tie the same securely with the marline; make each corner of the canvas or "duck" fast to the ends of the sticks. The sticks answer the purpose of keeping the cloth in place, *i. e.* spread it so as to form the hammock. Marline or tarred rope is much better for this purpose than ordinary rope—it will stand exposure better, will hold better, and is for its size much stronger. Cut the wire in two pieces, one for each side; secure them to the ends of the stick, and leave them projecting in a point that will be central. Cut the long rope in two, so as to make two pieces of two and one-half yards each, one for each side; secure these ropes to either end of the center point of the wire, and you have your hammock complete—and a good, cheap, and durable hammock you will find it to be.

I. P. N.

Still Another Important Use for WASTE SUBSTANCES—TO INSULATE.—Hitherto electricians have been limited to glass, porcelain, stone-ware, gutta-percha, india-rubber, and ebonite as materials for insulation, and owing to the greatly increased demand, the price of the last three named has risen very much, and is likely to rise still more; and, while the quality has deteriorated, it is impossible for the existing sources to supply what is needed, not only for telegraph and telephone work, but for the immense

field opening in electric-light work. The public require, before everything, safety in the use of electricity, and there is a corresponding demand for a cheap insulating material, the supply of which shall be equal to the demand likely to arise. This has now been met by the invention of a material called insulite. A method has been discovered by which wood, sawdust, cotton-waste, paper pulp, and other fibrous materials can be converted into a material perfectly impervious to moisture and acids, easily molded under pressure into any shape, and capable of being worked or cut into any form. This material is an excellent non-conductor of electricity, and can be used for all forms of battery cells, telegraph insulators, supports for electric light leads, and telephone work. It affords the means of securing perfect insulation at a very much less cost than ebonite or gutta-percha. As it is perfectly impervious to moisture, articles made of it can not shrink or warp. It supplies exactly what is wanted in practical work, in which ordinary wood can not be used because it absorbs moisture, and ebonite is inhibited on account of its cost.

The Moral Advancement of the RACE.—As an advanced science implies an advanced art—the progress of the two being ever conditioned upon each other—so the great advances of the sciences and arts imply a corresponding development of human intelligence. The principle of action and reaction prevails in the world of mind as in the world of matter, and while the human intellect, by cogent applications of its powers, has established multitudinous differentiations in things once inextricably intermingled, a corresponding differentiation and specialization of its own powers has inevitably resulted. But specialization of functions being the direct evidence of its greater perfection, it is incontrovertible that the multiplication of specializations of knowledge by human inquiry has resulted in improvements of the powers of the human mind. The strain now put on human power to keep pace with the advances already made is an assurance that there will be in the future no lack of occasion for continued mental development. All departments of human enterprise have in truth been already so marvelously developed as to defy the complete grasp of any but specialists of more than ordinary capacity. Croakers may find fault and stigmatize the advance of the age as mainly material. Never did carping criticism have poorer ground for its averments. The material advance is fully matched by the moral advance. Proofs of it are so multiplied as scarcely to deserve enumeration. Liberty to think boldly and to give free utterance to honest convictions is fast becoming a sacred principle of society. Liberty of person and equal justice—irrespective of rank and wealth—are now almost everywhere recognized as divinest principles of government. The sick and the unfortunate, instead of being left to die without aid or to pine through a

miserable existence, are now everywhere provided for at the expense of those whom fortune has subjected to less severe trials. Sumptuary laws are now not only known to be useless, but their principle is condemned. Private war has almost ceased to be waged; and the duty of revenge, once sanctioned by religion, has given place to the duty of forbearance and forgiveness. The well-being of one's neighbor is now universally felt to be the good fortune of one's self. Vast accumulations of wealth, instead of being squandered in the purchase of places and useless decorations for elevating one's self above his fellows, are now employed in educational, industrial, and eleemosynary foundations. — *Popular Science Monthly for June.*

The Work of a Volcano.—Cotopaxi in 1833 threw its fiery rockets 3,000 feet above its crater, while in 1854 the blazing mass, struggling for an outlet, roared so that its awful voice was heard at a distance of more than 600 miles. In 1797 the crater in Tungurangua, one of the great peaks of the Andes, flung out torrents of mud, which dammed up the rivers, opened new lakes, and in valleys 1,000 feet wide made deposits 600 feet deep. The stream from Vesuvius, which in 1337 passed through Torre del Greco, contained 32,000,000 cubic feet of solid matter, and in 1703, when Torre del Greco was destroyed a second time, the mass of lava amounted to 45,000,000 cubic feet. In 1760 Etna poured forth a flood which covered 84 square miles of surface, and measured nearly 1,000,000,000 cubic feet. On this occasion the sand and scoria formed the Monte Rosini, near Nicholosa, a cone of two miles in circumference and 4,000 feet high. The stream thrown out by Etna in 1816 was in motion, at the rate of a yard a day, for nine months after the eruption; and it is on record that the lava of the same mountain, after a terrible eruption, was not thoroughly cool and consolidated for ten years after the event. In the eruption of Vesuvius, A.D. 79, the scoria and ashes vomited forth far exceeded the entire bulk of the mountain; while in 1660 Etna disgorged twenty times its own mass. Vesuvius has sent its ashes as far as Constantinople, Syria, and Egypt; it hurled stones eight pounds in weight to Pompeii, a distance of six miles, while similar masses were tossed up 2,000 feet above the summit. Cotopaxi has projected a block of 100 cubic yards in volume a distance of nine miles; and Sumwaba, in 1815, during the most terrible eruption on record, sent its ashes as far as Java, a distance of 300 miles.

Why Some Farmers Do Not Succeed :

- They are not active and industrious.
- They are slothful in everything.
- They do not keep up with improvements.
- They are wedded to old methods.
- They give no attention to details.
- They think small things not important.

- They take no pleasure in their work.
- They regard labor as a misfortune.
- They weigh and measure stingily.
- They are wasteful and improvident.
- They let their fences sag and fall down.
- They will not make compost.
- They let their fowls roost in trees.
- They have no shelter for stock.
- They leave their plows in the field.
- They hang harness in the dust.
- They put off greasing the wagon.
- They starve the calf and milk the cow
- They don't know the best is the cheapest.
- They have no method or system.
- They have no ears for home enterprise.
- They see no good in a new thing.
- They don't see the virtue of paint.
- They prop the barn door with a rail.
- They don't believe in rotation of crops.
- They don't read the best books and newspapers.

The Iron Mountain at Durango,

MEXICO.—The Iron Mountain at Durango, Mexico, is described by Mr. John Birkbine, of Philadelphia, engineer of the company formed to develop its riches, as a hill one mile long, a third of a mile wide, and from four to six hundred feet in height above the plateau. The surface of the mountain exposing ore so as to be classified as good mining land aggregates over 10,000,000 square feet. There are indications that the deposit extends beneath the level of the plateau. Mr. Birkbine says that he spent considerable time in examining the mountain; and though most of the surface shows ore he does not agree with those who pronounce the mountain a solid mass of ore. He is rather inclined to think that the mountain is formed of one or more immense veins of specular iron ore, standing nearly vertical, the fragments of which have, by the action of the elements for ages, been thrown down to form the slopes of the mountain as a talus; but the extent of this detrital ore is too great to permit of locating any foot or hanging walls.

An analysis of an average of twenty-seven samples of ore from various parts of the mountain showed :

Magnetic oxide of iron.....	2.071
Ferric oxide.....	77.571
Manganic oxide.....	0.113
Titanic acid.....	0.710
Lime.....	5.053
Magnesia.....	0.364
Sulphuric acid.....	0.212
Phosphoric acid.....	3.041
Loss on ignition—water, etc.....	1.084
Silica.....	7.760
Alumina, etc., undetermined.....	1.124
	100.000
Metallic iron.....	55.800
Manganese.....	0.070
Sulphur.....	0.085
Phosphorus.....	1.328
Phosphorus in 100 parts iron.....	2.379

Selected samples, representing about seven-tenths of the area of the mountain, yielded nearly 63 per cent. of iron.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
SEPTEMBER, 1882.

GOSSIP.

MUCH is said for and against gossip. Authorities of about equal weight argue on the one hand its innocence, and, on the other, its tendency to corrupt. Now, what does the word mean? Having a definition, we are prepared to consider its moral aspects upon a logical basis. The term is derived from a very respectable source, the Anglo-Saxon, *god-sibb*, which signifies a relation by a religious obligation, such as a baptismal sponsor; in other words, one who answers or speaks for another in assuming the solemn vows prescribed by the Church as a condition of membership. The common use of the term—idle or groundless talk—is a perversion, and allies it to that synonym of defamation—Scandal.

Gossip is reprehensible more on account of its effects than because of any harmful qualities in itself. We think that the great majority of gossipers intend no malice, but merely catch up floating rumors and weave them half unconsciously into form, and so circulate statements which, in the end, have an injurious effect on some person or undertaking.

Some advise culture as the cure for

gossip; but in cultivated circles, so called, there is a vast amount of small talk about nothing in particular. The interchange of lively badinage which occurs among educated people on social occasions is, for the most part, idle chat, a form of gossip which not infrequently owes its edge to personal insinuations under a mask so diaphanous that it is promptly interpreted by the hearer.

Of course, the small talk of the social circle need not be personal, but it is not easy to restrict it to the weather or to inanimate objects, unless some one of ready invention and affluent speech takes up the burden of keeping the current of talk in one groove. Conversation in that exceptional circle where little or no gossip is permitted is generally sustained by a few leading minds. It is usually the case that a Johnson or a Reynolds, as in the famous "Literary Club" of London, are necessary to give character and permanence to the cultured air of an assembly of educated people.

The cure for gossip, in our opinion, is not culture, so much as the practice of habits which may result in culture. Young people are prone to idle talk and listless dallying, and, consequently, to form habits of speech vicious and harmful to themselves and others. Let them read or study healthful books, and make the information thus acquired the subject of their talk with associates. They can go farther, and with no great difficulty form little societies among themselves for reading and the interchange of opinions on what they read and hear on subjects related to literature, ethics, and science.

The minister who reproved his daughters for making too free with the character of their neighbors one day, and when they asked him what they should do, replied,

"Get a pumpkin and roll it about if you can't do anything else," was evidently deficient in capability to advise well, otherwise he would not have been mortified by the proceeding of his matter-of-fact eldest when a conference of ministers was in session in his parlors. During the meeting a discussion arose, and grew so excited that the voices of some indicated loss of temper. In the midst of the noisy confab the girl entered with a pumpkin which she handed to her father, saying, "There, father, roll it about."

When people have something of real interest to talk about, they do not resort to listless conjectures and speculations about their neighbors' ways of living or business systems.

If gossip of the vicious type is curable by culture, then we should find it only in the walks of ignorance and crudity, in the drivel of kitchen-maids and stablemen; but, as we have already intimated, what the world generally receives as culture—the education of the seminary and the college, and the breeding of the society drawing-room—only refines it, enabling the gossip to say impertinent and cruel things of a neighbor in language that is select and polished, it may be delicately evasive, yet none the less poisonous in its intimations.

But there is a broad culture that will correct the harmful, malicious tendencies of idle, careless talk—a culture that reaches the moral nature, that strengthens and energizes the generous qualities of manhood and womanhood.

Mere training of the intellect will not soften the disposition, tone down harsh and sharp peculiarities of the selfish nature, except in the manner of their external action. Covetousness and cruelty are rendered the more harmful by education

which only develops the intellectual faculties, for then the latter more skillfully plot for the gratification of the former, and the man in whom the lower nature is powerful becomes an object of fear to his inferiors and of suspicion and contempt to society. Henry VIII. and James II.'s favorite, the infamous Jeffreys, were highly educated men intellectually, but their moral natures had not received the culture essential to balance of organization; hence their powerful instincts of selfishness and brutality dominated in the conduct by which they are known to history. Development of the kindly attributes, benevolence, respect for others, regard for truth and personal obligation will best offset a disposition to indulge in those petty abuses of language which tend to the injury of one's neighbors.

It was Goethe, we think, who said something like this, that we ought every day to hear a sweet song, or read a good poem, or see a fine picture, and also to have some thoughtful, reasonable talk with another. Practice of such a kind would certainly be an excellent means of self-training; it would refine the selfish elements in us by fostering that charitable spirit which wishes and hopes well of others. Probably no habit of mind is more likely to prevent our saying injurious things of another than that of thinking well of our neighbors, for it inspires a deep repugnance to the idle flippancy which trifles with personal reputation.

THE EGYPTIAN IMBROGLIO.

ALL eyes have been directed to the ancient land of the Pharaohs the past few weeks, the trouble there between the vice-regal government and

the revolutionists headed by Arabi Pasha having led, because of the carelessness, indifference or policy of Turkey, to the intervention of England, in behalf of the important moneyed interests which Western Europeans have in Egypt and which were imperilled by the intestinal disturbances.

Finally, in accordance with what appears to have been an understanding with the other European powers, England demanded active measures on the part of the Ottoman government for the suppression of the disorders in Egypt, and fixed the 11th of July as the date when her war ships should open fire upon Alexandria were not a satisfactory answer given to her demands. As might have been expected, the "sick man" only returned a temporizing, evasive reply, and promptly at the hour indicated the English admiral commenced the bombardment. Shot and shell from guns of the heaviest calibre known to modern

warfare soon destroyed many strong fortifications and palaces of the old city. The forts were well manned and returned the fire with vigor, but with little effect, as it appears, upon the iron walls of the assailing fleet, until they could no longer be defended, and then ensued a scene of rapine, incendiarism, and massacre which almost destroyed and depopulated the old city.

The early cause of the trouble which England has proceeded to adjust by the extremity of deliberate bloodshed or war, seems involved in some mystery, at least the opinions of newspaper writers are at

variance. Some claim that the revolution was chiefly brought about by Arabi Bey on account of the repugnance of Egyptian officials, especially those in the military department, to having the finances of their country managed by the French and English. These powers are the chief holders of Egyptian bonds, and had secured the control of the Egyptian treasury, to insure payment of the interest. Previously the taxes were largely distributed among the courtiers and



ARABI BEY.

soldiers. In certain stages of civil society regular taxation is more oppressive than the spasmodic extortion of the East, and the French and English "control" had undoubtedly made the hard lot of the Egyptian peasants still harder, although there had been a better feeling in Oriental commercial circles on account of the method which the Western financiers had introduced. At the same time the Khedive's treasury ceased to be a gold mine for the hangers-on of the court, and the pay of the army was in arrears.

According to the statement of Mr.

Van Lennep, vice-Consul at Alexandria for the Netherlands, the rebellion of the Egyptian army against the authority of the Khedive and of the Europeans had its origin in the reforms which were made in the army during the last year. The regiments which composed the army were reduced in number, without diminishing the number of men under arms. This measure affected several colonels and superior officers, among whom were Arabi Bey and two of his companions, the actual leaders in the crisis. Arabi obtained leave to remain at the head of his men, after many petitions, and then began to be the chief of the discontented. The discontent increased daily in the army, until the day when the Minister of War, having to settle some difficulties with a colonel, kept him prisoner in the Cairo Citadel, where he was freed by his regiment in arms. This act of insubordination was followed by many others, and induced the Turkish Government to send a commission to investigate the causes of the discontent and to settle the matter. The European Powers made many remonstrances to the Porte for taking that action, and even sent iron-clads to Alexandria as a proof of their ill-will.

The Turkish Commissioners withdrew, and it was supposed that the demands of the Europeans would be complied with, but it was soon made evident that they were ignored, for Arabi Bey assumed the practical control of affairs, organizing a Ministry and constituting himself Minister of War. The manifest aim of this new government was to exclude all Europeans from any part in Egyptian affairs, and even to drive them from the country.

The weak Khedive made a show of resistance to some of Arabi's despotic

measures, but with only the result of greater humiliation. English and French ironclads were ordered to the port of Alexandria, and the Consuls-General, believing themselves sufficiently supported, presented an ultimatum, demanding Arabi's deposition as Minister of War and his exile for one year from Egypt; the other colonels to go into garrison in Upper Egypt. Arabi Pasha complied with this request, and resigned his office. But shortly afterward the army summoned the Khedive to recall Arabi, threatening dire consequences if it were not done, and he was reinstated. Appeal was then made to the Sultan to interfere, but without result. Matters grew rapidly worse and worse in Alexandria, until they culminated in the massacre and panic of June 11th, and the succeeding bombardment.

It is mooted in prominent circles that the Sultan has really been the instigator of Arabi Bey in his hostility to the Western powers, and his vacillation and indifference in spite of the pressing demands of the representatives of the great powers of Europe, give warrant for the opinion. Abd-ul Hamid has to a great extent succeeded in being known in the East rather as the Commander of the Faithful than as the Sultan of the Turks, and it is perhaps in the former character that he has reduced the Sublime Porte and his authorized ministers to insignificance, and transacts all the business of the empire in person. The Khedive, Tewfik Pasha, is a good-natured man, with little firmness of character.

Arabi Bey, the leading spirit of the movement which has plunged Egypt into anarchy and precipitated a condition of affairs, the outcome of which to Europe is uncertain, is described by Dr. Field.

who saw him a few months since at Cairo, as a man of large physique, with rather a heavy face, except his eye, which looks as though it might flash fire if he were once aroused. "His manner was very quiet, and the few words that he said, when I conversed with him through an interpreter, were such as might be uttered by any other patriotic man." In our portrait he appears a man of strong and determined will, with a keen perception and a more alert and active temperament than is possessed by the typical Turk. He probably possesses more Arab than Turkish qualities; in fact, is said to have descended from the stock of Abraham, and prior to his birth certain great things were predicted concerning his future career. He was educated in the subtle theology of the Mohammedan faith; then entered the army of the Khedive. He did not find favor in the eyes of Ismail Pasha, who refused to advance him above the rank of a major; but after Ismail was deposed, and Tewfik appointed Khedive, Arabi received the rank and title of Bey.

At this writing the situation appears to us by no means flattering to the course England has adopted, and we are of opinion that she was hasty in marshaling her war-ships against the forts of Alexandria. If her Indian interests must be protected and the Suez Canal kept open, would it not have been better for her to station iron-clads at such points as the security of the canal required? If the object were to maintain the rights of the bondholders it seems to us that destroying the principal city of Egypt and throwing the people into disorder is not a very effective method for the payment of either interest or principal owing by Mussulmen to Christians.

THE CONVENTION.

SINCE publishing the item which set forth the expediency of a public demonstration on the part of the friends of Phrenology at large, we have received several communications which approve in earnest terms the holding of a convention. It has become the custom for men and women who are interested in any important department of intellectual or social or moral thought to assemble at certain times for the discussion of questions relating to their work. In this way they maintain their own activity, publish to the world the fact of the existence of certain movements, and invite the attention and co-operation of society. There are associations whose existence is scarcely indicated beyond their annual meetings or conventions. Yet the proceedings of these conventions are awarded prominence in the newspaper reports and secure wide and influential circulation. There are other associations which owe their existence and rapid growth to such conventions—their objects gaining in importance with each repetition of the annual assembly.

The friends of Phrenology are many; they are found in every class of society and widely distributed throughout the world, and we are of the opinion that a well-arranged plan for a convention would bring together a large and influential assembly. It would be a company of gentlemen and ladies that would close the mouths of those inconsiderate, if not always ignorant, ones who are in the habit of relegating our doctrines to a corporal's guard of fanatics and half-educated people. It would be of a character that would compel the respectful attention even of those persons who are so ready to

air their superficial views on "advanced science" with "words of learned length and thundering sound," but little practical application.

A convention of Phrenologists would have many interesting topics related to the science and art of their subject for discussion, and their varied experiences would give to the proceedings an interest and attraction which no other subject could possess. In the communication which we append a suggestion is made with reference to one matter which it is thought should properly be considered at such a convention. We have the writer's permission to use the letter.

JUNE 25th, 1882.

MRS. S. R. WELLS :

WORTHY FRIEND: Yours of the 5th ult. reached me by due course of mail. I wished to counsel with absent friends on the subject matter of your letter, which has prevented an earlier reply. Am gratified to learn that you are now seeking to consummate the long-cherished purpose of your much-lamented husband, viz., to provide ways and means for establishing Phrenology on a solid and self-perpetuating foundation.

To the science of Phrenology your late husband, S. R. Wells, devoted his entire life. His cabinet, library, etc., are of great value to the American people, and can not be estimated by the standard of dollars and cents. If the whole case is presented, so as to be rightly understood by the friends of the science your husband labored so hard and long to develop and perpetuate, they surely will assist you in obtaining the necessary means to secure and provide for the safe keeping of the large library, cabinet, etc., which cost so much money and labor to collect. If lost or destroyed, it is doubtful whether another of equal value could be again collected. Different plans of proceeding might be suggested, but whatever course is adopted, the columns of the PHRENO-

LOGICAL JOURNAL must be the medium through which the facts and desired information are disseminated.

Let the columns of the PHRENOLOGICAL JOURNAL be devoted to a full and free discussion of the condition and situation of affairs, supplemented with an appeal to the friends of Phrenology everywhere to come forward and assist with material aid in accomplishing the much-desired object. Mankind are slow in awarding due credit to the benefactors of the race. The self-sacrificing devotion of the devotee of science is seldom appreciated or recognized in his lifetime. Pope well says, "The proper study of mankind is man," yet a profound thinker has said: "There are fewer students of man than of geometry."

Being a member of the phrenological graduating class of 1867, I can appreciate, as well as other friends of phrenological science, the value of the Wells cabinet and library to the student, and the importance of their preservation, and would suggest that there be a convention, or reunion, of all the students of the Institute of Phrenology, held in the city of New York the coming fall, when ways and means can be provided to accomplish this most desirable object. This done, the writer will pledge one hundred dollars, payable when needed, for the purposes stated.

ONE OF THE CLASS OF 1867.

KINDNESS WELL APPLIED.

ONE of the best forms of practical charity lately developed is that which provides for the health and comfort of poor children in our great city, during the heat of summer. In some of our cities, especially New York and Brooklyn, the practice of sending destitute and sickly little ones to seaside homes or to the country for a season has grown into an institution which is sustained by generous people in and out of the churches. Then there are numerous river and ocean

excursions provided for the children of the poor, scarcely a week passing without its record of such an event at liberal length in the newspapers.

We feel personally grateful to the gentlemen who promote this sort of benevolence, and are always glad to know that the "Fresh Air Fund," as it has come to be called, is well maintained. The country—with wide spaces of meadow and woodland, pure air, sweet water, and unadulterated sunshine—is the proper home of children in summer-time; and yet there are thousands in our cities who would scarcely know that there existed such things as grassy meadows and woods, rippling brooks and peaceful ponds, were it not for that earnest kindness which has provided the country home and the excursion. What a great revelation of happiness the first sight of a green field, with its blossoms of clover and buttercups, must be to a little one of six or seven who has been pent up from babyhood in a close tenement! We don't

wonder at the astonishment of a little fellow when he first saw a flock of chickens in the farmer's barnyard, and asked "What are them things?"

He who could regard unmoved a company of poor children enjoying for the first time the fresh delights of nature far away from the dusty, broiling town, must be a miserly niggard whose "milk of human kindness" long ago dried up.

Go on, ladies and gentlemen, in this good work. It will pay you back richly. It is health and happiness to thousands who would otherwise be sick and miserable. We are told that the health of our New York population is much above the average this summer. We believe that the "Fresh Air Fund" should be largely credited for this very encouraging condition, because the increased mortality of a city during the summer is mainly due to diseases which are then usually very prevalent among children—diseases caused by bad food and bad air.

Our Mentorial Bureau.

To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly 1.00 feet, and the editor often wants to make changes and additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

READING FOR LANGUAGE.—G. W. C.—

You will be helped in the cultivation of the organ of Language by reading the works of celo-

brated authors and committing to memory passages from them. The book entitled *Oratory*, price \$1, in our catalogue, is well adapted to the purpose. Sargent's *Standard Speaker*, \$2.25, is also excellent. You can read the works of Dickens, Thackeray, Irving, and Scott with benefit to the lingual faculty.

OBLIQUE EYES.—*Question*: Some people have eyes that are set in their head at an oblique angle; the inside corners toward the nose being the higher and the eyes are very narrow.

A. W. K.

Answer: This condition is frequently found in persons past forty years of age, whose habits have tended to weaken the muscular apparatus so that the outer angle of the eyelids is drawn downward. It is often met with in persons given to intemperate habits. In such cases the appearance is due to the downward droop of the fleshy integuments. It may be due, however, to the obliquity of the orbit of the eye itself; and, in such a case, the organs situated at the outer angle of the eye are large, viz.: Order and Number.

LONG, SLIM NECK.—J. M. D.—Usually this peculiarity is associated with the mental temperament. It may occur with a predominant motive, in which case it is muscular and bony.

SKEPTICAL LEARNING.—C. G. P.—The points you offer are worthy of serious consideration, and have been considered frequently in these columns. One important reason for the doubt remaining in so many minds, is the fact that a large proportion of the lecturers on Phrenology has been made up of impostors who knew very little about the science of the subject, and, like the numerous quacks who have brought discredit upon Medicine, have gone into Phrenology because it offered a promising harvest of money. People may profess to doubt the subject, but when a man of intelligence and capability comes among them, they are ready to listen to him and accept his teachings. We have seen this illustrated over and over again in our most cultivated circles. We have discussed the subject with gentlemen of scientific eminence and generally found them ignorant of the true principles. As regards the teaching of Mental Philosophy in schools, it may be said that the old views still have the ascendancy, and there is a fear current that to permit Phrenology to be taught would be to subvert not only the old doctrines but also the foundations of religion; an idle fear as regards religion, but allied to that which is entertained with respect to the materialism in the scientific exposition of human development as related to the lower intelligences. Your D.D.'s are even more afraid to have the nervous

system expounded by advanced physiologists than by a professional phrenologist.

CONSUMPTION HEREDITARY.—J. M.—Children may be born with the consumptive diathesis—in fact, this is the case in the majority of instances. But we believe that there need be few fatal results if the child be properly trained in habits of diet, exercise, etc.

CARE OF CAGED BIRDS.—I.—We will give you the experience of a bird-fancier as it was related lately in one of our exchanges. He says a canary may eat, in addition to seed and water, bits of apple, orange, lettuce, celery-tops, sweet potato and cracker—never hemp-seed, and rarely either sugar or cake, these being the things which are fattening, and frequently producing apoplexy. When he has plenty of bread and something green, he eats very little seed. Scalding the cage is the best way to get rid of mites. A little cayenne pepper in the drinking water is good for birds when they appear to be cold or when they have diarrhoea.

LACKS PERSONALITY AND PERSISTENCE.—O. H.—It is very likely that the nature of your occupation has had much to do with the alterations which your cranium has undergone. When one is so related in life that all the faculties are exercised, although some must be more active than others in any event, the brain organisms nevertheless have a better opportunity for growing harmoniously, and the development of the cranium is more uniform. I am inclined to think that your Continuity and Self-esteem were never large and specially influential. To be sure, if one have a monotonous place, like an under clerkship in a store or office, the organs relating to individualism will not have a good chance to grow or become established in energy. Get into other relations if you can, where you can be more independent; take responsibilities, be thoroughgoing and individual, and carry to positive results what you attempt; avoid vacillation, frequent changes; have a purpose in life. If you can not do anything else, enter upon a course of reading or study which shall last years. This would be good practice for bringing up the defective organs.

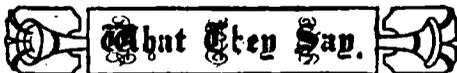
MEETING EYEBROWS.—*Question*: Would you inform me through your JOURNAL what the meeting of the hair of the eyebrows across the root of the nose means, in a person with strong dark brown hair and dark blue eyes?

J.—ENGLAND.

Answer: If thick and strong, the eyebrows indicate an organization in which the Motive temperament is influential. In woman such eyebrows show an inheritance of pronounced masculine qualities. Where the eyebrows meet or

grow together we may expect to find a positive, emphatic, impulsive character, with perhaps much of passion and irritability. If the hair be soft and regular in its growth, especially if symmetrically arched, the above characteristics will be much modified—more refined and elevated in tone.

LEARNING GERMAN.—E. M. B.—Ahn's series is one of the best courses in German we know. Among the dictionaries suited to the learner are Oehlschlager's and Tafel's. The cost of the outfit will be about \$2.50.



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

"HEAD-SIZE *versus* BRAIN-POWER."

—The following remarks on the above subject I clip from a paragraph which has been going the rounds of American papers, and credited to the *Lancet*—of course, the London *Lancet*. All who are familiar with the medical literature of the world know that the London *Lancet* is one of the first medical journals of England, and of the few cosmopolitan medical journals of the world.

I quote the paragraph word for word as I find it in the *Times-Democrat* of New Orleans:

"Among the recently published statistics of head measurement, as inferred from the size of hats, are the following: Lord Chelmsford, 6½ full; Dean Stanley, 6½; Lord Beaconsfield, 7; the Prince of Wales, 7 full; Charles Dickens, 7½; Lord Selbourne, 7; John Bright, 7; Earl Russell, 7½; Lord Macaulay, 7½; Mr. Gladstone, 7½; Archbishop of York, 8 full. These measurements are produced from statistics by Mr. F. F. Tucker, and the contemporary in whose columns they are reproduced is responsible for the remark, 'Whatever may be the case with regard to brains, it would scarcely seem from these figures that hats are a criterion of brain power.' It would be strange, indeed, if any moderately intelligent person supposed the hat, or even the head, could supply the measure of brain power. The late Dr. Prichard finally disposed of the notion that cranial measurement could be accepted as brain measurements. Since his day the student of cerebral development has ceased to rely on what used to be called 'phrenology.' The chief point of interest as yet elicited from the direct investigation of brain measurement would seem to be that the cerebral organs commonly found in the class of brain-workers show evidences of being locally and specially developed, and probably as a physical consequence are irregular, and for the most part unsymmetrical. Hereafter, probably, light may be thrown on the subject of special or regional developments, both in regard to their personal growth and transmission by heredity. For the present, however, we can only say that neither the hat nor the head furnishes trustworthy indications of mental power and capacity, and that the only feature of interest as yet noted is the curious fact

of unequal development and consequent want of symmetry."

The above quotation from the *Lancet* is a fair sample of the perversion of a sentiment and the ignoring of an idea. Phrenology, over and over again, says, in terms most emphatic, "Other things being equal, size is an indication of power." It would seem that the intelligent people of the world at least would understand this—they readily understand it in other things. The larger the ship of war, other things being equal, that is, strength, speed, and equipments, the more powerful she is; the larger the physical man, other things being equal, strength, vitality, motion, the more powerful he is; and so we might apply this idea to a thousand things—to animals, to machines, and even singly to inanimate matter. The idea, it would seem, was not above the ordinary mind to grasp, and yet, when these learned men touch upon phrenology they ignore and seem perfectly oblivious to all that the advocate of phrenology says in regard to *other things being equal*, size is the indication of superior power. In this short article from the *Lancet* not one word is said about the shape of these men's heads, whether their size is made up in *width* or *length*, neither is there any mention of the size of their bodies, and yet one as intelligent as a contributor to the *Lancet* should know that under ordinary circumstances the man weighing only 130 pounds would not be likely to have as large a head, and therefore wear as large a hat as one weighing 200 pounds. Then a learned man should know that fineness of temperament should have some influence in the case. His practical sense readily teaches him that there are oftentimes circumstances under which, merely physically, the smaller man is the superior man; that oftentimes the smaller animal has more real strength than the larger animal. But these men when they come to phrenology seem to lose their common mother wit. They seem to forget, at least entirely overlook, the matter of *balance of parts and strength of wholes*. They would make phrenology a single exception in the world. In regard to all other matters, "other things being equal, superior size is an indication of superior power, excepting in phrenology. Phrenology is to them, as a Frenchman would say in broken English, 'von grand humbug.'"

Over and over again the phrenologist plainly lays down the law "other things being equal," etc. It seems to "go in one ear and out the other," making no impression upon the brain.

Years ago in the civilized country where the *Lancet* is published this idea was published to the world, and published and republished over since, and yet every once in a while we see in some learned journal just such comments, plainly revealing the fact that *odieris paribus*, as applied to phrenology, is a meaningless phrase.

Suppose John Smith does wear a larger hat than William Jones, that in itself does not imply any greater mental power. But these anti-phrenologists are most inconsistent people. I have seen many of them, yet I have never seen one but what felt much pride and expressed a deal of satisfaction in wearing a larger hat than his neighbor, or in having a higher forehead. There seems to be a natural instinct to venerate size of hat and height of forehead, especially among these men, at least when they happen to have the highest forehead and wear the largest hat; but let one of them be more than ordinarily smart and have rather a small head and wear a small hat, and he at once rails on phrenology and ridicules size in some dunce; without apparently knowing what a mistake he is making, he derides phrenology, which, according to his notions, teaches, the larger the head the greater the mental power.

Phrenology does not teach any such silly doctrine, and I challenge these contributors to the *Lancet*, and all, to show wherein it teaches any such absurdity. On the contrary, over and over again, in every book by any respectable phrenologist, will be seen in this connection the *ceteris paribus*—other things being equal, size is an indication of superior power. The *other things* are fineness, vitality, and proportion. We can, if we will, take either of these other properties, it matters little, size alone is not the only quality to which to attach the *ceteris paribus*. We can as well say, other things being equal—fineness, quality, vitality, or proportion will indicate the superior power. It would seem that it was full time these men, these anti-phrenologists, took some note of quality, that when they wrote about the size of the hat they would endeavor to ascertain something in regard to the organization of the individual, note *where* the hat is large or small, and what the general shape, whether it be the front or the back part of the head which requires the size. Then the measurement of the hat which these learned men regard as so important is only a measurement on one line—it is merely a horizontal measurement, which merely shows how much it takes to go around the whole, and not the size of any relative part. If there were mountains of precious ore in question very few men would be silly enough to take a measurement on the basis of this hat measurement; they would readily see that height had full as much to do with the quantity as the mere horizontal surface covered. Then they would be very particular as to the quality of the ore; they might see wherein a mountain of ore a mile high and two miles across its base was far more valuable than one two miles high and three or four across its base. They would be very much insulted if one questioned their sharpness in this matter and endeavored to make them believe that the

greatest horizontal measurement, or hat measurement, indicated the most value; their common-sense, to say nothing of their higher qualities, would be much insulted. They would not be satisfied if they could have their choice, with a mere horizontal measurement; they would want a measurement that would include height as well as width; and in addition to this they would want an analysis of quality before they took much stock in the company that proposed to "work" the mountain of ore.

When will the world become sensible and fully comprehend and understand the full force of the *ceteris paribus* of the phrenologist? It would seem that it was now full time, yet from such articles as these in the *Lancet* it is quite evident that where we might expect much light there is still much darkness.

Ceteris paribus wants advertising. When its full import is well understood by the world at large, the world will think and feel that it has received a new revelation, and it will wonder at its past stupidity. Gradually it will be led up to understand the full meaning of this strong phrase of the phrenologist—the *strength of the whole*. 18AAG P. NOTES.

INDIAN PHRENOLOGY.—The following letter by an eminent sculptor is copied from the Washington, D. C., *Republican*. It evidences the interest shown in phrenological science by prominent scientists:

"In your issue of April 29th a writer, who signs himself 'Honoris,' says: 'The statements made by Gen. Armstrong, of Hampton Institute, a few evenings ago, at the Congregational Church, to the effect that Capt. Pratt, United States Army, about ten years ago, first suggested the bringing of Indian children into civilized centers for their education is an error. This idea was first publicly put forth by Capt. T. J. Spencer in a lecture delivered in 1869.'

"This statement in regard to T. J. Spencer's lecture, delivered in 1869, and Capt. Pratt may be true. We conceived the same idea in 1864, after taking the heads of several Indian chiefs. As they all had the same organs developed, we suspected it was due to their mode of life, which had cultivated the same organs in each head. We then conceived the idea that in order to civilize or Christianize them we must change their mode of life, and knowing as we did by experience the great difficulty in putting new dogmas or beliefs into the head of an adult person we were led to the conclusion that if they were to be civilized or Christianized it must be done while they were children. We approached Prof. Henry with this new idea. He thought the idea good, but not feasible; did not know how it could be done. Some time after we spoke to Prof. Baird of the peculiarity of the Indian head, and he proposed to

purchase the heads for the institute. Some time after that I received a commission to go to Fort Marion, Florida, and take casts of the heads of sixty-four Indian prisoners, when I found the same organs developed as in the heads taken in Washington. I wrote at once to Prof. Baird, then in Massachusetts, informing him of the fact, and asking if it would not be well to have casts taken of New York Indians, who had been civilized for a hundred years. And if we should find the same development of the head as in the wild Indian we might then safely say for a fixed fact that they were made Indians and can not be changed. But if, on the contrary, we find the organs called into action in the wild state have become depressed, and those which indicate civilization have become enlarged, then we might say all they require is education; they have as much brain power as the white man. The subject was brought to the attention of the ethnologists, and it resulted in sending among the wild Indians and taking their children, male and female, and bringing them to Hampton to be educated. We received a commission to take casts of the children's heads, so that when educated, casts might again be taken to ascertain what change, if any, had taken place in the formation of their heads. In conclusion, I will say that few men have the phrenological organization to govern men like Capt. Pratt. He has a large head, showing brain power. He is self-reliant and has great will power. He would have made a good 'Moses,' but more humane than the one of old.

CLARK MILLS."

PERSONAL.

MRS. ABRAHAM LINCOLN died in Springfield, Ill., at the residence of her sister, Mrs. N. W. Edwards, July 16th, last. She had been ill for a long time, and a few days ago her health began to grow worse, until a shock of paralysis hastened the end. She was sixty-six years of age, and born in Lexington, Ky., the daughter of Dr. Robert S. Todd, a physician well known and greatly respected in that region. Her family was one of the earliest of those that settled in the eastern part of Kentucky, and there are many members of it still remaining there, and by its intermarriages it is connected with many of the most prominent pioneer families in the West.

DAVID THOMAS, who died at Catsanqua, Pa., June 20th, aged 87 years, put into blast on the 4th of July, 1840, the first furnace which successfully smelted iron ore by the use of anthracite coal with the hot blast. He lived to see the present vast extension of such furnaces, producing 5,000,000 tons of pig iron annually.

MISS ANNA WHITNEY, the Boston sculptress, has completed her plaster cast for a statue of Harriet Martineau, and shipped it to Florence, where it is to be produced in marble. The statue will cost between \$12,000 and \$15,000, and the money for it has been subscribed entirely by women.

AN exchange gives us the following notes of persons whose long life is remarkable: Mrs. Clarissa Raymond, of Wilton, Conn., is 100 years old; William Wrenn, of Virginia, is 100; Mrs. Lucy Pickett died at Saugatuck, aged 115; Mrs. Catherine Highland, of Marietta, died at 102; W. B. Gould, of Hillsborough, Maine, is 92; Mrs. Mary Boynton recently died in Massachusetts, aged 100; Henry Jewett, of Georgia, after living alone 96 years, has just married a girl of 16; Mrs. Abbie Graham, a widow in Nova Scotia, is 105; Jesse DeLong died at Dennison, Ohio, aged 103, and leaves a son aged 70, and a daughter aged 72; and there is Joseph Greene, aged 101, living at Swanton, N. H.; with his wife, aged 90.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

THE aim of education is to show how to think.
—BEATTIE.

It is the enemy whom we do not suspect who is the most dangerous.—ROSAS.

THE first and last thing which is required of genius is the love of truth.—GOETHE.

TRUTH and love are two of the most powerful things in the world, and when they both go together, they can not easily be withstood.

THE cheerful heart, like the kaleidoscope, causes most discordant materials to arrange themselves into harmony and beauty.

MAKE a little fence of trust
Around to-day.

Till the space with loving works,
And therein stay.

I CALL a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war.—MILTON.

OUR whole working power depends on knowing the laws of the world—in other words, the properties of the things which we have to work with and to work among, and to work upon.—J. S. MILL.

It should not be that our costly garments hang unused in closets or molder in drawers and

chests, while many worthy ones go almost naked, or so poorly clad that they are ashamed to appear in public.

MIRTH.

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

WHAT the milkman said when he found a fish in the milk, "Good heavens! The brindle cow has been in swimming again."

SAID a fond husband to his wife: "My dear, I think I'll buy you a little dog." "Oh, no!" she replied, "do not! I prefer giving you all my affections!"

"MARY," said a mother, "if I were a little girl like you I should pick up all those chips." "Well, mamma," answered Mary, "aint you glad that you are not a little girl?"

TO A PERSON SNORING.

You, who the world in tumult keep
With open mouth whene'er you sleep,
In mercy some atonement make,
And keep it shut while you're awake.

A NURSE was telling about a man who had become so terribly worn out by dissipation that he could not keep any food on his stomach, when one of her listeners asked:

"What does he live on, then?"

"On his relations, ma'am," answered the nurse.

THE Prince of Wales lately received a diverting reply from the Mayoress of a midland county-town, whom he offered to escort to the refreshment-room. "Thank your Highness," said the dame, "but I'm *shampooing* a couple of young ladies, and I don't like to leave them." She meant "chaperoning."

A WESTERN editor once apologized to his readers thus: "We intended to have a death and a marriage to publish this week, but a violent storm prevented the wedding, and the doctor being taken sick himself, the patient recovered, and we are accordingly cheated out of both."

HE RESUMED.—"Father," said the young man, as he leaned on his hoe, "they say the balance of trade is agin us." "They do, eh?" "And that our bank reserves are rapidly diminishing." "Du tell!" "And that railroad extension has come to a halt." "Well, I swan!" "And that the volume of securities is substantially without a market." "Great snakes. Well, I never. And do they say anything about a feller stopping to lean on his hoe to talk when he might just as well talk and hoe too?" Reuben spit on his hands and resumed.



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 and physiological science. We can usually supply any of those noticed.

HISTORY OF WOMAN SUFFRAGE: Edited by Elizabeth Cady Stanton, Susan B. Anthony, and Matilda Joselyn Gage. Vol. II., 8vo, pp. 952. Illustrated. New York: Fowler & Wells.

This second volume of the history of the movement in behalf of securing to woman the typical privilege of citizenship, shows no abatement of attractive interest. Covering as it does one of the most important periods in our national history, it could not be expected to be otherwise than specially interesting, because the late civil war was prolific of social and political agitations in which woman was called upon to take some part, more or less conspicuous, and there were occasions when the aid given by women to some movement made it a success. In the camp, and in the hospital, in the lecture-room and on the stump, women were found to be of great value to the comfort, health, and success of men, and they learned more clearly the fact of the intimate relation between the affairs of State and the ties of the home.

The editors have passed in review the services rendered by their sisters in the war, and then their efforts to procure favorable Congressional action, the proceedings at the National Woman Suffrage Convention from the first held in 1866 to that of 1875, and their efforts in relation to the construction of the Fourteenth and Fifteenth Amendments on a basis of impartiality in their behalf. Necessarily a good deal of national history is involved in what is reviewed, and many of the more important events of the war and reconstruction periods are discussed with vigor and clearness.

The admirable portraits in steel, of women whose names are eminent in philanthropy, science, literature, and reform, like Anna Dickinson, Clara Barton, Julia Ward Howe, Lucy Stone, etc., and the very entertaining sketches of their lives, lend a special charm to the volume, and in themselves constitute a strong inducement to the general reader for its purchase. We doubt not that this second volume will share the success of the first.

THE REVISERS' ENGLISH: A Series of Criticisms, showing the Revisers' Violation of the Laws of the Language. By G. Washington

Moon, F.R.S.L., author of the "Dean's English," etc. 12mo, pp. 84, cloth, price 75 cents. Funk & Wagner, New York.

Mr. Moon has not been heard from for many years. We remember that he was at one time regarded as a sharp, almost cynical critic, taking to task other critics of language for inaccuracies and abuses. With this reputation, one could scarcely expect him to consider the new revision with general favor; and, on opening his book, we find his sharp pen leveled at many of the phrases and words which the Revision Committee have introduced into their work. Mr. Moon is scarcely anything without being a controversialist, but, in this particular, he renders his volume attractive to those who are fond of grammatical studies. The many who have found fault with the language of the new revision will regard Mr. Moon as a doughty champion of their cause. Glancing through the book, we are impressed that many of the points which the critic makes are well taken, and the fact is clearly shown that, in several instances, the revisers were not warranted in their selection of phraseology to express the meaning of the original. It is strange that they did not, at least, always make a pronoun agree with its antecedent and a verb agree in number with its subject. Also, in the use of the terms "shall" and "will" there is evidently confusion, and the frequent pleonasm, quite unnecessary, add, in most cases, no force or beauty to the style. Mr. Moon's book, although a small one, presents too many cases of bad English, which, considering the scholarship and eminence of the gentlemen who conducted the revision, should not have been allowed to mar a work which, in its general character, is a great improvement on the old revision.

CALIFORNIA FOR HEALTH, PLEASURE, AND RESIDENCE. A book for Travelers and Settlers. New edition, thoroughly revised, giving detailed accounts of the Wine and Raisin-grape, the Orange, Lemon, and other semi-tropical Fruits, etc. By Charles Nordhoff. With maps and illustrations. Large 8vo, pp. 208. New York: Harper & Brothers.

When the first edition of this book appeared several years ago, we pronounced it the best description of California that had appeared, and admirably calculated to draw the attention of the reading world to that country of delightful surprises. Now that the publishers have given us a revised edition, we can scarcely do more than repeat our opinion with some emphasis. We would advise the American who is meditating a trip across the Atlantic to read the book. If it be health he seeks, he will be informed by Mr. Nordhoff that the California climate can scarcely be surpassed for restorative influences. If it be scenery—wild, picturesque, grand, romantic—he would view, let Mr. Nordhoff's de-

scriptions and the beautiful prints of this book enlighten him as to what he will find in the Golden State. If he wish to study life and character, he can fill up his time among the old Spanish settlements, among the remnants of once powerful Indian tribes, and among the immigrants—French, English, German, etc.—who cultivate the orange, the lemon, and the grape on the fertile plains and hillsides of Los Angeles and Santa Barbara. In natural curiosities, California is not equaled by any country of Europe. It is necessary to mention only the Farallon Islands, the Yo Semite Valley, the lakes, the mining camps of the Sacramento regions, which would furnish a tourist a round of enthusiastic sight-seeing for six months or more. Mr. Nordhoff's purpose in writing the book was a practical one—to supply real information to those who need it concerning California; and the work has been well done. The illustrations are numerous, graphically representing the scenery, life, and industries of the country, and contributing beauty to an otherwise well-made volume.

MENTAL SCIENCE, as explained by Phrenology. By L. N. Fowler, author of "Lectures on Man," etc. 12mo, pp. 64, paper, 25 cents. Fowler & Wells, New York.

A clear description in brief of the functions of the brain. An excellent pamphlet for one to read in the outset of his study of the phrenological system of mind.

HOW TO BE WEATHER-WISE: A New View of Our Weather System. By Isaac P. Noyes. 12mo, pp. 51. Fowler & Wells, Publishers, 753 Broadway, New York.

This is a brief and plainly-written explanation of the causes of changes in the weather, based upon the system of the United States signal service. It also explains the nature of that service. Comparatively few appreciate the value of the Weather Bureau because its work is but little understood by the people who read the daily "Indications." Mr. Noyes shows how the data are obtained for these Indications, and how simple a matter it is to observe weather signs, when the principle involved in weather movements is understood. Everybody, he claims, can observe the weather himself and be his own weather prophet, and in good, square English he indicates the way.

PUBLICATIONS RECEIVED.

BOYS' AND GIRLS' TEMPERANCE TEXT-BOOK. By H. L. R. Reid. A catechism adapted to the use of schools, consisting of short chapters on alcohol and its relations to the physiology of the human body; discussing, also, the effects of intemperance on one's habits and character, and on business and society. It is a little book which, with the assistance of a teacher, would

impress upon the young mind valuable facts. Price, in boards, 20 cents. Published by the National Temperance Society. J. N. Stearns, Agent, New York.

SPIRITUALISM AT THE CHURCH CONGRESS. By M. A. (Oxon). With advice and information for inquirers, and some additions by the American publisher. Price, 10 cents. Chicago: Religio-Philosophical Journal.

SYNOPSIS OF A CHRISTIAN THEOLOGY. By R. J. Wright, LL.D., Professor of Ethics, Metaphysics, and Church History in the Christian Biblical Institute. Presented by the author. Philadelphia, Pa. A pamphlet of 144 pp. 18mo, which covers the general field of theology. The chief topics considered are: Authorities for religion; The establishment of nature in free-will and fore-ordination; Means of grace; Relations of church with civil society; The future state, and Mutual relations of doctrines. The writer departs but little, if any, from the main line of orthodoxy.

THE ECLECTIC MAGAZINE for August contains a good selection from current literature. Among the subjects are: The faiths of the world, Peel and Cobden, Thought Reading, Newton and Darwin.

THE CENTURY has maintained in its mid-summer number its well-earned character for beauty of illustration and attractiveness of reading matter. The most interesting articles are a description of the Borderlands of Surrey, England, in which the work of the artist is of the highest character. An instructive sketch of the American Museum of Natural History in New York Central Park is given, and also an off-hand sketch which gives an inside view of the homes and studios of prominent English artists.

The last suggests its neighbor, *Harper's Magazine*, for the same month, whose first article seems to the eye like a glorification of certain of our Western neighborhoods, so rich are the illustrations. Certain glimpses of Spanish life are included in the generally excellent series of articles.

The August number of the *North American Review* is notable on account of three or four papers which have an important bearing upon the times: for instance, Mr. Beecher's Progress in the Church; The Organization of Labor; The United States Army, in which Archibald Forbes gives a very encouraging view of our small military establishment, making comparisons with foreign systems of soldiery, especially that of his own country; and Woman and Woman's wages.

THE CHRISTIAN PHILOSOPHY QUARTERLY, the organ of the American Institute of Christian

Philosophy, in its last (July) number contains *The Gains and Losses of Faith from Science*, by President Bascom, of the University of Wisconsin; *Recent Physical Theories*, in their bearing on the Theistic Argument, by Professor B. N. Martin, D.D., of the University of New York; and other ethical papers. In the four numbers issued this *Quarterly* has taken a place of good rank among our most valuable periodicals.

A TREATISE ON THE DECLINE OF MANHOOD: Its causes, and the best means of preventing their effects and bringing about a restoration to life. By A. E. Small, A.M., M.D., President of Hahnemann Medical College and Hospital. Duncan Bros., Chicago. The author, in the space of a hundred pages, indicates the chief features of nervous debility and general weakness consequent upon irregularities of habit. It is, in fact, a special treatise in the main well arranged, and supplies useful suggestions for treatment, which, so far as medication is concerned, is based upon the homeopathic system.

THE OLD MAN'S REVERY, interspersed with teachings on natural and moral philosophy and exposures of wrongs and abuses. By Charles Foster, of Ashland, Mass.

CATALOGUE of the Officers and Students of Fisk University, Nashville, Tennessee. 1881.

THE VERDICT MARCH. By Eugene L. Blake. Music, like poetry, attacks everything nowadays. One of its devotees would even embalm the memory of the late celebrated trial at Washington in rhythmic measures. Price, 40 cents. F. W. Helmick, Cincinnati, O., publisher.

Messrs. J. S. Ogilvie & Co., of New York, have made the following additions lately to their "People's Library":

STRAY SHEEP. Price 10 cents.—**GOOD-FOR-NOTHING DICK, or a Hero of Humble Life.** By Dr. J. H. Robinson. 10 cents.—**NINETY-NINE CHOICE READINGS, No. 3.** Compiled by J. S. Ogilvie. 10 cents.—**A DAINYTY LADY.** By the author of "A Guiltless Prodigal." 10 cents.—**CHRISTIAN'S MISTAKE.** By Miss Mulock. 10 cents.—**MISS SLEMMEN'S BOARDING-HOUSE.** By the author of "A Bad Boy's Diary." 10 cents.—**LIGHT IN DARKNESS.** By Miss Mulock. 10 cents.—**WHY NOT?** and other stories. By Annie Thomas. 10 cents.—**FLOWED BY MOMENTS,** and other sketches. By Mary Cecil Hay. 10 cents.—**THE TELEGRAPH GIRL.** By Anthony Trollope. 10 cents.—**A PREP BEHIND THE SCENES.** By Mrs. O. F. Walton. 15 cents.

WHY I OUGHT TO GO TO CHURCH. By Rev. Selah W. Strong. A little tract. J. S. Ogilvie & Co. are the publishers.

THE
PHRENOLOGICAL JOURNAL
 AND
LIFE ILLUSTRATED.

VOL. 75.
1882.

NUMBER 4.]

October, 1882.

[WHOLE No. 527.



CLARA BARTON,

THE AMERICAN APOSTLE OF THE RED CROSS.

TH**E**RE are elements of strength in this portrait which are evident enough to the observer. The profiles of the top-head, of the mouth and chin and cheek, indicate them. Strength of character has several phases; in some persons it has the character of the fierce, resistless cyclone, in others it is like the steady, groundswell of the ocean; in others it resembles the sturdy oak standing alone in the broad meadow; in others it is like the dashing, foaming current of

a rapid river; in others still, it operates like a shifting gusty wind; in still others it reminds one of the flow-tide, the waves of which, seemingly, retreat after an influx, but only to return with increased power and further advancement. By organization, Miss Barton appears to possess, in a good degree, the type of strength illustrated by the ocean movement; by temperament there is something of the tidal in her nature, an emotive influence which adds an elastic, sensitive, correlative energy to what would otherwise be positive and inflexible in its manifestation of power. By organization she is distinguished for remarkable firmness and decision, a tone of character due partly to the influence of her intellect, which is so marked by perceptive ability as to render her much more than usually appreciative of the practical in life. She looks at the real situation of affairs, marks its bearing on the future of an undertaking, weighs the effect of direct or indirect effort, and "counts the cost" before entering fully upon any work. But when a result is reached—and she is much more deliberate than nine out of ten women in coming to conclusions—it is converted by her Firmness into a conviction which becomes a motive, an energizing factor which she must obey. She is not slow to form impressions, but to act upon them, unless they are confirmed by her practical sense of their correctness, and her moral nature is convinced of the expediency of their application.

Her temperament is active, and its influence on an organization containing many attributes of practical energy is stimulating and inspiring. She is ambitious to win success, and will work steadily and patiently toward her object,

believing that she will reach it. She has large Caution, but it has Combativeness behind it, so that she is prudent and calculating without being fearful or irresolute in her work. Her Firmness is backed up too by Conscientiousness, the chief source of her moral strength:

"To labor in the path of duty—
Springs up like a thing of beauty"

to her, and the sense of obligation furnishes her with spirit and enthusiasm, in which there are no adulterations of selfishness. She is not inclined to imitate others, merely, because it is correct "form" to do so; she will not follow in old paths when she can reach her object by more direct and better channels; but her conduct is governed in the main by her intellectual sense of fitness and by convictions of duty. She is not wanting in respect for others, yet her demeanor is more characterized by honesty and kindness and a sensitive reserve than by formal courtesies. The head is long in the anterior lobe, and comparatively short in the lower occipital. This indicates a mind in which the intellectual faculties are more influential than the social sentiments, or rather a mind in which the operation of the social feelings is controlled by the judgment and divested of merely passional phases. With so much intellect and so much positiveness and decision, such a mind demands an object, and is strenuous in effort for its accomplishment; the sentiments of duty and aspiration are gratified only by success, and that in large measure.

The following sketch of this lady's career—a life entirely without precedent, so far as its more conspicuous features are concerned—is derived mainly from the second volume of the "History of Woman Suffrage."

Clara Barton was the youngest child of Capt. Stephen Barton, of Oxford, Mass., a non-commissioned officer under "Mad Anthony Wayne." Captain Barton, who was a prosperous farmer and leader in public affairs, gave his children the best opportunities he could secure for their improvement. Clara's early education was received principally at home under the direction of brothers and sisters. At sixteen, she commenced teaching, and followed the occupation for several years, during which time she assisted her oldest brother, Capt. Stephen Barton, Jr., a man of fine scholarship and business capacity, in equitably arranging and increasing the salaries of the large village schools of her native place, at the same time having clerical oversight of her brother's counting-house. Subsequently, she finished her school education by a very thorough course of study at Clinton, N. Y. Miss Barton's remarkable executive ability was manifested in the fact that she helped to popularize the Public School system in New Jersey, by opening the first free school in Bordentown, commencing with six pupils, in an old tumble-down building, and at the close of the year, leaving six hundred in the fine edifice at present occupied.

At the close of her work in Bordentown, she went to Washington, D. C., to recuperate and indulge herself in congenial literary pursuits. There she was, without solicitation, appointed by Hon. Charles Mason, Commissioner of Patents, to the first independent clerkship held by a woman under our government. Her thoroughness and faithfulness fitted her eminently for this position of trust, which she retained until after the election of President Buchanan, when, being suspected of Republican sentiments, and Judge Mason having resigned, she was deposed, and a large part of her salary withheld. She returned to Massachusetts and spent three years in the study of art, belles-lettres and languages. Shortly after the election of Abraham Lincoln she was recalled to the Patent Office by the same administration which

had removed her. She returned, as she had left, without question, and taking up her line of duty, awaited developments.

When the civil war commenced, she refused to draw her salary from a treasury already overtaxed, resigned her clerkship, and devoted herself to the assistance of suffering soldiers. Her work commencing before the organization of the commissions, was continued outside and altogether independent of them, but always with a cordial sympathy. Miss Barton never engaged in hospital service. Her chosen labors were on the battle-field from the beginning, until the wounded and dead were attended to. Her supplies were her own, and were carried by government transportation. For nearly four years she endured the exposures and rigors of soldier life, in action, always side by side with the field surgeons, and this on the hardest-fought fields; such as Cedar Mountain, second Bull Run, Chantilly, Antietam, Falmouth and old Fredericksburg; at the siege of Charleston, on Morris Island, at Wagner, Wilderness and Spottsylvania, the Mine, Deep Bottom; through sieges of Petersburg and Richmond with Butler and Grant; through summer without shade, and winter without shelter, often weak, but never so far disabled as to retire from the field; always under fire in severe battles; her clothing pierced with bullets and torn by shot, exposed at all times, but never wounded.

Firm in her integrity to the Union, never swerving from her belief in the justice of the cause for which the North was fighting, yet on the battle-field she knew no North, no South. She made her work one of humanity alone, bestowing her charities and her care indiscriminately on the blue and the gray, with an impartiality and Spartan firmness that astonished the foe and perplexed the friend. On this account she often fell under the suspicion or censure of Union officers unacquainted with her motives and character. Their reproaches or taunts were met with the same calm courage as were the bullets of the enemy,

and many a Confederate soldier lives to bless her for care and life, while no Union man will ever again doubt her loyalty. All unconsciously to herself she was carrying out to the letter in practice the grand and beautiful principles of the Red Cross of Geneva (of which she had then never heard), for the entire neutrality of war relief among the nations of the earth, a great international step toward a world-wide recognized humanity, of which she has since become the national advocate and leader in this country.

At the close of the war she met exchanged prisoners at Annapolis. Accompanied by Dorrence Atwater, she conducted the expedition, sent at her request by the United States government, to identify and mark the graves of the 13,000 soldiers who perished at Andersonville. From Savannah to that point, as theirs were the first trains that had passed since the destruction of the rail-roads by Sherman, they were obliged to repair the bridges and the embankments, straighten bent rails, and in some places make new roads. The work was completed in August, 1865, and her report of the expedition was issued in the winter of 1866.

The anxiety felt by the whole country for the fate of those whom the exchange of prisoners and the disbanding of troops failed to reveal, stimulated her to devise the plan of relief, which, sanctioned by President Lincoln, resulted in the "search for missing men," which (except the printing) was carried on entirely at her own expense, to the extent of several thousand dollars, employing from ten to fifteen clerks. In the winter of 1866, when she was on the point, for want of further means to carry out her plans, of turning the search over to the government, Congress voted \$15,000 for reimbursing moneys expended and carrying on the work. The search was continued until 1869, and then a full report made and accepted by Congress. During the winter of 1867-8 Miss Barton was called on to lecture before many lyceums regarding the incidents of the war.

In 1869, her health failing, she went to

Switzerland to rest and recover, where she was at the breaking out of the Franco-Prussian war, and immediately tendered her services on the battle-field, under the auspices of the Red Cross of Geneva. The Grand Duchess of Baden, daughter of the Emperor of Germany, invited Miss Barton to aid her in the establishment of her noble Badise hospitals, a work which occupied several months. On the fall of Strasburg Miss Barton entered the city with the German army, organized a labor system for poor women, conducting the enterprise herself, employing remuneratively a great number, and clothing over thirty thousand. She entered Metz with hospital supplies the day of its fall, and Paris the day after the fall of the Commune. Here she remained two months, distributing money and clothing which she carried, and afterward in every besieged city in France she extended succor to the poor and suffering.

She is a representative of the "International Red Cross of Geneva," and President of the American National Association of the Red Cross, honorary and only woman member of the Comité de Strasbourgeries; was decorated with the "Gold Cross of Remembrance" by the Grand Duke and Duchess of Baden, and with the "Iron Cross of Merit" by the Emperor and Empress of Germany.

Miss Barton may be said to have given her whole life to humanitarian affairs, especially those having a largely national character. The positions she has occupied, whether remunerative or not—and she has filled but few paid positions—have been pioneer ones, in which her efforts and success have been to raise the standard of woman's work and its recognition and remuneration. Her time, her property and her influence have been held sacred to benevolence of that character that will assist in true progress. Nevertheless, she is one of the most retiring of women, never voluntarily coming before the world except at the call of manifest duty, and shrinking with peculiar sensitiveness from anything verging on notoriety.

Her summers are usually passed at her pleasant country residence at Dansville, New York, and her winters in Washington in the interests and charge of the great International movement which she represents in America.

In a recently prepared pamphlet Miss Barton explains at length the motive of the Red Cross, with many interesting facts gleaned from the history of the undertaking, which not only is one of the noblest expressions of humanitarian zeal known in our civilization, but also a powerful motive toward the establishment of peace, sympathy and co-operation among nations. In behalf of this grand movement Miss Barton addresses the government and people of the United States, in eloquent terms, and we close this sketch with a few paragraphs from the address:

"In attempting to present to the people of this country the plan of the Red Cross societies, it is proper to explain that originally and as operating in other countries they recognize only the miseries arising from war. Their humanities, although immense, are confined to this war center. The Treaty does not cover more than this, but the resolutions for the establishment of societies under the Treaty, permit them to organize in accordance with the spirit and needs of their nationalities. By our geographical position and isolation we are far less liable to the disturbances of the war than the nations of Europe, which are so frequently called upon that they do well to keep in readiness for the exigencies of war alone. But no country is more liable than our own to great overmastering calamities, various, wide-spread and terrible. Seldom a year passes that the nation from sea to sea is not by the shock of some sudden, unforeseen disaster brought to utter consternation, and stands shivering like a ship in a gale, powerless, horrified and despairing. Plagues, cholera, fires, flood, famine all bear upon us with terrible force. Like war these events are entirely out of the common course of woes and necessities. Like death they are sure to

come in some form and at some time, and like it no mortal knows where, how, or when. What have we in readiness to meet these emergencies save the good heart of our people and their impulsive, generous gifts? Certainly no organized system for collection, reception nor distribution; no agents, nurses nor material, and worst of all, no funds; nowhere any resources in reserve for use in such an hour of peril and national woe; every movement crude, confused and unsystematized, everything as unprepared as if we had never known a calamity before, and had no reason to expect one again. Meanwhile the suffering victims wait! True, in the shock we bestow most generously, lavishly even. Men 'on 'Change' plunge their hands into their pockets and throw their gold to strangers, who may have neither preparation nor fitness for the work they undertake, and often no guaranty for honesty. Women, in the terror and excitement of the moment and in their eagerness to aid, beg in the streets and rush into fairs, working day and night, to the neglect of other duties in the present, and at the peril of all health in the future—often an enormous outlay for very meager returns. Thus our gifts fall far short of their best, being hastily bestowed, irresponsibly received and wastefully applied. We should not, even if to some degree we might, depend upon our ordinary charitable and church societies to meet these great catastrophes; they are always overtaxed. Our communities abound in charitable societies, but each has its specific object to which its resources are and must be applied; consequently they can not be relied upon for prompt and abundant aid in a great and sudden emergency. This must necessarily be the case with all societies which organize to work for a specific charity; and this is as it should be; it is enough that they do constantly bestow. Charity bears an open palm—to give is her mission. But I have never classed these Red Cross societies with charities, I have rather considered them as a wise national provision which seeks

to garner and store up something against an hour of sudden need. In all our land we have not one organization of this nature and which acts upon the system of conserved resources. Our people have been more wise and thoughtful in the establishment of means for preventing and arresting the destruction of property than the destruction of human life and the lessening of consequent suffering. They have provided and maintain at an immense cost, in the aggregate, a system of fire departments with their expensive buildings and apparatus, with their fine horses and strong men kept constantly in readiness to dash to the rescue at the first dread clang of the fire bell. Still, while the electric current may flash upon us at any moment its ill tidings of some great human distress, we have no means of relief in readiness such as these Red Cross societies would furnish. . . .

"The sooner the world learns that the halo of glory which surrounds a field of battle and its tortured thirsting, starving, pain-racked, dying victims exists only in imagination; that it is all sentiment, delusion, falsehood, given for effect; that soldiers do not die painless

deaths, that the sum of all human agony finds its equivalent on the battle-field, in the hospital, by the weary wayside and in the prison; that deck it as you will it is agony; the sooner and more thoroughly the people of the earth are brought to realize and appreciate these facts, the more slow and considerate they will be about rushing into hasty and needless wars, and the less popular wars will become. Death by the bullet painless! What did this nation do during eighty agonizing and memorable days but to watch the effects of one bullet wound? Was it painless? Painless either to the victim or the nation? Though canopied by a fortitude, patience, faith and courage scarce exceeded in the annals of history, still was it agony. And when in his delirious dreams the dying President murmured, 'The great heart of the nation will not let the soldiers die,' I prayed God to hasten the time when every wounded soldier would be sustained by this sweet assurance; that in the combined sympathies, wisdom, enlightenment and power of the nations he should indeed feel that the great heart of the people would not let the soldier die."

D.

THE WORLD'S FUTURE—A PROPHECY.

I BELIEVE that a time is approaching when terrestrial nature, at least, will be in almost complete subjection to mankind. Man will then indeed be "the lord of creation." The deserts will be turned into inland seas, or converted by irrigation into fertile and fruitful plains. The swamps will be ditched and drained until they become the very gardens of the earth, and the planting of malaria-deströying vegetation and other sanitary precautions will render them as healthful as the most salubrious locations. A similar plan to that so successfully pursued in Holland will reclaim vast areas from the grasp of old Ocean. Steep mountain sides will be terraced up to the very verge of the snow line and sustain a teeming population. Immense numbers of human

beings will live on floating islands and boats on the surface of the lakes, streams and inland seas.

For a time will come in the history of the world when its population will be so great that every foot of available space will be utilized; and that, too, to its greatest possible capacity. This will be brought about by the abolition of war, of wide-spreading epidemics, by improved sanitary conditions generally, and by cooperative living and working by which the strain on the individual will be lessened, and communities will be made mutually supporting and helpful. The abolition of war will be brought about—1. By the improved moral sentiment of the world by which war will be considered a crime. 2. By the intercourse and admia-

ture of different nations, races and peoples, by travel, commerce, emigration, intermarriage, and so on, by which the barriers to altruism, sectional ignorance and prejudice will be broken down and greater international harmony result. 3. By the invention of engines and methods of war so terribly destructive that men will desist from warfare in very terror of the awful means employed and their frightfully ruinous consequences to both sides.

The decreased prevalence of epidemics will be owing—1. To the improved general and individual health. 2. To the establishment of an International Board of Health who will continually attend to this very matter. 3. To the even distribution of people over the face of the earth (arising from the improvements in commercial and travelling facilities, especially aerial navigation, thereby rendering the accumulation of human beings at certain favored points unnecessary), instead of their being crowded into close and unhealthy cities.

The improved health of the people will be owing to two principal causes—1. To the increased knowledge and application of the laws of health, both by individuals and communities. 2. To the general abandonment by the medical fraternity of chemicals and poisons in the treatment of disease; they having by that time discovered that far simpler means are efficacious therapeutically. Of course, all the other good things of that golden age will also increase the average of human health by increasing the happiness of mankind.

One of the most important of the social features of the world's future will be co-operation; not the co-working of individuals against corporations, nor of corporations against individuals, or against each other, but the confederation of all the conservative powers of humanity against the destructive powers of nature. Co-operation, and not competition, will be the first law of society in the future. The degraded and barbarous people of the earth will gradually die out, or become absorbed by the dominant—prob-

bly Caucasian—race. The different branches of this dominant race will become more and more fused and amalgamated until they are all gathered together under one central government. This government will be essentially republican in its form, and all officers will be elected directly by the voice of the people; not by representatives or electors. This central government will busy itself exclusively with plans for international benefit; mere local matters will be left to the care of local officers. Inventive genius will make wonderful advancement in the future. The rapidity with which passengers and goods can be transported from one part of the world's surface to another will be limited only by considerations of comfort, convenience and safety. Man will by that time have conquered the atmosphere, just as he long since conquered the ocean, and aerial navigation will be a fixed fact and the most popular mode of travelling. The whole world will be like a vast city, with splendid macadamized streets traversing it in all directions. Various cheap, safe and portable motors will be by that time discovered by which carriages and velocipedes will be propelled and animal power entirely superseded. Theoretical and practical science will do away with nearly all the dangers of ocean navigation, and a continuous system of moles and wharves will transform the entire coast line into one grand harbor. All impediments to river navigation will be removed, their channels deepened, and the banks defended by continuous levees and wharves. The rivers will be spanned by innumerable bridges, the mountains honey-combed with tunnels, and contiguous waters brought into relationship by deep canals. The weather and its probabilities will be so well understood and so thoroughly watched in those days that damage from storms will be comparatively rare. They and their courses and consequences will be predicted with as much certainty as eclipses are at present. Nothing will be easier, cheaper, or safer than travelling in the world's future. Messages will be

sent round the globe with the rapidity of thought, and men will converse audibly with their antipodes. The art of writing will become obsolete. Men will talk, and a listening instrument will write down their messages. Speeches will be reported by the same means. Not only words, but pictures also will be sent by telegraph, that men can see, as well as converse with unknown correspondents.

Photography will make great advances in the future. Pictures will be taken on any kind of paper without special preparation in the natural colors of the object depicted. Books and periodicals will be illustrated in this manner, and hand-engraving will cease to be.

The English language will, in time, be the only one, but so thoroughly will it be revised, systematized and simplified that it would be hardly recognizable by the man of to-day. Pronunciation will be uniform throughout the world, and spelling will be uniform and phonetic. No person, place, or thing will be allowed to have more than one name, thus obviating all necessity for a special scientific nomenclature and for the vast amount of useless memorizing now necessary.

Gold and silver will be too abundant to be especially valuable, and the world's money will be exclusively paper; water-proof, fire-proof and non-tearable. The denominations will be expressed on a decimal scale, and only one kind of money will be used the world over. Its basis will be the assessed value of the property possessed by the world's inhabitants. The metric system of weights and measures will also be universally adopted. Cremation will entirely supersede interment as a means of disposing of the dead. Artificial light and heat will be mainly furnished by electricity, and by its use the nights will be rendered as luminous as day.

As man extends his dominion over the face of the earth the other members of the animal kingdom will be gradually exterminated. The dangerous carnivora will be the first to go, soon to be followed by the rest of the wild quadrupeds and

the dangerous reptiles. Then the domestic animals one by one will join the funeral march, for when human beings fully realize that the same ground that will keep a cow or a horse will just as easily keep a man, the days of the larger domestic animals will be numbered. The foul and unwholesome pig will be the first brute to disappear, and as the motive powers before alluded to come into use, men will cease to keep draught animals. The elephant is too ponderous and unwieldy a brute to survive. Reclaiming the deserts will do away with the camel. The air-ship will climb mountains easier and faster than the llama. Sheep and goats because of their fine fleeces, delicious flesh, and the small amount of food they require will hold their own probably for a great length of time. But as superior vegetable fibres are discovered to take the place of wool, and human beings demand more land, they will be crowded out. Traps, poison and ferrets will exterminate rats and mice, and the untamable sleep-destroying cat having no further business in this world will leave it.

The larger breeds of dogs will disappear with the beasts they are used to hunt, and only the smaller kinds will be left. But the dog will never be entirely exterminated. Hydrophobia will be easily cured in the future, and their affection, intelligence and fidelity will always secure the preservation of the smaller breeds of dogs. In short, the time will come in the world's history when the dog will be the only surviving quadruped.

Fish culture will be enthusiastically carried on in those days, and all waters will teem with them. Harmless and insectivorous birds, too, will be protected and petted till they swarm to such a degree that their numbers will have to be lessened by legislative action. The habitat of various birds will be judiciously enlarged; thus, nightingales will be naturalized in North America, bobolinks in England, and canaries everywhere. The gayly-plumaged birds of the New World will be exchanged for the sweet singers of the Old till an equilibrium is estab-

lished. Domestic fowls, too, will always be raised and kept for pleasure and profit.

After all this the reader will not need to be told that the man of the future will be a pretty strict vegetarian.

This same survival of the fittest will have its effect on the vegetable as well as on the animal world. As a matter of course, there will be no forests in the future; the world will be too thickly inhabited for that, and many of the common forest trees of the present will then be extinct, or will only survive in the botanical gardens. Trees valuable for their fruits, nuts, flowers, or ornamental appearance will be the only ones allowed to grow. Such being the case, wood will not be as much used in the manufactures of the future as in those of the present. Paper and various metallic and mineral substances will largely take its place. Houses will be made—those of the cheaper class—mainly of paper and glass; but brick, tiles, iron and artificial stone will be the usual materials of the best buildings. Furniture will be made of paper, artificial wood and metal. The popular use of tobacco will be entirely abandoned within the next two centuries; of alcohol within half that time.

Women—throughout the civilized world—will be admitted to equal political privileges with men within the next fifty years. Crime in the future will be reduced to a minimum, for not only will the moral sense of humanity be greatly

improved, but the efficient detective force and wonderful telegraphic facilities of that time will render escape from the law almost impossible. Society in that day will endeavor to reform and redeem the criminal, and not merely to protect itself against his assaults or to wreak its vengeance upon him.

Then, too, Phrenology will take its proper position. It will be taught in the schools as a branch of Physiology, and the phrenologist will be considered as indispensable a member of society as the pastor or physician. The mother with her child, the lover with his betrothed, the teacher with his pupil, the politician with his candidate, all will seek his advice, counsel, or support. In the church, the school, the sanitarium, the dissecting room and the laboratory; in the legislative halls of the nations, and in the sacred precincts of home, phrenology will be applied, taught and respected,

The religious creeds and sects of the present will fade away into indistinctness in the future, and men will be united in a pure monotheism. Atheism will be almost unknown, and a reverent practical faith the rule. Because of these surroundings and these influences the average men of the future will be such beings as the world nowadays seldom sees. Wise, healthful, pure and holy, beautiful in face and form, they will appear angelic rather than human, and the earth will seem a primary heaven. J. WILLIAM LLOYD.

STUDIES IN COMPARATIVE PHRENOLOGY.

CHAPTER XI. (*Continued*).

RELATION OF SKULL AND TRUNK—RACIAL TYPES; CRANIAL STRUCTURE, AND MENTAL CHARACTERISTICS.

THE scope of our discussion being necessarily limited to the brain and skull, we are precluded from studying the very interesting analogies in the general structure subsisting between man and the ape and other animals. Our survey of brain and its osseous investment would,

however, be scarcely complete did we not give some attention to the manner in which the head of man and the higher mammals is secured to the trunk—as that in itself indicates a by no means unimportant type of structure, and bears a special relation to grade of

development. Man is the only creature that walks strictly upright, and so depends entirely upon his feet and lower limbs for support in the erect attitude. The manner in which his cranium is joined to his spinal column has much to do with this attitude, for it is found on examination that the condyles, or articular surfaces of the skull, and the atlas of the vertebral column are horizontal, when the body is erect, and they are so placed that a line drawn perpendicularly from the center of gravity of the head

lobes and of the skull, they being constituted almost entirely of solid matter, while the anterior parts of both the brain and skull contain many cavities and openings. There is, however, a little over-compensation, the head being inclined to drop forward when the muscles are relaxed; but this is obviated by the larger size and greater number of the muscles attached to the head back of the condyles.

On turning to the skull of the chimpanzee, or orang, it is seen that the *foramen magnum* is situated in the posterior third of the base of the skull, and in animals of lower type this opening is placed still farther back, the retrocession increasing until it is nearly in a line with the longest diameter of the skull, as seen in the horse. In correlation with the posterior situation of the foramen, the head is held in a direction more or less oblique, the plane of the condyles being correspondingly oblique, so that the head when placed upon the vertebra, if not sustained by muscular attachments, would, by its weight, be carried forward and downward. In man, the condyles make a trifling angle with a horizontal plane; in the orang, they are set about 37° , while in the horse the plane of the condyles is nearly vertical—making the angle not far from 90° . The rounded surface of the condyles in these animals intimates the dependence of the head upon



Fig. 248.—THE CHIMPANZEE.

would fall between them. Hence, the skull, resting vertically upon the spinal column, is almost perfectly balanced. The great opening, or *foramen magnum*, through which the spinal cord passes, is not placed directly in the center of the base of the skull, but a little back of the middle transverse diameter, apparently to compensate for the greater weight which the cerebellum adds to the posterior region of the brain, as well as for the greater specific gravity of the posterior

muscles to sustain it in position, and nature has made abundant provision to that end by supplying a thick and strong ligament, arising from the dorsal and cervical parts of the vertebral column, and inserted in the most prominent part of the occiput. This ligament, the *ligamentum nuchae*, is comparatively very small in man.

The position of the face also sustains a correspondent relation to the attitude in man and the lower animals. In the for-

mer, it lies in the same plane with his forehead, his mouth, and chin, having but little projection in the lower types of the race; while in the case of the quadrumana, the plane of the head and face is oblique, and the obvious direction in which its anatomy shows the head is to be carried, is only compatible with a natural attitude of body approaching the horizontal, or bent forward and sustained by the anterior extremities. From the peculiar manner in which the head is articulated with the spine, and from the obliquity of the condyles, the ape is enabled to assume the erect position, and to maintain it for a considerable time, but the awkwardness of its movement, and the ungainly appearance of the animal while in that attitude, soon convince an observer that the horizontal position is its normal one.

The erect attitude of man has a relation to the peculiar curvature of his vertebral column, its size, and development; a perpendicular dropped from the summit of the spine would fall upon the center of its base; while the structure of the articulations of the vertebræ varies in development, and is most admirably designed to protect the delicate substance of the brain against jar and concussion, and other common incidents of human activity. The chimpanzee and orang exhibit an arrangement of the spinal column in these respects manifestly different: it



Fig. 29.—NEGRO SKULL. LOW TYPE.

being almost straight, and its development quite uniform throughout; powerful muscles above the loins, and connected with processes of the dorsal and

cervical vertebræ, give it flexibility and strength. While in man the trunk is evenly balanced upon his pelvis, and he has no occasion for such powerful mus-

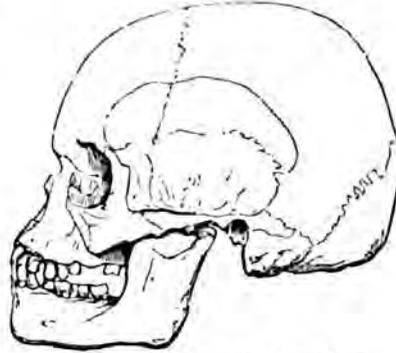


Fig. 250.—NEGRO SKULL. HIGH TYPE.

cles as those described, but as his weight rests upon a rather narrow foundation, and needs some muscular compensation which shall support him when in violent action, there are strong muscles and processes furnished for that very purpose in the lumbar region of the spinal column.

From the pelvis downward the structure of bone and muscle in man is adapted to his upright attitude, while the quadrumana, in the proportions of femur, tibia, and the constitution of the feet, show material variations from the human type, and thus account for their weak and imperfect carriage when erect. It should be noted, perhaps, that the gorilla, a lower species of ape than those mentioned, in point of intelligence, approaches closer to man than the others in the structure of his lower limbs and feet, nevertheless the erect attitude with him is more a makeshift, or a temporary expedient, than a natural, persistent one. But, after all, as a late writer says, "it is mere irony to compare our bones and brains with those of baboons, when we have arts and sciences to show which seem to affiliate us to higher intelligences, such as many have called angels and gods. The surprising faculties which we possess seem not to be the result of our material organization, or of merely natural evolution, but to have been divinely implanted, and to have contributed greatly to the

production and perfecting of the frame we tenant. It is impossible to deny that the body influences the formation of the mind, but it is no less certain that the mind in part modifies the body." As Sir Matthew Hale has well said, the body could not be reduced into that orderly frame in which it is constituted without the plastic and formative power of the soul.*

RACIAL PHRENOLOGY—THE AFRICAN.

Turning now to the more legitimate current of our investigations, we purpose to review in order the typical races, or species of mankind, according to the indica-



Fig. 251.—NATIVE NEGRO.

tions of their temperament and cranial structure. Many classifications have been made by ethnologists, some, like Cuvier, dividing the family of man into three grand divisions—Caucasian, Mongolian, and Negro; some, like Buffon, dividing it into five, and others finding reason to distribute it into more numerous classes—Agassiz, for instance, defining eight, and Dr. Pickering eleven. Blumenbach adopted Buffon's distribution, and improved it much by a more definite setting forth of racial difference upon special characteristics found in skull, hair, and complexion, and as Blumenbach's system has obtained a wide popularity, and contains many features commending it to the

*"Origination of Mankind."

phrenological observer, we shall follow it for the most part.

According to this system man is divided into five principal classes or races—Caucasian, Mongolian, Ethiopian, American, and Malay. The lowest, mentally and physically, in the series, is the Ethiopian, or Negro, the type of whom, employed here as a subject for comparison, is found in Central and Western tropical Africa. In a previous chapter a careful estimate of the brain of the Bushman was given, and as that is a subsidiary type of negro, it will be unnecessary to enter very minutely here into the consideration of the negro encephalon. Joined to a body of good size and weight, although rarely attaining the height of six feet, the negro has a small head, its average circumference not exceeding twenty-one inches, while the thickness of the vault of the cranium, and the lateral compression, reduce its internal capacity much below the estimate which would generally be made by an observer from a brief inspection of the exterior. The osseous development is such as to render the negro skull, according to a table furnished by Dr. Prichard, the heaviest of all racial types. The forehead is narrow and depressed; the occipital region is broad and well-developed, while the mid-lateral region is flattened, and the posterior occipital greatly prolonged, the head, therefore, appearing narrow between the temples, expansive in the region of the ears, and extraordinarily long when viewed from above. Prof. Owen states eighty-two cubic inches as the mean capacity of the skull. Virchow, who distributes the races in accordance with a system referable to the shape of the skull, places the negro in a group designated as *dolicocephali*, or, the long-headed, and, with the Australian, the negro represents the extreme form of the group. The dome, or vault, is arched, but dense and thick in consistency, and rising highest at a point somewhat back of the juncture of the sagittal and coronal sutures, where it is salient or ridged; it is depressed in the center of the crown, but rises some-

what in front of the coronal suture. The supra-orbital ridges are prominent, and the base of the brain, especially in the occipital lobes, is largely developed. In correspondence with this type of organism, the physical qualities of the negro are strong, his social instincts and passions are powerful, while the intellect is weak in reflection, and the appreciation of logical relations — in fact, decidedly puerile in some tribes. Yet the moral elements are not wanting, as shown by the negro's ready acceptance of missionary teaching, and his substitution of Christian worship for the practices of a degraded superstition. In the child, the play of the perceptive faculties is specially interesting, so quick are they to notice anything novel, and so prompt in acquiring bits of elementary information. In this respect they do not suffer much in comparison with white children, and it is only after they have reached the age of twelve when the reflective powers of the white begin to come into active co-operation with the perception that the negro falls behind. The typical woolly-haired race has done nothing in the field of thought worthy of note as aiding the progress of man; it has "never invented a reasoned, philological system, formulated an alphabet, framed a grammatical language, or made the least step in science and art." Its faculties, especially of the intellect, therefore, are inferior and dormant, rendering the mind defective in originative, inventive, and speculative capacity. The moral elements are more marked, and susceptible of much development under discreet instruction, while in his native condition their unformed, yet influential, growth renders him superstitious and fanatical to an extreme degree. So, too, his untrained social affections, being related to the strongest physical elements in his cerebral organism, render him social, domestic, affectionate, devoted, hospitable, yet sensual, revengeful, exacting.

The temperament of the negro, although intellectually sluggish, is such as to render him susceptible to physical in-

fluence, and his phases of feeling are expressed in movement and language with freedom, his dormant intellect and untrained moral nature exercising no regulating or repressive control over the pas- sional instincts, which, under excitement, carry him to an amazing expression of reckless destructiveness. He is, therefore, in most of his mental characteristics, a child, in lack of facultative balance, and his relations with the higher nations have demonstrated his inferiority, being made their slave or servant in the most remote times, and at this period; and although representatives of the negro family have been living for two hundred, or more, years amid the environment of the best European and American society, he has only in isolated cases indicated a disposition to rise above a state of contented subjection. Dr. Prichard claims that, under proper guidance, the negro could be developed up to the standard of the civilized and refined European, in spite of the indications of history, which show him as a class, to be everywhere a sensual, good-natured, careless being, when not under the dominion of excited passion, incapable of applying his energies to any high and ennobling pursuit without the supervision of a representative of another race.

ASIA.

Oh, mother! wherefore speak the name of death?
Cease they to love, and move, and breathe, and
speak,
Who die?

THE EARTH.

It would avail not to reply:
Thou art immortal, and this tongue is known
But to the uncommunicating dead.
Death is the veil which those who live call life:
They sleep, and it is lifted: and meanwhile
In mild variety the seasons mild
With rainbow-skirted showers, and odorous
winds,
And long blue meteors cleansing the dull night,
And the life-kindling shafts of the keen sun's
All-piercing bow, and the dew-mingled rain
Of the calm moonbeams, a soft influence mild,
Shall clothe the forests and the fields, aye, even
The crag-built deserts of the barren deep,
With ever-living leaves, and fruits, and flowers.

SHELLEY.

SIR ISAAC NEWTON.

"THE name of Sir Isaac Newton," says his biographer, Brewster, "has by general consent been placed at the head of those great men who have been the ornaments of their species. However imposing be the attributes with which time has invested the sages and the heroes of antiquity, the brightness of their fame has been eclipsed by the splendor of his reputation; and nei-

Society of London. In 1688, he was elected a member of Parliament for the university, and re-elected in 1701. In 1699, he was appointed Master of the Mint. In 1703, he was chosen President of the Royal Society, to which position he was annually re-elected during the remainder of his life. In 1705, he received the honor of Knighthood from Queen Anne. He died at Kensington on



ther the partiality of rival nations, nor the vanity of a presumptuous age, has ventured to dispute the ascendancy of his genius." To this high panegyric nothing need be added.

Isaac Newton was born at Woolsthorpe, in Lincolnshire, England, December 25, 1642. In June, 1660, he was admitted a student of Trinity College, Cambridge. In 1669, he was appointed to the chair of mathematics there, on the resignation of the celebrated Dr. Isaac Barrow. In 1672, he was chosen a member of the Royal

the 20th of March, 1727, and was buried in Westminster Abbey.

The most important services that Sir Isaac Newton rendered to science lay in three different fields—optics, physical astronomy and pure mathematics. Prior to his time, the science of optics was not well understood. So late as the year 1699, Dr. Barrow, in his published lectures on optics, in accounting for the different colors, says, "*White* is that which discharges a copious light equally clear in every direction; *Black* is that which

does not emit light at all, or which does it very sparingly. *Red* is that which emits a light more clear than usual, but interrupted by shady interstices. *Blue* is that which discharges a rarified light, as in bodies which consist of white and black particles arranged alternately. *Green* is nearly allied to blue. *Yellow* is a mixture of much white and a little red; and *Purple* consists of a great deal of blue mixed with a small portion of red." Such was the state of this science when, in 1666, Newton procured a glass prism, "to try therewith," as he says, "the celebrated phenomena of colors." The display of the prismatic colors had often been observed before the time of Newton; but it was left for him to analyze the phenomenon, and make known its true cause.

The first thing that struck his attention in his experimenting was the fact that the colored spectrum on the screen was not circular like the ray of light which he permitted to enter the darkened room, but that its length was not less than five times its breadth. He tried to account for this in various ways, and placed his prism in different positions, but the appearance was always the same. From a course of experimenting and observation that extended through several years, he discovered the great truth that light is not homogeneous, but consists of rays, some of which are more refrangible than others. This is the grand principle upon which all our modern science of optics is based. One of the first fruits of this discovery was the construction of the first reflecting telescope ever made. This instrument was fashioned by Newton's own hand, and presented by him to the Royal Society of London, in 1671. His further investigations in the field of optics had reference to the recomposition of light, the colors of thin plates, the colors of natural bodies, etc.

At the same time that he was occupied with his experiments in optics he was led to investigate the causes of the planetary motions. At this time, the complicated system of Descartes was the generally accepted theory. Newton, from reflect-

ing upon the philosophy of falling bodies upon the earth, was led to extend the influence of the earth's attraction to the moon. From deep and long-continued investigations, he discovered the fact that the force of gravity which regulates the fall of bodies on the surface of the earth, when diminished by the square of the moon's distance from the earth, is almost exactly equal to the centrifugal force of the moon in her orbit. The result of this equilibrium of these two forces acting at right angles to each other, is to cause the moon to describe a curve more or less elliptical around the earth. As, in the progress of his calculation, this truth began to appear, Newton was so overcome by emotion that he was not able to finish the work, but was obliged to entrust it to a friend for completion. This principle once established as far as relates to the moon, was easily carried out to all the planets, and applied to the earth itself to account for its revolution around the sun. This great principle of universal gravitation, that every particle of matter in the universe is attracted by every other particle of matter with a force inversely proportional to the squares of their distances, is one of the most important discoveries ever made in the realm of science.

It has not taken long to relate the history of this grand discovery; but the years were many and laborious from the first conception of the idea until its complete development. It was in the year 1666 that the matter first occurred to his mind. He was sitting at the time in his garden at Woolsthorpe, his native place, to which he had retreated during the great plague in London. It is a popular tradition that it was the falling of an apple from a tree under which he was sitting that first drew his attention to this subject. His biographer, Sir David Brewster, says nothing of the apple, in his life of Newton. It was not until the year 1683 that he was able to see clearly the grand truth according to which the planetary motions are effected. The course of these long years was marked by

many disappointments and failures in his calculations, the results of imperfect or inaccurate data. The discovery of this grand law was Newton's greatest work in the realm of physical astronomy. His further labors in this field were directed toward determining the figure of the earth, the cause of the tides, the motions of the moon, etc.

It remains to speak yet of Newton's work in the field of pure mathematics. It is no doubt within the bounds of truth to say that he possessed the most wonderful mathematical aptitude of any man of whom we have any record. As evidence of his ability take the following: In January, 1697, John Bernonilli submitted the two following problems to the most distinguished mathematicians in Europe, challenging them to solve them:

1. To determine the curve line connecting two given points which are at different distances from the horizon, and not in the same vertical line, along which a body passing by its own gravity, and beginning to move at the upper point, shall descend to the lower point in the shortest time possible.

2. To find a curve line of this property that the two segments of a right line drawn from a given point through the curve, being raised to any given power, and taken together may make everywhere the same sum.

"On the day after he received these problems," says Brewster, "Newton addressed to Mr. Charles Montague, the President of the Royal Society, a solution of them both. He announced that the curve required in the first problem must be a cycloid, and he gave a method of determining it. He solved, also, the second problem, and he showed that by the same method other curves might be found which shall cut off three or more segments having the like properties." The real difficulty of these problems may be judged by the unmathematical reader from the fact that Leibnitz, one of the most celebrated philosophers and mathematicians of that age, asked that the time for solving the second problem alone, which had been fixed by Bernon-

illi at six months, should be extended to one year.

Again, in 1716, Leibnitz submitted a problem for the purpose, as he said, "of feeling the pulse of the English analysts." The requirement of the problem was to determine the curve which should cut at right angles an infinity of curves of a given nature, but expressible by the same equation. "Newton," says his biographer, "received this problem about five o'clock in the afternoon, as he was returning from the Mint; and though the problem was extremely difficult, and he himself much fatigued with business, yet he finished the solution of it before he went to bed."

Such was the mathematical genius that Newton brought to bear upon some of the most difficult subjects in the domain of this science. Many of these subjects had puzzled mathematicians from the days of Archimedes; but before the genius of Newton difficulties melted away like frost-work in the blaze of the sun. His most important achievements in the science of pure mathematics was the discovery of the Binomial Theorem, the Calculus of Fluxions and the Quadrature of Curves.

These are but a few, though they are among the most distinguished of the labors of Sir Isaac Newton. He was not always right. Later researches show that he sometimes erred; but had it been otherwise he would have been more than human. While wrong in some of the principles which he believed he had discovered, and sometimes in the details of his operations, yet the great bulk of his work will stand the test of the ages to come, as they have stood the criticism of the century and a half that have passed since his death. Truth is immutable; and science that is based on truth can never be shaken. Newton's contributions to the sum of human knowledge have perhaps never been equaled by those of any other man, and well entitle him to the inscription on the pedestal of his statue in Trinity College—*Qui genus humanum ingenio superavit.*

T. J. CHAPMAN, A.M.

NATIONAL REVERENCE.

IN all ages of the world man has instinctively bowed in the presence of that which came before him as being of higher worth. In the cromlech and the altar, in palatial structure and the marble shaft that pierces the blue ether in commemoration of the mighty dead, and pre-eminently on the historic page this is abundantly attested. It is a principle that wields an influence over the whole domain of the moral and spiritual life of humanity, and though it comes to its highest manifestation in the attitude of man toward his deity, in his religious development, yet there is another sphere in which its working is deep-seated and powerful, and pregnant with weal or woe; it is in the relation of man to the nation.

In the nations of antiquity there prevailed a peculiar impression of reverence that history has not witnessed since. But it was a reverence that was blind and servile, and it became a mighty power for human misery. Under its protection arose the most relentless tyranny and the most grinding oppression. Whole nations were made a multitude of slaves, and millions of human lives came upon the earth, toiled, and passed away with apparently no other mission than to gratify the ambitious and arbitrary whims of a depraved monarch. It was this principle that rendered possible the erection of those stupendous architectural structures that sprang up in the ancient countries, many of which have sunk into ruin, while others like the colosseum at Rome, the Assyrian temples, and the hoary pyramids, still stand as lasting monuments of the crying wrongs which men suffered in those early times.

Scarcely less binding was this spirit of reverence in mediæval times. Then, too, it acted as a power to close the mouths of the multitude against the hand of their oppressors. Under its influence the abject vassal paid the most abject allegiance to his feudal master, and the starving peasant drained his very life-blood in order to add his mite to the luxurious

pomp of the noble. Faith in the divine right of kings reared a wall of sanctity around the monarch's throne, which protected him in the basest avarice, the foulest debauchery and the most cruel oppression. It was an age of mute obedience and fanatical devotion, and an age of grinding despotism; it was an age that exalted kings and nobles, an age that trampled in the dust all the inborn rights of man.

But there came a mighty reaction in the life of the world. Among the memorable events which the nineteenth century has hitherto witnessed none stands out so nobly prominent as the extinction of human slavery. As if stirred by a divine impulse, all the nations of the civilized world have vied with each other in abolishing the unholy traffic, and the air of freedom is at this moment fanning the brows of millions who once groaned under the heavy yoke of bondage. Yet this general emancipation from bodily servitude is but the latest result of that widespread and sweeping tendency which has made the whole course of modern history one vast movement in the direction of freedom. The great Reformation of the sixteenth century, which marks the turning-point between mediæval and modern time, was the signal for the gradual breaking-up of that blind and abject reverence, that spiritual slavery which has brooded over the past, and stands out as the glorious prelude to all succeeding steps in the emancipation of thought, speech, and action. One by one the restrictions and oppressions of former days have been swept away. Old institutions, old beliefs and old grooves of thought have yielded to a new order of things. Kings and nobles have come to occupy less and less space in history. Self-government is hailed as the highest order of national life. The boast of the monarch, "I am the State," has been ingloriously hushed, and the aphorism, "The people rule," is making itself powerfully felt. And no longer is government

recognized as existing for the glory of the governor, no longer for the pomp and pleasure of the few, but for the good, the safety and the sacred rights of all.

Yet, though this march of freedom is a glorious advance in the life of humanity, it has not been an unmixed blessing. The mighty reaction against the blind and baneful reverence of the past has flung the age into a still more baneful tendency toward *no* reverence. In the widespread hate and contempt for the things of the past, for its institutions, its beliefs, and its customs, there arose a spirit of positive irreverence. This spirit, like a desolating stream, has come down through modern history, at times breaking out in the wildest turbulence and the most wanton overthrow, but generally gliding along and silently, but surely undermining the main-stays of society, and sapping the very vitals of national order and life. England has felt its withering influence in the wild political storms that swept over her history; she has writhed under its presence in the fierce outbreaks of lawlessness and anarchy. It was this spirit that reigned in the dire commotions of infidel France, this spirit that in the tragic horrors of the French Revolution rose to a diabolical form.

And this spirit of irreverence has spread to our shores. Although its influence here has not been manifested in stormy outbursts of violence and anarchy, it is none the less really present. Its work is a gradual and stealthy *weakening of due regard for the higher powers in the constitution of the State*. Where is the veneration for our country that inspired our fathers? In the utilitarian, materialistic spirit of the age, men have come to look upon government merely as a human compact for mutual benefit, and they revere it only as such. Statesmen and public officials, instead of thinking reverently of their functions, pervert them into instruments of expediency and emolument. The law-maker in the legislative hall, the executive in his capitol, and the justice upon the bench, thus tend to become the servants of policy or political

faction. Are not our national holidays profaned with revelry and excess, rather than hallowed with grateful remembrances of the past? And was not our national centennial—that gala-day of the Republic—rather a grand encomium on the steam-engine and the telegraph than an expression of gratitude for the blessings of the past and of renewed vows of national love and allegiance in the future?

Our Republic, as we believe, is at this day in the van of the nations. All the emancipative movements of modern history commingle here, and here free inquiry and free institutions have reached the highest and purest development yet achieved. But there is lacking a reverence for the State which *must* exist for its well-being. And it is a reverence that is not incompatible with freedom, but in deep harmony with man's freest, highest life. The nation is not an outward compact of men, but a divine institution ordained of God for a sublime purpose. It is more than an organization of society for the protection of property and life. Before organized society existed, the order of the nation was decreed as a power to promote that exalted love and fellowship which is the supreme good of man. As such it challenges the reverence of mankind—not the abject reverence of the past, but that which freely flows from an enlightened recognition of superior worth. As man is prompted by his inner nature to bow before the higher, as he is bound to revere his parent or his Creator, and as he is a fallible, imperfect being, so it is his duty to revere the nation. Reverence is the binding power in the nation. It is the true centripetal force that holds its elements in obedience and order. Though the benign decentralizing tendency of the present age be carried to its utmost limits, though confederation be established as the order of national life, though the individual stand forth in sovereign independence, reverence is the sacred bond that can unite all into one life. In his ideal Republic Plato spoke longingly of harmony as a chief good in the life of the nation. That harmony, that beautiful

working together of elements and powers from the lowest to the highest, it is the peculiar mission of reverence to create.

Sweep away this reverence, this moral restraint in the nation, and you throw open the floodgates to disorder, dissolution and death. What constituted the sure preparation for the wild anarchy that once existed in England, for the Reign of Terror in France, for any violent uprisings in the history of the world? It was the nearly complete extinction of all reverence for the established order of things, of all respect for the higher powers in the constitution of the State. Anarchy is a deeper wrong than despotism. It is a revolt against the first of all laws, the law of order. Should the centripetal and centrifugal forces of the heavens be loosed, and the blazing orbs go crashing against each other in space, the chaos would be inconceivably terrible; but more terrible and more hateful, because it involves spirit, is a chaos in human society.

As in all other most vital human interests, so here the redeeming power is religion. Religion is the cradle of that true

reverence for "principalities and powers," which is indispensable to the welfare of the nation. It fosters that noble respect for man as man, and for man as ruler which is the foundation of social harmony and prosperity. It humanizes man. Therefore the nation can not with impunity neglect religion. All history bears witness to this. The very constitution of man implies it. And when religion is accomplishing its work in establishing the true relation of man to the State, the State in a reciprocal way fosters the interests of religion, and thus becomes in an eminent degree a power whose influence does not end with time, but will be felt in the hidden relations of eternity. Statesmen, reformers, and philanthropists have exerted themselves without stint for true national welfare. Good men like Penn, Locke, and Channing, have bestowed their earnest effort and best talent, have longed and prayed for a nearer approach of nations to their ideal state; and all men, when once they shall understand and feel the true significance of the nation will make duty to country second only to duty to God.

HORACE EGMONT.

ALEXANDRIA.

THE educated world, especially that part of it that is given to the study of history, and all who take an interest in ancient things, learned with regret of the bombardment of Alexandria by English guns, and of the wanton destruction by fire and pillage which followed. The record of this most important Egyptian city is worthy of much study. From its foundation by the great Macedonian conqueror in 322 B.C. to the present day it has passed through a series of remarkable experiences. In the days of Greek glory, in the palmy days of Rome, and when the Saracen was a mighty influence, Alexandria was a leading city, commercially and politically. Learning flourished there in the early centuries of our era, and Greek and Roman princes, ecclesiastics, and philosophers contributed to its im-

portance. Especially was it famous in the days of the Ptolemies, who made it, next to Rome and Antioch, the greatest city of ancient time. Alexander selected its site probably on account of its defensive advantages, and also because of the fine approaches from the sea and the harbors it possesses. The projecting portion of the city, seen in the engraving, is called the Pharos, on account of the wonderful light-house which once stood upon it, and was formerly an island, and in ancient times a refuge of Greek and Phœnician pirates, a fact commemorated in the name "Pirates' Bay," given to a deep indentation on the north side of the island, and on the mainland was the little town of Rhacotis, subsequently incorporated in the quarter of that name.

The city grew rapidly from its begin-

ning, and extended along the low land which separates Lake Mareotis from the Mediterranean, reaching the zenith of wealth and influence a little before the advent of Christ. Its population, according to Diodorus Siculus, numbered then 300,000 free citizens, but a third, or at the most, one-half of the entire number.

But its decline, at first almost imperceptible, became rapid. Parts of the city were laid waste. Many of the works of

dominion of the Mamelukes, the diversion of the East India trade to the route by the Cape of Good Hope, and other agencies, operated to destroy what had been gained. A century ago the population had dwindled to about 6,000.

The modern city, as it appeared before British guns and Arab incendiaries reduced it in great part to ruins, owed its growth to Mehemet Ali and his successors. Mehemet Ali was sent to Egypt by

the Turkish sultan early in this century, and he administered the affairs of Egypt with vigor and independence. Only by the intervention of England was he brought to acknowledge the sovereignty of Turkey and to pay an annual tribute.

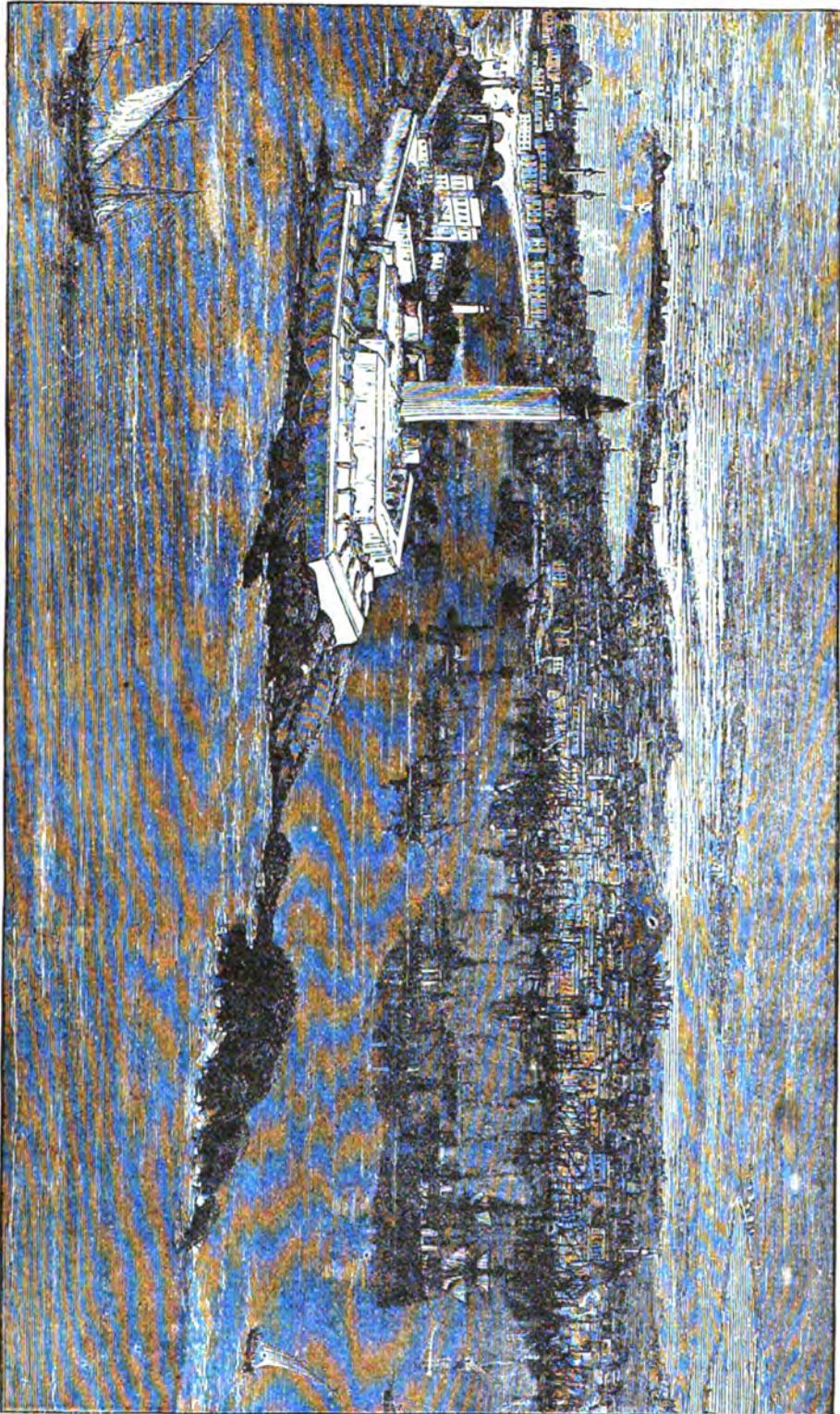
Mehemet Ali died in 1848, and in 1863 Ismail Pacha, nephew of Mehemet's son, became Viceroy, receiving in consideration of additional tribute the title Khediv-el-Misir, or, King of Egypt. Ismail spent a great deal of money, which he wrung from his own people and borrowed from Europeans, on himself, his palace, and harem, and also in an extensive system of improvements with the view to introducing at one stroke the full current of European civilization. In



EGYPTIAN WATER CARRIER.

art were removed to Rome. The rival city of Constantinople began to rise in importance. By the fourth century no building of importance was left except the temple of Serapis. That was stormed by the Christians in 389 A. D., and converted into a Christian church. In 638 the city was taken by the Arabs, and in 868 it was conquered by the Turks. Under the Egyptian caliphs it revived somewhat, and during the Middle Ages was an important emporium of trade between the East and the West. But the

twelve years he had borrowed \$500,000,000, one-half of which was invested in public works such as railroads, steamships, irrigating canals, a postal system, a reorganized army, the harbors at Alexandria and at Suez. The other half had gone in commissions—no small part of it to Europeans—and in stealings. When it came to paying these enormous debts the trouble began. The Khedive could pay the interest on his bonds only by selling his shares in the Suez Canal to the English Government. This was in 1875.



A VIEW OF ALEXANDRIA AND THE OUTLING COUNTRY BEFORE THE SIEGE.

It led to the establishment of a European Commission—English and French—to arrange Egyptian finances, particularly with a view to secure the prompt payment of the interest to the bondholders.

No wonder that when deposed he could retire to a palace in France with a fortune of a hundred millions or more.

Alexandria has two ports, an eastern

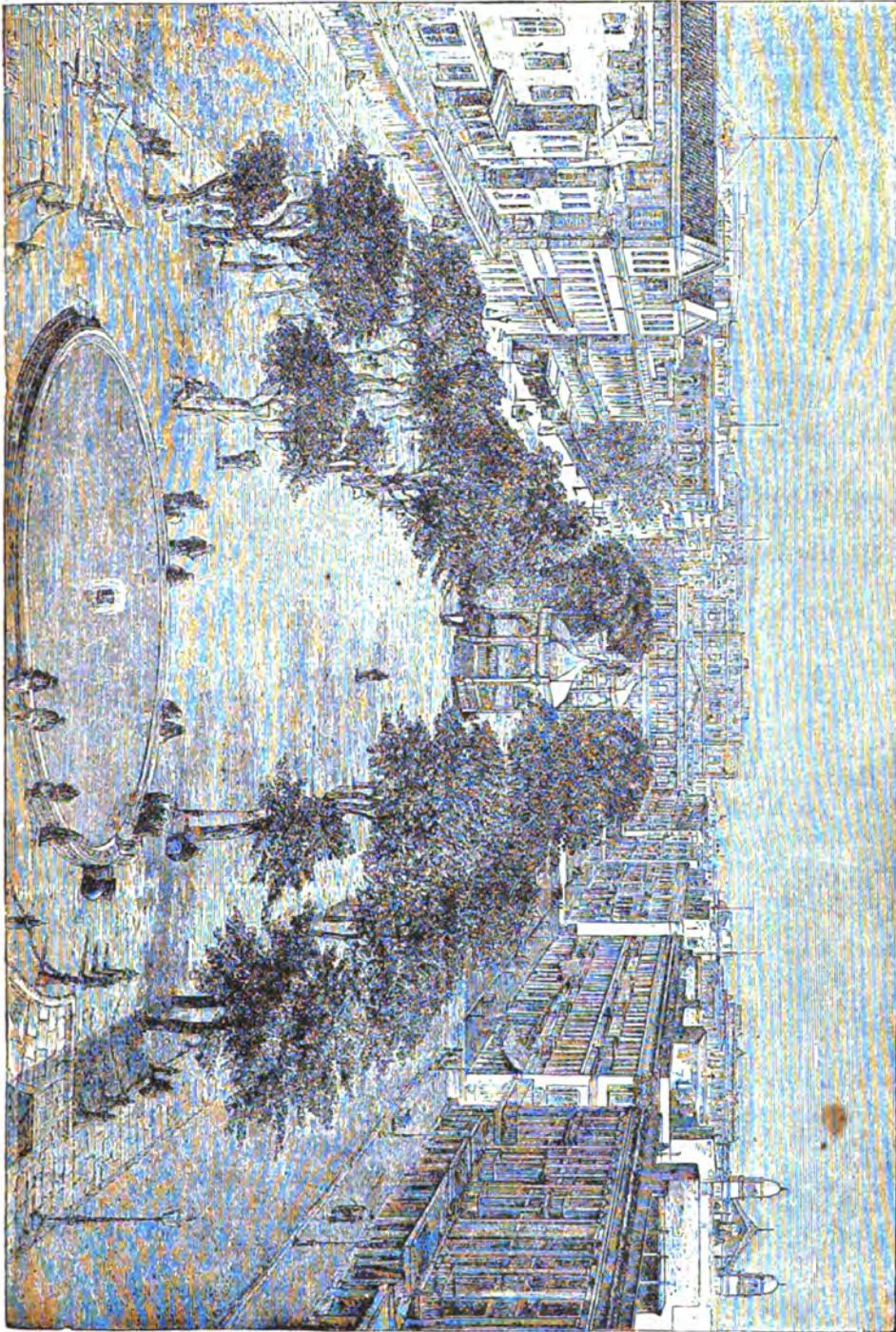
has, where shallowest, twenty-seven feet of water. The eastern side of this entrance is marked by buoys, and there are landmarks for guiding to the channel. The third, or western, entrance has its western boundary about three-eighths of a mile from Marabout Island, is about half a mile wide, and has from twenty-five to twenty-seven feet of water where



A BEDOUIN OF THE DESERT.

and a western. The latter, called also the **O** Port, is by far the larger and better of the two. It extends from the town westward to Marabout; nearly six miles, and is about a mile and a half in width. It has three principal entrances. The first, or that nearest the city, has about seventeen feet of water, but is narrow and difficult of access, and only used by small vessels and boats. The second, or middle, which is also the principal entrance, is about a quarter of a mile wide, and

shallowest. Within the harbor ships may anchor close to the town in from twenty-two to forty feet of water. Further improvements were in course of construction by a firm of English contractors (at a cost to the Egyptian Government of little short of ten millions), and would eventually have rendered this one of the finest and most capacious harbors on the Mediterranean. Among these is the formation of a breakwater, extending in a southwesterly direction parallel to the



GRAND SQUARE OF MEHMET ALI.

shore for 2,550 yards southwest of the light-house on Cape Eunostos; a mole, springing from the shore, and extending in a northerly direction for 1,100 yards, and having a width of about 100 feet; and the construction of nearly three miles of quays and wharves, for vessels of the largest size, and with railway connections.

The native and European sections of Alexandria presented a strong contrast. In the former the streets were narrow, irregular, and filthy, and the houses mean and ill-built. The Frank quarter, on the other hand, presented the appearance of a European town, having handsome streets and squares and excellent shops. The streets had been much improved lately by being nearly all paved. The principal hotels, shops, and offices were

situated on the Great Square of Mehemet Ali, the center of which formed a very agreeable promenade, being planted with trees, and well provided with seats. It had also a fountain at each end. In the suburbs were numerous handsome villas, with pleasant gardens. Among the principal public buildings were the palace of the pasha, the naval arsenal, the naval and military hospitals, custom house, bourse, two theaters, several mosques, churches, convents, etc.

The population of Alexandria was of a very mixed character, consisting, beside the native Turks and Arabs, of Armenians, Greeks, Syrians, Italians, French, English, Germans, etc. In 1840 it did not exceed 60,000, but in 1880 had increased to over 250,000, about one-fifth being Europeans.

THE DEATH WARNING.

THOSE who have read Charles Kingsley's most admirable historic novel "Westward," will remember the following, in the character of John Oxenham, who figures therein:

"He lifted the cup, and was in the act to pledge them, when he suddenly dropped it on the table and pointed, staring and trembling up and down, and around the room, as if following some fluttering object,

"There! do you see it? The bird! the bird with the white breast?"

Each looked at the other; but Leigh, who was a quick-witted man, and an old courtier, forced a laugh instantly, and cried:

"Nonsense, brave Jack Oxenham; leave white birds for men who will show the white feather. Mrs. Leigh waits to pledge you."

Oxenham recovered himself in a moment; pledged them all round, drinking deep and fiercely; and after hearty farewells, departed, never hinting again at his strange exclamation. After he was gone, and while Leigh was attending him to the door, Mrs. Leigh and Grenvill kept a few minutes silence. At last—

"God help him!" said she.

"Amen," said Grenvill, "for he never needed it more. But, indeed, Madam, I put no faith in omens."

"But, Sir Richard, that bird has been seen for generations, before the death of any of the family. I know those who were at South Yawton when his mother died, and his brother also; and they both saw it. God help him! for after all, he is a proper man."

"So many a lady has thought before now, Mrs. Leigh, and well for him if they had not. But, indeed, I make no account of such omens. When God is ready for each man, then he must go; and when can he go better?"

I extract so much because it would seem to confirm the following, which I cut from a newspaper. Does it not seem to imply that the Oxenham gravestone is yet in existence, and supplied the incident of which Kingsley made use:

"In a graveyard near Exeter, England, was erected a memorial stone having these inscriptions:

"Here lies John Oxenham, a goodly young man, in whose chamber, as he was struggling with the pangs of death, a bird

with a white breast was seen fluttering about his bed, and so vanished. Here lies also Mary Oxenham, sister of the said John, who died the next day, and the same apparition was seen in the room." Then another sister was spoken of. Then, "Here lies hard by James Oxenham, the son of the said John, who died a child in his cradle a little after; and such a bird was seen fluttering about his head a little before he expired, which vanished afterward." At the bottom of the stone there was: "Here lies Elizabeth Oxenham, the mother of the said John, who died sixteen years since, when such a bird with a white breast was seen about her bed before her death." To all these things there were respectable witnesses, whose names were engraved upon the stone. Whether it is in existence now, we are unable to say.

E. O. S.

OFFICIAL MOURNING IN CHINA.—A correspondent of one of our newspapers, writing from China, describes the conduct of officials there when a parent dies, thus: "The mother of Li Hung Chang has died, and in consequence that eminent public servant has withdrawn temporarily from office. It has been known for some time past that the old lady, who was over eighty years of age, was in a

very precarious condition, and speculation was rife as to the effect which the event might have on the political fortunes of her illustrious son. It is well known that Chinese etiquette strictly demands retirement from office for the space of three years on the death of either parent. To this there is hardly ever an exception. The theory is that the grief of the bereaved son is so inconsolable as to incapacitate him for his public functions, and, moreover, the sacred duties of attending to the funeral ceremonies and performing the sacrifices at the grave must necessarily absorb his time and attention. Whatever his rank or wealth may be, he must go about clad in a coarse hempen garment unstitched at the borders; he must sleep for forty-nine nights on the bare floor, with a brick for his pillow, beside the coffin; he must remain unshaved and uncombed for one-hundred days; and for the whole period of three years he can have no music or joyous event of any kind in his house. At such a time public duty must give way to private, and the official, no matter what his standing, who would omit to report the fact of his father's or mother's decease and request permission to retire would certainly incur grave censure, and probably be dismissed from office altogether."

RED JACKET'S PULPIT.

[Respectfully dedicated to E. Cook, Esq.]

NOR far from the village of Havana, Schuyler Co., N. Y., there is a beautiful brook flowing through a deep and picturesque gorge, and falling in cascades over a ledge of rocks. One of these rocks resembles a platform and pulpit, and there it is said Red Jacket, the famous Indian chief, was in the habit of airing his eloquence after the manner of Demosthenes, in order to prepare himself to address his tribe. The following impromptu lines, written in part on the spot, may entertain the reader interested in the history of the red man:

I.

Charmed by the soothing music of water,
Down the ravine in silver spray falling,
Where the brook sings songs nature has taught
her,
The gray past to the present is calling.

II.

Red Jacket the chief, so runs the story,
Spoke to tumultuous waves here under

The rostrum of rocks, and here came sweet Flora
With bouquets for the red son of thunder.

III.

He addressed the still trees, and the grasses
That raised here their green arms with emotion;
And to-day, the white cascade that passes,
Encores the speech and speeds to the ocean.

IV.

He toned his voice, to brook notes repeating,
From the soft to tempestuous measure,
That chimed with the nature of brave hearts
beating
With anger, with sorrow, wonder and pleasure.

V.

Hushed his eloquence now and forever,
But his lesson we hear in these waters,
Whose speech to the winds in sylvan notes never
Ceases to praise the braves and their daughters.

G. W. BUNGAT.

MRS. BOWMAN'S NEURALGIA.

MRS. BOWMAN had suffered from a pain in her head for several days, but being a woman of courage as well as of affairs, she had kept her discomfort to herself, and attended as usual to her numberless duties. There was another reason why Mrs. Bowman was reticent on the subject of her neuralgia. The fact was, that knowing little or nothing about pain practically, this lady had formed and promulgated certain theories in regard to it that were not quite so easy to demonstrate when suffering herself.

"One-quarter of the pain that folks complained of was imaginary," Mrs. Bowman had often remarked. Another fourth was exaggerated, and still another that could be borne with much less fuss and outcry if people only thought so.

Mr. Bowman, an exceedingly quiet and respectful husband, had once been heard to say that he felt grateful to his wife for leaving the fourth quarter for the favored few to groan in and crawl out of. He hadn't yet reached a point where he could take advantage of her kindness and magnanimity; but it was all the same a comfort to know that the hole was there.

Mr. Bowman looked and acted like a man in feeble health. Mrs. Bowman declared him a confirmed and hopeless hypochondriac, and treated his aches and pains as the keeper of a lunatic asylum treats the whims and complaints of his patients. Mr. Bowman was subject to stitches. They caught him at the most inopportune times, and in the most unexpected places. Mrs. Bowman steered round this idiosyncrasy like the experienced pilot she was, and whenever a groan or a quick catching of the breath betokened that a stitch was in process of dropping, she either called her husband's attention to some business that must be immediately seen to, or asked a hasty question which required as hasty an answer. It is safe to predicate that not one of the exceedingly numerous stitches dropped in her presence and touched bottom without interruption. "The hypo," Mrs. Bowman said,

"must not be encouraged, and there would be no limit to Mr. Bowman's imagination if she were to take the slightest notice of any of his ailments."

So the poor man dropped his stitches in public and in private, and picked them up again whenever he could get a good hold, and learned at last to substitute a wry face for the obnoxious groan, and later still to turn round when he made it.

There is probably no doubt but that this was good discipline for Mr. Bowman, but it gave him a certain grotesqueness and peculiarity of manner which was as annoying to Mrs. Bowman as the other disagreeable habit had been. Mr. Bowman did not like to go into company because, as in the case of "Mary and the Lamb," the stitches were "sure to go." But Mrs. Bowman was colonel, captain, and corporal, and Mr. Bowman shouldered his infirmity, as a good soldier his gun, and followed wherever she led.

It was very seldom that Mrs. Bowman allowed herself to be drawn into any conversation concerning the stitches, but sometimes on occasions of great importance it became necessary, and then the lady spared neither thread nor material.

Mrs. Bowman was all ready to go to a chamber concert one evening, when her unfortunate partner, in getting on his overcoat, dropped a stitch. It must have taken a very intricate and devious path, for it not only consumed more time than usual, but Mr. Bowman was even more aggravating and uncertain in his manner than he had ever been before; and when at last he had caught his breath, and brought his face into position, humbly begged to be allowed to stay at home.

When Mr. Bowman gave up the groan and took to making faces, his wife was really not so pleased with the change as he supposed she would be. A man might groan in a public hall, and only the near few be able to fasten the groan to the groaner, but it was quite out of the range of possibility for a man to rise, turn round, and make a series of grimaces—as Mr. Bowman inva-

riably did in those days—without attracting more or less attention. So Mrs. Bowman was sometimes absolutely compelled to reason with her husband about this "hypochondriacal idiosyncrasy," as she termed it.

"I should be very glad if you would allow me to stay at home," the poor man pleaded. "I don't like to mention it, but I really think I am fuller of kinks than usual this evening."

"It is perfect nonsense, Sylvester!" Mrs. Bowman responded. "So far, I have not lost one of those chamber concerts, and I don't intend to."

Mr. Bowman thought he could have a concert in his own chamber, if his wife would only leave him in possession, but Mrs. Bowman declared herself unable to even think of such a thing. "If you will only overcome that foolish habit of jumping and twisting your face," the lady said, "I might have some comfort in life; but I might as well live in the neighborhood of Vesuvius, for I never know what is coming next."

"I'd give you notice if I knew myself!" Mr. Bowman responded, getting inside his overcoat more carefully this time. "But I never have the slightest warning."

"Why don't you make yourself positive to these attacks upon your imagination?" Mrs. Bowman inquired. "You would use your will power if you thought as much of me and my comfort as you ought."

This was always the concluding idea of the concluding sentence of Mrs. Bowman's arguments. Whether or not she believed this is not known, but it was the theme of a variety of variations. There must be a screw loose somewhere to admit of such promiscuous dropping of stitches, and if anything could tighten it again, it would be a general ignoring of the disagreeable accident, with an occasional word to show her reason for so doing. The Bowmans had been married twenty years, and during ten of those Mr. Bowman had constantly dropped stitches. Mrs. Bowman had never been ill a day in her life. Everybody who had the least acquaintance with this lady was also ac-

quainted with this fact. Mr. Bowman had heard this statement so often that he always knew just when it was coming. It was an introduction, an interlude, a climax. He had counted the words in the sentence, and the letters in the words, and repeated them over and over again to himself, till they had an alien and uncertain sound, and taken separately were utterly devoid of meaning. The general idea of his wife's robust, continued, and of course continual health remained, however. There was no way of twisting or perverting that. If Mrs. Bowman had been constructed in such a way as to make the dropping of an occasional stitch possible, it would doubtless have been a great help to her husband in disposing of his. But she wasn't. One would as soon think of Bunker Hill Monument with a "crick," as of Mrs. Bowman with an infirmity of this kind. But, as stated above, Mrs. Bowman had a headache. It was a hard and constantly developing headache. She bore it for four days without flinching, then she began to weaken.

Neuralgia never selected a more unsuitable and unfortunate time, for Mrs. Bowman was house-cleaning. Although there was a competent man at the helm, and two professional assistants, this brisk and particular housekeeper was always at the head of her troops. Her weapon on these occasions was an immaculate linen cloth and a hair-pin. Armed with these she tested the cleanliness of the visible and the invisible, for Mrs. Bowman was as anxious about the last as the first. When it is taken into consideration that there was not a square foot of woodwork from the fourth floor to the basement that was not gone over in this fashion, it is apparent that Mrs. Bowman was altogether too busy a woman to have neuralgia added to her programme. But it was there, and notwithstanding two or three surreptitious visits to a noted physician, had evidently come to stay. She couldn't dodge it or ignore it. The much-talked-of and highly recommended will power which had been her exclusive remedy for other

people's sufferings was not within call. Mr. Bowman wondered not a little at his wife's silence, and the stoniness of her expression, and more still at his unusual privileges; but this gentleman had purchased wisdom at usurers' rates through long experience, and his speculations were never interrogative. It was such a novel sensation, and such a comfort for Mr. Bowman's stitches to be allowed to drop without some sort of an interruption from his wife, that there is no sort of doubt but the poor man would have ravelled out with pleasure. On the fifth day Mrs. Bowman made her toilet as scrupulously as ever, and took her seat at the breakfast-table. Mr. Bowman was a little late. Whether or not he had been obliged to devote more time than usual to his knitting-work, or the falling off of military discipline was the cause of his tardiness, was not known. But when he did make his appearance, the deprecating apology which exhaled from the whole man was changed to a nervous chill, which would have been more exasperating to Mrs. Bowman than any number of dropped stitches. But she saw it not. The fact was, this lady had a job on her hands which required her undivided attention. Mrs. Bowman had always been distinguished for the dignity of her bearing. In fact, dignity was her strong point, and never since Mr. Bowman's acquaintance with her, had he known it to be compromised in the slightest degree. But now, with her head in her hands, her elbows on her knees, rocking to and fro to the rhythm of an indescribable torture, the poor victim of neuralgia groaned and wept. Mr. Bowman stood for a moment like a man stunned. Then, gathering courage from a prolonged and awful *crescendo*, he drew as near as seemed safe, and broke the rule of his life by asking his wife a question.

"Amanda," said he, timidly, "is anybody dead?" It never occurred to this gentleman that his wife might be ill. Certainly not. Had she not informed him fifty thousand times at least, that she had never been ill a day in her life, and wasn't that equivalent to saying she never would

be? Mr. Bowman's confidence in the partner of his joys and woes—barring the stitches—was unlimited.

A suppressed shriek was the only answer Mr. Bowman received to his inquiry. He tried it again. "Tell me, Amanda," he pleaded, drawing a step nearer, "is anybody dead?"

"Did you ever know of a day when there *wasn't* somebody dead?" Mrs. Bowman at last responded, in a tone that caused her husband to back a little. "Perhaps *you* have," she went on, one hand clenched in her crimps, the other frantically extended, "but I never did."

"But there must be something terrible the matter," Mr. Bowman gently remarked.

"Did I say there wasn't?" Mrs. Bowman inquired, sobbing now as if her heart would break. "It's my head, if you want to—want to know! My head, I tell you, my head, my head! my head!"

"How did you hurt it?"

Mr. Bowman put on his glasses now, and tried to discover the cut or the bruise, or whatever it was. His wife had of course met with an accident. A step-ladder, a scrubbing-pail, or a box of soap might have fallen on her head. He couldn't think of anything else that would have been likely to cause the trouble, and Mr. Bowman had altogether too deep-seated an opinion of his wife's knowledge of herself, and consistency of character to suspect any internal disarrangement.

"Please, Amanda, tell me how you did it!" the husband entreated, bitterly remorseful that he had not risked the consequences, and warned his wife against the perils of house-cleaning. "Perhaps if you will tell me what it was that fell on you, and let me see just where the wound is, I can do something for you."

"I feel as if a red-hot iron was punching my left eye out, and somebody was driving a spike clear through my head!" And now another tornado of sobs put an end to the frantic communication.

"Just so, Amanda," said Mr. Bowman, with pathetic cheerfulness, "but how did you do it?"

"I didn't do it. I dunno' how I did it!" was the somewhat contradictory reply. "It's overwork, cold, worry, nerves, neuralgia!" the last word actually howled out. "Now do you know?"

Mr. Bowman didn't appear to know much of anything. If it hadn't been that his mouth and eyes seemed bent on finding out which could open the widest, there would have been no sign of life about him. Some men would have been less surprised to find out that their wives had run away from them, than Mr. Bowman was in the discovery of his wife's fallibility. That she could suffer like ordinary mortals was past belief, and yet here she was, so thoroughly taken possession of by the intolerable agony of a very common disorder, that she had not only parted with her dignity, but was even oblivious to his bad habits. One paroxysm of pain followed another, and finally Mr. Bowman gathered courage to remove his wife's clenched and almost rigid hands from her head, and substitute his own weak and trembling ones.

Never in all his attacks of stitch-dropping, and subsequent wear and tear, had his wife once stretched out a helping hand, but Mr. Bowman knew what pain was, and judging by what would have been grateful to him in his own moments of suffering, he pressed the throbbing head until the violence of the pain had abated. At this crisis Mr. Bowman was threatened with a stitch. So distressed and alarmed was he at the probable consequences of such an accident that he turned every imaginable color in his efforts to prevent it. But it was no use. The stitch broke away, as usual, and to apologize for the momentary weakness would only have made matters worse. So he recovered himself as hastily as he could and returned his hands to his wife's head.

"You feel a little better now, don't you?" the poor fellow inquired in the tone that one would use to a sick child.

"Yes!" Mrs. Bowman was so exhausted that she could only whisper. "I'm better," she went on, "but, Sylvester, how do you feel?"

Mr. Bowman was struck by lightning again.

"How do I feel?" he slowly repeated, as soon as he could muster his paralyzed forces. "Why, I feel pretty well, Amanda."

"Did that stitch hurt you *very* much?" Mrs. Bowman turned a pitiful face to her husband as she sobbed out this question.

"Dear one," was the distressed response, "don't give a thought to it. It did really seem unavoidable, but if I'd been a little more on my guard, perhaps—" another paroxysm seemed imminent, and Mr. Bowman resumed his novel occupation. It didn't seem at this juncture that there could be any more stitches for Mr. Bowman to drop, for the pain had left him pale and trembling, but he held firmly to his wife's bursting head, and sighed and groaned in sympathy with her agony, as he had never dared to for his own.

"That wasn't so bad as the last!" he remarked, encouragingly, as the rampant nerves quieted down again.

"No, not nearly," said his wife; "and your hands have made the difference. Tell me, Sylvester, have you ever suffered like this?"

"No, indeed," was the quick and unselfish reply. "It is very seldom that anybody suffers like this."

"But, Sylvester, your stitches?"

There was a gasping hiatus between Mrs. Bowman's words that would have been quite sufficient to bring the tears to her husband's eyes, but the influence of this new and totally unexpected sympathy almost flooded the poor fellow.

"I never noticed till a little while ago how thin and pale you looked," Mrs. Bowman went on, "and I wish you would try and tell me how you feel."

Mr. Bowman choked back a sob, held on to a stitch, made his most grotesque faces, and then said softly:

"Amanda, I'd give a considerable if you would try and brace me up again with a little of your old courage, because, some way, I'm lost without it, and——"

"My old brutality, you mean," Mrs.

Bowman interrupted, with a heartbroken cry. "Come here!" and the miserable woman opened her arms, and took her husband's pale, contorted face to her bosom, and for a few moments there was not a word spoken, neuralgia and stitches having the floor pretty much to themselves.

"There's a purpose in pain, otherwise

it were devilish," says the poet, and there was certainly a purpose in Mrs. Bowman's pain, for although Mr. Bowman had dropped too many stitches to be ever a whole man again, he was nursed and sympathized with in such a manner that the remaining ones were left intact on the needle.

ELEANOR KIRK.

BEAUTIFUL HOMES.

ART, wealth, labor, and exquisite taste are doing much continually to render American homes outwardly attractive. The artisan and florist vie with each other in decorations. Ceramics, bric-a-brac, works and books of old masters, and the voluminous effusions of those best known in literature and art of this age, adorn elegant and perfectly apportioned rooms. We find often in and about dwellings a luxurious air redolent with ease, and, inhaling it, involuntarily exclaim of such, "What a beautiful home!"

Perfection of situation and appointments are ever grateful to the outward eye, and satisfying to finer aspirations. All visions of loveliness are uplifting and purifying, while struggles with the demons of discord and uncleanness, though they increase the measure of our mental and moral vitality, and are in our direct line of duty, debilitate our faith in humanity.

We delight in the elaborations of beautiful homes, the point lace and gold tassel of existence, when within their frescoed portals there are hearts which beat in harmony with their surroundings, and reflect on those with whom they come in contact the light of their own happy tempers. Then indeed is a home wholly and truly beautiful. But all beauty is not in grandeur. There is a greater wealth than money can give, and a beauty of character far exceeding that of exterior forms.

There are many beautiful homes, as sweet and simple as birds' nests set in wreaths of green leaves, that are perfumed with affection and adorned with the sun-

light of smiling countenances, where the artificial gold-lace hangings and the parlor exotics are unknown.

God's patterns are wrought in various designs, and filled out with diverse and often entirely different grades of color. One creation absorbs the light, and another emits it. One scene is framed in diamonds and emeralds, and another in the petals of a wind-blown wild-flower. But if the works bear the impress of the Great Master they are alike fair. The truly beautiful are the truly good. A costly frame can not change the artist's or connoisseur's estimate of a picture. Human pictures construct in a manner their own surroundings. Beautiful lives make beautiful homes. Beautiful lives are the result of a tender, earnest, and loving practical desire to make those about us happy, to purify and brighten the atmosphere.

Beauty is not an abstract element. It is an individual, spiritual presence, a vision, a breath, a touch, or a sound that appeals to our higher natures — an indescribable something that reaches us through the organs of sight, but which we fully recognize by far keener faculties. Nothing lacking harmony can be beautiful. Mental and physical frowns cloud often the skies of human pictures. Flaws of careless, impure habits and uncurbed temper render imperfect lives with outwardly attractive surroundings, while smile-wreathed lips that drop words perfumed with the generous kindness of a well-directed and discerning mind, are the beautiful harmonizers, the gate-keep-

ers of faith, the ministers of peace, whispering of the lost Eden and prospective Heaven. The equalizers of discordant elements are the key-notes of beautiful homes. We make or mar beauty as we move. We can not be wholly neutral in our influence, though we may be mental nonentities.

The idea that evil customs are past re-

demption, and that good words may be wisely withheld, lest they be lost in the Babel of bad, is false. By the silent endurance of wrongs we augment them, when by placing truth and purity unobtrusively in contrast, we would be bearing true witness to our principles, and lending our efforts to the increase of beautiful homes. MRS. S. L. OBERHOLTZER.

THE ADVICE HE NEEDED, AND GOT.

"OH, yes; I understand all that," said a father to his son, who was mourning and grieving over the lack of true womanhood among the girls of his acquaintance. "Mere butterflies of fashion, you say, who can rattle the keys of a grand piano, dance like fairies, chatter nonsense and society nothings by the hour, but for their lives can not bake a loaf of bread, roast a turkey, do a day's washing, or make a shirt. You say you demand the noblest type of true womanhood in your wife, and you want to know where you can find the wife you want? Well, I will tell you, my dear boy. If that is the sort of a woman you want, marry Norah Mulligan, your laundress' daughter. She wears cowhide shoes, is guiltless of corsets, never had a sick day in her life, takes in washing, goes out house-cleaning, and cooks for a family of seven children, her mother, and three section men who board with her. I don't think she would marry you, because Con Regan, the track-walker, is her style of man. She is the useful sort of a woman you appear to want; but I don't think she would look at you twice. Let me examine into your qualifications as a model husband after your own matrimonial ideas, my boy. Can you shoulder a barrel of flour, and carry it down to the cellar? My dear boy, a quarter of a sack of meal would get away with those chalky fingers and slender arms of yours. Can you saw and split ten cords of hickory wood in the fall, so as to have fuel ready in the winter? Telemachus, those twen-

ty-three inches of coat padded over sixteen inches of shoulders wouldn't help you a cent's worth. Do you know, my son—look me in the eye—do you know how to measure ten cords of wood after the man has piled it in five irregular heaps, and tells you it is all there? Do you know how to buy potatoes, and how to put them away for winter? Do you know how to pick over the apples after Christmas? Do you know how to watch the shoeing of your own horse—if you drive one—and can you tell timothy from prairie hay when you are buying it? Can you spade up half an acre of ground for a kitchen-garden? Do you know what will take the limy taste out of the new cistern, and can you patch the little leak in the kitchen roof?

"What would you do if a hoop fell off the flour barrel? Suppose the chimney gets choked up, or the front door binds at the top? What if a mortise lock gets out of order? If an extra shelf is wanted in the pantry? Or two or three little houses for the hens with little broods of chicks? Can you bring home a pane of glass and a wad of putty, and repair damages in the kitchen window? Can you hang some cheap paper on the kitchen? Can you fix the front gate so that it will not sag? Can you help the man to carry the kitchen stove out to the summer kitchen? Do you know how to fix a pump when it chokes? Can you make two or three tree boxes for the trees you planted on the sidewalk, if you knew how to plant them? Can you do anything

about the house that Con Regan can? My dear boy, you see why Nora Mulligan will have none of you—she wants a higher type of true manhood. You expect to hire men to do all the man's work about the house, but you want your wife to do everything that any woman can do. Believe me, my son, nine-tenths of the girls who play the piano and sing so charmingly, whom you, in your limited knowledge, set down as 'mere butterflies of fashion,' are better fitted for wives than you are for a husband. The girls know more about these things than you do. If you want to marry a first-class cook and experienced housekeeper, do your courting in the intelligence office. But if you want a wife, marry the girl you love, with dimpled hands and a face like the sunlight, and her love will teach her all these things, my boy, long before you have learned one-half of your own lesson."—*Western Paper.*

A BOSTON GIRL TURNED INDIAN.—A paragraph published awhile ago in the *Journal of Sioux City* stated that for seven

months there had been living with the Omahas an educated young lady from Boston who for the time was a member of the tribe, because she hoped in this way to learn something of the inner life of this the oldest tribe, excepting the Pawnees, in that part of the West. Miss Fletcher is a brunette, solidly built, about twenty five years old, rather good-looking, and with a directness of speech and a way of standing silent while irrelevant conversation is going on that probably was learned in her Indian life. Miss Fletcher intimated to Dr. Wilkinson, the Indian agent, that before going to the Omahas she had been with some of the warlike northern tribes, and that she intended to go to the New Mexico Pueblos, thence to the Flatheads of Washington Territory, and return East by way of the Sioux country. Mr. Cushing, of the Zunis, must look out for his laurels.

At the late meeting of the Science Association at Montreal, Miss Fletcher was present, and her relations of some of her Indian experiences were among the most interesting features of the proceedings.

PSYCHIC COMMUNION.

LATE upon an evening lonely,
With my soul, dear Psyche, only,
I walked out amid the glory
Of the world so old and hoary.

Then in meditation deep,
As one talking in his sleep,
I there asked my soul the question,
Full of troublesome suggestion:
"Wherefore man and wherefore nature?
Earth and air and living creature?
Where are life's mysterious sources?
Where are lodged the mighty forces
Which to universe give fashion
All its beauty, all its motion?"

Then this faithful mentor, seeing
All the unrest of my being,
Kindly bent her head and listened,
And her fair brow brightly glistened
Like Aurora's ruddy features,
Angel smiles to cheer earth's creatures,
Gently whispering, as she said:
"All are one in the living Head.
Every attribute of soul
Is an atom of the Whole.
Every soul is but a part

Of the Universal Heart,
Suns and stars and flying comets
All unite in singing sonnets.
All things high and low we see,
From rolling world to flower and tree,
From surging sea to mole and sod,
Concenter in the living God.
His mercy fills the mountain air,
And sunbeams come to answer prayer.
The day with silver wings of light
Dispels the gloomy shades of night;
The soil its richest treasure yields
And fills with grain the gracious fields;
The gentle rains in goodness fall
And bring their blessings free to all."

Dare I heed my teacher's teaching?
Dare accept my prophet's preaching?
I do accept, the truth is plain,
My faith beholds the endless chain,
The perfect way, the holy Power
That consecrates my soul this hour—
An oracle divinely wise,
With message given from the skies,
That universal law benign
Stamps all existency divine.

C. C. COLLINS.



THE POLLUTION AND PURIFICATION OF OUR RIVERS AND HARBORS.

POLLUTION.

WHEN we look back into the past, it at first seems strange that there should have been so much opposition to new ideas; that for a man to attempt to introduce some improvement or to advance some new thought was for him to put his comfort, and even his life, in jeopardy. But when we look about us in this nineteenth century, we see how difficult it is even now to introduce a new idea—now difficult even to introduce an idea that affects the health of a community—how difficult it is to get people out of old, injurious ways, and to accept something new and better. All that is new, however, is not good. The mere property of being *new* is not sufficient: newness by itself is a very doubtful element. Every day we see about us things that prove this. With the *new* we want the *better* combined. When we look back on the past we see the struggle between the good and the evil; we see that our brethren in the past struggled for the advancement of society even as we to-day are struggling for the same idea—their labors in this line have inspired us. Their zeal in behalf of the betterment of the world appealed to our intellects and prompted us to commence where they left off. The past had its faults as well as the present, but then many of its faults were the results of the darkness of the age. The age must wait for more light.

When we advance intellectually so that we are able to see ourselves as the future will see us, it makes us more charitable toward the past; not that we indorse all the backward spirit of the past, but we are able to see that, with all our superior surroundings, we are relatively no better in this respect than were people centuries ago. Many false steps are taken, and it would seem that it was necessary, at least obligatory, that it should be so. Then many steps are only an advancement in the immediate present, they are not permanent; they are like the temporary work of the engineer—such as scaffolding, arches, sluiceways, and even roads—good at their time, an advancement in the immediate present, but only in the way, and even a nuisance, when the grand conceptions of the engineer are being advanced to completion. There are many things that are an advancement in their day, but because they are such it is no reason that we should ever hold to them, and say that the world should not advance beyond them. We had the old oil-lamp and candles—these have been superseded by gas. But who will say that the world shall not go beyond gas, and advance to something better? The old vault system was well enough in its day, and even now, in country places, where people are not too much crowded together, it is still an advantageous institution. But in the crowded city it has been su-

perseded by the water-closet. When the country was new, and we were anxious to carry out some mechanical scheme, to manufacture implements and raiment necessary for our comfort and existence here, we thought it no harm to let our waste material pass into our rivers and harbors. It was an easy way of getting rid of waste material. The works were on such a small scale, and the waters were so pure and abundant, that it did not seem possible that such a small amount of impurity from our water-closets and our workshops would seriously affect them. For years it did not, but now the years have made such a change that we are forced to look about us for some new and better method—some method whereby the works and conveniences demanded by civilized communities may continue, but may not become more of a curse than a blessing. At present they are rapidly approaching the abyss of a curse.

Probably there is nothing outside of the adulteration of food which bids so fair to affect the health of communities as the pollution of our streams. The world certainly can not complain that no one has thought of this, or that their attention has not been called to it. The leading medical and sanitary journals, and even the more popular magazines and daily papers, now for a number of years, in most strong terms, have called attention to this fact. They have shown that this pollution is on the increase, and that if unchecked, it must and will produce frightful results, and that it is something which has no respect for persons.

We introduce water into a city; it certainly is a good thing, yet with all its blessing it has introduced one great curse, and probably more than any other one thing is helping to fill our streams and harbors with an accumulation of filth that is already obnoxious, and which bids fair to react upon us in a most terrible manner. If this could not be helped, we might abide by it and resign ourselves to our fate, but with all our scientific and practical knowledge and ingenuity it does seem as though we were simply inviting

a calamity, perhaps praying that it will not come, yet indifferent to ways and means to prevent it when it is within our power to do so.

When we introduced the water-closet, and then through the public water-works increased this institution a hundred-fold, we thought we were doing a nice thing. Yet in a moment of time we are getting rid of the most obnoxious part of our sewage by the ounce, from our immediate surroundings, and storing it up in our streams and harbors by the ton! And the same with all the obnoxious wastes from our factories. The daily amount that we so easily transport from our immediate presence is very small, but the amount that accumulates in the beds of our streams is immense. Being all out of sight—covered by water—it is thought to be quite harmless there. But it is not, and the greater the increase the more obnoxious and dangerous it becomes, and unless steps are taken to rectify this, the day will come when we will curse the introduction of the system that put it upon us. With all our intelligence it would seem that we could change all this, even in less time than it took to introduce it, and that the "earth-closet" system, properly applied and regulated, should be the medium whereby it would be accomplished. This would leave our sewers free to the ordinary waste waters from the kitchen, washings, etc., and even these waters, by some simple process of filtering, might readily be purified from their injurious properties before entering our rivers.

When a man builds a house, in place of the present water-closet, which must connect with the public sewer, that even traps will not wholly protect him from, let him construct a flue or ventilating shaft near a chimney, from the ground to well above the roof, with openings on the several stories to this shaft. At the bottom of this shaft, out-doors, have a pit or bin where earth can be kept, which shall act on the principle of the earth-closet. The coal and wood ashes that accumulate about the house will, I think, answer well the purpose as a substitute for earth.

And if this idea shall work we shall neutralize two evils or nuisances—combine them into one virtue—a virtue that may even have a market value. Some such arrangement as this will undoubtedly work well and accomplish the desired result. There is no deception in this plan; it will not put us under the delusion that we are getting rid of some obnoxious thing, when we are only transporting it and storing it up a short distance from us, where it will in due time react upon us, poison our surroundings, make us regret our shortsightedness when it is too late, and put us to the expense of millions to right the evil, when hundreds, combined with good common sense, would have prevented it in the beginning. A continuance of the present system will most surely be expensive to us and produce most terrible results. If we are wise, now while it is yet time, we will protect ourselves. Delay in this matter will prove most expensive and dangerous.

PURIFICATION.

It is said that when Milton wrote his "Paradise Lost," an old Quaker suggested to him to write "Paradise Regained." "Paradise Lost" is quite as well known as Bunyan's "Pilgrim's Progress," but who ever hears of the "Paradise Regained"? The large libraries, of course, have it, and well-to-do people, with special pride or culture, may have it, but the great world outside knows little or nothing about this later work of the poet. Perhaps Mr. Milton did not have as much interest in this branch of his subject, but herein I have no desire or space to open a literary discussion. But the reader may ask, what have these works of Milton to do with our subject? Probably not much, yet there is a connecting idea which well illustrates the common bent of the human mind. Many people in the world are all the while complaining or moaning over something "lost," who never seem to have the high common sense of this old Quaker, and ask why it can not be "regained." What is the use of settling down into a morbid condition, and being

ever satisfied with bemoaning some calamity or wrong, or the presence of injurious surroundings? No use at all. Unless we can do more than this we had better rest satisfied, and let the evils grow and grow until they completely overwhelm us. Too often the world stops at the mere recital of some wrong or evil—this seems to satisfy its morbid sensibility. Fortunately for us, however, there are a few "old Quakers" in the world. When the poet writes most eloquently about "Paradise Lost," he, with his practical sense, wants to know if the poet can not also write about "Paradise Regained." When the morbid sense of the world writes and talks about the impurity of our water-courses, and of all the evils that must result therefrom, the practical mind looks about him and sees the wonderful ingenuity of his fellow-men, and he asks, can not some of this ingenuity be directed toward improving the sanitary conditions of our surroundings? Can not something be devised whereby the purity of our water-courses may be regained? Hundreds of things, even more difficult than this, have been accomplished by the ingenuity of man. If the ingenuity of man was half as much exercised in benefiting mankind as in producing that which is injurious, we would see far more comfort and happiness about us than at present. During the winter filth accumulates; it is not then obnoxious or injurious, and even in the summer, filth, in small proportions, may not be practically injurious, but when filth accumulates the atmosphere of the warmer seasons adds to its properties, or generates new chemical combinations, which breed disease and even death. When the warm weather comes the nuisance and poisonous attributes of these store-houses of filth are more apparent. Their being covered with water, and thereby not at once revealed to the eye, does not make them harmless; they are full as dangerous as though uncovered by any veil, and even more so, for the continued presence of water only adds harmful properties to them, whereas if there were no water

present the powerful heat of the sun would soon disintegrate them, and so change their chemical combinations as to take from them the properties most unpleasant and injurious.

When the warm weather comes and we go down to the water, where the filth from thousands of households is being continually deposited, the tide is low, and some steamboat comes along and stirs up the black, filthy water, and we get a good inhalation of the gases that ascend and poison the air. Let us say to ourselves: "We not only permit this, but, worse, we are all the while contributing our share toward the pollution of our fair streams." Nature gave them to us pure and fair to look upon, and made them a blessing to us in many ways, and, instead of endeavoring to retain them in purity, whereby we may reap the most blessing from them, we, in our indifference, present selfishness, and willful ignorance, are allowing the same every day to become more and more a nuisance and a curse.

The ancient Hindoos had their holy rivers; the practical sense of the present day would not permit us to worship rivers, or in any theological sense to regard them as holy, yet it would seem that it was about time that we realized, in its broadest sense, that "cleanliness was godliness"—that one of the first steps toward attaining this would be to have more regard for the purity of our rivers, and in this sense regard them as "holy"—have them so pure that we may not be defiled by them. It is about time our veneration extended to these practical things whereby the human race is advanced and made happy.

In this all must work. All must receive the blessing or the curse—there is no respect for persons. The rich and powerful can not escape by any "Wall-street" method; nor can the poor and less influential escape by any medical process. We are all in one boat together, and together we must be wrecked or sail proudly on. While we sail along let us no longer encourage the idea that filthy water full of poisonous matter is just as

good to sail on and to live by as that which is clear and uncontaminated. Let us, one and all, do all in our power to discourage and rebuke this idea, and to encourage the world to regain the purity of the waters on which we sail, and the purity of the streams that flow past our habitations. Ignorance, neglect, and the want of the proper development of our latent ingenuity has caused many of our best streams and harbors to become mere sinks for the accumulations of the most foul and repulsive matter. We have it in our power to regain them, to restore them quite to their natural purity. If we are wise, we shall concentrate our ingenuity more in this direction. The curse and the blessing are extended to us. We have the power; therefore, let us have the wisdom to turn the curse from us and to foster the blessing. What we have "lost" we can easily "regain," if we only will.

ISAAC P. NOYES.

WASHINGTON, D. C.

OCCUPATION AND LONGEVITY.—"Woe to them that are at ease!" says Carlyle, but his anathema does not prevent the English village parson from outliving every other class of his countrymen, not excepting the British farmer, whose peace of mind can not always be reconciled with high rents and the low price of American wheat. Where agriculture is what it should be—a contract between man and Nature, in the United States, in Australia, and in some parts of Switzerland—the plow-furrow is the straightest road to longevity; in Canada, where Nature is rather a hard taskmaster, the probabilities are in favor of such half-indoor trades as carpentering and certain branches of horticulture—summer farming, as the Germans call it. Cold is an antiseptic, and the best febrifuge, but by no means a panacea, and the warmest climate on earth is out and out preferable even to the border-lands of the polar zone. The average Arab outlives the average Esquimaux by twenty-five years.

The hygienic benefit of sea-voyages, too, has been amazingly exaggerated.

Seafaring is not conducive to longevity; the advantage of the exercise in the rigging is more than outweighed by the effluvia of the cockpit, by the pickle-diet, the unnatural motion, and the foul-weather misery; and, from a sanitary stand-point, the sea-air itself is hardly preferable to mountain and woodland air. The eozoön may have been a marine product, but our Pliocene ancestor was probably a forest creature.

"For what length of time would you undertake to warrant the health of a seaman?" Varnhagen asked a Dutch marine doctor. "That depends on the length of his furlough," replied the frank Hollander, and it will require centuries of reform to redeem our cities from the odium of a similar reproach. In victuals and vitality towns consume the hoarded stores of the country, and only the garden-suburbs of a few North American cities are hygienically self-supporting. Permanent in-door work is slow suicide, and between the various shop-trades and sedentary occupations the difference in this respect is only one of degree. Factories stand at the bottom of the scale, and the dust and vapor generating ones

below zero; the weaver's chances to reach the average age of his species have to be expressed by a negative quantity. In France, where the tabulation of comparative statistics is carried further than anywhere else, the healthfulness of the principal town trades has been ascertained to decrease in the following order: House-building, huckstering, hot-bed gardening (florists), carpenter and brick-mason trades, street-paving, street-cleaning, sewer-cleaning, blacksmiths, artisan-smiths (silver, copper, and tin concerns), shoemaking, paper-making, glass-blowing, tailor, butcher, house-painter, baker, cook, stone-masons and lapidaries, operatives of paint and lead factories, weavers, steel-grinders—the wide difference between brick and stone-masons being due to the lung-infesting dust of lapidary work, which, though an out-door occupation, is nearly as unhealthy as steel-grinding. Lead-paint makers have to alternate their work with jobs in the tin-shop, and, after all, can rarely stand it for more than fifteen years; needle-grinders generally succumb after twelve or fourteen years. — *Popular Science Monthly for September.*

"COMPOUND OXYGEN."

THERE has been no small amount of advertising and talk in the newspapers for a long time past with regard to "Compound Oxygen." Wonderful cures are said to have been wrought by its administration, and wonderful hopes have been held out to the sick, if they would only try it, at the rate of ten to twenty dollars a quart.

Professor Prescott, of the University of Michigan, has been analyzing several "brands" of the thing, and the following are the results, as published in the *Physician and Surgeon*:

1. "COMPOUND OXYGEN. *Keep Dark.*"—A colorless aqueous solution of nitrate of ammonium and nitrate of lead, the two salts being in nearly equal propor-

tions, and together forming about three per cent. of the solution.

2. "OXYGEN AQUÆ. *For Digestion. Keep Cool.*"—One of the grades of "compound oxygen": A colorless, odorless, and tasteless liquid—found to be water, of a commendable degree of purity, quite free from sophistications. Probably this is the original compound oxygen.

3. "COMPOUND OXYGEN." *Dr. Green's, 1880.* An aqueous solution of nitrate of ammonium, with a very little nitrate of lead.

4. "COMPOUND OXYGEN." *A White Crystalline Solid.*—Obtained for analysis about five years ago, and then found to be nitrate of ammonium alone. "Contains all the vitalizing elements of the atmosphere, but combined in a different way."

5. "COMPOUND OXYGEN."—Sent out from Boston. A colored, fragrant liquid, consisting of alcohol, chloroform, and balsam of tolu.

6. "COMPOUND OXYGEN." *Dr. O'Leary.*—Contains alcohol, chloroform, bitter almond oil, balsam of tolu, and red coloring matter.

The first two samples, "Compound Oxygen" and "Oxygen Aquæ," were sent to Professor Prescott for analysis by the editor of *Good Health*, who remarks as follows :

"It should be recollected that this solution is to be used by inhalation, a teaspoonful being added to a small quantity of warm water, through which air is drawn by means of a glass tube. Neither of the substances contained in

the solution are volatile at the temperature at which the solution is used, so that it is impossible for any medicinal property whatever to be imparted by this boasted remedy, except what comes from the warm water, which is itself very healing when used in this way, as we have demonstrated in hundreds of cases. Professor Prescott also tested the vapor given off from the pure solution when it was boiled, but found nothing more than the vapor of water.

"The 'Compound Oxygen' is usually accompanied by what the manufacturers are pleased to call 'Oxygen Aquæ,' which they recommend their patients to take as an aid to digestion. The analysis of this showed it to contain nothing but water. The most careful tests revealed nothing else."

THREE GOOD DOCTORS.

THE best of all the pill-box crew
Since ever time began,
Are the doctors who have most to do
With the health of a hearty man.

And so I count them up again,
And praise them as I can ;
There's Dr. Diet, and Dr. Quiet,
And Dr. Merryman.

There's Dr. Diet, he tries my tongue,
"I know you well," says he ;
"Your stomach is poor, and your liver is sprung ;
We must make your food agree."

And Dr. Quiet, he feels my wrist,
And he gravely shakes his head.

"Now, now, dear sir, I must insist
That you go at ten to bed."

But Dr. Merryman for me
Of all the pill-box crew !
For he smiles and says, as he fobs his fee,
"Laugh on, whatever you do !"

So now I eat what I ought to eat,
And at ten I go to bed,
And I laugh in the face of cold or heat ;
For thus have the doctors said !

And so I count them up again,
And praise them as I can ;
There's Dr. Diet, and Dr. Quiet,
And Dr. Merryman.

S. W. DUFFIELD, D.D., in *Independent*.

HEALTH THE BEST WEALTH.

NOTHING discourages the earnest health-reformer like the quiet satisfaction with which the majority of people live without health. If a woman can eat and sleep, and is able to attend to the ordinary duties of life without pain, she is not only satisfied, but grateful for such a merciful dispensation.

Let people be satisfied with such poverty in other departments of life ; let a

man be satisfied with just enough to buy food for the hour ; we cry out "Shiftless, good-for-nothing," and yet how contemptible is money by the side of health ! A man who lives in the midst of the new continent is rich, if he possesses health. No matter what may be his surroundings, though he be a millionaire or wear a crown, he is poor indeed, if he be sick. I want to see a noble ambition to grow

rich in this true wealth. I want to see men and women very misers of physical vigor.

Look at those two men. They are the ordinary pale, round-shouldered Americans. To-day they have nothing but their naked hands and brave hearts. They engage in the struggle for success. One gives up body and soul to making money, the other, a generous part of his life to laying up this inestimable wealth of health. Ten years elapse; now we look at them again.

The greedy merchant counts his gold by the million; but he is twenty years older than when we saw him first. He is thinner and paler, he is dyspeptic, nervous, anxious, old, thoroughly unhappy. That man has made a wretched failure in life. Every large heart sincerely pities him.

Now we look at the other. Erect, broad-chested, muscular, vigorous, healthy, happy, buoyant, victorious. We will not trouble ourselves to ask how much money he has collected. We can not look upon him without feeling that he has achieved a grand triumph.

I wish I felt at liberty to mention a few Boston names. It would strikingly illustrate the point under discussion. I could mention the name of a gentleman who resides on the hill near my own home, who has amassed an immense fortune. His carriage is the finest in the neighborhood, and I notice in many unusual ways the most lavish waste of money. But I never see that gentleman without pitying him from the bottom of my heart. His face is the picture of despair. Nervous and dyspeptic, life is all a torture to him. I should not be surprised to hear of his committing suicide. Half the rich men and women in town belong to the category of the miserable. They can't digest their dinners.

DR. DIO LEWIS.

A PHYSICIAN'S EXPERIENCE IN SMOKING. — A French physician, Dr. Deschamps, thus describes his experience as a smoker in *Galiziani's Messenger* :

"My *debut* as a smoker was like everybody's. My first pipe made me very ill, and it was only by degrees that I managed to become a third-rate smoker—that is, I disposed of eight or ten pipes a day without inconvenience, but whenever I exceeded that average I suffered from violent sick headaches, ushered in by indistinctness of vision, and numbness of one side of the face, the tongue, and one arm, most often on the left side. These preliminary symptoms lasted about ten minutes, after which the headache came on in full force. The most refractory organ, however, was my stomach. After having smoked too much, I used to experience the symptom known as pyrosis or heartburn to a very trying extent, though as any alkaline water speedily caused these phenomena to vanish, I did not care to give up my tobacco.

"About a year ago, having smoked for some months more than usual, I suddenly found myself affected by a peculiar and terrific pain over the region of the heart; in short, I had a violent attack of angina pectoris. It put a stop to my smoking, as, though I have since tried once or twice, I have always found my cigar or pipe detestable, and, to sum up, am radically converted. I do not wish to discuss scientifically the nicotinic origin of my sufferings, but am sure that they all sprang from the same cause—excessive use of tobacco. Degeneration of the cardiac muscle is often caused by tobacco. So long as the rest of his organism remains in good working order, the smoker only experiences intermittent palpitation, and the grave injury done the heart remains unperceived until some trifling cause brings into relief the irremediable disorders produced by the prolonged use of tobacco."

FASTING AS A REMEDY FOR INSANITY. — Henry Clark, an inmate of the Camden County, N. J., Insane Asylum, recently completed a forty-one days' fast, which he undertook in the hope that it might restore his mental faculties to their nor-

mal condition, and that result is likely to follow, in the opinion of the asylum attendants. The man was watched day and night, and every effort was made, short of violence, to induce him to eat, but the evidence is pretty conclusive that for forty-one days nothing went into his mouth except air and water, and only six quarts of the latter. His condition varied considerably at different periods of the fast. On the forty-second day he asked for and drank a cup of coffee, and

thereafter for a fortnight he lived upon a simple vegetable diet, consisting principally of strawberries and milk. It is confidently expected that he will be discharged as a cured patient within a short time.

Just what share the fast has had in his recovery it is of course impossible to say, but the fact is nevertheless true, that a large proportion of the cases of insanity is due to diseased conditions of the alimentary function.

KITCHEN LEAFLETS, No. 10.

ESSENTIALS OF GOOD COOKERY—STEWED GREEN CORN—SUCCOTASH—FRUIT SAUCE
—GRAPE JELLY—QUINCE MARMALADE, ETC.

WHILE great stress is properly laid on the necessity of having good materials to eat if one would enjoy good health, we should not forget that a very important part is performed by the cook toward rendering food digestible and nutritious. We hear complaints on all sides about the difficulty of procuring first-rate meal, flour, beef, vegetables, fruit, and so on; we are told that so much is paid for this and that, and the grocer pretends to send the *best*, but the flour won't make good, sweet bread; the steak and chop are tough and leathery; the potatoes soggy, and the pudding, instead of being a delightful addition or *finale* to the dinner, is a too hard or too soft mass of insipid substance. We know that there is an extraordinary amount of adulteration done by manufacturers and dealers in food materials, but it mainly affects the chemicals and spices and condiments used by the majority of people. I am not sure that the adulterating materials are not less injurious essentially than the soda, cream of tartar, pepper, mustard, ginger, mace, alcohol, vinegar, etc., which are supposed to constitute the essential factors of baking-powder, flavors, and condiments. There is too much competition in trade nowadays for manufacturers and merchants to trifle with the quality of staple food products; and in our large cities grain, flour, and meal are subject to

a systematic inspection which determines quality and price. Living in a community by no means renowned for its conveniences, I could say a word about the difficulty of procuring household supplies, but I have found that by exercising care and a little patience the *necessary* food materials, at least, can be obtained, of good quality. Hence, when I hear people complaining of heavy bread, sodden biscuits, unsavory porridge, etc., I can not help attributing the fault to the cook and not to the articles which the grocer sent home. There are a few housekeepers I know, whose slender means compel them to live very economically, who always have splendid bread and cake, and they do not buy "gilt-edged" flour either.

Perhaps a score of my acquaintances have tried to make graham gems, but half of them have failed or given up the endeavor. One, a most worthy lady, so far as my society knowledge of her goes, has obtained advice repeatedly on the method of preparing and baking the gems, but failed every time she attempted to make them. Yet to one who knows how, it is an easy matter, much easier than the long and varied process of making leavened bread. In some hygienic cures gems are made daily of wheat or oatmeal, or corn-meal, and hundreds at a time, and they come on

the table warm, aromatic, light as a sponge, and delightfully toothsome. I have sat at the table of a well-to-do family where the linen, china, glass, cutlery, etc., were unexceptionable, but the food intolerable, even such an article as oatmeal porridge being brought on the table in such a half-cooked, half-burned state as to nauseate a stomach accustomed to the appetizing product of a double boiler. Porridges of oatmeal, crushed wheat, barley, or hominy, are among the simplest dishes one can prepare, but perfection in them requires that the cook shall know something of the nature of the grains and their "behavior," as the chemists say, in contact with water. I know some people who serve oatmeal at the breakfast-table, after boiling it less than an hour; certainly were it not for the disguise which heat, milk, and sugar throw over the raw mess, they could not swallow it. Yet I believe that people who can eat rare (raw) beef-steak, with its coagulum of albumen which the frying-pan has rendered insoluble, can tutor their palates into accepting any food in association with the mustard-pot and sauce-bottle.

I heard a while ago that the chief cook in a certain Boston hotel received a larger salary than a Cabinet minister, and that first-class cooks in our better restaurants were in much better financial condition than the average professional man. I don't wonder at this, for people who know the difference between well-cooked food and spoiled food materials will, if they can afford it, pay for the service of a skillful cook. Hotel and restaurant men know that it pays to keep a first-class man in the kitchen. Science, art, experience, are just as necessary to be a good cook, as they are indispensable factors to the artist who would secure a high reputation. A plantation "mammy" will turn out a delicious corn-cake from her primitive skillet set over the live embers of a wood fire, while a cultured New England housekeeper would probably fail several times in her first endeavors to produce a like result. Mammy

knows how to do it, *i.e.*, she knows the kind of corn-meal that will make good cake, the degree of heat necessary, and the way in which water should be mingled with the meal. She has "dar sperence" about the baking; how the cake looks under the operation, and when it's "just gone done." It seems to me that it is time society fully understood the fact that it is no small matter to be a good cook; the endless train of stomachic ills people are suffering on account of their daily exposure to spoiled stuff from the kitchen should awaken them to an appreciation of the necessity of knowing what is good for them. Every man and every woman of mature years should be enough of a physiologist to judge what is suitable for the needs of the body, and could I have the ordering of the curriculum in our public schools, I should place high on the list practical instruction in dietetic physiology.

STEWED GREEN CORN.

Cut the grain from the cob, and stew fifteen minutes in boiling water; then pour off most of the water, cover with cold milk, and stew until very tender. Salt moderately, to replace the loss by water.

GREEN CORN FRITTERS.

Grate the corn from the cob, and allow two eggs to one pint of the corn, two tablespoonfuls of milk or cream. Beat the eggs well, add the corn by degrees, beating hard, then the cream or milk; thicken with just flour enough to hold the ingredients together—about one tablespoonful to two eggs is sufficient. Cook on an oiled griddle, like batter-cakes.

SUOCOTASH.

This Indian dish, as its name indicates, is usually made of green corn and Lima beans, although green string or butter beans may be used. Have a third more corn than beans. After the former has been cut from the cob and the beans prepared, put the beans into boiling water, enough to cover them, no more, and cook one hour before adding the corn; then proceed as for stewed corn. Lastly, thicken with one teaspoonful of cornstarch, dissolved in a little cold milk. Boll up once and pour in a deep vegetable-dish.

RICE CAKES.

1 cup of cold boiled rice.
1 pint of flour.

1 teaspoonful of salt.
2 eggs, beaten light.
1½ pints of milk.

Beat all together well, and bake on a hot gridle in muffin-rings, or in any form which is agreeable to the taste.

BAKED TOMATOES.—ANOTHER RECIPE.

In the last number of the PHRENOLOGICAL, several recipes were given for tomatoes. As the season for this excellent fruit in its freshness direct from the garden is not quite over, I add another, and equally simple, way of treating them, by some considered the nicest: Cut the tomatoes, plump and ripe ones, in halves, and lay them in a baking dish; cover with a layer of bread crumbs, a pinch of salt, and some well-chopped parsley, and bake in a quick oven.

FRUIT MUFFINS.

Mix equal parts of well-cooked rice, Graham flour B, oatmeal and water, and bake in muffin-rings for twenty minutes, or until the cakes will slip from the rings without sticking. Then, while hot, split in halves, and on one place ripe fruit, lightly sprinkled with sugar; immediately place over it the other half. When all are thus fruited, cover and set in a warm place for ten minutes, and serve.

MIXED FRUIT SAUCE.

One part quince, two parts pears, three parts apples—all pared, cored, and quartered. Stew the quinces and pears in a porcelain-lined kettle until tender, then add the apples; sweeten and mix well together. Serve cold. If the apples are sweet, less sugar will be necessary. If well cooked, this sauce will keep in good condition several weeks, but only in a close jar or pot, and in a cool pantry.

GRAPE PUDDING SAUCE.

Stew Concord or Isabella grapes with enough water to cover them fifteen minutes, then rub them through a colander; thicken slightly with cornstarch or sifted Graham flour, and sweeten according to the acidity of the grapes.

GRAPE JELLY.

Boil the grapes until soft, then rub them through a flour-sieve with a wooden spoon twice. Boil the juice and pulp twenty minutes; add hot sugar in the proportion of three-quarters of a pound to a pint of the juice; now boil five minutes, and immediately remove from the fire and pour into jelly-glasses which have been standing in hot water. Cranberry jelly can be made in a similar manner.

JAM.—Some prefer grape jam to jelly made of the fruit of the vine. Take well-ripened grapes for jam and stew them until soft. Strain out the seeds and skins, and to each quart of the

pulp add one pint of white sugar. Boil one hour, stirring it to keep from burning. Seal up in glass jars or cans. The process for jam is, if anything, easier than for jelly, but care is required for a thoroughly satisfactory result.

QUINCE MARMALADE.

Pare the fruit, removing all blemishes, and put it on to cook in a porcelain kettle, with water enough to cover them. When they boil up, add three-quarters of a pound of sugar to a pound of quinces. Cook until the fruit assumes a smooth mass, stirring frequently with a wooden spoon, turning the quinces up from the bottom to prevent burning. Pour into stone jars when done, and cover and tie up closely when cold. Set away in a cool, dry place.

BAKED QUINCES make an excellent side-dish. They are prepared in the simple manner of apples—the core being scooped out and the opening filled with sugar. Considerable time is required to bake them properly, as they must be kept in the oven until thoroughly tender.

MIRA EATON.

MORAL EFFECT OF TEA, COFFEE, ETC.

—That eminent German physician, Dr. Bock, whose opinions are so often quoted in sanitary channels, writes with reference to the moral influence of the favorite beverages of society in the following terms:

“The nervousness and peevishness of our times are chiefly attributable to tea and coffee; the digestive organs of confirmed coffee-drinkers are in a state of chronic derangement, which reacts on the brain, producing fretful and crying moods. Fine ladies addicted to strong coffee have a characteristic temper, which I might describe as a mania for acting the persecuted saint. The snappish, petulant humor of the Chinese can certainly be ascribed to their immoderate fondness for tea. Beer is brutalizing, wine impassions, whisky infuriates, but eventually unmans. The alcoholic drinks, combined with a flesh and fat diet, totally subjugate the moral man, unless their influence be counteracted by violent exercise; but with sedentary habits they produce those unhappy flesh sponges, which may be studied in metropolitan bachelor halls, but better yet in wealthy convents. The soul that may still linger in a fat Austrian abbot is functional to his body only as salt is to pork—in preventing imminent putrefaction.”

NOTES IN SCIENCE AND AGRICULTURE.

A New Race of People in Russia.—In the *Revue Scientifique*, Mr. G. Le Bon speaks of a hitherto unknown people inhabiting an obscure part of Russia. Peculiar circumstances having induced the author to visit the Tatras Mountains, a very remarkable region, and one very little known, since he was apparently the first to traverse it, he found there a territory surrounded on all sides by steep mountains and inhabited by a people speaking a different language from the nations surrounding them, and with whom they had no intercourse. These people, although less than a century ago given up to brigandage, as the author learned in his study of them, are now very industrious and honest. In spite of a climate so harsh that it would be necessary to go to the extreme north to find a similar one; in spite of a very infertile soil; and in spite of an almost Lacedæmonian diet, consisting mainly of oats, milk, and water, they are living in a most remarkable state of prosperity. They are clearly distinguished from all their neighbors in their external aspect, in their quick intelligence, and in their artistic and literary tendencies.

The villages inhabited by these new people are situated in the territory called Podhale, at the foot of the above-named mountains. This territory, as before stated, being surrounded on all sides by steep mountains, difficult of access, is almost as isolated from the rest of the world as if it were an island in mid-ocean.

As regards its origin, Mr. Le Bon thinks the original stock was Polish, which in past ages became intermixed with individuals coming from different peoples. In isolating itself more and more, and not uniting with outsiders, and in constantly being submitted to the action of the same environment and of the same selection, the primitive agglomeration has become more and more homogeneous and finally formed a new race, whose homogeneity may possibly still increase, but which already possesses common hereditary characters that permit it to be clearly differentiated from all surrounding races.

How to Build a Non-Smoking CHIMNEY.—The chief point is to make the throat not less than four inches broad and twelve long; then the chimney should be abruptly enlarged so as to double the size, and so continued for one foot or more; then it may be gradually tapered off, as desired. But the inside of the chimney, throughout its whole length to the top, should be plastered very smooth with good mortar, which will harden with age. The area of a chimney should be at least half a square foot, and no flues less than sixty square inches. The best shape for a chimney is circular, or many-sided, as giving less friction (brick is the best

material, as it is a non-conductor), and the higher above the roof the better.

How the Sun Produces Heat AND LIGHT.—In a communication to a Buffalo paper, Dr. H. R. Rogers says that science at the present time admits of four different explanations of the production of sun-light and sun-heat, viz.: 1. Combustion of cosmical substances falling into the sun. 2. Arrest of motion of such cosmical substances. 3. Contraction of the solar mass. 4. Dissociation of compound bodies in the sun's substance. He holds that the first hypothesis, that of "combustion," is virtually given up by scientists on account of its insuperable difficulties. The fuel problem is too intricate for the finite mind. The second, the so-called mechanical hypothesis, is held in greatest favor by scientists to-day, as best accounting for the phenomena, or as being least vulnerable to objections. This hypothesis presupposes the presence in space of an incalculable supply of ponderous masses all roving loosely and by chance until, falling under the influence of the sun, they are drawn thereto with such momentum that the concussion gives rise to inconceivable light and heat. But Dr. Rogers believes that such existence of ponderable matter, away from the influences of gravity, moving about in the universe and assumed to follow the attraction of the nearest stellar system, can hardly be credited by philosophic minds. The supposition that old, useless worlds, comets, meteors, etc., are attracted to the sun to be utilized for the production of its light and heat, is contrary to every principle of reason and sound philosophy. The inevitable enlargement of the sun's dimensions, which would occur from the accretions resulting from this method, would also prove fatal to this hypothesis. An exact knowledge of the sun for centuries has not in the slightest degree disclosed a change of radius in the earth's orbit; a necessary consequence of any change in the sun's bulk. The third hypothesis, "the contraction of the solar mass," implying a progressive diminution of that body, finds the same objections which lie against its progressive augmentation. The fourth, "dissociation of compound bodies in the sun's substance," depends upon the process of combustion, and is, therefore, open to the objections already mentioned. Each of the foregoing hypotheses stands in direct opposition to the inexorable law of conservation of force. According to the decree of that law, whatever is received by the earth from the sun, an equivalent for the same must again be returned from the earth to the sun to the uttermost fraction. No hypothesis based upon any other foundation can stand. Dr. Rogers's theory of the cause of solar light is a magnetic one. He believes that the

sun and earth are gigantic fountains of magnetic influence, continually acting and reacting upon each other, and that this view gives to the phenomena of light and heat their clearest and fullest interpretations.

Why the Glow-worms Glow.—

A French scientist, M. Jousset de Liellesme, claims to have discovered that the glow of the glow-worm is a spontaneous action, and that the little insect has the same object in glowing that some Parisian ladies have in displaying certain ribbon-streamers, which are very appropriately called "*suivez-moi*." It has long been known that the female glow-worm alone understands the art of glowing exceedingly well, though the male and even the larva possess some of this phosphorescence. Some earlier scientists expressed their belief that the glowing apparatus in the female served the purpose of favoring the fructification of the eggs, in so far as the male was attracted from the distance by the phosphorescent light of the female. But it was left to our prosaic age to discover that the light was produced by an essentially spontaneous action. The naturalist made an incision in the head of the female glow-worm with the impression that this animal has an organ in the head which controls his action, and the phosphorescent light at once ceased, but it returned—and this is the most important fact of the experiment—every time that the action of the brain or of the central nervous organ was irritated by artificial means, such as electricity.

Paris Green and Birds.—A writer in the N. Y. *Tribune* says that in using paris green people are doing more than they intended; they are killing the birds. He says: "The swallows no longer build their nests in my barn or sweep my meadows from other barns. The catbird's cry is seldom heard, that used to frequent the potato fields, as I thought, for bugs, and have known him to pull up corn, take the wire-worm that was eating it and leave the corn. The kingbirds are not so numerous, nor are other strictly insect-eaters. The Irishman, fresh over, tried to grasp a paving-stone to throw at the attacking dog, but found it fast. 'Strange country, this; the dogs let loose and the stones tied in the streets.' So now the vermin are let loose and the birds killed by the poisoned insects on the wing or otherwise. The canker-worm used to be kept in perfect subjection on my trees by these winged policemen; but now many of the trees are stripped to the death, and I hear the same complaint from other localities. 'A nation can do without rice, but it can't do without righteousness,' said Dr. Stebbins in 1861; and we can do without potatoes at least for two or three years better, I believe, than we can do without the insect-eating birds."

A New Way of Fighting Consumption.—The *Reno Journal* tells of the case of A. H. Barnes, of that city, who

fights off consumption by wearing a silver tube, which passes between the ribs into the lungs. In 1849, Mr. Barnes, then living in Sycamore, DeKalb County, Illinois, was declared an incurable consumptive. The lung was tapped and he recovered. In 1863 he was again taken down by the disease, when he once more resorted to the tube, and has worn it constantly ever since. There is a daily discharge of matter. Mr. Barnes is a man of very regular and temperate habits, does not use tobacco in any form, nor stimulants of any kind, hardly ever uses any medicine, excepting sometimes a little iron for the blood; is always feeling well when the hole in his side is open, sometimes feeling a heaviness there, but has got used to that. This case is certainly worthy the special attention of medical men. It seemed to give a man a new lease of life, even when apparently as good as dead. When Mr. Barnes conceived the idea of tapping his lung, all the physicians but one counted it as a thing that would prove fatal. However, he persuaded one to perform the operation. In 1863, Mr. Barnes was in Honey Lake valley, and was on the brink of the grave. Now, again, the resident physicians were opposed to the idea of an incision, and after repeated appeals for an operation, which was refused, Mr. Barnes borrowed a lance and cut open his side himself. He then inserted a catheter, and drawing off nearly a quart of matter, immediate relief was found. The cough and expectoration stopped almost instantly, and Mr. Barnes was soon upon his feet again. Thus he has prolonged his life for over thirty years.

Paradoxes in Nature and Science.

—The water which drowns us can be walked upon as ice. The bullet which, fired from a musket, carries death will be harmless if ground to dust before being fired. A crystallized part of the oil of roses, so graceful in its fragrance, a solid at ordinary temperatures, though readily volatile, is a compound substance, containing exactly the same elements, and exactly the same proportions, as the gas with which we light our streets. The tea which we daily drink, with benefit and pleasure, produces palpitations, nervous tremblings, and even paralysis, if taken in excess; yet the peculiar organic agent called "theine," to which tea owes its qualities, may be taken by itself (as theine, not tea) without any appreciable effect. The water which will allay our burning thirst augments it when congealed into snow, so that Captain Ross declares the natives of the Arctic regions "prefer enduring the utmost extremity of thirst rather than attempt to remove it by eating snow." Yet if the snow be melted, it becomes drinkable water. Nevertheless, although if melted before entering the mouth it assuages thirst like other water; when melted in the mouth it has the opposite effect. To render this paradox more striking, we have only to remem-

ber that ice, which melts more slowly in the mouth, is very efficient in allaying thirst.

Artificial or Patent Fertilizers UNNECESSARY.—A correspondent of the *Country Gentleman* thus alludes to the chemical manures of the market :

"Recent statements in the *Country Gentleman* authorize the suspicion that we innocent farmers may be victims of a deep-laid plan, concocted between the theorists, chemists, and fertilizer manufacturers, to enable the latter to grow rich by selling to us what we do not need, under the vain pretence that the purchase would enrich our soil, and thus enrich ourselves, so we should all be rich and happy together. It seems there may be serious doubts of the wisdom, or of the necessity, of this policy. Here is Mr. Geddes, a farmer of ripe experience and careful judgment, who concludes, 'after more than half a century of grain raising and mixed farming, that the lands of New York when properly managed do fully sustain their fertility without other manures than may be produced on them by a proper rotation of crops, and a proper amount of farm stock to convert unsalable productions into manure.' This is important information—important even when qualified by Mr. Geddes' statement, that he does not refer to sterile soils, but to 'the true wheat lands of New York.' Though a serious blow, this does not quite knock the bottom out of my theory, because the lands in question may resemble those exhaustless deposits above alluded to, which practically have no bottom to them.

"But here comes another successful farmer from another State—Mr. T. B. Terry—describing his experience with a little farm of thirty-five acres cultivated, which, at the commencement of his dispensation, twelve years ago, was the poorest in town—starvation poor. Yet this little farm—with the contributing aid of twenty other acres equally sterile, excepting a muck swamp, the contents of which are used as an absorbent for manure—'has paid for all the improvements made on it; paid for a large stock of latest improved tools; supported a good-sized family, and furnished the farmer thousands of dollars besides!' Not only this, the farm has transformed itself from abject poverty to high fertility, yielding at the rate of \$200 an acre; and Mr. Terry proposes that it shall do better still! And it has done, and is doing this, without the help of a single dollar's worth of phosphates or commercial fertilizers—simply by a judicious system of rotation, stock feeding, and a muck compost!"

Grape Sugar Inferior to Cane Sugar.—At the last Convention of American Druggists, Mr. C. B. Allaire, of Illinois, read a paper on the use of glucose sugar as a substitute for cane sugar in pharmaceutical operations, in which he stated that such substitution is *unsatisfactory*. The use of grape sugar is objectionable from its lack of sweet-

ness. Thus it fails to mask the drug as effectually as cane sugar. Besides, the syrups made with grape sugar, in which organic matters are contained, are more liable to mould and ferment, because grape sugar, being less soluble than cane sugar, the syrups are of lower specific gravity.

After the reading of this paper, Mr. A. E. Ebert, of Peoria, Ill., gave very interesting information on the manufacture of grape sugar. Explaining its use as an adulterant to cane sugar, he said many dealers say they do not mix glucose with their cane sugar, while in fact they do mix grape sugar with it. In the manufacture of glucose, the corn is first converted into a soluble starch, then into dextrine, and this into glucose, and continuing the process it is finally wholly made into grape sugar. The dense syrup which is sold as glucose is more properly a dextrine syrup, and contains in one hundred parts of solid contents about sixty parts of dextrine, and forty of grape sugar. In the manufacture of grape sugar, the process being carried on further, converts about eighty per cent. of the material into sugar, and leaves only about twenty per cent. of dextrine, and this is the *usual* commercial grape sugar sold. In glucose or the *liquid* variety there is about one hundred and fourteen grains of lime in the gallon. The lime may be entirely removed. Sulphurous acid is sometimes used to bleach the sugar in the manufacture, and this frequently leaves its odor in the sugar.

The Asteroids.—The number of asteroids that have been discovered is now over 220. Recent researches by Herr Hornstein (communicated to the Vienna Academy) appear to prove that the number of those with a diameter of over 25 geographical miles is extremely small, and that probably all such were discovered before 1859. On the other hand, the number of asteroids with a diameter less than five miles seems also to be very small, at least in the parts of the asteroid zone next Mars; in the outer regions next Jupiter there may be more. Most of the asteroids seem to have a diameter between 5 and 15 miles. The average number with a diameter of 5 to 10 miles discovered annually within the last twenty years is about three; the number of those of 10 to 15 miles diameter about 16. Thus, should no telescopes more powerful than the present ones be used in future search, we may expect but a moderate "find" of asteroids with diameters under 5 or over 15 geographical miles, while a considerable increase of those with diameters of 5 to 15 miles may be looked for. It further appears that in the case of the smaller asteroids of 5 to 10 miles diameter the improvement of optical instruments and star maps has resulted in no great increase of annual discoveries in the inner zone; such an increase is observed only in the outer zone. Within certain zone limits there is an increase of the average number of yearly discoveries with the time and with distance from the sun.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
OCTOBER, 1882.

WHO ARE PHRENOLOGISTS?

A SUBSCRIBER asks us with much earnestness to give him the names of twelve "great" men who believe in Phrenology. A fair question we must admit, while at the same time it awakens the suspicion that the inquirer has not made himself well acquainted with the nature and scope of phrenological science. Assuming, then, that he is but a beginner, we shall endeavor to assure him of the trustworthiness of the science by such references as shall be deemed responsive to his request.

In the matter of belief in Phrenology the situation is analogous to that of belief in Christianity; there are certain fundamental principles which are accepted without question, but when details, minor points of experience and application are considered, there appear differences of opinion. It could scarcely be otherwise, for the two subjects are of indefinite scope, and a thousand phases of opinion, and a thousand impressions derived mediately or immediately through observation and reflection contribute to individual difference of view. Take any one of the physical sciences, geology, botany, zoology, astronomy, which are immensely

circumscribed in comparison with the study of mental phenomena, and we find the "doctors" differing much with respect to fundamentals even. Authority takes issue with authority regarding the position of strata, the constitution of the sun, the nature of light movement. We have but to read the papers and discussions of a scientific society to find that learned men in the same field of study may be widely divergent in opinion on the significance of data which they generally accept. Nevertheless, because one geologist differs from another; or one naturalist from another, we do not question the fact of either being a geologist or naturalist. Scientific men who devote themselves to a department pay little regard to other departments of science, and those who are interested in physical investigations are, as a class, quite unconcerned about matters psychological. Hence their affirmation or denial of premises advanced by psychologists is of little real importance. We include under the term psychologists all who make the nature of mind their special field of inquiry. Now fully nine-tenths of the men, great and small, who have given some attention to mental studies are phrenologists of one stripe or another. They can not help being phrenologists. All well-informed men with whom we have had any acquaintance, to the extent of nineteen-twentieths at least, could fairly be enrolled under the phrenological banner. Many say, "I believe in the functions of the brain, as set forth by writers like Ferrier, or Bastian, or Broca, or Luys." Indeed, we answer, then you believe like ourselves that the brain is a multiple organ with several distinct centers in correspondence with the several distinct classes of mental operation. "But these

men differ from you in their assignment of functional centers." Not so much as you think; and they differ considerably among themselves—in fact they are busied especially with the functional centres of animal brains, or with the relation of part to part—the substantial structure—or how the nervous organism of man is developed, and its analogies in the ape, dog, cat, etc. When it comes to the psychical relations of the brain they have little to say, and their definitions are involved and lacking in systematic lucidity. They are unwilling to declare themselves disciples of Gall and Spurzheim, yet appropriate the essence of their teachings, and now and then announce as *new*, a discovery in brain structure or function, amid an avalanche of technicalities, which was clearly and modestly set forth by those old doctors. Ferrier, of London, in his extensively circulated work describing his experiments with the galvanic battery on the brains of animals, says that the phrenologists have good reason for locating the intellectual faculties in the anterior lobes. Benedikt, of Vienna, says that a wide base of brain, especially in the lateral region, with a comparatively small, depressed crown is peculiar to criminals, agreeing with phrenologists. Bastian says that fineness of fibre and subdivision of convolutions are indications of mental refinement and high capacity. So do phrenologists. Maudsley insists that character is transmitted by inheritance, and is shown in the organization, especially that of the nervous system. So do phrenologists insist on this biological fact, and thus we might go on and cover the whole field of phrenology and more.

The inquirer, if he were to sound the learned of his acquaintance in a skillful

manner would find that most of them are, so far as belief in the nature of the brain is concerned, phrenologists, although they might not accept the name. We have again and again unexpectedly discovered a physician's or minister's hearty acceptance of our science without any inquiry, having the impression that he was arrayed among its opponents, so called. Some of the prominent men in literature and science who have distinctly shown their confidence in the principles of Phrenology as an agent of culture and progress, are the following: Dr. Nahum Capen, of Boston; Mr. Charles Rouvin, author, of Paris; Prof. Amos Dean, of the Albany University, lately deceased; Dr. J. M. Wieting, of Syracuse; Hon. Clark Mills, Sculptor, of Washington; Dr. H. T. Buttolph, Superintendent of the Asylum for the Insane, N. J.; Dr. Nathan Allen, of Lowell, Mass. The late Horace Greeley, and Mr. Emerson, were strong friends of it, and also Mr. Bryant, the poet. If our inquiring correspondent and the reader will look into the little pamphlet on "Indications of Character," they will find other names of prominent men who have shown by their own declarations an unmistakable interest in the phase of mental science which bears the name of Phrenology.

GRANDMOTHER'S ADVICE.

A YOUNG man consulted us to-day with regard to his future, and after hearing what we had to say, inquired, "Would I make a Phrenologist?" We replied: Yes, you could become a good phrenologist. Do you wish to prepare yourself for this vocation? "Well," returned he, "I had been thinking of the ministry. My grandmother's last words

to me, before she died, were the wish that I should become a phrenologist."

You would be a minister in a very wide sphere, we said, if you entered with an earnest purpose upon the duties of the phrenologist, for the work he has to do is that of the teacher and missionary and reformer. If your leaning is strong toward the ministry, we advise you to enter it, but learn what you can of phrenology, and employ its principles in your ministerial work, and you will more than double your power and influence. There are a score of ministers whose names we could mention, who have studied phrenology, and found themselves the gainers by it in capability for every phase of duty.

The young man was of a type intellectually that the Christian ministry needs to-day: practical, reflective, specific, decided, thorough-going and scrupulous, and he evidently desired to follow the advice that so earnestly expressed the interest of an aged relative in a system of mental science, and was pleased to learn that his own preference and her wish could be practically associated with the double result of his own improvement and the benefit of those over whom he might be called to exercise the pastoral function.

There is something instructive in this incident of a woman about to die, pointing a grandson to a certain pursuit; it shows no capricious humor, no transitory notion, but a mature and serious conviction, founded—are we not warranted in saying? on a life's experience. When have we heard of an aged woman sinking into the shadows of death advising a young man, in whom she felt a maternal interest, to study law or chemistry, or to go into the dry-goods business, or to be-

come a carpenter? Such materialistic vocations do not occupy the attention of a person of ripened age, whose hold on life is loosing rapidly; the outlook then is higher and wider than narrow pecuniary success, it embraces that of the mind's growth, the development of the spiritual sense, and it sees in the exercise of the higher faculties in practical work for the welfare of others in mind and body, the noblest employment of man.

THE ADULTERATION CRAZE.

MR. ANGELL, in the earnestness of his investigations, may have overstated the facts of adulteration a little, or urged them in terms somewhat illogical, and so given occasion for the gibes and flings of the critics, but it is nevertheless true that nearly everything in common use in the triturated or liquid form, especially that deemed essential to the proper furnishing of a modern dinner-table, is debased in quality and substance by mixture with cheaper matter. The list which Mr. Angell presented to the Sanitary Association was one of such comprehensive length that after glancing through it we found ourselves in a mood akin to that of an angry man who said of a certain tradesman of the skin-flint order, "If he could only bottle up the atmosphere he'd sell it by the quart"—as it appeared to us that those who supply the necessaries of life, in the extremity of their avarice and business competition have cheapened and corrupted them all. A writer in the *Edinburgh Review*, years ago, in discussing the character of English taxation, presented it very humorously, thus:

"The school-boy whips his taxed top; the beardless youth manages his taxed horse with a taxed bridle on a taxed road; and the dying Englishman, pouring his

medicine which has paid seven per cent. into a spoon that has paid fifteen per cent., flings himself back upon his chintz bed which has paid twenty-two per cent., makes his will on an eight-pound stamp, and expires in the arms of an apothecary, who has paid a license of an hundred pounds for the privilege of putting him to death. His whole property is then immediately taxed from two to ten per cent. Besides the probate, large fees are demanded for burying him in the chancel; his virtues are handed down to posterity on taxed marble; and he is then gathered to his fathers—to be taxed no more.”

We have but to substitute the word “adulterated” for “taxed” where it applies in this graphic account of a system equally remarkable for its thoroughness to make a picture of a state of affairs which should not be tolerated in our day.

Breadstuffs, like wheat flour, corn and oat-meals, fortunately can not be debased much before the cheat is apparent, but the materials used for leaven or raising are atrociously adulterated. This fact may be inferred from the controversies rife among the manufacturers of yeast and baking-powders—the warfare being carried on with no abatement of intensity in the advertising columns of newspapers, both religious and secular. The hygienist may growl, “Serve the people right who persist in injuring their bread by deleterious gases. Why don't they eat it in the proper form, sweet and pure, and nutritious?”

The absurd extreme to which the adulteration of yeast materials is carried was amazingly illustrated in an exchange, lately:

“An Illinois merchant who was taking baking-powder in bulk from a Chicago firm, called at headquarters the other day to say that there was something wrong with the goods.

“‘I don't think so,’ was the reply; ‘we make the best article sold in the west.’

“‘I think we ought to have a more perfect understanding,’ continued the dealer. ‘Now, then, you adulterate before you send to me, then I adulterate before I ship, then the retailer adulterates before he sells, and the consumer can't be blamed for growling. I wanted to see if we couldn't agree on some schedule to be followed.’

“‘What do you mean?’

“‘Why, suppose you put in ten per cent. of chalk, then I put in twenty per cent. of whiting, then the retailer puts in thirty per cent. of flour; that gives the consumer forty per cent. of baking-powder, and unless he's a born hog he'll be perfectly satisfied. You see, if you adulterate fifty per cent. on the start, and I adulterate as much more, and the retailer adulterates as much as both together, it's mighty hard for the consumer to tell whether he's investing in baking-powder or putty; we must give him something for his money, if it's only chalk.’”

Some of our housekeepers who make the bread which is eaten in their own homes, complain much of the trouble they have in providing a good, toothsome loaf, and their complaints are usually levelled at the head of the dealer who furnished the cereal, instead of the yeast maker. Perhaps the above incident will give them a hint of one cause of the trouble, and if it drive them to that final defense of their stomachs, the total disuse of yeast, they will not be losers.

A GOOD SIGN.

THE recent progress of the Temperance cause in the West, manifested as it is in so signal a manner by political successes in Kansas and Iowa, has alarmed the liquor men greatly, and we now have the ridiculous spectacle of manufacturers and vendors of whisky and beer endeavor-

ing to effect a sort of coalition with the advocates of temperance law and order. In their fear of the growing power of temperance principles, they have lost confidence in each other, and now two sections, the whisky men and the beer men, contend for precedence as supporters of public order; one side charging the other with methods and practices which have brought down upon them both at last the lash of justice. It must encourage the reformers much to see the division in the camp of a great enemy hitherto so closely organized in opposition to every effort that might be made against its corrupting influence, and we hope that, like the Kilkenny cats, the minions of whisky and the myrmidons of beer will keep up the fight with one another until nothing but a smoking heap of battered staves and hoops will remain of their hogsheads and barrels.

TUNE STRONGLY DEVELOPED IN BRAIN AND SKULL.—In the May Number of *Harper's Magazine* there is a well-written and charmingly illustrated sketch of

Spanish life and scenery, and much space is also taken up by two notable articles on music and poetry—"Music in Austria," "Poetry in London." Numerous portraits, some of them exquisitely engraved, illuminate the context. No one who examines the portraits of the musicians, especially the group of seven on page 829, and the group of three on 831, can fail to observe how broad the foreheads are in the forward temporal region. The engravers have been true to their copies, and doubtless true to life. Where Phrenology would place the organ of Tune, there is, in nearly every case, a pronounced physical expression. This is particularly the case in the head of Prof. Epstein, Leopold Auer, Ed. Strauss, Hans Richter, Jos. Hellemsberger, and Xavier Scharwenka, Mathilde Marchesi, and Marie Wilt. For the average phrenological observer the organ of Tune is by no means easy to interpret from the contours of the forehead; but the tyro, we think, should not be misled in its estimate when scrutinizing such heads as those mentioned.

Our Mentorial Bureau.

To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.

2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.

3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.

4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.

5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

CHARM DOCTORS.—*Question:* Please to answer through the JOURNAL, "Is there any

virtue in 'charm-doctoring'?" There is a man near here who pretends to charm away cancers without the use of any medicine or even seeing the patient.

A. H. K.

Answer: No; we have no confidence in the "charm" business, unless it be that of a hearty good-nature; a desire to confer solid benefit on others, allied to a good fund of practical information and scientific experience. The method of treating cancer mentioned in a former Number is gaining friends, because of its simplicity and disuse of the knife.

CURVATURE OF THE SPINE.—**MRS. G. C.**—You should have the boy examined at once by a good surgeon. From your description, we infer that he is troubled with a form of spinal disease, and the sooner it is attended to the better for his health. The fact of his not growing for the past two years, is in itself an intimation of such trouble.

DEGREES OF DEVELOPMENT.—The practical phrenologist observes seven degrees of head development, running from very small to very large, and from the circumference of twenty inches to twenty-four. A head is harmoniously developed when all parts of it are symmetrical in their extension from the central point—the medulla oblongata and the opening of the ears. Take, for instance, a head measuring twenty-two inches in circumference, usually termed full size. Now, if the head in profile outline shows an evenness or symmetry of development, it is generally full, or as it would be marked, five. The regional developments must also be symmetrical; the crown, forehead, side-head, and back-head evenly rounded, with no individual sallencies or protuberances except those which relate to muscular attachments, which, of course, a skillful phrenologist quickly recognizes. The full-sized head is about seven and a half inches in length from Individuality to the center of Philoprogenitiveness; six inches in width between the centers of Destructiveness; about five inches and a half in vertical height from the center of a line drawn through the middle of the head from ear-opening to ear-opening; four inches and three-quarters in anterior length by callipers from the opening of the ear to the center of Individuality; four inches from the opening of the ear to the center of Philoprogenitiveness. By tape measurement, the distance from Individuality, at the root of the nose, to the occipital spine, in such a head, should be not less than thirteen and a half inches, measurement being taken over the crown on the median line. The distance over the top of the head, from ear-opening to ear-opening, should be fourteen inches. For a symmetrical head half an inch larger in circumference, the above measure-

ments will be larger by a quarter of an inch as to the length and height of the head, and an eighth of an inch as to the length and breadth of the head radially by callipers.

DIET FOR FAT PEOPLE.—**F. M.**—We should prefer to give personal advice in a matter of this kind, for the reason that our prescription must depend upon the constitution temperamentally of the person. We can only say, in general terms, that those who seem predisposed to fatness should eat vegetables—such as lettuce, cauliflower, green peas, fruit in abundance without sugar, lean mutton and beef, thin soup, eggs in moderation, bread in moderation; but nothing fat or oily, little or no butter, no pastry, no sweet cakes; while they can use milk sparingly and water moderately, and should be especially careful in regard to all sugared foods.

GROWTH OF NAILS AND HAIR.—

Question: Is a good circulation indicated by a rapid nail and hair growth?

G. A.

Answer: The nails and hair grow rapidly when the skin is supplied with substantial nutrition. That is generally the case. In some conditions of disease, however, the hair and nails seem to grow with undue rapidity; in consumption, for instance, it has often been observed that the hair and nails grow rapidly, especially the hair. So, too, in some cases of strumous disorder the abundant growth of the hair has given rise to the remark that it absorbs the greater part of one's strength. Some observers claim that they can detect interruption in the activity of the vital system by indications or marks on the nails.

MIND AND SOUL.—**R. A. H.**—These terms are used with too much freedom and promiscuity. Old writers did not mix them so much as we moderns. St. Paul is very careful to make a distinction, and referred *soul* to the life or vital element in man. We hold that view of soul, while mind includes the thinking, sentient nature. The spirit inheres in mind. Hence there are three parts in human nature—spirit, soul, and body. We do not pretend to explain the precise constitution of these elements, but their phenomena are like any phenomena susceptible to interpretations.

"READY WIT."—*Question:* When phrenologists speak of a mind being active, do they mean it is a ready mind, quick in its operations? I know an individual who has Wit full, and yet is not ready-minded; he can not give a ready answer to witticisms; he can give sharp answers if allowed time to think.

G. B. F.

Answer: What is called quick-witted or ready wit is dependent in a great measure upon temperament. One of the nervous order is more

actively constituted; his faculties operate with freedom, as their co-ordination is more facile than in one whose temperament is of the motive or vital sort. The individual you speak of is probably of the motive cast. He has good judgment, but his mental powers are not quick and prompt. He needs to deliberate, but the results of his deliberation are all the stronger and have a practical point.

What They Say.

Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

AN ORGAN FOR SOUNDS.—“*Editor of JOURNAL: Sir*—I wish to call your attention to a certain development of the head which the writer believes to indicate memory of sounds. This faculty, according to my observations, is located just back of Calculation and Tune, below Construction, and in front of Acquisition and Bibation. A large development of this faculty does not create any distinct swell or bump, but only makes this part of the head full and smooth, and its deficiency leaves a cavity about the size of the end of the finger. According to my observations, all persons that are remarkable for imitating sounds, tones of voice, etc., have this faculty and Imitation large.

“I have not found a case, so far, that contradicts the above statement. All good telegraphic operators the writer has ever noticed are full in this region of the head. Combined with large Expression (Language) and Imitation, it enables one to imitate sounds, tones of voice, barking of dogs, equaling of pigs, etc. I have also noticed among the stockmen of Texas, that those having the above-named developments large, can readily learn the sound of any bells among their numerous herds and flocks by hearing them but once. I have also observed that persons who have been deaf for a long time are deficient in the above-named region of the head, probably caused by the disuse of the faculty. Often, when making phrenological examinations, I have stated that this individual has a poor or good memory of sounds, as the case might be, and have always received the assent of the individual. Tune loves harmonious sounds, while this faculty only observes simple sounds. Will you please to give notice in your JOURNAL in regard to any observations you or others may make in regard to the above-named developments?

“Yours truly, W. H. DAY.”

WHAT WE FIND IN FACES.—Faces, well studied, should teach us how various and unequal are our endowments; should make us

feel how incapable we are of understanding each other, for our characters are as different as our faces. There are many faces, however, the harmony of which indicates a well-balanced mind—intelligent and kind faces, cheerful and hopeful faces, betokening thoughts of purity and truth that shed their light often on souls in which darkness and disorder dwell. It is not the regularity of features that pleases us, but the nobility of soul and human sympathy that they express. A noble expression on strong and irregular features seems like sunshine on a rugged landscape, lighting them up so that they have a singular fascination for us. We are often surprised at hearing one called homely that seems beautiful to our eyes. It is interesting to observe the changes that years make in faces; to see how has faded and whither journeyed the barque in whose uncertain fate happiness and misery are involved. Years, even, of those who lead right lives, do not fail to add beauty to the faces. Youth lacks the peculiar charm that thought and strength and sorrow can give to the face. We have a valuable legacy in the phrenology and physiognomy of the great of the past; time has not always spared us accurate representations, yet they disclose much to us. The high brows of the old Greek philosophers denote the intellect, the lofty thought that strives to solve the deepest problems of man's existence. The strong, prominent chin of Cæsar indicates his indomitable, bold spirit. In the high broad head and rugged features of Luther, we can see the intense piety and energy that possessed him. The faces of Napoleon and that of Washington are placed before us—the one expressed invincible will, the other prudent self-reliance. Ofttimes we are disappointed, at first, in the faces of those we have been led to admire, but a closer acquaintance with them makes them the embodiment of the character which we had conceived. Beauty is one of the delights of existence, and beauty of face should be cultivated, not by vain arts, but by intelligence and noble principles; for, as Spenser says,

“Of the soul the body form doth take,
For soul is form and doth the body make.”

ELLEN JOHNSON.

JOURNAL TESTIMONIALS.—A correspondent writing to us from Kansas, states: “I feel as though I could not do without the JOURNAL. I have taken it for over twenty-five years.”

Another, dating his letter at Patrol, Indiana, writes: “I have been a reader or subscriber of the JOURNAL for over thirty years, and have derived a vast amount of pleasure and profit therefrom; but with failing eyesight and other signs of physical decline, I can not expect to enjoy reading many years longer.”

We hope our aged and worthy friend will live a hundred years longer, and stick to the JOURNAL to the end.

Still another, a Tennessee editor, writes: "I only have this to say in favor of THE PHRENOLOGICAL JOURNAL, that it has done more for me than anything else I have ever come in contact with; it has made me all I am or expect to be. Consider me a life-long subscriber."

AN AGED ENTHUSIAST.—I am in my 82d year, and not able to work, and for amusement I fall back to my old books. Since the trial of that poor idiot Guitcau I have been looking over the volumes of Combe and your old JOURNALS and Almanacs, and the old faith that I had in the teaching of Phrenology has broken out with all the fervor of 1839-40.

WM. GORDON, OGDENSBURG, N. Y.

PERSONAL.

MISS HELEN GLADSTONE, daughter of the Premier, is a school-teacher, having lately accepted the vice-principalship of Newnham College, in place of Mrs. Henry Sedgwick, who will resign in October.

C. E. LOCKRIDGE, of St. Louis, claims to have taught General Grant to smoke during a fishing excursion where mosquitoes were troublesome. *Harper's Bazaar* pronounces him "a most successful teacher." But does the man believe that he did a creditable thing?

PROFESSOR ESMARCK, the eminent German surgeon, has published a lecture, delivered before the Physiological Society of Kiel, on the treatment of General Garfield's wound. He is of opinion that General Garfield might have been alive but for the treatment that he received.

SENATOR BENJAMIN H. HILL, of Georgia, died August 16th, at the age of 59, from cancer of the tongue. He was a very prominent man in Southern politics. He accepted the results of the war, and supported the new Constitutional Amendments. The cancer is said to have been caused by his use of tobacco.

MR. HENRY SHAW recently celebrated his eighty-second birthday, or rather the citizens of St. Louis celebrated it for him—as Mr. Shaw has done more than any other man toward the improvement of that city. The Botanical Gardens and Tower Grove Park were established by his liberality, and several charitable institutions are built upon ground given by him.

HERBERT SPENCER and Prof. Lyon Playfair, M.P., eminent among the foremost of European savants, are now in this country. The visit of the former is for the benefit of his health, strictly.

He will spend about three months, visiting Canada, the West, and New England. His health is so impaired, that he has not been able to work for five months. But how little talk the presence of these great men occasions! Is it the old story of worth and modesty?

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

HEALTH must be earned; it can seldom be bought.

No man ever worked his passage anywhere in a dead calm.—*John Neal*.

PREJUDICE and self-sufficiency naturally proceed from inexperience and ignorance.

GOOD qualities are the substantial riches of the mind; but it is good breeding that sets them off.

The ignorant peasant without fault is greater than the philosopher with many. What is genius or courage without a heart!—*Oliver Goldsmith*.

CONTENTMENT is a pearl of great price, and whoever procures it at the expense of ten thousand desires makes a wise and happy purchase.

MEN are often capable of greater things than they perform. They are sent into the world with bills of credit, and seldom draw to their full extent.—*Walpole*.

EXERCISE, or the use of every organ of the body, is necessary to the healthy and full performance of their functions. When any organ is in complete and prolonged disuse it tends inevitably to decay.

OUR abiding belief is that just as the workmen in the tunnel of St. Gothard, working from either end, met at last to shake hands in the very central root of the mountain, so students of nature and students of Christianity will yet join hands in the unity of reason and faith, in the heart of their deepest mysteries.—*L. Mass*.

THE smallest floweret preacheth while it stays,
In that it crowns with fullness all its days,
And waiteth not to know by any field,
If life may yet some fairer portion yield,
Nor pineth that it was not born a rose;
But sweet by stubble or by greensward grows,
And unto places lying waste erewhile,
Gives all its bath—a little floweret's smile.

—*Geo. H. Coomer*.

MIRTH.

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

A MAN has invented a chair that can be adjusted to eight hundred different positions. It is designed for a boy to sit in when he goes to church.

At a town meeting a large tax-payer rose up to protest against building a new school-house in a certain part of the town. "What's the good of it?" asked he. "They are an ignorant set down there anyhow."

Two well-dressed young ladies were examining a statue of Andromeda, labeled, "Executed in terra cotta." Says one: "Where is that?" "I am sure I don't know," replied the other. "But I pity the poor girl, whatever it was."

THE time of year has come when Dr. ———'s excellent recipe for the preparation of cucumbers is needed. "Peel the cucumber," said he, "with great care; then cut it into very thin slices, put on pepper and salt at discretion, and then—throw it away."

A LITTLE bit of a girl, living near one of the cities, ran in to her mother from the roadside with some early spring blooms in her hands, and, full of the outside glow, exclaimed: "Oh, mamma, how nice it is to live where somebody doesn't own everything."

"Is he honest?" inquired a banker of a friend who recommended a man for the position of janitor. "Honest!" he echoed; "well, I don't know what you call it; but he returned an umbrella which he had borrowed from me yesterday." The man was engaged as cashier.

DOWN in Salem, the other day, a bright little girl was sent to get some eggs, and on her way back stumbled and fell, making sad havoc with the contents of the basket. "Won't you catch it when you get home, though!" exclaimed her companion. "No, indeed I won't," she answered. "I've got a grandmother."

A LAWYER of our acquaintance has a telephone in his office. One morning, while seated at his desk writing briefs, the bell of his telephone rang violently. He put his mouth to the mouth-piece, and asked what was the matter. A small, ladylike voice replied: "Julia has got worms, doctor." He was somewhat taken aback, but supposing Julia was going fishing, replied: "Tell her not to forget to spit on her bait." To which a hoarse male voice replied: "Oh, go to grass, will you?" The lawyer concluded the telephone was drunk, and resumed his work.



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 and physiological science. We can usually supply any of those noticed.

THE DOMINION ANNUAL REGISTER AND REVIEW, for the Fourteenth and Fifteenth Years of the Canadian Union. 1880-81.

We are indebted to our esteemed friend Dr. A. M. Ross, of Montreal, for the bulky volume of which the above is the title. It contains an interesting summary of the political history of our neighbor State over the St. Lawrence, and also a tabulated list of remarkable occurrences during the two years it covers, besides furnishing the titles of the more important publications relating to the history, literature, science, and art of Canada, and a miscellaneous compilation of other matters of interest to the American publicist, whether North or South.

THE RESURRECTION OF THE REDEEMED AND HADES. By Rev. James Boggs. 16mo, pp. 69. J. B. Lippincott & Co., Publishers, Philadelphia.

In an earnest spirit the author of this volume discusses a few of the most important and vexed questions in Christian theology. He stands upon ground of a strictly orthodox type, so far as accepting the doctrine of Christ's divinity and mediatorship are concerned, but reviews the condition of the redeemed in "Hades" and the character of their resurrection, in the spirit largely of the critical commentator, offering to the reader the results of his own study of the Scriptures in the original, and the conclusions of much reflection. His picture of the state of the redeemed is often warm to the degree of enthusiasm. In one place he speaks of the place they will occupy in the new sphere thus: "They will have nearer access to him and sustain a nearer relationship to him than any among the unfallen. They will have such an heirship of God as none of the unfallen have." This is exalted language, but, it must be admitted, not without warrant in the declaration of Christ himself to his disciples.

Hades, Mr. Boggs believes to be the state after death of such intelligent beings as will have a resurrection, but is very cautious in his definition of its how and why, because the Bible allusions to its character are somewhat obscure. His view, however, is cheerful and encouraging

to the Christian believer, and by such the book will be read with much gratification.

SCOTT BROWNE'S TEXT-BOOK OF PHONOGRAPHY. A new presentation of the Principles of the Art as practiced by nine-tenths of the members of the Profession in America, and the only work embodying the improvements made in the last ten years. For Schools, Colleges, and Private Instruction. By Mr. and Mrs. D. L. Scott Browne. Part I. 12mo, pp. 88. New York: D. L. Scott Browne, Publisher.

A compact and neatly printed book, and creditable to the experienced teachers whose names are given in the title. No space is wasted in unnecessary comments on the value of this or that "improvement" or accessory of brevity, but the lessons proceed from the simple alphabetic outline to the abbreviated reportorial forms, with a positive directness which pleases us. Most of the vowels ticks, commended for their joining convenience, we like, and also the suggestions to the learner for obtaining skill in the execution of an initial hook, circle, or loop. The combined circle and half circle for *sz*, meets our eye, on page 29, for the first time in a text-book, but as an old friend, as we had used it in our note-taking for many years. Such features require practice for their neat expression, but are of no small help to the reporter. The authors make no claim of originality, and there is no strain evident for abbreviated forms, "for the sake of saving time," but give us a book which is in nearly every respect a clear and neat exposition of a thoroughly tried and accepted system of shorthand.

ALCOHOL AND SCIENCE, OR ALCOHOL: What it is, and What it Does. By Wm. Hargreaves, M.D., author of "Our Wasted Resources." 12mo, pp. 366. Price, \$1.50. New York: National Temperance Society & Publication House.

This is the Essay which was awarded the first prize of \$500, offered by the Seventh National Temperance Convention in co-operation with Mr. J. H. Jackson, of Pennsylvania, for the purpose of securing a standard work on temperance by an American. Those who have read Dr. Hargreaves' previous books know him for a careful student of statistics, and a clear expounder of their relation to social conditions. In this new volume he presents a formidable array of facts and authorities bearing upon the history, chemistry, and physiological effect of alcohol. He treats in a candid manner of its alleged properties as a food, a medicinal agent, a poison, etc., in fact, goes pretty thoroughly over the field of discussion which has been occupied by alcohol during the past twenty years. The work is divided into ten parts, each being devoted to an important question; for instance, Part I. considers the nature of alcohol. Part III. reviews its physiological action; the experiments and observations

of the leading histologists of the day being quoted. Part V. discusses the food question. Parts VII. and VIII. take up the pathological or disease-producing effects of alcohol. Part IX. looks into its effects on children. Part X. is an elaborate answer to the query, Is Alcohol a medicine?

The book is the most valuable contribution to the cause of reform which has been made within ten years, and temperance advocates will find it a most useful aid in their work.

PUBLICATIONS RECEIVED.

MISCELLANEOUS, Literary, Scientific, and Historical Notes, Queries and Answers for Teachers, Pupils, Practical, and Business Men. A new publication, of which Mr. N. B. Webster is editor, and Messrs. S. C. and L. M. Gould, Manchester, N. H., publishers.

IRAK-EL-EMIR: A quarterly devoted to the expression of clear investigative thought. Conducted by J. C. Lane, New York. The first number contains a discussion of "Man and his Surroundings," in which the writer seeks for evidences declarative of the source of human nature, and what there is of essential constitution in that nature, and how it is related to what are called "our surroundings." An "annex" contains a translation of the "Bhagavata-Geeta, or Dialogues of Kreesna and Arjoon," one of the most interesting of the ancient Hindu poems, or rather a part of one of the Mahabharat, which is esteemed by the Brahmans as containing great mysteries of their religion, and guarded with jealous care on that account.

A MAGAZINE FOR THE BLIND. Mr. N. B. Kneass, of 1126 Market Street, Philadelphia, is about to issue a magazine printed in raised letters for the use of the blind. It will be conducted with a view to supplying those unfortunates who have learned to read with their fingers, with a fund of the best current literature and acquaint them with the progress of general affairs. Such an undertaking as this deserves a liberal support, and we trust that Mr. Kneass will not fail to obtain it.

THE NEW TESTAMENT OF OUR LORD AND SAVIOUR JESUS CHRIST: Translated out of the Greek, being the fourth version, A. D. 1611, compared with the most ancient authorities, and A. D. 1831. Printed for the Universities of Oxford and Cambridge, at the University Press, Oxford. This edition is authorized by the American Committee of Revision. It contains the Introduction or Preface prepared by the Committee on Revision at Jerusalem Chamber, Westminster Abbey, which sets forth the reason for the Revision, and the methods pursued in its performance. The whole time devoted to the

work was ten years and a half—"two years of that time being spent by the Foreign Committee in the consideration of the suggestions from America on the Second Revision, and of many details and reserved questions arising out of their own labors." A short appendix is given, in which there is a list of readings and renderings preferred by the American Committee, recorded by their desire. Messrs. I. K. Funk & Co., of New York, are the American publishers.

PRO AND CON OF SPELLING REFORM. By Prof. O. E. Valle, formerly of Woodward High School, Ohio. Edited by Eliza B. Burnz, Vice-President, A.S.R.A. We wonder that our spelling reformers do not make better progress. They have now been hammering away for more than twelve years, holding conventions and making suggestions to the literary world, but as yet not a single prominent authority has practically inaugurated a modification of spelling in accordance with their suggestions. To be sure, there are two or three weeklies of minor circulation that have adopted the practice of dropping a silent terminal letter from a few words and of substituting *f* for *ph*. Evidently, notwithstanding the connection of Messrs. Whitney, March, Dewey, and Skeat with spelling reform, its influence is barely felt in general literature. We presume that philologists who oppose, do so on the strong ground of etymology, being apprehensive of serious injury to the science of language by the adoption of phonographic principles.

NATIONAL PROHIBITIONIST AND PRACTICAL REFORMER. The *National Temperance Advocate* has for many years had control of the field, but it has by no means filled it. With the extension of reform and the growth of individual interest, abundant room has been made for other publications, so we welcome the *National Prohibitionist* as indicative of temperance progress, and wish it free course and wide success as a circulating missionary.

THE ALPHA, a monthly published in Washington by Mrs. C. V. Winslow, is well calculated to do good work, especially among people who are thoughtful as to moral and social responsibilities. Its province is a special one. The effects of immorality and of habit, especially irregularities in the domestic relation, are set forth with clearness and emphasis. Its motto, "The divine right of every child to be well born," which it floats at the masthead, is significant of its purpose.

MIND IN THE FACE: An Introduction to the Study of Physiognomy. By William MacDowall, author of "The Man in the Woods" and other poems. 12mo, pp. 87. Price, paper, 40 cents. L. N. Fowler, London; New York, Fowler &

Wells. This is a pleasing translation of the features: What is the meaning of varying expressions in types high and low? Numerous illustrations accompany the text.

THE COUNCIL FIRE AND ARBITRATOR: A monthly journal devoted to civilization and the rights of the American Indian, and the promotion of the principles of arbitration as a preventive of war between nations, published by T. A. & M. C. Bland, Washington, D. C., is sustained with earnestness and ability. The death of Col. Meacham, who was the chief promoter of the *Council Fire*, has not, so far as we can see, affected the tone and character of the publication; indeed, it has been amplified somewhat. The number in hand contains a very full report of the first general convention of the National Prohibition League, which is exceedingly interesting as a review of what has been done by modern nations toward turning the sword and spear into the pruning-hook and cultivator. We are only sorry that the influence of the peace-men on both sides of the Atlantic has not been sufficient to deter England from her recent aggressive movements in Egypt. Had gentle measures prevailed in her councils, we think that much mortification might be saved the nation, as well as bloodshed and money.

MESSRS. J. S. OGILVIE & Co., publishers, of New York, have made the following additions to their "People's Library": **THOMAS CARLYLE**, the History of the First Forty Years of his Life. By James Anthony Froude, M.A. Parts first and second, 20 cents each.—**BROKEN LINKS**; or, Allie's Triumph. By Molly Mertle. Price 15 cts.—**THE STORY OF MARIE DUMONT**. By Lady Pollock. Price, 10 cts.—**PHIL SCOTT**, the Indian Detective. By Judson R. Taylor. Price, 10 cts.—**THE COST OF HER LOVE**. By the author of "Dora Thorn." Price, 20 cts.—**FROM OUT THE GLOOM**. By the author of "Dora Thorn." Price, 20 cts.—**A LOGICAL CONCLUSION**. By Miss L. Bates. Price, 10 cts.—**THE MISSING LINKS AND OTHER TALES**. By Mrs. Henry Wood.

LA ESCUELA DE MEDICINA. A medical gazette, published in Mexico every two weeks, is not lacking in enterprise and professional ability. Senor Adrian de Yarary, with a considerable corps of associates, conducts the periodical. Subscription, \$4 a year.

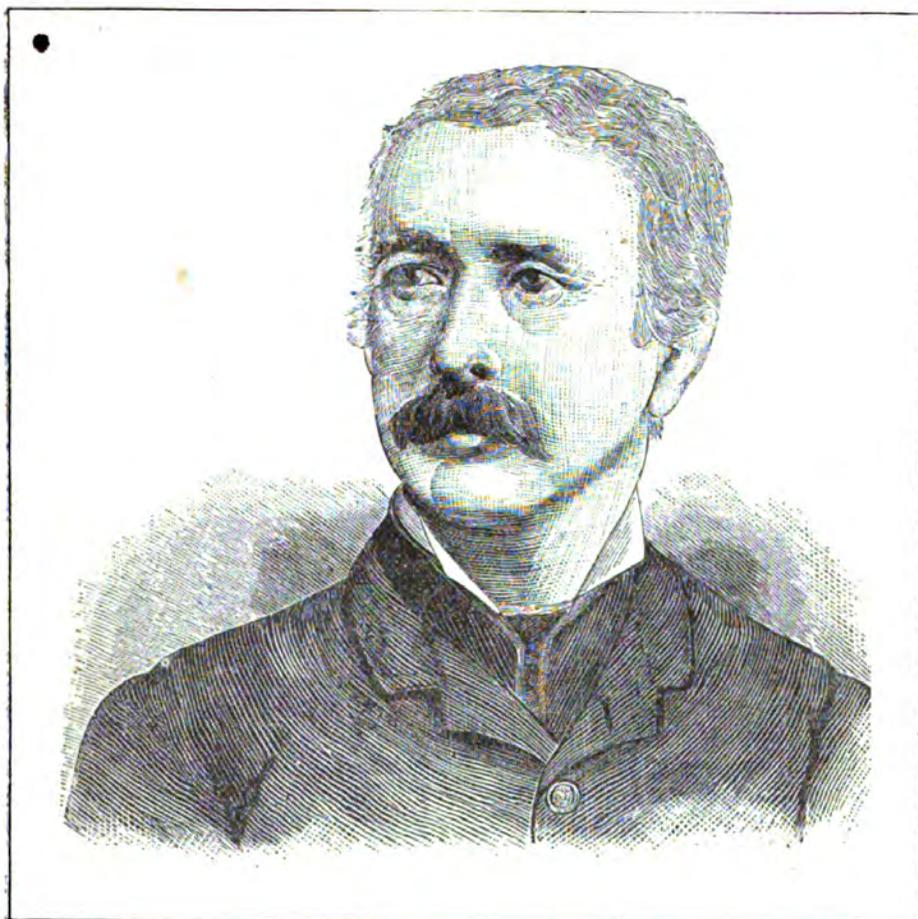
NEW YORK MEDICAL COLLEGE AND HOSPITAL FOR WOMEN. Annual announcement, course of 1882-83. The session which will open on the 2d of October offers improved facilities to women desirous of preparing themselves to practice medicine, or to obtain a knowledge of the science. The fees for the course are but \$60.00. Mrs. C. S. Lozier, M.D., New York, is Dean and President of the Faculty.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 75. 1882.

NUMBER 5.]

November, 1882.

[WHOLE No. 528.



SIR GARNET WOLSELEY,

COMMANDER OF THE ENGLISH FORCES IN EGYPT.

THE whole aspect of this portrait indicates mental and physical activity, positiveness, intuition, and force. He evidently inherits his mother's intelligence, which takes on the intuitive rath-

er than the philosophical form of thought; hence he is a man of emergencies, ready and prompt to follow old rules, or to make new ones, according to circumstances.

He has much more the expression of

an American than of an Englishman; in him there is something of the dash of Custer, something of the pluck of Sheridan, something of the steadfastness of Grant.

He is a quick observer, and has a memory that holds all facts in vivid presence, so that what he knows is ever at hand to aid him in what he has occasion to do. He has a fine development of Language, and he would have made a good public speaker, and is able to give expression to his own thoughts and purposes.

His strong Constructive talent will give him inventive ability, and power to organize anything which is in his control; mechanism, the construction of forts, the handling of armies, to him are like a lubricated machine, and he does not get confused and mixed in his mind. He has enough of the logical and philosophical to originate plans and comprehend new situations and adapt means to ends readily and wisely.

He has also financial capacity; he would understand costs and profit and value, and know how to use money to a good advantage, how to use material wisely.

He has enough Caution to be watchful, enough Secretiveness to be shrewd, and enough courage and force to push his cause when the opportunity arrives.

He is very strong in the love of Approbation, and appreciates the renown which belongs to his position, and will always take pains to keep his honor bright, and his reputation above reproach.

He is honest, firm, hopeful, enthusiastic, brave, ambitious, thorough, and, in the main, judicious, but he is on the *qui vive*, not dilatory, and will be more likely to err in the audacity and prematurity of effort than to suffer loss or inconvenience by delay and slackness.

The career of this eminent soldier is an illustration of industry and rapid promotion in the affairs of war. Garnet Joseph Wolseley is the son of a soldier, a major in the Twenty-fifth Regiment of foot, and, peculiarly like Britain's most

distinguished commanders in time past, is Irish by birth, having first seen the light at Golden Bridge House, near Dublin, June 4, 1833. He is, therefore, but forty-nine years of age, and one of the youngest general officers in the army of Great Britain.

He was for a time a clerk in a surveyor's office in Dublin, and waited, it is said, almost hopelessly for the commission which gave him the ensignship; but what he learned while in that office served him well later by securing a good position as an assistant engineer.

In 1852 he was appointed ensign in the 80th Regiment, which was then operating in Burmah. His regiment formed a part of Sir John Cheape's expedition, and the story of the enterprise is that of a disastrous march through a country reeking with malaria, from which the troops died like sheep; of an unsuccessful attack on a native fort; of a second and third attempt, in the last of which the young ensign twice led the forlorn hope, and came out of the affair with a wound which it was expected would end all his hope of continuing in the service. He recovered, however, in time to take part in the second campaign, and receive promotion to a lieutenancy in the 90th Regiment of foot.

On the opening of the war with Russia in 1854, his regiment was dispatched to the Crimea. For gallantry, Wolseley was, in 1855, promoted to the rank of captain, but the promotion was subsequently annulled on the ground of his youth, he being only twenty-one years and six months old. Wolseley was promoted on the ground that "he had risen from the ranks"—a mistake, the correction of which led to the annulling of the promotion. He was, however, soon afterward reinstated, and acted with the Engineers, his service as military draughtsman being held important. In the attack on the Quarries his party showed the way to the stormers, and his conduct was mentioned in the dispatches. He also took part in the attack on the Redan, and was so severely wounded as to be left for dead in

the trenches. In 1857 the regiment started for India, to take part in the suppression of the famous mutiny, and the first brush with the mutineers occurred near Cawnpore. The Ninetieth was placed under command of Sir Henry Havelock, and formed part of the expedition which relieved Lucknow, and was afterward besieged in turn, and held out till Lord Clyde finally captured the city. In this latter attack Wolseley was very conspicuous, the commander specially commending him for the Victoria cross. He was afterward attached to the staff of Sir Hope Grant, and participated in the campaign under that officer, receiving the brevet of Lieutenant-Colonel on his 26th birthday.

In 1860 he served under the same commander throughout the Chinese campaign, being present at the assault on the Taku forts, and at the capture of Peking.

On the occasion of the Trent affair, early in our civil war, he was sent to Canada, the steamer carrying him to Boston on his way to his post. He was appointed Deputy Quartermaster-General in Canada in the fall of 1867, during the Fenian scare, and commanded an expedition in 1870 to the Red River of the North.

When the British Government in 1873 determined to send a force to Ashantee, Sir Garnet Wolseley was selected, and the promptness and vigor with which the expedition was managed, spoke well for his capacity as a General. Everything had to be hurried, for sickness threatened to destroy the force, and delay was fatal. In this expedition Sir Garnet's subordinate officers were Sir A. Alison and Colonel (now General) Wood, who are with him in Egypt.

On this occasion he was appointed to the local rank of Major-General. Landing in Africa in October, in advance of the troops with his staff, he commenced his march inland. Captain Glover in the east and other officers in the west were commissioned to raise native levies with which they were to effect a diversion, as all the separate forces converged in the Ashantee capital. The Fantees, with few

exceptions, proved utterly worthless as auxiliaries, and there was great difficulty in retaining the bearers and camp-followers, whose services were indispensable to the army. The resistance of the savage enemy, although resolute, was overcome without any serious delay, and, after a battle in the neighborhood of Coomasee on February 5, 1874, Sir Garnet received the submission of the king, who agreed to appoint commissioners for the conclusion of a treaty. After a stay of three or four days only, Sir Garnet began his return march, halting at Adamsi to await the Ashantee agents. The king was faithful to his promise, sending the commissioners, who agreed upon an arrangement of the matters in dispute with the English officers.

On the return of Sir Garnet to England he received the thanks of Parliament and a grant of £25,000 "for his courage, energy, and perseverance" in the conduct of the Ashantee campaign. He received also the order K. C. B., and was presented with the freedom of the city of London and a sword.

Early in 1875 he was sent to Natal, in South Africa, to administer the government of that colony, and to advise on several important points connected with the management of native affairs, and on the best form of defensive organization. In the Zulu campaign, which formed the leading subject for his consideration, he took no active military part, although promoted to Lieutenant-General and given rank above Lord Chelmsford, for that purpose. It is quite to his credit that he gave that officer the opportunity to retrieve his position after the disastrous affair at Isandula.

In the critical period of 1878-79, when war with Russia seemed imminent, Sir Garnet Wolseley was sent to Cyprus, it was believed, to be in readiness for service, although nominally appointed administrator of Cyprus under the style of Her Majesty's High Commissioner, and commander-in-chief in that island.

It was quite to be expected that in the complicated relations of England with

Egypt and Turkey and the military operations so suddenly precipitated in the land of the Nile, that Sir Garnet's services should be deemed necessary there, and he has performed a part altogether in keeping with his reputation, and we trust his energy and discretion in overcoming Arabi Bey will lead to a speedy settlement of the difficulties between Egypt and the Western powers, which will prove a genuine benefit to that much-oppressed country.

Sir Garnet adds to his laurels of the sol-

dier some reputation as an author, having published in 1862 a narrative of a short residence with the Tri-Ping rebels at Nanki; "The Soldier's Pocket-book for Field Service in 1869." "The System of Field Manœuvres, best adapted for enabling our troops to meet a continental army," a series of essays written for the Wellington Prize, in 1872; "Marley Castle," a novel, 1877; "France as a Military Power in 1870 and 1878," an essay published in 1878.

EMERSON'S POETRY, PROSE, AND CREED.

EMERSON'S poetic claims have often been discussed and disputed. The questions have frequently arisen: Does he fulfill his own predication of the true poet? Does he enter unchallenged the high circle of the elect, the small company of true interpreters of the highest thought? Or is he "a contemporary, not an eternal man"? It is not the mode of expression, the sleight of words, the ring of rhythm, the sensuous beauty of the versifier which show the poet. It is rather the expression of the eternal verities; the prophetic utterance of soul; the spiritual light that illumines the subterranean depths of mind and matter.

The poet is not simply "a maker, an artificer." We have given the word a wider meaning and make him rather a divinator than an inventor. Most writers are but re-arrangers of the thought that has been gathering through the centuries. Occasionally appears one who not only re-arranges, but who originates new ideas; to him belongs the name of genius; he exhibits the divine nature implanted in all, yet in many or most latent, as heat which pervades all nature, but shows itself openly only in fire or lightning. When soul-heat flames out in the mind it lights up the whole being, it creates the genius. There have been a few souls who thus flamed upon the world and fused the thought of mankind into one grand, perfect whole. Homer, Plato, Shakespeare, are the glorious trio who with electric touch have

kindled the mass of universal thought and made the universe glow with their soul-light, their heart-flames.

Emerson is rather of the Platonic than Homeric or Shakespearian type of writer. In his essay entitled "The Poet," he well defined that inborn impulse of nature and that personality which constitute the poetic force of the true divinator or revealer of the inner meaning of soul and life. He says, "The poet knows well that the thought is not his; that it is as strange and beautiful to him as to you." In reading some of his verse which seems not to flow as the unchecked river from an un-failing spring, but rather to have trickled drop by drop through rent rock chasm or choking sand, we are reminded of his saying, "Doubt not, O Poet, but persist; say it is in me and shall out. Stand there balked and dumb—stuttering and stammering, hissed and hooted; stand and strive, until, at last, rage draws out of thee that *dream* power which every night shows thee is thine own."

This passage eminently applies to himself; he felt the poetic power or impulse, but peculiarities of nature and education had closed the channel, and, instead of a flowing current of poetry, we have precious drops and jets of the most exquisite, poetic ichor which proves conclusively that he was of the lineage of the gods—although his utterances, or oracles, were often obscure, often trite, and sometimes seemingly without important meaning.

Indeed many of his true worshipers declare his prose more poetic than his verse, more deeply charged with divine meanings, grand messages to other souls.

Emerson wrote as directly from his own mind, without regard to the predilections, preferences, and opinions of the world as it is possible for any to do. He uttered himself, did not echo other saint or sage, and his thought was truly himself, not a conventional self either, but the Emerson he was, not any Emerson, that others might expect or wish him to be.

Though possessing the feeling and delicacy of a poet, yet he lacked poetic language and that ear for the music of verse which loves melodious measure and sweet sound. His verse is harsh to the mind as one reads it silently, and the meaning is often so obscure and the relations of thought so slight that reading becomes a labor. Singing notes and liquid syllables that flow into the mind through the eye, producing the feeling that one is listening to ravishing music, are nowhere found upon his poetic pages.

One must wrestle mentally with Emerson's poetry to extract the meaning. In reading his prose there seems a flowing from the page into the mind, making the reader feel that he is richer than before, better than before, higher in aim than before; from Emerson's poetry the reader goes with an uncertain feeling, a doubt of himself lest he does not attain the meaning, compass the thought, or else a doubt of the author, whether he has uttered fitly, clearly, what struggled within his mind. There is no quiet satisfaction, no complete joy, no grand calm or steady exaltation flowing to the reader from Emerson's poems.

The prose writings of Emerson are singularly candid, dispassionate, oracular. He spoke as from the tripod, as though all things had been revealed to him and he simply transcribed the facts of life and nature and the thoughts of the gods that had been spiritually opened to his spiritual knowledge and vision. There is no artifice of style, no studied form, no appearance of attention to the outward

garb of his sentiments. He wrote because he had something to say, a message of worth to the world. He sought neither praise nor favor from any party or sect. He was his own party and sect; was an individual man standing by the upholding power of his own soul. To write the thought which came in the epigrammatic, terse form in which it was revealed, was evidently the one purpose for which he used his pen. He did not often amplify or explain any statement. The thought is deep, subtle; the connection of ideas not always easily apparent even to minds of a similar nature, reflective, philosophical, transcendental—to other minds or natures he is almost unintelligible.

Emerson had none of that maudlin sentimentality that marks a mind as third or fourth rate. The writer who sighs, moans, and weeps throughout his verse or prose, is always a weak brother who has either not passed his first childhood, or has fallen prematurely into his second infancy. There is so much of this drivel of sentiment continually circulating, that we devoutly thank heaven for the few singers who can stand up before the facts of life and God without wailing or trembling and give utterance to a clear, bold, hopeful song of cheer and thanksgiving, even for those things which have seemed grievous in the experience. The day of the wailers and the railers who have sobbed pathetically, or howled derisively of fate, mankind, and self-inflicted agonies, caused by folly or passion, has passed away, we trust forever, in these days that dare and do in fighting evil and righting wrong. Byron and Carlyle were the great chiefs of these two classes.

Whilst acknowledging that every human creature is a needed factor in the machinery of the world, we feel profoundly the great value of wise, true men, and readily agree with Luther, "that God himself can not do without wise men." Not that wise men directly work upon and lead upward the masses, for this they rarely have done, but because they influence those who are the active, working teachers of the world, and their theories

are wrought into facts, into life, at second or third removes from the original thinker. Thus Emerson's thought has made its way through Alcott, Thoreau, Margaret Fuller, and numberless others whom he thus stimulated. As an awakening power to minds of a similar order, his value is great and will continue, because his thought is in advance of all but the master-minds of the age. This is plainly shown by the opinions prevalent in regard to different writings. Those minds which like definite statements prefer "English Traits." Those who would imbibe some philosophical ideas without too close study, choose "Representative Men." Women whose minds have not been trained to severe thought, prefer the essays upon "Beauty," "Manners," "Gifts," "Nature," etc. The philosophical thinker reads "The Transcendentalist," "The Poet," "The Over-Soul," "Literary Ethics," and "The American Scholar." And all these writings are solid with thought.

Emerson's faith in the Divine Power and All-knowledge is very marked. His religion was in no way a religion of outward observances, but of soul-faith. He received God into his inmost life, wishing to be wholly possessed by the Divine influence; giving up self utterly he would have wished that his own personality might be but a manifestation of the Divine will. With the Buddhist he desired absorption into the Divine. In the "Over-Soul," he says, "Ineffable is the union of man and God in every act of the soul. The simplest person who in his integrity worships God, becomes God." This implies either entire absorption into the "Over-Soul," or it implies that God is but the name of that state of the soul of man when it shall reach its highest development and become omniscient, omnipotent, and utterly pure.

It is not easy from Emerson's writings to arrange a creed, but his faith and purity were such as to warrant the remark of one who said "that if Emerson were denied heaven, he would make heaven, wherever he might be." The hard, New

England orthodoxy, which formerly so keenly assailed him, has so softened its nature as almost to accept, as the sum of religion, the creed of Jesus, which seems also the sum of Emerson's creed, "Love God and thy neighbor." In the address before the Divinity School of Cambridge, the following passage occurs: "If a man is at heart just, then in so far is he God; the safety of God, the majesty of God, do enter into that man with justice." This teaching may seem irreverent to those who regard God as a resplendent being majestically seated upon his throne, utterly outside our life; yet to an aspiring mind seeking the highest purity, this idea of growing through every good deed, or thought nearer to the Infinite soul of the universe is touching and elevating in the highest degree.

Emerson regards heaven as a name for the best state of mind and heart to which men may attain, rather than a place of half sensual, earthly delights, as regarded by the majority. He says, "The good, by affinity seek the good; the vile, by affinity the vile. Thus of their own volition souls proceed into heaven, into hell." Souls utterly absorbed in evil, he thought might perhaps pass out of existence, as the following extract shows:

"Whilst a man seeks good ends he is strong by the whole strength of nature. In so far as he roves from these ends, he bereaves himself of power, of auxiliaries; his being shrinks out of all remote channels; he becomes less and less a mote, a joint, until absolute badness is absolute death."

Every movement of Nature, Emerson deemed a miracle, a wonder-work of the great Soul of the universe. In Christ he saw a man filled with divine inspiration, moved by ecstasy of love and belief to class himself one with God, because of his soul-reaching wish after the divine perfection. Emerson was a true transcendentalist as he himself defined transcendentalism. He believed in waiting submissively and wholly upon the will of God, trusting him fully. A year ago he remarked pathetically, "When one reaches such age,

his wits begin to wander; the heavens ought to open and receive him home." Now he has gone home.

Dead? no! for such a life there is no death. He rests, but lives, and in some yonder world Whose darkness light is, whose light effulgence, He holds commune with mighty poet-souls Whose change from earth to other sphere has saddened This our world, till Eden's flowers bloom only Over graves. Yea, under every sod Some life of great or good has hid itself From men, and gone away to stay with God: Great with the greatness of a true, pure heart, Great with the greatness of a gentle life, And with the spirit that upholds the right He lived—and now, a grand, benign teacher

Of highest truths, he sleeps as Plato sleeps, He as Homer sleeps, as sleeps the Shakspeare, As sleeps the teacher Socrates, he too With them and that serene and lofty Christ; Whose life illumined earth and yet illumes The hearts of all the good, with these high souls He sleeps to earth—but dead—as common men May die, leaving no light of any worth To show the better path amid the labyrinths Of time, leaving no cross above the wayside Spring, no planted seed, no garnered harvest, Dead like these—he ne'er can be. He lives, And ever will, while thought immortal is, While spirit outlasts sense, and Truth Supreme And Purity and Love outshine the stars.

AMELIE V. PETIT.

RACE CHARACTERISTICS OF THE ANGLO-SAXON.

"These are the heroes who despise the Dutch And rail at new-come foreigners so much, Forgetting that themselves are all derived From the most scoundrel race that ever lived; A horrid race of rambling thieves and drones, Who ransacked kingdoms and dispeopled towns, The Pict and painted Briton, treacherous Scot, Norwegian pirates, buccaneering Danes, Whose red-haired offspring everywhere remains, Who, joined with Norman French, complete the breed From whence your true-born Englishmen proceed. And lest, by length of time it be pretended The climate may the modern race have mended, Wise Providence, to keep us what we are, Mixed us daily with exceeding care."

SO Defoe sang humorously a hundred and fifty years ago, and the truthfulness of the humor is even more apparent than it was then. Perhaps there is no race now in the world made up of so large a variety of different elements as this Anglo-Saxon race, and one is compelled to acknowledge that these elements at the beginning and during the thousand years of its rise were not of the most lovely character. But no one belonging to this people need be ashamed of the resultant product. The elements, which, in the course of the centuries, were brought together and combined, were elements of enterprise and power. The very traits that led to battling with hardship on sea and land so as to make conquests and take spoils, were traits which, in better times, made men capable of creating the Magna Charta and the Constitution of the United States.

The admixture of so many different

racess has given to the Anglo-Saxon race a *physical constitution* of peculiar power. I do not assert that the men of this race can endure more and can accomplish more of physical labor than other men, but I do not fear to say, that for the accomplishment of enterprises, whether of work or travel or explorations over sea and land, there never has been and there is not now, in the patient and successful endurance of privation and fatigue, in ability to carry forward enterprises where mental power must be backed by physical force, a race superior to it. This has been demonstrated on every continent and in every sea; in Arctic cold, in tropic heat, in malarial swamps, over trackless oceans, these Franklins, and Livingstones, and Strains, and Stanleys, have shown the fiber of the race.

Among the several epigrammatic sentences uttered by General Grant, and which have passed into history, was one in reference to the English soldier. I do not doubt that when he said it, he had in his eye that peculiar gait of his veterans, with which he had seen them so often march to victory. It was in a brief address, I believe, at Gibraltar. He said, that he had seen most of the soldiers of the Continent; that he liked the German soldiers, that the Spanish soldiers needed only good officers to make them superior, but he had seen nothing to compare with the English. "There

is," said he, "something about them not found in any other soldiers; it may be their Anglo-Saxon blood, *they have the swing of conquest.*" In that vivid phrase he describes the race, and history, past, as well as the outlook of the future, confirms it.

The physique is not gigantic, but the well-knit frame accepts hardships buoyantly, throws off disease readily, rises superior to weariness, and is able to obey the iron will that commands it.

The power of assimilation is a not less marked peculiarity of this race. By this is meant, that the race easily and readily absorbs every other race that becomes associated with it. It is marvelous how quickly the distinctive qualities of other races are lost in the pervading influence of this one, while at the same time it persistently maintains all its own characteristics.

In the United States this has been illustrated, under the face of our peculiar circumstances in a more emphatic way than in England. Now, for two hundred years and for some six generations, this Anglo-Saxon race has been receiving from all lands and all races, to an extent never before paralleled, foreign elements; but it has maintained its own type as clear, distinct, and well-disposed as if it had been dwelling apart all the time. It has taken to its home and associations, in some years at the rate of a thousand a day, men from other lands, people with their own languages, dress, habits, physical characteristics, but with its wonderful chemistry it has combined them with itself, taking from them a portion of their elemental character, but quickly destroying their identity. Their race distinctions are soon pervaded by the common and prevailing Anglo-American life.

It would seem that no other race is strong enough long to maintain itself in connection with this master power. Irish, or Scotch, or Scandinavians, or Asiatic, or even African, have not race power enough to overcome it; it dominates and changes them, taking the better and leaving the

poorer elements behind, a rejected residuum. What it has taken it has assimilated so fully that it is all its own, and has gone to make a fuller and broader life, but the same life.

Its *language* is a distinct peculiarity of the Anglo-Saxon race. Like the race itself, the language is largely made up of material drawn from the languages of all times and all peoples. Perhaps there is no language which so readily and so perfectly receives into itself the words, terms, and idioms of other tongues. Foreign words and phrases, which, when first heard, seem so strange, that they never could find a home, like some Mongolian with almond-shaped eye and trailing queue, yet, before one is aware they are grown familiar and are a part of the family speech.

The language has a peculiar power of adapting itself to any range of human thought or necessity. It goes into any field of investigation and finds itself at home. If the field be physical science, if it be metaphysics, if it be religion; whatever the subject may be, it has terms, or it will at once make them, that are adapted to the work. The Greek, with all its wonderful flexibility and richness, was not equal to it. It has what that glorious tongue had—adaptation to all mental science, and the subtleties of metaphysical thought, and it has beside a wider reach over the fields of natural science all undiscovered when Plato and Aristotle wrote.

This language is cosmopolitan, not only in form, but more and more in fact. It goes over the world as no other language goes. If we were to inquire what language will probably be the prevailing medium of communication between the nations, the answer would be—the English language has a larger promise in it than any other. What other language can be put successfully in competition with it? Shall it be French or Spanish? Each of them, however they may have prevailed, have receded from the field they once occupied so well; and neither of them now spread much in newer

lands. The German, richer, has as little of sweep as they. But this Anglo-Saxon tongue is heard more and more in every land. It goes round the world with the drum-beat of England, it is borne everywhere with the fabrics of America. In the ports of China and Japan, all over India, on the coast of Arabia, up the Nile, in the interior of Africa, at Mtesa's home, over Southern Africa, on its west coast, all over this North American Continent, in Australia, in the islands of the mid-Pacific, in the empires that grow up in the South Pacific, this language is heard, and not only heard, but becomes more and more the prevailing tongue. It will not be long before the Sandwich Islands, Australia, New Zealand, and the rest have no other language. Now, all over the earth its songs are sung, its greetings are shouted in mariners' trumpets over every sea, its messages are flashed on every ocean-bed.

Another peculiar characteristic of this race is its *idea of freedom*. The Anglo-Saxon idea of man is, that he is the free subject of law. Personal freedom and obedience to law—these are the twin thoughts in the mind of this people. Liberty, not license; obedience, not slavery—these go hand in hand with us.

These great ideas had their birth, first, through centuries of struggle in Great Britain, and their fullness of beauty and strength in the United States. Among no other people have they had so wide a sweep, and from no other people do they so send out their influence. These ideas may be said to be the special inheritance and possession of this race. They are becoming through its example and influence more and more universal, if not as attainments, yet as aspirations. They have gone out from this race, sometimes with a distinct and understood march, and at others, with a silent but steady and pervasive power; but, in either way they have proceeded from the same source. Men everywhere are asking for freedom and learning slowly, alas, at times, but still learning, that freedom means triumphant law. This is the Anglo-Saxon thought.

The inventive genius of the race makes another characteristic. Since those great discoveries which changed the world, the compass, gunpowder, and the printing-press, made by men of other races, the great inventions which have made forever memorable this last century have largely been produced by Anglo-Saxons. What a chapter in the history of the world has been given in these later times! The power-loom, the spinning-jenny, the cotton-gin, the steam-engine, the electric telegraph, the iron plow, the sewing-machine. What would the world be without them? and they are the productions of Anglo-Saxons.

The mind of this people has a combination of elements never seen before—intellectual subtlety and power of abstract thought embodied in a Newton, together with an intense practicability, which at once puts every discovery and the result of every research into immediate use for the benefit of men, giving the world a Morse. The Asiatic, the Greek, the Roman mind, at their best estate, never had this intermingling of qualities so opposite. But how the history of each year exhibits it in the work which this people is doing!

Commercial enterprise may be named as a characteristic of the race. Beyond any other, its merchants and its productions are found wherever man is found. Its propeller wheels vex the waters of every harbor, its ships skim over every sea; no climate is too rigorous or too deadly, no island too far away—thither go this people, bearing in their hands whatever shall clothe or feed, help the labor, or elevate the condition of any people or any land.

It may not be philanthropy, it may be only a sordid and wicked pursuit of gain; it may be opium or it may be wheat, it may be revolvers or it may be sewing-machines, but with them these men of commerce go everywhere.

Not the least distinguishing characteristic of this race is its *spirit of colonization*. Gradually and for a century and more nations once famous for sending out colonies, such as Spanish and Portu-

guese, have ceased to do so. But this people for two hundred and fifty years have been planting colonies and making nations all over the earth. They are doing it with greater activity and success than ever before. Instead of becoming feebler, this spirit of colonization advances with undiminished and increasing vigor.

They have spread their civilization over this continent of America and have filled it with their people; they discovered and are peopling the vast island continent, Australia; they found, possessed, and are making out of New Zealand another England in the South Pacific; they are moulding with the same civilization India with its two hundred millions; they are building up States in South Africa. So, wherever one may turn, he shall find the men of this masterful race, not as transient travelers or restless comers, but as men who have made themselves a home and are building them securely for the generations to come.

An enumeration of these race characteristics of the Anglo-Saxon would be incomplete were we to leave out of view its *religion*. It is a people acknowledging allegiance to no religious power, submitting to no hierarchy. Its supreme idea is, in this region of sacred things, the absolute freedom of each man's conscience, his entire liberty to worship God in the way which he himself shall choose, or not to worship at all, if such be his election. It claims for itself and for all men the right of free thought, and the expression of thought within the tenets of law that protects the peace and the common good of the community.

It carries with it wherever it goes and into whatever lands, two things—the grandest powers to mould the character of peoples. Whatever men may believe as to the truthfulness of the one or the sacredness of the other, these two things go with the outreaching of the race.

It does not seem to matter whether the men who first find their way into new lands have any zeal for Christianity

or not; somehow or other, and sooner or later, and usually with their advent, these two things come, and come to stay. The track of the discoverers' vessels may have faded from the ocean waves a century and more, but it is marked whether it looked eastward or westward by the day of the week on which in some island Sunday is observed. So it is, that wherever this race goes, however the fact may be explained, this Sabbath-day comes with its restfulness and refreshment.

And with as absolute a certainty the sacred Book of this people goes with it. I give no explanation of it. I simply point out the fact, that wherever this Anglo-Saxon race goes, there the Bible is found. If the new men of the race are seen, if their speech is heard, very soon this book is seen and its voice heard. I believe that it is one of the things which makes the race what it is. However that may be, no one can dispute the fact of its inevitable presence with the presence of this people. It is characteristic.

To one who thoughtfully considers it, there is something which can not but arrest the attention in some of these aspects of the Anglo-Saxon march of civilization. Certain forces clearly enough have been at work and the race has always carried with it certain phases which are as distinctive and more distinctive than have marked the progress of any of those races which have ruled in human history. The Saracenic race with its fiercer distinguishing characteristic civilization, never held in front of it things more clearly exhibited as dominant forces, and never left behind it clearer evidences of their power.

Whether we shall say—*post hoc* or *propter hoc*—that these things were the causes or the occasions of what we find, they are there. These three things—the Bible, the Sabbath, and their peculiar supremacy of Law, coupled with absolute freedom of thought—wherever the race goes, these three things go with it with never-varying uniformity. Take these three things away from it, and a very large part of all that sets the race apart from

others are gone. It is no purpose of this article to give any opinion as to the sacred authority of the Bible or of the Christian Sunday; nor even to assert that these are forces which have made the race what it is, but merely to point out the fact that they seem to be inseparably connected with its power and progress. Wherever the race is found these things are found, and it is never found without them.

WILLIAM AIKMAN.

THE IMPORTANT PERIOD OF MAN'S LIFE.—From the age of forty to that of sixty a man who properly regulates himself may be considered in the prime of life. His mature strength of constitution renders him almost impervious to the highest attacks of disease, and all the functions are in order. Having gone a year or two past sixty, however, he arrives at the critical period of existence; the river of death flows before him, and he remains at a standstill. But athwart this river is a viaduct, called the "Turn of Life," which, if crossed in safety, leads to the valley of "Old Age," around which the river winds, and then flows without a doubt of cause-way to affect its passage. The bridge is, however, constructed of fragile materials, and it depends upon how it is trodden whether it bend or break. Gout, apoplexy, and other bad maladies are also in the vicinity to waylay the traveler and thrust him from the pass; but let him gird up

his loins and provide himself with perfect composure. To quote a metaphor, the "turn of life" has a turn either to a prolonged walk or into the grave. The system and power having reached their utmost expansion now begin either to close, like flowers at sunset, or break down at once. One injudicious stimulant, a single fatal excitement, may force it beyond its strength, whilst a careful supply of props and the withdrawal of all that tends to force a plant will sustain it in its beauty and vigor until night has nearly set in.

THE CONSCIENCE MUST BE EDUCATED.—Why (and this is our last murmur) is insincerity so common a vice? Why is gossip so frequently malignant in effect, if not in intent? Why is scandal so self-propagating and so rapid in its movement? Why is life in a great boarding-house often offensive to the best persons, perilous to the young, and delicious to the idle and unprincipled? It must be because tongues wag without reference to conscience. But conscience is like other faculties of the human being; it has to be guided, trained, and developed. How best to do this, is a question very differently answered among schools of thought; but among them all the admission would be made that conscience is to be trained; and failure in this respect proves a partial education.

DR. JOHN HALL.

M A R Y.

WHY are thine eyes so deep and blue—
Why have thy teeth such pearly hue?
Why is thy hair so golden brown—
And why thy form so softly round?
 Hebe is not more youthful,
 And no one half so truthful,
 Mary! Mary, dear.

Ah, Mary, in thy toned voice
I find the music of my choice!
And who would graceful motion see,
Has only need to look at thee!

In these pale days, O Mary, tell:
How came the rose with thee to dwell?
And who gave thee a name so sweet,
A name for virtue only meet?

All kindness speaketh thro' thine eyes,
And pity thro' thy tender sighs!
In thee I more than beauty see,
Do all the graces wait on thee?
 Hebe is not more youthful,
 And no one half so truthful:
 Mary! Mary, dear!

GRACE B. HORR.

REMINISCENCES OF LONGFELLOW AND THE OLD HOUSE BEAUTIFUL.

"I'll still stay, to have thee still forget,
Forgetting any other home but this."

—SHAKESPEARE.

AFTER a great soul has departed from earth, we look back lovingly and longingly on the tender words, the beautiful thoughts, the noble life, that so cheered and helped us on through our longest, hardest tasks. How many golden memories we find gathered and garnered here and there, and everywhere, by W. Longfellow was born in Portland, Maine," but few of us may know how the quaint surroundings of his boyhood's home gave freshness and sweetness and brightness to the after-flowering of his song. A little way from the spot where the first settler landed and built his cabin two hundred and fifty years ago, in a



LONGFELLOW'S HOUSE AT CAMBRIDGE.

wayside, seaside, and fireside, of our beloved departed poet Longfellow. We are better and happier for having read and learned his song—for sitting by his side, in his own home, and hearing his wise, kind, bright words, we can not be too thankful, now that the old house beautiful knows him no more. All have read in cyclopædia and biography: "Henry

square house in Portland, the blue-eyed, auburn-haired boy was born, and early named after the brave, noble uncle so tenderly loved, so bitterly mourned, by the poet's mother, Lieutenant Henry Wadsworth, who, only three years before, had lost his life at Tripoli, when one night gallantly attempting "to destroy the enemy's flotilla by a fireship."

In that old square house, on Congress Street, there were fourteen front windows. Long before his childish feet could walk along its shores, Longfellow's young eyes looked out on the waters of a beautiful bay and those

" . . . Islands that were the Hesperides
Of all my boyish dreams."

Onward, far away to the White Mountains, for eighty miles, a lovely landscape glowed in the morning sun, till Mount Washington's shadowy peaks towered in the dim horizon beyond. In the high branches of the tall old pine trees near, the fish-hawks built, undisturbed, their nests. Within the walls of the old Puritan Portland church, never harp or viol sounded; drama and dance were forbidden in the public hall, but countless plovers and curlews and sandbirds brought their music free to the silent shore, while, in the bright waters by the beach, many a Sabbath morning, the gray-haired minister baptized sire and son in the Triune Name, in the faith of their pilgrim fathers.

When trade revived, after the war, there were still quiet Sundays, but busy, bustling week-days.

Brigs went forth from the wharf to the West Indies with their heavy cargoes of lumber and dried fish, and brought back their sugar and molasses. The boy Longfellow loved to hear the songs of the "negro stevedores resounding along the wharves," the screaming teamsters urging on their weary, tugging horses, while through the loads of charcoal, hoop-poles, and cord-wood coming over the hill, he could see the "cattle white with frost," and the red sleighs of the tall mountaineers in their "blue woolen frocks" bringing in their butter and cheese. A few old men still walked about in the crowd, with their cocked hats, their bush-wigs, and knee-breeches. The old men were all called daddies, the old ladies marms. Even the distilleries and tanneries, the wharf and the rope-walk had their charm for him. He walked through the woods on the bay, climbed the observatory on the hill; and the pottery had

its fascination for the boy poet. "He visited the old potter at his wheel under the hill, and he saw him go to and fro under the branches of the trees." The picture of the potter, with the light and shade falling on him, never left the boy's mind, and, in 1877, he published his poem of *Keramos*, beginning thus :

" Turn, turn, my wheel ! Turn round and round
Without a pause, without a sound,
To speed the flying world away.
This clay, well mixed with warl and sand,
Follows the motion of my hand,
For some must follow, and some command,
Though all are made of clay !

" Thus sang the potter at his task,
Beneath the blossoming hawthorn tree,
While o'er his features like a mask,
The quilted sunshine and leaf-shade
Moved as the boughs above him swayed,
And clothed him till he seemed to be
A figure woven in tapestry."

How like a slumbering flower-seed this poem lay folded in the boy's soul, after more than fifty years to burst forth like an opening crown imperial of song.

Longfellow early went to Marm Fellows' school, but deeper and sweeter than all the lore she taught him, was the music and the mystery of the shore, the ships and the sea. In his poem "My Lost Youth," he says :

" I remember the black wharves and the slips
And the sea-tides tossing free
And Spanish sailors with bearded lips,
And the beauty and mystery of the ships,
And the magic of the sea.
And the voice of that wayward song
Is singing and saying still,
A boy's will is the wind's will
And the thoughts of youth are long, long thoughts."

Longfellow's first teachers were the sky and the bay, the wind, the brook, and the sea.

Longfellow received from his father the delicate lines of his face, and bright, buoyant, genial nature; from father, grandfather, and great-grandfather a courtly grace, a sterling mind, and a noble heart. Through his mother, Gilpah, he inherited the nobility, firmness, and fervor of five *Mayflower* pilgrims; two of these—Elder Brewster and Captain John Alden—he immortalized in "The Courtship of Miles

Standish." Some of his boy poems were published in the Portland papers.

"When only ten years old, one night he stole out of the house, with a copy of some verses he had written—a very little poem—in his breast pocket. He walked by the door of the newspaper office on the corner, two or three times, and then, gathering courage and watching the chance when nobody saw him, he stood on his toes, reaching up and dropped the poem in the letter-box. He hurried home with a fluttering heart, but the next evening he walked by the office again, and from the opposite side of the street he looked up at the printers at their work in their shirt-sleeves, each with a shaded lamp over his case. 'Maybe they are printing my poem,' he said. When the family newspaper came in, he carried it away to a secret corner, and there, sure enough, heading the 'Poet's Corner,' were his verses."

When telling this story, long after, when honor and fame in full measure were his, he said with a smile, "I don't think any other literary success of my life has made me quite so happy since."

Going awhile to the Portland Academy, Longfellow entered at the age of fourteen Bowdoin College. There his expressive face, graceful manners, brilliant compositions, elegant translations of Horace, and his able contributions to the press, his excellence in every task attracted the attention of all, and won for him many enthusiastic admirers. For his poems written in college, for the *Literary Gazette*, he received the sum of one dollar each. For his one poem—the "Hanging of the Crane," written years after, he received from Robert Bonner \$4,000. His hymn of the "Moravian Nuns" was written at college, before he was nineteen. Graduating with honor, he studied law in his father's office, but at nineteen he was offered a professorship of modern languages and literature at Bowdoin College. He studied literature four years abroad, in Spain, France, Italy, Germany, and then, after three years of a brilliant professorship and of

literary success, he was married to Mary Flora Potter, daughter of Judge Potter, of Portland, very lovely in person and rarely gifted in mind.

"She was the being beauteous,
Who unto his youth was given."

After four happy years with her, he was appointed Professor of Modern Languages at Cambridge, and while abroad with his lovely wife, studying the languages of Northern Europe, the Swedish and the Danish, she died suddenly at Rotterdam, and since her death his "Footsteps of Angels" have echoed through every bereaved and desolate soul their consolation. Remaining in Europe a year after his wife's death, he returned to Harvard, and, for eighteen years, was professor there.

In 1839, while in Switzerland, "he met the family of Mr. Nathan Appleton, of Boston, traveling through the country with footmen and postilions." The daughter, Fanny Appleton, was a beautiful girl of eighteen, and she won the poet's heart. It is said that Mr. Longfellow won his wife by the writing of "Hyperion." It was written most of it in Europe, when Mr. Longfellow was only twenty-nine, and the heroine of the romance was Fanny Appleton, under the name of Mary Ashburton. This book brought, says one, Germany to America, and was our guide into a new world of delight. Up to 1851 more than fourteen thousand five hundred copies had been sold, and the book is still one of the best guides to the Rhine and Heidelberg.

Four years after the poet met Miss Appleton, they were married, and for twenty years their life was happy and tranquil. Said Mr. Longfellow to an intimate friend: "I was too happy then. I might fancy the gods envied, if I could fancy heathen gods." There were five children given them—Charles Appleton, Ernest Wadsworth, Alice N., Edith (the wife now of Richard Henry Dana), and Annie Allegra. But the poet was not too happy long; with five lovely children, a beautiful home, a noble and lovely wife, fame, honor, wealth, all the world could give,

there came to him an "ever-abiding sorrow." On July 9, 1861, while Mrs. Longfellow was sealing an envelope, inclosing one of her children's curls she had just cut off, her dress took fire from the wax taper with which she had sealed the letter. As the summer dress was light and inflammable, the flames could not easily be extinguished. "Mr. Longfellow ran out from an adjoining room, clasped his wife in his arms, partly subduing the fire on one side of her face and body; but the flames had done their fatal work—she expired in a few hours, in great suffering. Severely burned himself, and almost wild with grief, Mr. Longfellow shut himself up in his room, walking to and fro, and wringing his hands, crying out, 'Oh, my beautiful wife! My beautiful wife!' He never recovered from the shock which so early whitened his hair, and gave a tinge of sadness to every after-joy of his life. The side of Mrs. Longfellow's face that her husband had protected from the flames, looked as fresh and beautiful as if she were asleep, as she lay in the coffin."

The face of this wife hangs over the mantel, just opposite Mr. Longfellow's bed, in the room where he always slept. It was the first face he looked upon, as he opened his eyes in the morning. I have seen in this old house beautiful five pictures of Mrs. Longfellow. In the little room out of the parlor is an excellent picture of Mrs. Longfellow, taken when a young girl, her head resting on her hand. Close beside Mr. Longfellow's bed, at the left hand, hung a large picture of "Evangeline." Evangeline was ever by his side when he slept and when he woke. The picture of Evangeline was designed by Faed, and gave Mr. Longfellow much pleasure. More than thirty-seven thousand copies of the poem "Evangeline" were sold in ten years. Next to "Excelsior" and the "Psalm of Life," "Evangeline" is ranked by many "as a work of art superior to all else

that Longfellow has written in verse." The coverlid on the bed where for years Mr. Longfellow had slept was of down, the upper side was of green silk—a delicate apple green—the lining was rose-colored silk. On the table in front of his bed was a vase filled with dried rose-leaves—the leaves of the roses his friends had given him. There were books in the room, and portraits of Mr. Longfellow in different phases and sizes. Just back of this room was a roomful of books, a kind



A CORNER IN THE STUDY.

of young library. There were books everywhere, and a room near the poet's chamber where the poet took his daily exercise to strengthen hand and limb. Books, birds, flowers, and children—how he loved them all, and the least little gift of a friend he carefully kept and prized. There is something in every room of the Longfellow house to charm the eye, and each room is a study in itself.

On coming to Cambridge in 1836, Mr. Longfellow had applied at this "Brazie house," as it was then called, for a room, and he long occupied the north-east chamber, called Washington's room, upon

the front of the house, looking over the meadows to the river. The young poet felt at home in the quiet atmosphere of this beautiful room, so quaintly "adorned by the gayly-painted tiles characteristic of houses built a century ago." On the year that he was married (1843) his father-in-law, Mr. Nathan Appleton, bought the Braizie estate for Mr. Longfellow, giving him also a deed of the lot opposite the house, having an "unobstructed view of the broad rich meadows of the Charles River, and the steeples of Brighton in the distance." The view is so beautiful it will never leave my memory. If every poet could have such a home, I thought, as I stood in Mr. Longfellow's door and looked across over the meadow glowing in the sunshine. The organ-grinder always had six cents at Mr. Longfellow's door. An Italian was playing his sweetest strain as I walked up the steps. He lifted his hat and gave me a most deferential bow as I passed. Was I not entering the door almost sacred in his eyes?

Washington's room was for years the nursery of the poet's children. As they grew older, Mr. Longfellow purchased some adjoining lots, on one of which is the house now occupied by his son Ernest. He bought another lot in the rear, and on this lot Mr. Ernest Longfellow has erected a cottage in the Queen Anne style. Mr. Longfellow's estate comprised about ten acres. "The old house was built in 1759. This is the date on an iron in the back of one of the chimneys." The house is built "in the Georgian style, square in front, the color buff, with window framings, antique pilasters, and balustrade on the roof, all in white. It stands fifty yards back from Brattle Street, on a slight rise in the ground, broken by two grassy terraces. The wall along the inside has a high hedge of purple and white lilac bushes. In the grounds around are tall trees and shrubs. Along each side of the house extends a wide veranda. In front the view stretches away to the Brighton meadows and hills often suffused with dim gray and violet tints."

Lady Washington's drawing-room—the

Longfellow parlor—has its furniture of white satin covered with gay flowers in vines and clusters, and chairs and sofas glowing with the same flowers, and in the large mirror the flowers in chair and sofa and carpet bloom again. In the dining-room we see rare old china and striking family portraits, and the "blue-eyed banditti," Edith, Alice, and Allegra, look down from the walls. The dark-toned library is homelike and elegant, with its book-lined walls, its portraits, bronzes, and screens. Here is one of the most striking pictures in the house—the portrait of Liszt standing in the convent door and holding a lighted candle high over his head. His wonderful face you see glowing out from the candle-rays like an aureole round his head. The long black robe, the spiritual face, the illumined rays, once seen you never forget. But the "study" is the most interesting room in the house; from floor to ceiling are dark shining oak panels. "The windows are circular, headed with heavy wooden mullions; the tall oak chimney-piece has classic ornamentations. The lofty oaken book-cases, completely covering the sides of the room, are framed in dark-red cloth. Here and there are ornamental brackets and marble busts, and with them a fine effigy of Washington. Easy-chairs and reading-stands are scattered around." There were, when I have been there, flowers always in the study. "In the center of the room, covered with a well-worn Persian carpet, is a round table, littered with books and pamphlets. By that table the poet sat and wrote. As he looked up to speak to you, his eye so tender, yet so bright, seemed to be so keen and clear as if it 'read you through and through.' On the study wall is framed and hung the picture of the Swedish poet, Wallin, with the poem he wrote in Swedish on George Washington. Among Mr. Longfellow's treasures was a letter he valued most highly from the Swedish poet, Bishop Tegnér. In a little room out of Lady Washington's drawing-room is a picture of the Village Smithy, and the spreading chestnut-tree before it.

All that is left now of the Smithy is this picture." Very much to Longfellow's regret and against his earnest expostulations, to widen Brattle Street, the beautiful old chestnut-tree was taken down. "Early in the morning the choppers were at it. Like burning sparks from the anvil the chips flew in every direction, and soon a crash was heard and the cry went up, 'The old chestnut is down!' The word ran from lip to lip. A crowd quickly collected, and all, rushing out from house to house just as they were, without coat or hat, each bore off some fragment as a souvenir, until an officer interfered and the plunder ceased. So the tree fell, but it was at last proposed to the city fathers that the children of the public schools, by small subscriptions, should build out of its wood a great arm-chair for the poet's study." And when the chair was placed beside the mantel, the poet gave orders that every child might come to see it, "and the tramp of little feet through the halls for months was the despair of housemaids." The wood is ebonized, the chair is perfectly black, the cushion and arms are of green leather. "The castors are glass balls set in sockets." In the chair's back is a piece of beautiful carving, of horse-chestnut leaves and flowers. In other parts of the chair in graceful groups are finely-wrought horse-chestnut leaves and burrs. The verse beginning "And children coming home from school," etc., is raised in German text around the seat.

This inscription is on a brass plate under the cushion :

To
The Author
of
The Village Blacksmith,
this chair, made from the wood of the spreading
chestnut tree,
is presented as
an expression of grateful regard and veneration
by
the Children of Cambridge,
who, with their friends, join in the best wishes and
congratulations
on
this anniversary,
February 27, 1879.

Mr. Longfellow's thanks, in a beautiful

poem, "From My Arm-Chair," were first published in the *Cambridge Tribune* :

"Am I a King, that I should call my own
This splendid ebon throne?
Or by what reason, or what right divine
Can I proclaim it mine?"

"And thus, dear children, have ye made for me
This day a jubilee,
And to my more than three-score years and ten
Brought back my youth again."

When I saw him more than a year ago and told him he looked younger than ever, he said: "I am not going to grow old, I am going to grow young now." Let us believe that he is now immortally young.

It may be a consolation to poets who receive little for their verses, that the "Psalm of Life" appeared in the *Knickerbocker* first, and was *never* paid for at all. For the "Voices of the Night," first printed in the *United States Literary Gazette*, the poet accepted a copy of Chatterton's Works. For the "Wreck of the Hesperus," \$25; for the "Skeleton in Armor," \$50. Never paid for the "Psalm of Life"—but echo forever on its sweet harmonies—above all bird-song or cradle song—those tuneful, tearful words, how gloriously have they paid. Paltry gold can never pay their worth. Purely and free, like a golden dandelion in the green, like a golden star in the blue, they glow on, fadeless through ever-changing years. Could it come out now for the first time—that "Psalm of Life"—what would be paid for it? "Bryant first won his fame by a hymn to 'Death.'" The first poem of Longfellow's that won him "recognition was that translation of those sounding Spanish lines, exalting the majesty of death and singing the shortness of human life." But the first song that rang with his own natural voice, winning the recognition of the world, was not a song of death; it was a "Psalm of Life."

"'Morituri Salutamus' is the grandest hymn to age ever written."

"Ah, nothing is too late
Till the tired heart shall cease to palpitate."

Mr. Longfellow had a rugged-lined face, a Roman nose, clear-blue, lustrous

eyes, "deeply set, shaded by overhanging brows." Those eyes would change and deepen and brighten and sadden and sparkle with his varying moods. Sometimes they were like wells of tenderness, sometimes fountains of over-bubbling mirth. When he repeated his own best verse, he had the far-off look of an inspired seer. These eyes were ever mirrors of his soaring, singing soul. The forehead was "high, prominent, and square at the temples. The cheek-bones were high, the face glowed with a beautiful carnation." The calm, sweet, tender lips were full and clearly defined; the mouth seemed gentler than the forehead. He combined in rare harmony a woman's tenderness with a man's manliness.

I never saw a nobler face, never knew a nobler nature, more gentle and humane, more hospitable and helpful. He would try to make you forget his own greatness and bring out any little gift or charm you might have. "Always write your best," he said; "remember, your best."

The most encouraging words ever spoken to me, the most inspiring and cheering, came from the lips of the lamented poet.

And in that higher, brighter blue,
His tuneful, deathless lyre
Some happy soul may thrill anew
With its ennobling fire.
While evermore till latest time,
May earth's battalions long
March to the music of his rhyme,
And "suffer and be strong."

LYDIA M. MILLARD.

BERTHOLD AUERBACH,

THE EMINENT GERMAN STORY WRITER.

IN February of this year, this famous German writer died. His reputation as a novelist had long extended throughout the civilized world, and in the literature of his own country he took rank at the head of novelists. He was born of Jewish parents in a village of the Black Forest, called Nordstetten, in the year 1812, and was given an excellent education with the view to his becoming a minister or Rabbi in the Jewish Church. The young man, however, did not take kindly to his parents' wish, but at first studied law, and then philosophy. At the University of Tübingen he attended the lectures of the celebrated Strauss, at that time an enthusiastic disciple of Hegelian philosophy, and was so impressed by him that he gave much time to the study of the liberal and pantheistic philosophy of that school and of Spinoza; later translating the works of Spinoza from the Latin into German, and writing a life of that eminent Jewish thinker.

Auerbach's impulsive temperament led him to take part in the political movements of the students, known by the name of the German Burschenschaft (or

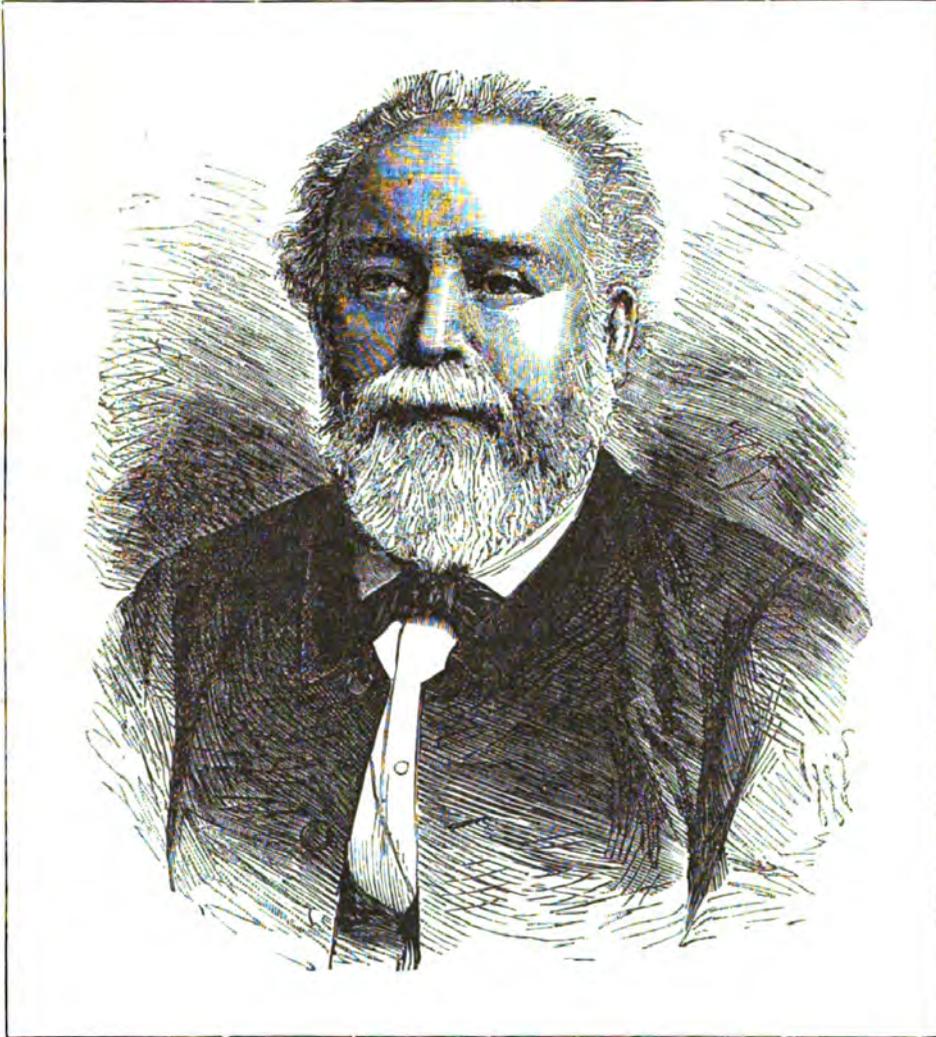
Fellowship), the aim of which was to re-establish Germany as a united nation. He was arrested and imprisoned in the Suabian fortress Hohenasberg, in 1835. When Auerbach was released, he commenced his career as a popular writer, living in Frankfort and then in Berlin, Breslau, Dresden, and in other cities.

He early obtained reputation as one of the best popular writers in Germany by the publication of his "Schwarzwälder Dorfgeschichten" (Black Forest Village Stories) in 1843. They proved a new kind of literary production, very acceptable to the reading class of Germany. Having spent his childhood and youth among the villagers of the Black Forest, Auerbach was familiar with their simple and industrious life, and he produced pictures in which he revealed to the world its simple, touching beauty. In this he displayed his wonderful qualities as a writer. He does not describe nature; he represents it simply as it is, in all its grandeur and beauty. No other German writer of the time has given us such true and charming pictures of nature as Auerbach; no other one understood the voices

of the forest pines, the rivulets, and birds as Auerbach did.

The best of all his village stories in the opinion of those familiar with his works, is "Barfüssele" (Little Barefoot), the story of a little orphan girl, who by her

and with as great success. We need only to mention a few of his larger books to show how widely known he became, viz: "On the Heights," "The Villa on the Rhine," "Walfried," and "Landolin." These and others have been translated



energy, faithful application to work, and fearless honesty overcomes the greatest difficulties, and cuts her way, as it were, through a wilderness of thorn-bushes and briars up to the position of a noble farmer's wife.

Auerbach wrote for the masses, indeed, but he also wrote for the educated class,

into various languages, and enjoyed by hundreds of thousands. He always wrote with a purpose, and that, in his own view of moral affairs, was the improvement and elevation of his readers in some respect. His early University teaching is, perhaps, the more noticeable in his best written volumes, since what there is of

religious thought woven into them partakes of the pantheistic order. In "On the Heights" we have the illustration of a theory of self-redemption from sin and guilt. Dr. Gunther, the queen's physician, teaches Irma, the fallen beauty, how to atone for her error by withdrawing from society, and by making wooden spoons and forks for the poor!

He died in the south of France on the 8th of February, having gone there in vain, as it proved, to find relief from a malady of long standing.

His organization shows the man of strong feeling and prompt action. His intellect was mainly perceptive, with

enough of reflection to mould his impressions into coherent order, and apply them in any direction which he deemed desirable. He was broad and liberal as a thinker, but not especially profound. The great organs of his side-head gave him a high appreciation of the practical in life; a strong sense of economy, energy, and industry, and also a warm appreciation of the beautiful and harmonious, especially in the every-day life of people. His imagination was vivid and inspiring, but saw its best materials in the surroundings and conduct of life. As a man he was evidently positive, hearty, earnest, and emphatic.

TRAVELING IN A HOUSE ON WHEELS.

EDITOR JOURNAL:—It is raining as it only can rain in Maine and the adjacent province of New Brunswick, and I take the opportunity that the weather gives me to communicate with my old friend, the JOURNAL. I, with a brother photographer, am making a tour of the upper St. John's River in a photographic saloon on wheels.

The St. John is the largest river emptying at the coast between the St. Lawrence and the Gulf of Mexico, and is navigable for small steamers for a long distance. The water is deep, and the current remarkably swift and strong. The scenery along its banks is diversified, and in many places very beautiful. It rises in Northern Maine; for some distance is the boundary line between Maine and New Brunswick; sweeps by Fredericton, the capital of New Brunswick, and empties by the city of St. John, the largest settlement in the province.

To reach the city of St. John take one of the boats of the International Steamship Line from Boston direct, or the Eastern or Boston and Maine Railroad to Portland, thence *via* Maine Central to Bangor, thence *via* E. & N. A. R.R. to St. John. From St. John steamers of the Union Line convey passengers up the river to Fredericton, a small though beau-

tifully laid-out city, on a gentle slope near the river. It contains the Government buildings, and others of a good deal of beauty and importance.

Opposite Fredericton you can take the New Brunswick Railroad to Woodstock, an active, thriving little city, forty-odd miles above the last-mentioned place. It is above Woodstock, in Carleton and Victoria Counties, New Brunswick, that we are making a summer's work in the villages and hamlets along the river. Crossing from Maine, we make our first stop at Florenceville, twenty-three miles above Woodstock. This village is very pleasantly situated on the slope of a hill overlooking the river, which sweeps by in that grand, majestic way characteristic of the St. John.

The village consists of but a single street, well lined with stores and dwelling-houses, while two other streets branch off at right angles to the river. Quite an interesting feature of the place is the ferry across the river.

On either side large posts are firmly set into the earth. From these there stretches from side to side a twisted wire rope of large size. On this are placed two grooved iron wheels, similar to those used upon rolling barn-doors, and from these ropes run to a flat-bottomed boat

below. When it is desired to cross, the rope connecting the forward end of the boat to the forward wheel is shortened by winding the boat-end up with a crank, and, the swift current catching the boat, causes the wheels to roll swiftly along the rope, and a quick passage is made. Passengers, teams, and loads of all description are thus ferried over. As the depot of the New Brunswick Railroad is opposite the village, a large amount of freight is brought across on the ferry.

From Florenceville our road winds gracefully along the river shore. The banks, high and precipitous, are fringed with small white beeches that wave gracefully in the summer breeze; the farm-houses nestle in the laps of broad farms that slope from the wooded hills beyond, to the river; cattle, sheep, and horses graze in the pastures by the roadside, and lift their heads, half-affrighted, as they catch a sight of our "house on wheels," and over all the beautiful landscape smiles the glowing summer sun, and a look of contentment rests over all.

We are remote from hotel accommodations, so our teamster unhitches his four horses, and, pouring a liberal supply of oats upon the grass, leaves them to eat to their satisfaction, while we gather a few wild strawberries from the fields near by, and finish our noonday meal with a draught of pure country milk, which we purchase at a farm-house.

As we start again, a farmer approaches and asks: "Where do you come from? Where are you going? How much does that building weigh? Isn't it a pretty good tug for four horses? What's that black stuff on your fingers—tar?"

The last answer, "Nitrate of silver," apparently puzzles him, and he rubs his hands thoughtfully, as we move on toward Upper Wicklow.

This place is not, as the reader might suppose, a village, but consists of a cross-road and a store—the store being a dwelling-house also. We draw up on the roadside by the river bank opposite the store, unhitch our team, and, in a few hours, are ready for work.

Our first customer is a young man, clad in a rough homespun suit and woodman's shirt, who walks in with his hat on one side of his head, and a quid of tobacco in his mouth.

"Well," he draws, "I'd kinder like to have my face drawn off if you think it won't bust yer machine. Haw! haw! haw!"

He evidently thinks the remark original and expects us to be convulsed with laughter. But we have heard the same phrase so many times each day for the year past, that to laugh is impossible. So we gravely inform him that there is no danger to be feared for the "machine," as we have had our own face "drawn off" for the express purpose of intimidating the potato-bugs. An uproarious laugh follows this remark, and our subject is in good humor for his picture.

He first asks where to sit, and, when directed to the posing chair, sits down with his back to the camera, and, when requested to reverse his position, sits astride of the arm of the chair, which happens to be in front. But by a vigorous use of the operator's hands, he is soon in position.

Viewed through the camera, we find the cranial development to be thus:

A head fully up to the average size, and of fair quality. Mirthfulness, Self-esteem, and Approbativeness in combination with large animal organs, giving a delight in coarse jokes and obscene stories, and tales of personal prowess and bravado. The intellect and the higher nature, as represented through the semi-intellectual and moral faculties, find but little expression in the life, and marks of low dissipation hover around the mouth. This is the type of a class, and yet there are exceptions, where "the good, the true, and the beautiful" find their way to the surface.

The necessity for some trifling purchase calls me to the store across the way, where I find "ye opulent merchant," lying on his back on the counter, with one leg, on which the pant-leg has been rolled up to the knee, elevated in the air,

at an angle of forty-five degrees, the boot and stocking just showing themselves from behind a tea-chest. A comical position, and yet the old man is living an earnest, kindly life.

We board at quite a comfortable farmhouse, where the children, by actual count, number six, but if one were to judge by their incessant shouts of "Mar" and "Par," the number of times they tip our tea over, and the wild chorus of yells that arises every now and then, they would number twenty at least.

In the morning, while we are yet in the land of dreams, two boys, of the ages of ten and twelve, burst unceremoniously into our room, and, despite our remarks that we shall be down presently, sit in staring wonder while we make our toilet. They make a similar attempt the next morning, but we have had the forethought to apply a patent door-fastener to the door, and are afraid that we really enjoyed their ineffectual attempts to enter. When we come out on the landing we see them roosting dejectedly on the stair-rail.

When our day's work is over, and evening has come again, we leave the tumultuous scene of the noise and visit our friend, the river. The banks here are nearly one hundred feet high, and, generally speaking, are very steep. We clamber down a rude pathway, beside which a rill trickles, grasping the slender boughs at hand to prevent falling. Through the dense foliage the river glows in the rays of the setting sun like a broad band of gold, with here and there ripples that resemble antique carving.

At the water's edge we find ourselves on a narrow stretch of gravelly beach, broken here and there by huge dark rocks, and, again, by tiny streams that ripple through it. And the river rolls on and on, and on, peaceful and calm and grand in the knowledge of its might, receiving with open arms its tributary streams, bearing its burdens of commerce, and being swallowed up at last in the great Atlantic.

There is much of selfishness, much of wickedness, much of untruth in this

world of ours; and yet we have seen human lives that roll on as grandly, as peacefully, as lovingly as the St. John, and are as fully swallowed up in the divine love as it is in the mighty ocean.

There are many rough places in the St. John, but often they are hidden from sight by the depths of water; so in the lives of men there are many sorrows, but the depths of soul possessed by some hide them from those whom they help along life's highway.

Our brother "artist" is with us, and, having business at Florenceville, he pushes off a raft that is lying at the shore, and floats slowly down the river, with the sunlight lingering about him, and the water smiling up at times as though pleased with his company. By-and-by, he drifts under the shadow of a bluff and is lost to view. So much it is like human life—drifting from sunshine into shadow, and from shadow into sunshine—that we turn with a half sigh, and clamber up the rough pathway, under the overhanging branches, to the meadows above. And yet, why need we sigh? As in photography a certain amount of shadow is necessary to make a clear, distinct picture; so in human life shadow is necessary to make that life show plainly for good. And it is in the shadow that the lamp of Hope and Love shines brightest.

JAMES FERRIGO.

ANTICIPATION.

"At summer's eve, when Heaven's ethereal bow
Spans with bright arch the glittering hills below,

Why to yon mountain turns the musing eye,
Whose sunbright summit mingles with the sky?

Why do those cliffs of shadowy tint appear
More sweet than all the landscape smiling near?

"'Tis distance lends enchantment to the view
And robes the mountain in its azure hue.
Thus with delight we linger to survey
The promised joys of life's unmeasured way:
Thus from afar each dim discovered scene
More pleasing seems than all the past hath been,

And every form that fancy can repair
From dark oblivion, glows divinely there."

THE WITCH-MARK.

CHAPTER I.

"O, I have suffered
With those that I saw suffer! a brave vessel
Who had, no doubt, some noble creatures in her;
Dashed all to pieces."

—TEMPEST, Act 1, Scene 2.

"I WISH you wouldn't put our George on board that foreign-bound ship," said a feeble voice to a stout man who puffed a cigar in a chair opposite.

"Well, wife, it is all for the boy's good. He's nothing but a spooney as it is, and 'twill be the making of him. What's the use of making pictures, anyway? He'll just be nothing as he goes on."

At this moment a handsome boy of perhaps eighteen years, with a breezy stir and vivacity, entered, just in time to hear the latter part of what his father said, and he replied to it in a bright, off-hand way, that did not seem in the least spooney-like.

"I guess you are about right, father, in thinking me a good-for-nothing. I'll go, mother; it's only for a year, and, perhaps, it *will* make a man of me." And so it was decided that the youth should visit "foreign ports" in one of his father's ships bound for China.

The staunch ship *Asia* went her voyage, George acting as a sort of supercargo, which would seem to contradict the assertion of his father that he was good for nothing. He was no mean artist, and on the voyage delighted all on board with his ready caricatures of men and events.

All was promising and prosperous till the *Asia* approached the end of her voyage. It was near the period known as the line gale, or equinoctial storm, when off the rock-bound coast of Maine, that the hurricane came upon them in all its terrible might. They were off a long reef of rocks known as the Cuckolds, a heavy wind and tide drifting them thereon. Utter destruction was before them, when a sudden whirl of the furious elements drifted them aside, and dashed them upon the shore within a narrow bay of

comparative safety. The stout ship, riven and tortured by the storm, was driven upon the rocks, and left there her staunch ribs, scattered and helpless. Few of the crew escaped, and among these George Radford, bruised and bleeding, survived the terrible ruin.

He was roused to consciousness by a kindly voice saying, "Take heart, manny; you're all right."

The gale had subsided with the approach of day, and as the glorious luminary blazed upon the still raging billows, and drove afar the black clouds, a sorrowful sight was opened to view: dead and dying men, masses of cargo, and the battered hull of man's most perfect workmanship, looking in its ruin like some beautiful, sentient being overcome by a relentless destiny.

The few inhabitants of the inhospitable region were not unused to these disasters, and afforded all the relief possible in saving the cargo and supplying the wants of the few survivors of the catastrophe. George followed his guide to a hut under the lee of the promontory, where a woman placed him on a rude bed, and ministered as best she could to his suffering condition, dressing his wounds with the cooling leaves of burdock and plantain, infallible panaceas for all human aches and pains. For several days he was too ill to move, but at length he crawled out upon the rocks, where he sat gazing listlessly upon the long reach of ocean, dotted here and there by those rocky islands found along that coast; ragged peaks of granite, many of which were surmounted by their beautiful garniture of trees.

With the eye of an artist he took in the wild, solitary grandeur of the scene, and with the inspiration of the poet, half chanted aloud a rude rhythm to the deep monotone of the unresting ocean. A touch upon his knee arrested his attention, and looking down a small brown hand rested upon it, while its mate softly

tapped his shoulder, and a pair of dark eyes peered into his face, while a childish voice asked :

"Do you feel bad to be cast away?"

"Yes, indeed, I do."

"I am glad of it," she rejoined, with a laugh that was nearer to a sob.

"Who are you, little one? Do you live in this region?"

"I comed here in a big storm, just as you did. Granny says 'tis an evil sign to you and me."

Radford now looked more attentively at the little shape leaning over him—brown-faced, with masses of yellow hair curling and burnt in the sun. A scanty gown, rudely blown away from round limbs, exhibited their symmetry to the knees, while the feet were half hidden by the kelp and sea-weed that covered the rocks. Something strange, weird, and unaccordant with the rudeness of her surroundings sent the blood back to his heart with a feeling of pain, and he tenderly pressed the little figure nearer to his side. At this she drew in a long breath, and, moving slightly back, said :

"Oh, mister, you don't know! I must never let anybody like me. Granny looked hard at you when you didn't know nothing, and she said you was like an angel, but I was—like——"

"Like what?" asked the youth, smiling with a gratified, boyish vanity, and blushing at the same time.

"I mustn't tell; but the wicked man has put his mark on me."

She drew back, and stood erect on her bare feet, planted with peculiar firmness, and, bending her head, fixed her dark eyes upon his face under brows so contracted that they made a straight line above them and across her forehead. It was certainly very peculiar, but by no means unhandsome.

George was lost in studying the face artistically, and made no comment, at which she said :

"You see what it is! All the witches are born with that black mark."

"Well, the witches are born to be very handsome, then."

This innocent flattery was interrupted by the call of Mrs. Hooker, who appeared on the sand below, and beckoned the child to follow her. Radford followed also down the rocks to the little hut nestled below amid junipers and sage and tufts of wormwood and tansy. He now remembered that while he had been ill and helpless, he had heard a child croning rude rhymes, and several times a fresh, warm cheek had been pressed to his own. He had supposed this a mixture of his dreams and not reality, though some of the words she had sung haunted his mind.

He was able now to associate this with the strange child of the rocks, and only wondered that he had seen so little of her. That she was an exotic in this wild region was very evident; and how she should be left here, growing up in utter ignorance, seemed incomprehensible.

CHAPTER II.

"She dwelt amid the untrodden ways,
Beside the springs of Dove;
A maid whom there were none to praise,
And very few to love."

—WORDSWORTH.

JOSH HOOKER, a low, square-built fisherman, had lived with his wife Sally more than forty years under the hill, which sheltered them from the rough northern winds of that region. A simple-hearted, kindly pair were they, content with the daily round of human necessities and neighborly offices, and devoid of any spark of what is called ambition. Once or twice a year Parson Sawyer, an apostle of the olden time, sculled his little wherry into the cove, and gave them, as best he might, scraps of reading, and what was more, his prayers and benedictions, otherwise their lives might be said to be uneventful.

The great event of their lives was, however, when a heavy storm, ten years before our story, drove the English brigantine *Lingard* ashore, very nearly on the spot where the *Asia* was wrecked. Mr. Hooker said :

"It was just the kind of storm that you

had, and the captain and all on board perished, but—" and he glanced at the little girl, who stood with her arm over his shoulder.

"All but me," she interjected; and contracted her dark, delicate line over the eyes.

"Yes, that's so, Cosset; and the wreck brought us this here bird, this pretty, Mother-Carey chicken."

"Hush, Josh; don't you know Father Sawyer told us not to pamper or be-praise Pauline?"

"Then her name is Pauline?" said George, admiring the girl's elegant pose and low, white forehead, kept white by overhanging curls.

"Besides, Josh, all the people are afraid of Pauline because of the mark."

Josh answered by a low, incredulous laugh, and drew her nearer to himself, saying, after a pause:

"If it is a witch-mark, I'll take all the mischief upon me that birdie can do," at which the child patted his rough, beard-covered cheek with her small hand.

The superstitions current in the past ages still keep their hold in obscure, solitary hamlets, where this feature of the eyebrows, the presence of a ruby mole, or crook of the little finger, are in our day regarded with superstitious horror by the ignorant. It was plain to be seen that Pauline had been made nervously sensitive by the disfavor of the people around her to the shape of her eyebrows, and she rather increased the intensity of their contour by the habit of involuntary contraction of them.

"Bless my soul!" cried Sally, starting from the settle upon which she was seated netting a fish-net, and hurrying to the door, "if here aint the Parson!"

Father Sawyer was a man of nearly ninety summers—tall, erect, of full but not corpulent size, who for seventy years had given religious instruction to the inhabitants along the coast and islands of north-east Maine. His voice was of that grave, sympathetic kind that wins the heart and inspires respect, while a pair of large, deep-set eyes, under black eyebrows, were of great beauty even now.

"Well, Josh, I heard the shipwreck had brought you another Paul, and so I am here, you see." Saying this, he disengaged a red bandanna from his head, showing a profusion of white, silky hair waving in curls to his shoulders. He now took the hand of George as he had done that of Josh and Sally, held him at arm's length, and scrutinized his face.

"You will do, young man; but as Paul found a viper to fasten on his hand at the shipwreck of Malita, we must see to it that only lambs, perhaps angels, meet you here."

"Amen!" responded George; and, to his surprise, the child uttered an amen also.

"And how is our Mother-Carey chicken? Has she learned her lessons? and can she say her verses, aye?"

"She's a good girl, and l'arns her lessons, Father; but somehow she's so different from us, that I pity the poor lamb."

"Run down to the wherry and bring me a bundle there. I have books and a paper or two, and a plum or so, you shall see," said the Parson.

The child obeyed with alacrity, and when she was gone he took the arm of George, and leading him to a shelf on the rocks, thus addressed him:

"I have lived so long that coming events seem now present, young man, and I foresee that God has designs in your coming here. That poor, bright child, perhaps through it may find help in some way. To take her from Josh would well-nigh break his heart; but Sally, a good creature, loving the child, has still a superstitious fear of her, and this is wrong done her."

"Is there no clue to her history?" interrupted Radford.

"Scarcely any. The mother, like others on board the *Lingard*, was washed on shore so exhausted that it was impossible to restore her, and she died, shielding to the last the poor infant of perhaps two years. I performed the sad rites over the dead, and never a more pitiful one. She must have been a comely woman. She gave the witch-mark to her child, which is not an ill one, to my eyes."

"Nor to mine," answered George. "I am an artist, and can admire Nature in all her manifestations."

The Parson's fine eyes studied the face of his companion, and he at length replied:

"An artist should be nearer to God than other men. I see no evil in your face."

Radford winced a little under this negative praise; perhaps all of us would feel the same. He arose as Father Sawyer did, and followed him up the bank to where a few old pines and hemlocks sighed in the breeze.

"Here," said the elder, "are the graves of the wrecked mariners brought hither by the relentless waves, and here lies the mother of Pauline."

Saying this, he laid his hand upon the head of the child, who had followed silently as they walked to the burial-place.

It was a picturesque scene—one never to be obliterated from the mind of the artist—that long ocean reach, dotted with islands; the hut beneath the junipers, and its semicircle of sand, marking a quiet haven; the old pines over the peaceful graves; the white-haired, saintly minister, and the weird, barefooted child over its mother's grave.

"I named the child Pauline Lingard, remembering the shipwrecked apostle, and in memory of the lost vessel, and I sprinkled baptismal water upon her brow, thus making her a lamb of Christ Jesus our Lord. I must be away now, young man, for I came only to look after my little lamb, not knowing what might be."

"I must go, too," replied the youth; "but I feel a strange interest in this child."

"That is natural. You are in your first youth, nearer boyhood than manhood, and she is near maidenhood. She is good, and fair to the eye. Luckily, our fisher-boys are afraid of her. I look to you, young man, to interest yourself in her behalf."

Radford colored deeply, foreseeing a

difficulty because of the ignorance of the girl, to say nothing of the many obstacles that all at once sprang to view. Perceiving his hesitation, Father Sawyer resumed:

"I would by no means have her go hence at present; but her guardians are old and scarcely the kind to well foster so elegant a plant. She has intimations of blood unknown to theirs, and has vague longings and desires that can have no fruition in her present environments. But I must away before turn of tide. Think of what I have said."

Radford lingered several weeks after this interview: he hardly knew why, for his parents had urged his return home, and the weather was cold and inclement. Pauline was much of the time clambering the rocks with him, and pointing out objects of interest that would otherwise have escaped him. When the air was soft, the two rowed out among the rocks and islands of the bay, fished in the waters, and gathered shells and seaweed along the shore. It was a life of enchantment to the young artist, who was growing daily more and more wrapt in the companionship of the barefooted child, whose blush glowed warmly through the sun-burned cheek as her companion touched her hand in the management of the boat, or lifted her over the sharp edges of the cliff. At length he awoke to consciousness.

"I must go away, Pauline; and when I am gone you will forget me."

"Why should I forget you?" she returned, contracting her dark brows, and fixing her large eyes upon his face.

"Why should you remember me, Pauline? You will be wife some day to one of these fishermen, and die like the rest of them, and be buried under the pines."

The oar dropped from the hands of the little maid, and the boat gave a great lurch. Starting to her feet, she cried rather than spoke:

"Never, never! When you are gone, I will go to the top of Baldhead and throw myself into the sea."

CHAPTER III.

"The fairest face hath never brought
Its fairest look—the deepest thought
Is never into language wrought."

—E. OAKES SMITH.

"THAT is a strange face you are so fond of sketching, George," said his mother, holding a drawing up to the light.

"How do you like it, mother?"

"I am no judge in such things; but it seems to me I should be afraid of it. I suppose it is one of your ideals that lives only in the fancy of an artist."

"Not in the least. It is a true portrait, and not half so beautiful as the girl herself."

"Why, George, can it be the bare-footed girl of the wreck! Poor thing! she must be dreadfully out of place where she is."

"That is true, mother; and I reproach myself that I have not tried to provide for her elsewhere."

"George, George, do not think of her. She must be totally demoralized by the life among those ignorant fishermen."

George pondered over his mother's words, knowing her pride of caste, and her repugnance to everything aside from her daily routine; but none the less was he determined to see Pauline once more.

It was now the Indian summer, that beautiful escapade of Nature by which she strives to renew again the beauties of the year. Two years had elapsed—two busy years of study by which he had endeavored to efface from his mind the barefooted maid of the rocks. He was often from home long intervals, in which amid the wildest scenery he sought materials for his art. Many faces grew under his pencil, and many a dull, common one took a line of beauty borrowed from that of Pauline.

It was a day of peculiar loveliness as the young artist idly propelled his boat in the direction of Baldhead, around the shoulder of which nestled the hut of Joshua Hooker. His heart beat quickly as he approached, and looking up he beheld a tall, slender figure standing on the beetling rock and gazing seaward. It

was Pauline. Rounding the cape, his keel grated upon the sand, and he mounted the rock. He met her on her descent, and extended his hands with a warm greeting, which she returned with a faint—

"Come at last!" and burst into tears.

"You have missed me, then, Pauline?"

he answered, taking her hand, which was icy cold. She was rudely clad, but nothing could disguise the wondrous beauty which the two years had developed. Sally met them on the sands, having, it seemed, come in search of her *protégé*.

"Ah, Mr. George," she said, "I am glad you have come. Father Sawyer said you would come back," and she glanced furtively at Pauline, who hastened onward in silence.

"I fear she is not well," said the other.

"She must go from this place. She has no companions here, and Joshua says she will die."

"I will not die; why should I?" said the girl.

"Surely, no; surely, no."

This was said by Josh Hooker, who took the arm of Pauline, and led her homeward.

Weeks passed away, and still the artist lingered. The cold November rains came down, and still he sat at twilight in the lurid light of the fisherman's hut—a fire made of the drift-wood from many a gallant ship wrecked along the coast.

Pauline had recovered something of her gayety, but was more reserved than in former times, while her beauty of form and face were greatly augmented. George saw this with the eye of an artist, not that of a lover, hence he joined in all her innocent pursuits, with no quickening of the pulse and no anxieties for the future.

A looker-on might have observed his long interviews with the foster parents of Pauline quite into the night, long after the lights in the few cottages along the coast were extinguished; and now Josh and Sally began to talk of going abroad—of even visiting Bath and Portland before the winter set in, and Pauline was to go with them. Some little finery and more

comfort was apparent in the dress of the latter also, before George took his leave, as it was needful for him to do.

Not long after the return home of the artist, he was one day startled by the sudden entrance of Mrs. Radford into his studio, who exclaimed:

"Good gracious! Some queer people down-stairs are asking for *you*—an old man and woman who might have come out of Noah's Ark, and a tall girl in short petticoats, and hair all over her face."

George smiled consciously, and hastened below, followed by his mother. The three visitants rose at his entrance, and each shook him by the hand, the girl barely extending her fingers.

"Mother," he said, "these are the kind people who befriended me after the shipwreck"; and, leading Pauline forward, he added, "and this is Pauline, of whom you have heard me speak."

A bright smile illumined the face of the girl at these words, and even Mrs. Radford felt its sweetness, for she put back the curls from the brow, and kissed her cheek, at which Josh exclaimed:

"Oh, ma'am, you can not but love her, and it will nigh break our old hearts to part with her!"

The mother glanced at George, and then at the group before her, only in part comprehending the meaning of it; but the entrance of Capt. Radford set all right. He warmly greeted the family; thanked them for the care they had extended to his property, more than all to his son. He surveyed Pauline from head to foot, muttering: "So-ho! a handsome maid, George, ah! Makes a good picture, ah!"

"These people mean to leave her here, I think," his wife whispered in his ear.

"Why not? why not? Room enough. Will be company for you, wife."

Mrs. Radford looked aghast. A sea of troubles arose in her mind's eye. But it was at length decided that Pauline should remain, and Josh and Sally, weeping like two children, took their departure, laden with gifts, and books and other donations for the good Parson Sawyer.

CHAPTER IV.

GEORGE RADFORD, wedded to his art, was heart-safe, so far as Pauline was interested, and thus several years elapsed, during which she had matured to higher loveliness. To the many graces of maidenhood were added the sweetest of tempers, and so many winning ways that Mrs. Radford declared she was losing the witch-mark.

"I really hope that will not be," replied her son, thoughtfully.

In the meanwhile, he had painted a picture, entitled "The Witch of the Wreck." It was gorgeous in coloring, and rich in suggestion. A wild, savage coast, beaten by the sea, and overhung with black clouds; a headland of bald rock, upon which was drifting a splendid ship, her masts and spars and ropes made visible by the light streaming from above and emanating from a figure in the center of the vessel. This figure was a woman, dark-eyed and radiant in the glow of supreme youth and beauty. One hand held back her masses of golden hair, and the other was arched over her brow, as if to aid the eyes that peered into the blackness of the night. The strong wind swept aside her scanty garments, revealing the rich contour of limb and the half uncovered bust. It was in the eyes, the hair, the brow upon which the artist had expended the depths of his art. The latter was contracted in the intensity of the gaze, making a straight, black line over eyes so deep, so brilliant, that the observer grew spell-bound before them.

George Radford, whose reputation had become confirmed as an artist of power, was desirous to exhibit this picture abroad. Accordingly, when his wish became known, letters of introduction were supplied him, and he made his way to the great city of London. Nor was he disappointed there in the impression made by his master-piece. Thousands flocked to admire "The Witch of the Wreck," hardly knowing which most to commend, the wonderful landscape, if so it might be called, or the gorgeous beauty

of the figure posed in the midst of the impending ruin. "Beautiful, exceedingly!" went from lip to lip, and orders poured in upon the American artist.

At length the fame of the picture reached the ears of Sir Ralph Dinsmore, a once popular member of Parliament, but long since living in seclusion, owing, it was believed, to the sudden death of a beloved wife, and loss of a no less beloved daughter. A moody, taciturn man, he rarely left the boundary of his estate, busying himself as best he might in agriculture, and in promoting the welfare of his tenants. Forced by some contingency to go to London, he took occasion to visit the Gallery of Fine-Arts, where was exhibited the work of the artist. He gave a careless glance at first, absorbed in the rich, warm light of the picture.

Suddenly he started. A deathly pallor spread over his face, and he staggered to one side; recovering himself, he grasped the arm of Radford, and essayed to speak, but words would not come. At length, as if aroused from the stupor of an incubus, he faltered out:

"Who is the original? Where is she?"

The artist endeavored to quiet him, and evaded a direct reply.

"Is she alive? Is she in England?"

"Why do you ask? What is it to you who is the original, if such ever existed?"

The question invaded the monopoly he held in the original.

"Tell me the name of the girl, if nothing more," persisted the other.

"She was found in a fisherman's hut, and is called Pauline."

"A fisherman's daughter! Never, with that look and face!" and he turned away with a weary movement as of one whose last hope is blighted. Radford took his arm, and led him to a private room.

We must now return to Portland, where events demand our attention. Capt. Radford, as may be inferred, was a man of wealth, largely interested in commerce, and of a liberal, generous make, willing to enjoy life as it passed in a sensible and indulgent way. The reputation of George abroad gratified him

more than he was willing to confess, despite his general contempt for picture-making. But, as he said, "Pauline was an uncommon fine girl, and worth making a picture of."

In the way of business, a ship of which he was mostly owner was bound for England, and he determined to take a voyage in her, accompanied by Mrs. Radford and Pauline. They would see the world, and see George, and see how "The Witch of the Wreck" looked in the fogs of London. Accordingly, they arrived, and, not finding the artist in his studio, went at once to the exhibition gallery. They were shown to the private room to which George had led the Baronet, and with whom he was in conversation.

Pauline's rich, radiant beauty lighted up the little somber apartment as she entered, casting aside her bonnet at the same time, with a pretty, girlish art, willing to make her advent charming. Greetings—warm, unconventional, American greetings—were exchanged, Pauline presenting her cheek for the family kiss. For the first time in his life, the pulse of the artist thrilled at the touch of the velvet cheek. For the first time she was not merely an object of artistic beauty, but a warm embodiment of that maiden grace and loveliness which no manful eye can look upon with indifference.

Sir Ralph slowly arose to his feet upon the entrance of the family, scarcely obtruding a glance, and, with well-bred courtesy, was about to retire, when something in the voice of Pauline arrested him. He turned sharply about, and then seizing her arm gazed upon her face. This apparent rudeness caused her to recoil from him with the witch-mark upon her brow as defined as in her earlier days.

"Mary Greame! Can it be? Speak! From whence are you?"

"Pauline Lingard," replied the girl, in a low voice, won to a feeling of pity for the distressed Baronet.

"Thou art my child—my child!" he exclaimed, vehemently. "That is the Dinsmore mark upon your brow—the witch-mark of vulgar minds."

Pauline shrank from his embrace. She glanced at George, at Capt. Radford, and then, with a graceful movement, laid her head upon the shoulder of the latter, bursting into tears.

"Pauline Lingard! 'Lingard!' That was the name of the ship in which my daughter embarked, and was never heard from after leaving port. The brigantine *Lingard*."

The whole now flashed over the mind of Pauline, and she exclaimed:

"Oh, George! George! Why did I ever leave the hut under the rocks? Take me back, father! Take me back! Let me die with you!" and she clung to the neck of Capt. Radford, who, disengaging her arms, laid her almost fainting in those of his wife.

"A fatal, fatal work is mine," whispered the artist, turning away.

"Let us hope not," said the Baronet.

"Let me relate what transpired nearly twenty years ago. The captain of my yacht was a fine, manly fellow, who for several years was my companion in excursions to the South of Europe, along the northern shores of Scotland, and the Hebrides. Quick of thought, handsome in person, and in every way endearing himself to me, I forgot that these same qualities might make their way to the heart of a young girl."

Pauline bent her witch-look earnestly upon the speaker, who, gazing at her, said:

"There, with such a face, such a look, Mary often sat at the feet of her mother, and lured away the heart of Donald Greame. I saw it all when it was too late."

"Why talk in this wise, sir?" broke in Capt. Radford. "A true-hearted sailor is fit for a queen, letting alone an idle hussy lolling on shipboard."

The Baronet, unused to American views in this relation, showed the witch-mark across his brow, eyeing the speaker with puzzled scrutiny.

"Go on, sir; let us hear how it ended," continued the Captain. Turning, at the same time, to his son, he muttered:

"George is no interloper, at home or abroad."

"There is little more to tell. The lovers were married with my consent, and he took charge of a fine, fast-sailing vessel, in which Mary went with him several years. This brigantine was named *Lingard*, a beautiful craft, fitted out with all the appliances that wealth could furnish to make a home for wife and child, and the latter must be the beautiful Pauline Lingard, the witch of the wreck. They embarked for Quebec, and from that day to this no tidings ever came of her."

It was now Capt. Radford's turn to give the supplement of the story, which he did briefly as he had learned it from his son. As he closed, he laid his hand tenderly on the head of Pauline, saying:

"I don't know your laws in things of this kind: they are bad enough, I have no doubt; but I will say this much: you shall never take this girl away from us against her will," and he brought down a heavy boot with emphasis.

"The Dinsmore mark must have its way," returned Sir Ralph. "Pauline, will you not give your relative one kiss before he resigns you to others?"

At these words the artist sprang to his feet, and, trembling with emotion, he raised Pauline, and, leading her to her relative, the two knelt down with bowed heads. He spread his hands over them in blessing, saying:

"What God hath joined together, by so many and inscrutable ways, let not man put asunder."

And thus the witch of the rock became the wife of the artist, and many times the now happy Sir Ralph visited the old scene of disaster. He built a granite memorial under the pines on the hill-side, where slept the mother of Pauline, and in memory of the gallant dead. Josh and his wife were not forgotten, nor the apostolic Parson Sawyer; and thus our brief story ends, with the golden threads rewrought in the destinies of those that survived the shipwrecks.

ELIZABETH OAKES SMITH.



WHERE THE SHOE PINCHES.

THE human foot, in its natural state, is one of the most beautiful examples of a complicated machine, combining great strength with graceful mobility, that can be found in any part of the human frame. "Consisting of twelve bones in addition to those of the toes," joined to each other by regularly-constructed articulation, it admits of motion to a greater or less degree in each individual bone—so that no restraint can be put upon these without destroying the harmony of their combined action. At the same time these bones are so firmly bound together by ligaments, and sustained in position by tendons attached to strong muscles as to give the foot an abundant security to bear the superincumbent weight of the body.

The foot is connected with the leg at the *astragalo tibial* articulation, and prevented from any lateral movement by the projecting *malleoli* on either side, which fit so closely to the sides of the *astragalus* as to permit of no motion at this joint, except that of flexion and extension, or that of pointing the toes up and down. Turning the toes out or in is produced by rotation of the thigh and leg at the hip-joint, or by the revolving motion of the fibula, which is produced by the

contraction of the *biceps* and *tensor vagina femoris* muscles when the knee is flexed.

Having stated that no motion can occur at the ankle-joint or tibio-tarsal, except flexion and extension, and that the pointing of the toes out or in is done by the muscles of the hips, as above described, it follows, as a matter of course, that all the other motions of the foot,

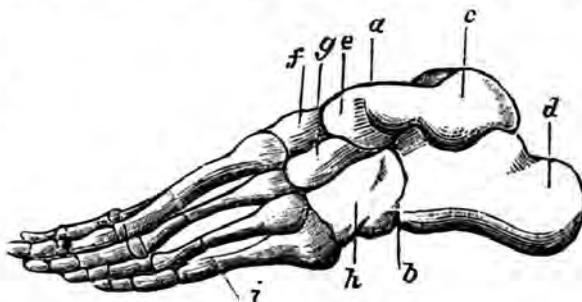


Fig. 1.—BONES OF THE FOOT.

DESCRIPTION:—*a, b*, the medio-tarsal articulation; *c*, the astragalus; *d*, the os calcis; *e*, the scaphoid; *f*, middle cuneiform; *g*, external cuneiform; *h*, cuboid; *i*, the metatarsal bones.

such as twisting the sole inward or outward, raising or depressing the arch, etc., must occur between the joints of the other eleven bones of the foot. The toes, being merely attachments, are not considered as having any influence in these motions.

If we carefully examine the foot in the accompanying figure we shall see that between the *os calcis* and *astragalus* be-

hind, and the *cuboid* and *scaphoid* in front, is the *medio-tarsal joint*, *a b*, going completely across the foot, dividing it into an anterior and posterior portion,



Fig. 2.—BASE OF SUPPORT.

admitting, in a limited degree, of every variety of motion—flexion, extension, abduction, and adduction, as well as rotation inward and outward upon the long axis of the foot. Particular attention is called to this compound articulation in the *tarsus*, because, by a most remarkable oversight on the part of surgeons, the very important part which it plays in deformities of the feet has until very recently been entirely unnoticed.

The foot, as a means of support, rests upon three buttresses: the heel behind, which is stationary, and the first and fifth *metatarso-phalangeal* articulation in front, which are slightly movable, capable both of expanding and extending, thereby increasing the base of support, which adds to the security of the body; and this very expansion and extension of the anterior pillars or buttresses give elasticity in locomotion. Between these three pillars, or points of base, spring two arches: one from the heel, reaching to the anterior two pillars, narrow behind, and wider in front, which is called the *antero-posterior* arch; and one from the two anterior pillars, arching across the foot, called the transverse arch. The *antero-posterior* arch is higher on the inner than on the outer side, and can not be brought to the ground in the normal condition of the foot, whereas the outer line of this arch is always brought to the ground whenever the weight of the body is borne upon it. Let any one dip his naked foot in a pail of water, and then stand with it upon a dry board or piece of brown paper, and he will get the exact impression of the parts of the foot which come in contact with the earth in supporting the weight of the body. (Fig. 2).

It will be seen that the outer line of the arch touches in its entire length, and is thus given a firm and extensive base of support, whereas the inner line only touches the ground at its two extremities, the central part of the arch on the inner side being retained in position by the *tibiales-anticus* muscle, which is inserted into the inner and under surface of the internal *cuneiform* and base of the first *metatarsal* bones. It will therefore be seen that the strength and perfection of this arch are greatly dependent upon the condition of the *anterior tibial* muscle. The importance of understanding the construction and retention of this arch will be more fully seen when we come to study the deformities of the foot.

THE TREATMENT OF CORNS, BUNIONS, AND INGROWING NAILS.

The amount of agony and torment suffered on account of corns, bunions, and ingrowing *toe-nails*, can not be adequately described to the reader, especially if he be one of the many who suffer almost daily with them. A corn is even more painful than an ordinary cancer, and is capable of inflicting torment enough to destroy the sweetest disposition and upset the best-regulated household.

A corn in scientific parlance is simply a localized hypertrophy of the skin, caused by abnormal pressure; the hypertrophied skin is composed of dermal and epidermal layers, which become like dry scales or shells with a central point of hardening, called the corn. This little concretion dips down and presses

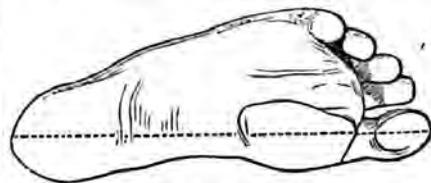


Fig. 3.—LINE OF GRAVITY.

upon the nerves beneath like a sharp-pointed instrument, and thus produces peculiar torment. The *soft corn* is excessively tender, and is much more liable

to become inflamed than the hard corn. This variety is more frequently found between the toes than elsewhere. The cause of corns, abnormal pressure, may

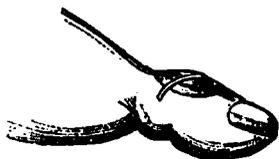


Fig. 4.—A "COLLARED" CORN.

be continuous or intermittent, and, in general, is produced by ill-fitting or tight shoes. Instead of being made sufficiently wide at the toes and across the ball to permit perfect freedom of motion, so that the foot may expand to its full extent with every step, shoes are generally made so narrow, that undue pressure is brought upon the points of the foot least organized by nature to bear it, and hence corns are soon developed. The irritation produced by the pressure upon these formations may give rise to reflex muscular contractions, which will draw the toes upward, and it is not at all uncommon to see a row of corns over the second phalangeal articulations caused by the elevations of the joints against the shoe from such contraction.

HOW ARE CORNS TO BE TREATED?

In the first place, we must insist upon the patient's wearing properly-constructed shoes, those which will permit expansion of the foot in all directions at every step. Meanwhile we begin the treatment for the cure of the diseased toe by paring the corn, carefully removing the hard shell with a sharp knife, or as much of it as can be *without drawing blood*. When that is done, rub the surface of the corn over with a solid stick of nitrate of silver; this in the course of a few days will remove an additional layer of hardened tissue. Now the corn is ready to "collar" with adhesive plaster (see Fig. 4.) This is done most conveniently by taking narrow strips and building a "cob-house" around the corn, carrying it up until sufficient elevation is obtained to protect the corn completely from pressure.

For the soft corn, the application of concentrated nitric acid, or the solid stick of nitrate of silver, is the most serviceable treatment that can be adopted. First remove by means of a knife or scissors, the thickened skin which covers the corn; then wipe the parts dry and apply the acid or nitrate of silver. The first applications are somewhat painful, but they are also exceedingly beneficial. After the application has been made, place a pledget of cotton between the toes so as to permit the free entrance of air. In a few days the dry and hardened skin produced by the action of caustic can be easily removed with forceps and a second application made if necessary. The second application is *not* generally painful, unless done too early, and very seldom another has to be made. Figure 5 shows the effects of corns (*a*) in a condition where the foot is tortured by small shoes, causing them to stand in a bandy posture to support the body.

BUNIONS.

A bunion is an enlargement and inflammation of the *bursa*, situated upon the side of the great-toe joint or the *metatarso-phalangeal* junction. Inflammation



Fig. 5.—DEFORMITY CAUSED BY CORNS AND BUNIONS.

of this bursa is frequently so severe, that the reflex contractions which follow, produce a subluxation or partial dislocation at this joint. (See Fig. 6.)

In consequence of the subluxation, the phalanx is made to press against the nerve that supplies this portion of the great-toe to such an extent as to pro-



Fig. 6.—DISTORTION FROM A BUNION.

duce the most exquisite pain. This condition of affairs can be easily relieved by taking a strip of adhesive plaster, and commencing between the great-toe and the one adjoining, carrying it over the end of the toe, adjusting it, and then continuing the plaster along the inner side of the foot, around the heel, and as far back as the base of the *metatarsal* bone, where it is firmly secured with another strip of plaster and a roller bandage. It is usually necessary, before applying the long strips of adhesive plaster, to place one or two thicknesses of the plaster just behind and before the bunion, to make a little elevation before passing over the great-toe joint. It is occasionally necessary to divide the tendon of the *extensor proprius pollicis*, which has been long contracted, before the toe can be replaced in its normal position. In such cases, get a buckskin or linen glove as in Fig. 7 (a), and make it fit the toe, and to this attach a few inches of elastic webbing (b), which is again attached to a piece of adhesive plaster to go around the foot (c), and is retained in place by other pieces that go across the foot (d, d').

INGROWING TOE-NAILS.

The most prolific cause of this difficulty is wearing narrow-soled shoes or boots. That class of people who will insist upon wearing narrow-soled shoes, on the supposition that such shoes and a high instep are elements of great beauty, will sooner or later become cognizant of the fact that ingrowing toe-nails are their legitimate offspring. (See Fig. 8 and Fig. 10 regarding the position of Fashion's

foot.) In the first it is seen that the heel is from twenty-five to thirty degrees higher than the natural foot, therefore the full weight of the body is on the toes of the foot, and so compelling the arch of the instep to bear almost the entire weight; and this is why the muscles swell in the leg, and there is much fatigue felt, with the desire to sit down, so as to allow the blood to return to the arteries which have been compressed by the strained muscles. Our artists who employ live models for drawing from nature find it difficult to secure, especially among women, a good specimen of the foot and hand. Fig. 9 shows a sketch in outline of the U. S. army shoe for marching (a), indicating by the dotted lines that the foot when lifted to step is really smaller, but when the weight of the body is thrown upon it, it fills the whole shoe. Fig. 10 (b) shows the dotted lines of the step of the French soldier, who can not stand the fatigue of a long campaign as the Germans do, on account of the improper form of the shoe, designed to give a delicate form to their understandings.

The cause of ingrowing-nails proves that the pressure induced by higher heels causes the nail to cut its way into the

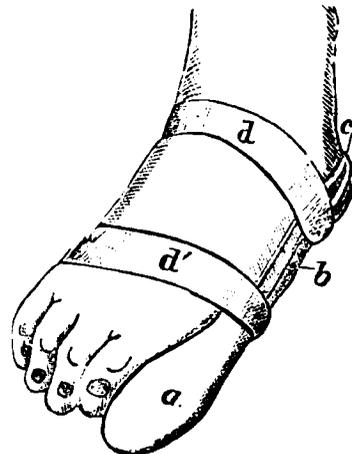


Fig. 7.—TREATMENT OF A BUNION.

tissues, and the consequence of this is that the tissue surrounding the nail becomes hypertrophied, and very commonly a large mass of granulations spring

out from the side. The first thing to be done in the way of treatment in such cases is to guard these fresh granulations from the pressure of the sharp cutting



Fig. 8.—A FASHIONABLE SHOE.

edge of the nail, and this can be done by placing a layer of soft cotton between them. The proper instrument for performing this operation is a narrow, thin blade, without a cutting edge, or a small ivory folder or paper-cutter, if no knife is handy. Double a few fibers of the cotton over the instrument, and then carefully carry them down between the granulations and the nail until the edge of the nail is reached, when the instrument is gradually turned flat-wise and inserted beneath it. The first application of cotton in this manner is sometimes exceedingly painful; the cotton, however, should be applied in such a way that pressure made on the ball of the toe causes no pain whatever. But the toe can not be cured until all redundancy of tissue is gotten rid of. Sometimes it becomes necessary to remove the granulations with scissors. Nitric acid is an excellent application, and nitrate of silver is nearly as good. After the application of the

cotton, therefore, the granulations should be brushed over with the acid or silver. A fine camel's-hair brush should be employed—and as soon as the layer of dead tissue made by the caustic is ready to fall off without producing hemorrhage, it may be removed together with the cotton fibers, and another pledget of cotton introduced. The second application of the cotton is not, as a rule, very painful. The granulations are then to be brushed over again with the caustic, and the treatment continued as before until the nail has had time to grow out and protect the tissues by its own presence, and retain them in their proper position. The nail is designed to protect the flesh, and if improperly cut, in addition to the abnormal pressure made by improper shoeing, serious trouble will be much more readily produced. The nail should be cut squarely across, so as to leave the corners altogether free from the flesh and permit them to act as a shield for its protection. It is not possible that any one can have true comfort with high-



Fig. 9. Fig. 10.
WIDE SOLE AND NARROW SOLE.

heeled shoes or boots, and they who wear them constantly, do not walk, but waddle along in a clumsy manner.

C. T. RUESTOW.

MEDICAL DIFFICULTIES.

IN the *Medical World*, a physician well known in scientific circles for his hygienic opinions, and especially for his assaults upon tobacco, discusses in plain terms certain embarrassments which are by no means uncommon in medical practice.

"Medical men, like men of other pro-

fessions, have their difficulties. They have not always smooth sailing, unembarrassed by winds, breakers, or tides.

"Here is a tobacco chewing or smoking patient. Perhaps he has used his tobacco forty years, till he is fairly mithsidated by it. Had you called on him a few days before he called on you, and after kindly

inquiring after his health, had you suggested, with ever so much modesty and moderation, the necessity of a change in his habits, he would doubtless have told you sarcastically, 'Oh, I have used the "poisonous creature" for half a life-time, and am not injured by it yet.' And had you labored with him two hours, or even a whole day, to convince him of his error, your labor might have been wholly in vain. But now he is sick; not merely a little sick, but severely so. His nervous system is prostrated, as well as his muscular powers. Does he know how much greater the prostration is for having benumbed his nervous system with a filthy narcotic every day for one hundred and fifty thousand successive days? There is great irritation and tenderness about the region of the liver, with seasons of nausea, and perhaps vomiting. Does he know how much more severe his bilious affection is, in consequence of having narcotized his system daily for almost half a century? Constipation, alternated, perhaps, with occasional diarrhoea, is another troublesome symptom. Does he know how much of this is owing to his long use of tobacco? In short, he has been using medicine daily—for if tobacco is not a medicine, pray what is?—for forty years or more; and now does he expect other medicine, such as his physician may think it needful to prescribe, will have its wonted effect? Is there no danger of having his disease aggravated, rather than relieved, by the administration of new medicine? Does he not know that no physician in the world, however skillful he may be, can so apportion his doses to the case of an individual who has, for many long years, been dosing or drugging himself, till he has become mithsidated, or has passed beyond the moment of mithsidation to the gulf of cachexy or general prostration and helplessness, which lies beyond it? And does he not know—for if not his physician, if he is a man who is worthy of the name, knows it quite well—that all active medicine is like a sword with two edges, which can not be used in the vital domain without doing execution

in some way? for if it does not cut in one direction, it does in another.

"Here is a patient who has used alcohol all his life-time. Perhaps, indeed, that life is but a short one. He is hardly thirty-five years of age, yet his constitution is as much impaired as that of many people at sixty. True, he was never intoxicated—he would have shuddered always, at the thought of a lurking suspicion in any human mind. But he has drank his dram at five o'clock, ere rising; at eleven o'clock, as a preparation for dinner; and at four o'clock in the afternoon, as steadily and as certainly as these seasons have recurred, till his system is poisoned through every pore and fiber. And yet, till lately, he has scarcely felt a pain. Now, a host of exciting causes, as so many igniting sparks, have kindled into a flame all the latent predispositions to disease, which a long, but persevering course of transgression had induced. He realizes just now—did he but realize it—the full import of the saying of Solomon: 'Because sentence against an evil work is not executed speedily, therefore the heart of the sons of men is fully set on them to do evil.'

"But what can be done with him? As surely as alcohol has circulated through every pore of his system for twenty or thirty years, just so surely has he been poisoned, as I said before, at every pore. The mucous membranes, in particular, are poisoned. For proof of this you have but to lay open his alimentary canal, or his bronchial tubes, and what do you see but hollow passages as red as fire—indeed, *on fire*—that is, in a state of sub-inflammation? Now in these circumstances what can medicine do? or if *anything* in *any shape*, what shall it be, and in what *shape*? No living medical man, be he wise as the wisest of the present or past, can tell. He can guess, and perhaps a little better than those who have neither studied the human constitution nor the nature or power of medicine. But he must guess, still; it is only guessing in such circumstances. Is there no difficulty in the practice of medicine?

"Here is a female patient. She has lived

twenty years, it may be more, for I have seen women—married women, at least—who were over twenty. But young as she is, she is full of disease, and would gladly be freed from at least a part of it. What is to be done? We must look well to the causes of her suffering. She has neither drunk spirits nor used tobacco. I recall; she has done both. She has drunk spirits, alcohol, whenever she has drunk cider, beer, ale, or wine. All *fermented* drinks contain more or less of alcohol; and though she would not for the world have drunk *distilled* spirits, she has not hesitated, occasionally, to drink *fermented* drinks—*wine* with considerable freedom. I have even heard her speak, with much emphasis, of the future triumphs of temperance, from the increased and very general cultivation of the grape and the consequent manufacture of large quantities of wine in this country as in France. But she has also drunk tea and coffee *ad libitum*; and her nervous system is in a most terrible condition. How, in such circumstances, is her family physician to apportion her dose, whether allopathic or homeopathic, whether botanic or mineral, to her case? Is he not quite as likely to madden still more her already half-frenzied brain as to allay irritation by his medicine?

“Or, finally, what is still more frequent among us here is a child, ‘dreadfully sick’ with bowel complaint. As yet he has never drunk alcohol, whether in one form or another, or smoked or chewed tobacco. Nor has he become, at such a tender age, an inveterate tea or coffee drinker. It is true he has been fed a year or two of the most important, because most formative stage of his existence, on the poisoned streams of the body of another individual; and it is equally true that he has been compelled to breathe, for many a juvenile hour, an atmosphere poisoned with the ‘smoke of another’s pipe or cigar. But this, though bad enough for incipient human life, is not quite so bad for him as another, and in its results, more deadly form of treatment still, at the hands of those who should have been his preservers and bene-

factors. Lay open his intestinal canal and you will find it, from beginning to end, having, as the vulgar phrase it, an angry appearance, and, perhaps, in some places, thickly studded with ulcers. Is this diseased membrane a suitable place for the exhibition of active medicine? Will any scientific medical man be so daring and reckless, in view of such considerations as are likely to present themselves to his mind, in these days, when called to a sick child, as to venture on what is usually called an active or bold treatment? Yet he is expected to do something—something, too, which will inspire confidence. The parents who have given their dearest child saleratus, pepper, salt, lard, butter, and all sorts of concentrations, and the grandparents who have, either by stealth or otherwise, given him extra rations, at all hours, especially those which were unreasonable, of pie, cake, sweetmeats, and confectionery, will be the last to be satisfied with an expectant treatment. The physician knows all this; yet he knows that the more imminent the danger, the greater the necessity of leaving Nature so undisturbed and unembarrassed, that she may exert the full force of her recuperative power, without which recovery will be impossible. So great will be his difficulty that it should excite no surprise to hear him say, in the deep anguish of his soul, that it must be so, if people will live in this intemperate way, and thus irritate and poison their fluids, and it were far better to trust the issue to Nature and good nursing than to attempt anything by means of medicine. Indeed, it may be laid down as an incontrovertible axiom, that all forms of medicine, in such cases, are much worse than nothing; and were society but aware of the facts in the case, they would either abandon their habits or abandon physicians and medicine. Both can not, with safety, be retained.”

WM. A. ALCOTT, M.D.

THE population of the U. S. in round numbers is 50,000,000, of which 43,476,000 are native, and 6,680,000 foreign born. The colored people number 6,632,549.

THE ORIGIN OF ZYMOTIC DISEASES.

SCIENCE is gradually taking the place of superstition, and the causes of disease are at length looked for in the habits and surroundings of the people rather than credited to a mysterious providence. Of late years, a large number of contagious and epidemic diseases are connected in the scientific mind with such obvious causes as impurity in the air we breathe and the water we drink. Zymotic diseases are declared to be filth diseases, having tangible sources.

Malaria has come to be a household word, while typhoids, dysenteries, scarlatina, diphtheria, etc., are traced, if not to the air, then to the water supply of the districts in which they occur. But unfortunately for scientific truth, the diseases sometimes occur when these causes are not apparent, so that the break in the connection between the accredited cause and the effect leads to skepticism, and eminent physicians are induced to fall back upon the "inscrutable" as an excuse for their failure of discernment. Dr. Henry Gibbons, editor of the *Pacific Medical and Surgical Journal* is just now engaged in throwing cold water upon sanitary teachings in these respects, and in landing us once more upon the shores of doubt and uncertainty, if not despair. A little philosophical reflection would relieve him of so unworthy a task; but, as he has apparently not thought well to pursue it, we shall undertake to supply his lack, and suggest the existence of more important causes of disease, zymotic and otherwise, than even impurity in air and water.

The materials from which the human organism is constructed are comprised in the air we breathe, the water we drink, and the food we eat, and it stands to reason, that the impurities which cause disease may be introduced in connection with the one kind of matter or the other. Why may not food be impure, just as well as water? Why not the causes of disease exist in the material eaten as well as in that which is breathed or drunk?

This, at least, is acknowledged: that contagious and epidemic diseases are much more dangerous when occurring in persons of scrofulous constitutions, whose blood and secretions are impure and devitalized, than in persons with ordinarily good conditions of blood and tissues. Even mild diseases occurring in such subjects often take on a malignant character and prove fatal. We are to consider, therefore, the causes of these conditions of the system, even when they are constitutional, as well as trace the diseases themselves to the more immediate introduction of impurities with the food eaten.

It having been demonstrated through scientific investigations that zymotic diseases are the result of the introduction of impurities into the human system, and that air and water are the frequent mediums for their introduction, it remains for us to show that much of the food eaten by the people is unquestionably impure, and, therefore, capable of producing the same results. Having done this, we believe we shall have reached the missing link of a demonstration overwhelmingly conclusive, that zymotic diseases are truly filth diseases.

We shall not tax the reader's time too severely by a consideration of the processes of decay in vegetables and fruits, whereby delicious viands are prepared for epicurean tastes, but shall confine ourselves to the consideration of the fitness for human alimentation of such animal foods as are in general use. Neither will we waste time in showing that flesh-meats, even from the healthiest animal that walks, must contain some impurity, inasmuch as the process of purification, necessitated by the presence of impurities, is constantly going on in every animal organism; for such impurities are, no doubt, scarcely appreciable, and such food, used in moderation, can hardly be charged with the production of filth diseases. But there is a wide difference between the flesh of healthy animals, such

as roam the fields, drink pure water, breathe pure air, and enjoy abundant exercise, and those which have been rendered diseased by the processes of feeding and fattening which are but too common.

That prince of scavengers, the hog, constitutes an important part of the food of millions. By nature he is filthy, and by practice he is abominable. No filth is too revolting for his omnivorous tastes, and no quantity excessive, as long as it will permit him still to breathe and grunt. It is admitted that impure air, water, and surely impure food, will breed impurities in the human organism; then why should they not in the organism of the hog? The term *scrofulous*, which is an important basis of filth diseases, is derived from the Latin *scrofa*, a sow, because of the known condition of this animal's flesh. But while the flesh of a healthy hog, if such a term is admissible, and such an animal possible, might be tolerated, the process of fattening to which he is subjected should cause even the human stomach to revolt against receiving this concentrated essence of all that is filthy. This scavenger, shut in his narrow pen, wallowing in his own filth, eating to the utmost repletion, inhaling an intolerable stench, feeding upon the foulest combinations of animal and vegetable refuse in all processes of decay, can no more have healthy flesh than man subjected to the same conditions could maintain pure blood.

An American swill-barrel is a concentration of filth, capable of producing more dysenteries, diphtherias, scarlatina, small-pox, if fed to the human animal, than all the boards of health in this country could control; and yet it is considered proper food on which to feed the fattening hog, which is in turn to be eaten by the hungry millions; this filth, if fed to other animals, would soon cause disease and death; but the coarse, filthy appetite of the hog is never debauched, and he lives and grunts, though he be poisoned every hour of his life. And

when he becomes too loaded with filth to live much longer—when his feeder has grave fears that he can not continue to endure these disease-producing processes, he kills him, and places him upon the market as healthful food; or, should nature forestall the butcher, and the hog die a natural death, it is not certain that the feeder's conscience would secure him a natural burial. Surely this cancerous, scrofulous, tuberculous, trichina-infected pork is a concentration of filth eminently capable of transference to other organisms, and the production of human diseases. A healthy, sty-fed hog must certainly be considered an impossibility; for though his organism is not sufficiently sensitive to develop dangerous diseases, the causes thereof must certainly exist in a latent form, to be developed into actual disease in the more sensitive human organism.

Late investigations in vegetable physiology have proved that even the plant may become impure or poisoned by being planted in filthy soil, it having no power to reject the elements of impurity which happen to be mingled with its natural food, while the very subject which we are discussing, derives all its importance from the acknowledged scientific fact, that animals, too, must become poisoned and impure if the impurities exist in the air breathed, the water drunk, or the food eaten. How important, therefore, must be the conclusion, that pork, apart from its natural unfitness for food, is poisoned and filthy because of the habits and surroundings of the hog.

But how is it with the flesh of other animals? None are so filthy in their habits, we are sure, as is this one, and if left to themselves their flesh could not by any means compare in foulness with the justly despised pork; but when we consider the processes of fattening to which our beef, mutton, turkey, duck, chicken, are subjected, we are compelled to ask ourselves if these supply pure food for human beings.

ROBERT WALTER, M.D.

KITCHEN LEAFLETS, No. 11.

IMITATION BUTTER—RELATIVE COMPONENTS OF FOOD—OATMEAL ROLLS—EGGS
IN VARIOUS FORMS—APPLE PUDDING. •

I AM asked to give an opinion about oleomargarine, and, although the papers, agricultural, scientific, social, political, have all had something to say in its favor, perhaps because there is a little interest in the matter—in the way of advertising—I feel compelled to answer that I can not approve an imitation butter. The reader probably expects me to condemn all kinds of butter, the real as well as the imitation, but that I am not prepared to do, although I can not very earnestly advocate its general use. As this article is commonly procured and commonly used, I do not regard it with favor, because the most of the butter sold in our cities is imperfectly made, or stale, and semi-rancid, and, therefore, unfit for the human stomach, and injurious to the digestive organism generally. Nature requires a small amount of fat in the food we eat and has supplied it in the grains in *quantum suf.*, especially wheat, corn, and oats, and some of the vegetables contain a proportion. Of flesh meats it is unnecessary to say that they contain it. Nature uses fat as a lubricant in tissues hard and soft, and in a healthy organization we find the largest proportion in those parts which the economy of life exercises most. The brain, for instance, contains a great amount of fat, which performs a double office, at least I think it no mere fancy to say that fat in the brain is both a lubricant of the nerves and a substance for their insulation.

The amount of fat required for the purposes of nature is small, not a third the quantity swallowed by people generally, and hence, aside from the impurity of most of it, we should not wonder that there is so much "bilious" sickness in the community.

For the purposes of cookery, a lubricant is necessary, and as a pure article of vegetable oil is not easily obtained by everybody, butter (lard I count entirely out of

consideration) forms the only substitute, and sweet, pure butter is not objectionable when used in moderation. But sweet, pure butter from the green fields of the country has become very dear, an article of luxury, hence the reason for the being of oleomargarine, which can not take the place of butter as a lubricant, except for machinery. We are told by those who know, that oleomargarine must be "doctored," must be treated with milk to be furnished with a butter flavor, otherwise it would not "take." This fact is enough to condemn it, aside from its being constituted of fat, tallow, waste-grease, etc. Purified! it may be, but it is none the less grease, of a nature very different from the cream globules which form good butter, and a brief experimenting in the kitchen will show a marked difference in the odor and taste imparted to food. When tried by fire, margarine reveals its tallow origin, and the candle-grease flavor becomes apparent in the pie, pudding, and cake it is employed to shorten.

The editor of the PHRENOLOGICAL has suggested that it is appropriate in this place to reply also to inquiry made with reference to the proportion of cereal and vegetable food necessary as a substitute for flesh food. In considering such a question it should be first understood that most of the cereals, wheat, corn, oatmeal, and rice, are very much richer in the elements of nutrition than the flesh meats, having, in fact, from two to two and a half times as much as lean beef or mutton. Then, some vegetables, like peas and beans, are nearly all made up of nutritive substances. According to dietary authorities, like Playfair, Ranke, Lethebe, and Frankland, the average requirements of a man is twenty-five ounces of solid food daily, twenty-two of carbonaceous elements, and three of nitrogenous, or in dry nitrogen about 230 grains, and in dry

carbon about 5,000 grains. On referring to a table furnishing the percentage of carbon to nitrogen in common food articles we find that—

	Carbon per cent.	Nitrogen per cent.
Wheat flour contains - -	75.50	10.8
Oatmeal - - - -	77.80	12.6
Rye meal - - - -	78.20	8.
Barley meal - - - -	80.30	6.3
Corn meal - - - -	85.35	11.1
Rice - - - -	81.25	6.3
Peas - - - -	62.05	23.
Potatoes - - - -	22.50	2.1
Fresh milk - - - -	14.95	4.1
Cream - - - -	69.55	2.7
Buttermilk - - - -	9.90	4.
Lean Beef - - - -	9.	19.3
Fat Beef - - - -	74.50	14.8
Lean Mutton - - - -	12.25	18.3
Veal - - - -	39.50	16.5
Poultry - - - -	9.50	21.
Eggs - - - -	26.25	14.
Butter - - - -	207.50	
Sugar - - - -	95.	
Parsnips - - - -	16.65	1.1

It will be noticed that wheat flour approaches closest to the proportions required in the dietary, the carbon bearing to nitrogen the relative values of 6.8 to 1. Oatmeal comes next. By a careful examination of the proportions in the table one can vary his meals indefinitely, using at each three or four of the articles. No note is taken of fruit, which I think an indispensable accessory of every well-furnished table, its juices being an important aid to digestion.

With the incoming of cold weather, dishes richer in carbon than those which we have been using through the summer are appropriate, so that the system shall be furnished with the requisite amount of heating material to resist the depressing influences of a lowered temperature.

OATMEAL MUSH ROLLS.

Take cold oatmeal mush, and work lightly into it enough Graham flour to mould it into rolls. Do not overwork it, as too much kneading spoils the effect. Roll out the dough with the hands on the moulding-board into a long roll, about an inch and a half in diameter; cut off pieces three inches long, and bake on the grate of a quick oven half an hour. Serve warm or cold.

COCOANUT AND OATMEAL CRISPS.

Make a gruel with one part oatmeal to ten parts of water. Let it cook three or four hours. Then mix it with C. oatmeal, very thick, so that it will stick together if handled. Take a pint of this mixture and add two tablespoonfuls of white sugar and three tablespoonfuls of de-laccated cocoanut, or four of freshly-grated. Mould now into flat cakes—about two inches in diameter and three inches deep. Put them on a flat oiled pan, and bake in a quick oven half an hour, or until they will readily leave the tin and look dry on the bottom. Watch them, as they will scorch easily, and that spoils them. Serve as cake. Keep them in a dry place.

POACHED EGGS.

Pour strained boiling water into a clean frying-pan (the least impurity will mar the whiteness of the eggs). Break the eggs separately in a saucer; take the frying-pan off the stove, and slip the eggs, one by one, carefully into the boiling water. Replace the pan over the fire and boil three minutes. Take out the eggs with a perforated skimmer and serve on dry or thinly buttered toast. Garnish with parsley.

BAKED EGGS.

Break as many as are needed into a well-buttered tin, taking care that each yolk is whole and does not encroach upon the others. Put into a hot oven and bake until the whites are well set, the time required being from eight to ten minutes. Serve whole while hot on a platter, or cut out the eggs individually, and serve on circular pieces of toast.

THE RIGHT WAY TO BOIL EGGS.

Put the eggs to be boiled in a pail or dish with a cover and pour upon them boiling water in the proportion of two quarts to a dozen eggs; cover and set away from the stove for fifteen minutes. The heat of the water cooks the eggs slowly, evenly, and sufficiently to a jelly-like consistency, leaving the center or yolk harder than the white, and the egg tastes richer and better. I think that those who are fond of boiled eggs would like this way, in preference to the old, which is much quicker, but cooks the white and leaves the yolk half raw.

PLAIN OMELETTE.

Beat up six eggs very light—the whites to a stiff froth—the yolks to a smooth thick batter. Add to the yolks a teaspoonful of milk and a little salt. Lastly stir in the whites. Have ready in a hot frying-pan a lump of sweet butter. When it hisses, stir in the mixture gently and set over a clear fire. It should cook in ten minutes. Do not stir, but slip a broad-bladed knife under and around the edges to prevent burning. If your

oven is very hot, you can put the frying-pan in it, as soon as the middle of the omelette is set. When done place a hot platter, bottom upward, over the pan and upset the latter to bring the browned side of the omelette uppermost. Serve as soon as cooked, as it will lose its agreeable plumpness if allowed to stand.

OMELETTE WITH BREAD CRUMBS.

8 eggs.

1 teacupful of bread crumbs soaked in milk.

Beat the eggs in the same way as for plain omelette. Put the bread crumbs in a bowl and pour all the milk on them they will take up; stir them into the yolks with a little salt. Then add the whites and proceed as for a plain omelette.

SCRAMBLED EGGS.

1 pint of boiling milk.

8 eggs.

Have the milk boiling hot and the eggs well beaten; stir them in the hot milk and keep stirring to prevent burning until they are cooked. Have ready some Graham or white-bread toast, cut in uniform pieces; place a heaping table-spoonful of the eggs on each piece and serve on a platter. If toast is not wanted serve the eggs in a vegetable dish. Another way is to put a piece of butter in a frying-pan, and when it is hot drop in the eggs (they should have been

previously broken whole in a bowl), and stir to and fro without cessation for about three minutes. When done turn out at once on a hot dish or on toast, and serve immediately.

APPLE BATTER PUDDING.

4 eggs.

1 pint of milk.

1 pint of flour.

2 even teaspoonfuls of baking powder.

8 tart apples.

Peel and core the apples; place them in a deep baking dish, and fill the center of each with sugar. Beat the eggs thoroughly, add the milk; mix the baking powder through the flour and sift the mixture in the eggs and milk. Now stir all together and then pour the batter over the apples. Bake in a quick oven one hour. Serve with cream and sugar, or any pudding sauce preferred.

FRUIT MUSH.

Soon after the mush is made, and just before setting back to cool, stir in one-half pint of pickled and washed currants to each two quarts of the water you have put in to make the mush. Raisins may be used. Dates can be stoned and picked to pieces and added to any plain mush just before dishing it. This is an excellent method for encouraging children to eat mushes.

MIRA EATON.

NOTES IN SCIENCE AND AGRICULTURE.

Fertilization of Plants by Insects.—From an interesting paper read at the Montreal meeting of the American Scientific Association, by Prof. C. V. Riley, Chief of the United States Entomological Commission, the following is taken:

"Almost all the yuccas (a kind of bear grass), on account of the peculiarity of their flowers, depend on extraneous aid for fertilization, and the only insect which can afford this aid is the *Pronuba Yuccasella*, a kind of moth, which is curiously modified in the female sex only to permit it to play the part of foster-mother to the plant. It seems that the insect can develop only in the seeds of the yucca, and unless the flower is fertilized, her young perish. She first deliberately collects the pollen from the anthers and deftly works it into a ball which she carries in tentacles that are peculiar to her and occur in no other moth, not even in the male of her own species. She then punctures the pistil and deposits a slender, long egg in a cavity near the ovule. She then goes up to the stigma and as deliberately thrusts some of the pollen grains into the stigmatic apex to insure fertilization and a supply of food to her progeny. The egg hatches, the larva feeds on a few of the seeds, bores through the ripened pod, buries in the ground, where it spins a cocoon, in which it remains until the yuccas bloom the next sea-

son, when it issues forth as a moth again. The *Prodoxis* is also essentially a cross fertilizer, gathering her load of pollen from one flower, but flying from flower to flower and from plant to plant. The effect of fertilization on the main stalk of flowers was shown to be remarkable, in that the stalk always withered and died when no fruit was set. The only yucca known to occasionally set fruit without the aid of the *Pronuba* is *yucca alvifolia*. Prof. Riley showed how the flower of this species differed from that of the capsular species, so that it is quite possible for this species to be fertilized by chance pollen falling on the stigmatic apices, or by being carried there by chance insects—a thing impossible with species like the *filamentosa ruscicola*, etc. The *prodoxus decipiens* is another little moth of very much the same general appearance found about the yucca flowers. It was also called the Riley or bogus yucca moth. It has nothing to do with fertilization. Prof. Riley concluded by reiterating his conviction that the relation of the *pronuba* and yucca furnishes the most remarkable case of the mutual interdependence of a plant and an animal, and of special modification of parts to a particular end. Further, that there is a deliberate purpose in all the acts of the female *pronuba*, and no one could watch her, as he had done for ten years, without feeling that, in her doings,

as in those of most animals when carefully studied, there is neither the unconscious movement of an automaton, nor of a creature guided merely by blind instinct, but that judgment and reason of varying degree guide her in her curious and oftentimes difficult task."

On Treating Decayed Fruit TREES.—A correspondent of the Farmer's Club, New York, thus relates his experience with decayed fruit trees:

"Remembering Professor Liebig's theory that when a vegetable is burned the part which came from the air in the process of its growth returns to the atmosphere, and the part which came from the ground is reduced to ashes, I came to the conclusion that ashes would be beneficial when applied to the roots of the trees. They were standing in soil strongly inclined to clay, with a turf around them that had not been removed for several years. After pruning them properly, removing every indication of worms, etc., and washing the body and branches with soap suds, I began operations below—first removing the turf two feet around the tree; then, with a garden pick, the ground was loosened from six to twelve inches in depth, taking care not to injure the larger roots. Twenty or thirty quarts of loose dirt were removed, leaving a large cavity, shaped like a saucer, with the tree standing in the center. About one pint of unleached ashes was sprinkled about the tree, and upon this chip-manure was placed, nearly filling the cavity. Another pint of ashes was sprinkled upon the fertilizer, which was gently pressed down, and the whole covered with the loose dirt taken from the cavity, leaving the surface nearly as it was, excepting the turf. A young orchard was treated in a similar way. The effect was wonderful. Plum trees that were 'goin' to the bad,' revived. Peach trees that had presented small and shriveled leaves, threw out a luxuriant foliage, and cherry trees gave fruit larger and fairer than ever before."

The Paper Waste of New York.

—No one who has not inquired into the matter has any idea of the magnitude of the waste-paper business in New York City. There are, for instance, fully 2,000 rag-pickers who find employment about the streets. These are almost exclusively Italians, who have displaced the Irish and Germans, who used to do the work. Their gatherings of rags are valued at \$750,000 a year. The hand-cart and bell dealers do a business of \$3,000,000 a year. The aggregate rag trade of the city amounts to \$30,000,000 a year. A prominent dealer estimates the number of rag dealers in the city at 800, about a fifth of them doing a large business. The general trade is controlled by a few extensive dealers. Last year the cotton rag importations reached \$10,000,000 in value, the home gatherings being worth \$12,000,000; the paper mills taking the whole supply. The cotton rags are worth from 1½ to 6 cents a pound; the woolen

rags from 3 to 35 cents a pound. The latter are used in making shoddy goods. The rags are sorted by women, who earn \$5.00 a week, and packed by men, whose wages range from \$12.00 to \$14.00 a week. Some of the larger dealers have accumulated fortunes.

How to Render Fabrics Incombustible.—At one of its late meetings, the French "Société d'Encouragement à l'Industrie" awarded a prize of 1,000 francs to M. Abel Martin for his processes of making textile fabrics, etc., incombustible. The following are the recipes for the different preparations:

For Light Fabrics.

	Kilos.
Sulphate of ammonia, pure.....	8
Carbonate of ammonia, pure.....	2½
Boracic acid.....	3
Borax, pure.....	2
Starch.....	2
Water.....	100

Keep the solution at a temperature of 30° C. (86° F.), and immerse the fabrics; let them dry immediately, and re-immerses as in ordinary starching. The liquid costs about 16 centimes per litre (12 cents per gallon).

For Painted Curtains, Theatre Scenery, Furniture, Wainscoting, Cradles, and Window-shades.

	Kilos.
Chlorhydrate of ammonia.....	15
Boracic acid.....	5
Softened glue.....	5
Gelatin.....	1½
Ordinary water.....	100
Lime.....	q. s.

The mixture is kept at 60° or 80° C. (140° to 176° F.) until it is of the consistency of oil. Spread it over the materials with a brush, like varnish. For scenery already painted, spread the liquid on the unpainted side. Care must be taken to cover twice over the frame and posts. With one kilogramme, costing 9 francs, 21 centimes (\$1.78), 5 square meters (6½ square yards) can be covered.

For coarse Curtains, Cords, Straw, and Wood.

	Kilos.
Chlorhydrate of ammonia.....	15
Boracic acid.....	6
Borax.....	3
Ordinary water.....	100

Keep the materials in the mixture at a temperature of 100° C. (212° F.) for 15 or 20 minutes. The liquid costs 23 centimes the litre (18½ cents the gallon).

For Papers of all Kinds.

	Kilos.
Sulphate of ammonia.....	8
Boracic acid.....	6
Borax.....	2
Ordinary water.....	100

Heat the mixture to 59° C. (138° F.) The litre costs 14 centimes (11 cents per gallon)

—*Textile Record.*

A Suggestion for a Fire Escape.—

We wonder that a neat device for a fire escape has not been patented. Something to take the place of the ugly ladders and platforms which disfigure every nice building to which they may be attached. To be sure, we have seen quite lately a new idea in the line of a ladder which folds up into a casing of thin iron, but being perpendicular and necessarily very slender, we doubt its practicability for all purposes. A correspondent of the *Scientific American* hits as close, we think, to what is suitable for most emergencies of fire, in suggesting as a means of escape in case of fire, a passageway of iron along and above the roofs of houses, passing through the more lofty buildings if need be, or diverging to the right or left, so as to bridge over and connect all the houses of a block, thus securing an easy and safe passage from any house to those adjacent, as well for the convenience of firemen as for the escape of those who are beset by fire. The construction of these iron passes, he says, could be fairly compulsory to owners, and they need be by no means of an unsightly appearance. When wished, they could be elegantly constructed to conform to the general architecture of the building by or through which it passes, and this would hold good with regard to the means by which each house was connected with this proposed passway. He is aware that there are disadvantages which at once crop up—apparent danger from burglars, and so on—but there is no good without its modicum of evil, and this weakness of his plans, he thinks, could be guarded against.

To Neutralize the Smell of Paint.

—To get rid of this most objectionable odor in a chamber or a living-room, slice a few onions and put them in a pail of water in the center of the room; close the doors, leave the window open a little, and in a few hours the disagreeable smell will have almost gone. Another method is to plunge a handful of hay into a pailful of water, and let it stand in the newly-painted room over a night; this plan is also effectual. The foregoing have the important advantage of being simple remedies, as the necessary materials are always easily obtainable. Yet another plan, but it is rather more complicated. Place a grate of lighted charcoal on a piece of flag or slate in the center of the room, and throw on it a handful or two of juniper berries; shut out all ventilation from the room for twenty-four hours. The doors and windows can then be opened, when it will be found that the sickly smell of the paint has entirely gone. The furniture may be left in the room during the process, and none of it will be injured. But the best way to avoid the smell of paint is by not having the painters in the house, when one is living in it.

Should be Contented.—As this world goes, that man is happily circumstanced who lives on fertile acres of his own, is surrounded by the healthful atmosphere and associations

of the country, inspired by observation of nature's marvelous and beneficent processes of production, and has the consciousness of contributing somewhat to the necessity and comfort of the world. Many a city merchant or other person in the sharp and wearing competition of trade, may well covet such a blessed privilege of independence, and farmers' boys, restless and venturesome, would doubtless do wisely to consider if they are not perhaps overrating the enchantment of the distant town, and underestimating the possibilities and the present security and even tenor of the rural life. Such is the suggestion of the "sober second thought" of one who has put his own hand and head to the varied work of agriculture, and who also can say of the best the city has to give: "All of this I saw, and part of it I was."

To Make Floating Soap.—"Ten pounds of double refined 98 per cent. powdered caustic soda are dissolved in any earthenware or iron vessel with four gallons of water. When the caustic soda is pure and in a powdered form, it dissolves instantly, heating the water. The lye thus made is allowed to cool until at a temperature of about 80° F., and then added, with constant stirring for a few minutes, to seventy pounds of tallow, previously dissolved and at a temperature of about 120° F. As soon as the two are combined and smooth in appearance, the mixture is emptied out into a soap frame or a square wooden box for a mould, covered up with blankets and kept for three or four days, when the alkali and tallow combine and slowly turn into soap. The block of 120 pounds of soap is then turned out, cut up into bars, and kept for three or four weeks to harden. These bars are then cut into very fine thin shavings, and the 120 pounds of shavings are now dissolved in a pan, with gentle heat, with six gallons of water, with six pounds of refined pearl ash dissolved in it. As soon as the mixture is complete the soap is poured into boxes or frames, and kept for a few days, then cut up into bars, or pressed into tablets.

"The soap is very white, in appearance like ivory, and floats perfectly. If a little perfume, such as citronella or almond oil, is added, as soon as the remelting is completed, and just before pouring into frames, a first-class toilet soap is produced at a very little extra cost."—*Oil and Paint Review.*

To Clean Marble.—Mix one-quarter of a pound of soft soap with the same of pounded whiting, one ounce of soda and a piece of stone blue the size of a walnut; boil these together for fifteen minutes, and then, while hot, rub it over the marble with a piece of flannel, and leave it on for twenty-four hours; then wash it off with clean water, and polish the marble with a piece of coarse flannel, or, what is better, a piece of an old felt hat.

How the Pyramids were Built.—Herr Brugsch, the Oriental traveler, says of

these great monuments: "From the far distance you see the giant forms of the pyramids, as if they were regularly crystallized mountains, which the ever-creating nature has called forth from the rock, to lift themselves up toward the vault of heaven. And yet, they are but tombs, built by the hands of men, which have been the admiration and astonishment alike of the ancient and modern world. Perfectly adjusted to the cardinal points of the horizon, they differ in breadth and height, as is shown by the measurements of the three oldest, as follows: 1. The Pyramid of Khufa, height, 450.75 ft., breadth, 746 ft. 2. Pyramid of Khafra, height, 447.5 ft., breadth, 690.75 ft. 3. Pyramid of Menkara, height, 203 ft., breadth, 352.78 ft. The construction of these enormous masses has long been an insoluble mystery, but later generations have succeeded in solving the problem. According to their ancient usages and customs, the Egyptians, while they still sojourned in health and spirits, were ever mindful to turn their looks to the region where the departing Ra took leave of life, where the door of the grave opened, where the body, well concealed, at length found rest, to rise again to a new existence, after an appointed time of long, long years; while the soul, though bound to the body, was at liberty to leave the grave and return to it during the daytime, in any form it chose. In such a belief, it was the custom betimes to dig the grave in the form of a deep shaft in the rock, and above this eternal dwelling to raise a superstructure of sacrificial chambers, sometimes only a hall, sometimes several apartments, and to adorn them richly with colored writings and painted sculptures, as was becoming to a house of pleasure and joy. The king began his work from his accession. As soon as he mounted the throne, the sovereign gave orders to a nobleman, the master of all the buildings of his land, to plan the work and cut the stone. The kernel of the future edifice was raised on the limestone soil of the desert, in the form of a small pyramid built in steps, of which the well constructed and finished interior formed the king's eternal dwelling, with his stone sarcophagus lying on the rocky floor. Let us suppose that this first building was finished while the Pharaoh still lived in the bright sunlight. A second covering was added, stone by stone, on the outside of the kernel; a third to this second, and to this even a fourth; and the mass of the giant building grew greater the longer the king enjoyed existence. And then at last, when it became almost impossible to extend the area of the pyramid further, a casing of hard stone, polished like glass, and fitted accurately into the angles of the steps, covered the vast mass of the sepulchre, presenting a gigantic triangle on each of its four faces. More than seventy such pyramids once rose on the margin of the desert, each telling of a king, of whom it was at once the tomb and monument. Had not the greater number of these sepulchres of the Pharaohs been destroyed almost to the foundation, and

had the names of the builders of these which still stand been accurately preserved, it would have been easy for the inquirer to prove and make clear by calculation what was originally, and of necessity, the proportion between the masses of the pyramids and the years of the reigns of their respective builders."

A Discovery of a Grand Hall
NEAR THE PANTHEON, AT ROME.—A grand hall, exceeding in length the full interior of the Pantheon, and supposed to be the vestibule of the Pantheon itself, or rather, a connecting hall between the Pantheon and the Baths of Agrippa, has been recently explored. This hall measures 140 feet in length, 50 feet in width, adorned with eight splendid fluted columns of Phrygian and Numidian marble. Within this hall is a niche, where is a pedestal 12 feet wide by 11 feet high, large enough for a colossal group of sculpture. It is supposed that within this hall stood the celebrated bronze "Athlete" statue, which Agrippa brought from Greece, and placed in the portico of his warm baths.

Beautiful Shade Trees.—Editor PHRENOLOGICAL JOURNAL: A writer in the *Ohio Farmer* says: "It is so easy to stock a farm with trees—both fruit and shade trees—that it is a wonder that more effort is not made in this direction. A little plat of ground should be enclosed, or a corner of the garden appropriated, where the little trees may be set out and left to grow until they are large enough to be transplanted into the orchard or the grove where they are to be permanent. A small effort will soon collect an extensive grove, and how many farms there are which can be ornamented and made more valuable by the judicious planting of trees. It is one of the greatest pleasures of our lives to visit the homestead and see the trees planted by our boy hands. Everybody says that they have added hundreds of dollars to the value of the farm, while observing their growth and development has abundantly compensated us. This pleasure is sufficient compensation to any one for planting trees. It is a selfish idea a great many people have that planting trees don't pay because some one else will have the benefit of them, and not themselves; it is also a mistake. They develop so rapidly under favorable circumstances that any one may reasonably expect a reward for their labors."

I can still furnish a small package of seed of the UMBRELLA CHINA tree to all readers of the PHRENOLOGICAL JOURNAL who will send their P. O. address and a few stamps to pay for mailing seed. I have just received a letter from a lady living in Phoenix, Maricopa Co., Arizona, in which she says: "I have just been reading some old Numbers of the PHRENOLOGICAL of 1880, which a friend loaned me, one Number of which contains your offer to send seeds of the 'Umbrella China' tree. Will you please send me a few seeds?"

Fraternally yours,

Crocket, Texas.

ALEXANDER KING.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A.M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
NOVEMBER, 1882.

EVERY ONE A WORKER.

IF there is anything in you, my young or old reader, which can be made use of to the benefit of your neighbor, let it come out. It is not at all necessary that you should have a college education, or be in one of the professions, or have a special "opportunity," in order that you may be useful and helpful to your neighbor and the community. To be sure, liberal training in books, an appendage to your name which signifies that you know something about the effects of drugs, or the operation of law on public and private rights, and an "opportunity" which social position or some other accidental circumstance may give one, are not to be lightly esteemed; but an earnest, determined spirit can get along without them, just as hundreds of men whom the world honors get along without them.

Attentive observation and careful employment of spare moments in study will render one learned in time, but the world has more need of workers in its many different fields of moral effort than it has for merely learned men and women. Scholars have failed to make a good impression where men of only average education, but with determined zeal, have succeeded in

raising a community to a higher level of genuine prosperity. A hasty glance over society will satisfy one that there is no lack of scholarship, and our hundreds of colleges and seminaries are contributing year by year to the list of the learned, but there is a want of energy and soul in the prosecution of works that have for their object the improvement of men in themselves, in their homes, in their social relations—works that are unselfish, that refine the mind and contribute to its peace, patience, and happiness.

Every man and every woman can take part in work of this kind. There is room and opportunity for the willing and earnest, in every sphere of life, so that one need not look for "other worlds to conquer," or think it essential to prepare for a campaign on a broad scale. Put the hand to the plow and push vigorously in the soil of your own field, and you will soon discover that it will require all your strength to turn and soften that soil for the growth of good seed. The work will rapidly enlarge as you proceed, and whereas in the beginning you deemed the field too small, obscure, and unworthy, you will find after a little firm endeavor, that it will repay all the effort you can put into it, and that you need not think of looking outside.

It is possible that one may possess by organization so little force, so little executive energy, and so much reserve and diffidence that he or she feels entirely debarred from entering upon a course of positive teaching or leadership. In such a case, which is extremely rare, one can at least be exemplary in conduct, and in that way exert some influence. A quiet, orderly, industrious course must be influential in some degree. Every person who is painstaking in his vocation, however

unobtrusively he may pursue it, becomes ere long a subject of more than accidental comment among his neighbors. Every one who is temperate in habit, patient and forbearing in disposition, acquires ere long a name among his acquaintances which is indicative of his character. Thus one's light is not altogether "hid under a bushel," but exerts power in drawing the attention of others to what is due and proper in life, and to what is sweet and beautiful in human conduct. To us there seems nothing more noble than patient industry in an humble sphere. The man who illustrates such virtue is a king among men. Well said the ancient philosopher, "Seest thou a man who is diligent in his calling? he shall stand before kings."

But the patient, earnest soul can not rest in an attitude of sheer passivity: it will come out and exhibit an aggressive phase now and then toward the vicious and untrue. Opportunities bring it out, and they occur not unfrequently in the average community. How often may a man who realizes the enormous evil of intemperance find it in his way to speak a word of admonition to the weak and tempted. How often may one who comprehends the need of good moral culture in the young, find it in season to urge it, or to suggest a simple practice which a parent or teacher could apply.

To those who are conversant with the principles and work of Phrenology, what has just been said should have a special significance. The opportunities which a knowledge of this great human science affords of doing good in the home or on the forum, in the quiet lane or on the highway, are constantly occurring; and no one should venture to acquaint himself with its truths and methods who does not

expect to put them to use. Their exemplification in one's own life and character can not be so inclusive that others will not be affected. No, the spirit of phrenological truth will not permit one to act a passive part; it stimulates to action, it grows in the being of him who has received it by action. One takes knowledge of its truth through its declaration and application to others: We never knew a person who thoroughly believed the principles of Phrenology who did not work in some way to illustrate them openly, and to influence his neighbor. When a man has made a discovery of great value to himself, which opens up possibilities of mental and moral growth which he had perhaps imagined, but never deemed practicable, he is not likely to keep it to himself or to hide it in a napkin; on the contrary, he will publish it as best he may, and take pleasure in communicating its significance. Physical truth may inspire selfishness in a man, but moral truth prompts to generosity! One of the cumulative proofs of Phrenology is the fact of its inspiring its disciples with liberal sentiments toward others, with the desire to impart to a neighbor what is felt to be of use to one's self. There are men and women who do a large amount of positive work for temperance, morality, religion, education, science, who have no aspirations for the platform and little time to act as the visitor or canvasser. They believe heartily in the subject, take pains to keep themselves well informed concerning it, and are ready with a word in its behalf when the chance occurs. These quiet home-workers by their numbers and their zeal actually do more toward the solid growth of truth in the public mind, than those who make it their profession to

lecture and teach. The great accomplishment of the year at the ballot-box in Iowa, where the majority of a population, over thirty per cent. foreigners, voted in behalf of temperance and prohibition was not brought about practically by crusaders or platform exhortation, but by steady, patient work in the home-circle and society, and that mainly by women. So with regard to phrenological progress, the modest but steady believers are doing excellent work, and where a traveling lecturer excites a little interest which would be likely to subside in a few days after his departure, the resident believer, if there be one, can improve the opportunity, helping the seed which has been cast to germinate and bear useful fruit in the lives of his friends and neighbors.

ON THE FOREHEAD.

A CERTAIN London physician recently read before a club made up of members of his profession, a paper on the "Noble Forehead," in the course of which, according to the American report of it, he took occasion to dispute the popular view concerning the differences of intellectual calibre indicated by foreheads. He discusses foreheads according to their comparative appearance, claiming that some appear quite ordinary merely because of the low growth of the hair, and that when the hair is removed a marked change is effected and a noble frontispiece is acquired. We apprehend that the worthy member of the "Causal" club will find it a difficult task to convert society to his way of thinking, notwithstanding that he has a good deal of logic and scientific truth on his side; but society has also not a little ground for its opinion in forehead—although the un-

scientific many may sometimes be misled by appearances, and deem a forehead large and fine, because when viewed in front there seems a long reach of bare skin from the nose upward.

Dr. Clapham, the aforesaid member of the "Causal," and essayist, might have instructed his audience that the true way to judge a forehead was by viewing it in front and in profile, for the PHRENOLOGICAL reader needs not to be told that a forehead may appear high and broad to the direct observer which laterally is seen to be shallow or retreating. Often a bald head, which is by measurement actually low, appears high in front to the casual observer. The essayist did, it is true, intimate that Lavater's method of viewing the head from above gave a better idea of the capacity of the frontal lobes, but this does not show in a striking manner the prominence or extension of the superior development of the frontal convolutions.

We can not say that Dr. Clapham's paper was merely an expression of accidental notions entertained by him, as he was at some pains to furnish comparative measurements and weights esteemed to be in support of his proposition, but which we think are clearly on the side of the popular idea of "noble foreheads." For instance, he gave a table in which the head measurements of 84 "respectable" members of society were compared with those of 500 criminals. The comparison showed that the "respectable" members of society had a frontal percentage of 52.1, while the criminal had a frontal percentage of 48.6 only—of the circumference of the head; thus practically refuting the essayist's own assertion, that the occipital lobes rather than the frontal are the seat of intelligence.

WHAT I HEARD AND SAW AT THE MONTREAL MEETING OF THE A. A. A. S.

A VISIT to Canada is esteemed desirable by Americans generally, and when made under pleasant circumstances it is very desirable.

Having applied for membership to the American Association for the Advancement of Science, and sent the requisite fees for the same, I received tickets giving me the benefit of the reduced fares on the railroads as agreed upon between the A. A. A. S. and the railways. The sessions of the Association were to commence in Montreal August 23d, so I left the Grand Central Depot at 6:30 P.M. of the 21st, and having a section in a Wagner sleeper, which would reach Montreal the next morning at 8:30, without change, I had ample time to sleep and rest.

At Poughkeepsie the gentlemen left the car to lunch, about 8 o'clock, when the porter prepared my bed and I assumed a horizontal position to rest, but not to sleep much. A gentleman occupying a seat on the opposite side of the aisle in the car had a bottle of what he called Bass' ale, with which he comforted (?) himself frequently, but evidently to his disadvantage in the end. As he smacked his lips on taking a draught, I heard him say, "I do love Bass' ale." Perceiving a gradual change coming over his appearance, and being unacquainted with the usual effects of the seeming ale, I could not but feel anxious, and found myself wishing that he might soon reach his destination, and also wondering how any one so pleasantly surrounded as we were in that beautiful car could wish for any stimulant. Then came to my mind the fearful Spuyten Duyvil accident, which was said to be consequent upon liquor-

drinking in the cars by passengers and train-men. Being much exhausted before starting, and having no acquaintances among the passengers, may account for my mind running as it did on that painful subject.

Several gentlemen came to the section of my bibulous neighbor and entered into conversation with him, and as I could not but hear some of it, I learned that they, like myself, were on their way to the A. A. A. S., in Montreal; but the bottle-holder took no interest in the subject, and I was pleased to notice that none of them accepted his offered hospitality.

Having arrived in Montreal, I went immediately to the Windsor Hotel, where were the headquarters of the committees of the A. A. A. S. The Windsor is said to be the finest hotel on this continent. Being acquainted with but few other hotels, I can not judge whether its claim is just, but it is beautiful beyond description in few words, both externally and internally, and it seemed that there was but one thing lacking, and that was space to accommodate all who made application for rooms.

Even those who had written several weeks before for accommodations were unable to secure them, therefore many who took their meals there had to lodge elsewhere. If a person loses anything there they are usually successful in its recovery. More than one such instance occurred while I was there. Perhaps it is the same in most hotels, but the expression of the finders showed that they were happily surprised.

The card of instructions directed that every member, on arriving at Montreal, should go at once to the Registry office of the A. A. A. S., and enter his or her

name, and secure the badge which they were to wear during the continuance of the meetings. That, therefore, was my first purpose after depositing my satchel in my room, and I soon found my way to McGill College, where most of the meetings were to be held, secured my badge, and then looked about the city awhile, finding not a few beautiful residences, with ample grounds filled with flowers and shrubbery. Carriages could be hired very cheaply, and were kept busy by the members of A. A. A. S. Everything was done by the city that could be thought of to accommodate the Association and to please its members. Just twenty-five years before, the Society had met in Montreal, and it was then a comparatively small assembly, while now its numbers reach well up toward a thousand, and meanwhile Montreal has also spread itself considerably. The members were furnished with a handbook of the city, from which I would like to quote various statistics concerning the industries and peculiarities, the Victoria Bridge, etc., but must content myself with the following: "The population of the city now reaches 140,747. The last census, which was taken in 1881, shows an increase of 33,522 in the ten preceding years. The present municipal taxes amount to \$7.50 per head of the population."

Statistics, however, are something of little apparent importance, but one of the papers read before the A. A. A. S. showed the value of agricultural statistics, and was an interesting if not exhaustive essay. It was by J. R. Dodge, for many years Statistician in the Agricultural Department (or Bureau) in Washington. The *Montreal Chronicle*, I think it was, published it entire. The A. A. A. S. was divided into nine Sections, each Section let-

tered A, B, C, D, E, F, G, H, I. Mr. Dodge's essay was before Section I, the President of which was Prof. Elliott, of Washington, D. C. Each Section had its President and other officers, and *they* reported to the *general* or collected Association, and each report was accepted by vote.

The opening exercises were impressive, consisting of a prayer by Bishop Boyd, of Montreal, a welcome address by the mayor of that city, dressed in full regalia, and speeches by the retiring and incoming Presidents of the Association and other officers.

Prof. Thurston, of the Stevens Institute at Hoboken, read a paper before Section D, on "The Steam Engine and the limit of its power," etc. I attended meetings in all the Sections, and wanted to attend all the meetings in all the Sections, but could not find out any way by which to be in more than one place at a time, and as all the Sections held their meetings at the same hours, of course I could hear but one-ninth of the whole.

Extra lectures were given sometimes in the evenings, but I did not attend them, and was very sorry to lose them, especially that of Dr. W. B. Carpenter, of England; not, however, so much on account of the subject on which he spoke as because he was once an opponent of Phrenology, and I wanted to hear him speak. He was pointed out to me one day, and I was pleased with his appearance.

Section F had to do with Biology, the papers in which were very interesting. It was there that I heard Prof. Asa Gray, of Harvard University, on the "Flora of America." There also was a brief lecture, or speech—too brief—on the "Ear, its action, treatment, etc.," by Dr

Blake, and illustrated on the blackboard, as were most of the addresses. Prof. C. V. Riley, of Washington, also had valuable essays to present, but was prevented from saying much by the pressure of other matters and the want of time. There were so many papers and topics to be presented in each Section, that it was necessary to limit each speaker to a specified number of minutes, hence some of the speeches were too brief for the importance of the subject treated, while some others were so long as to be very wearisome, however important they might be.

My time was mostly spent in Molson Hall, Section H, where various phases of anthropology were presented, and where I heard Prof. Mason, of Columbia College, Washington, D. C., deliver a long and interesting lecture on "A Scheme of Anthropology," in the course of which he touched upon Phrenology, and said "Phrenology is *dead*." After waiting a moment, apparently to hear some one object to his statement, he added, "I mean the *old* Phrenology, but there is a *new* Phrenology which is true." In a brief interview with him afterward, he told me that what he meant by the "old Phrenology" was that Phrenology which judged only by the external protuberances on the head, and added that almost all departments of science had changed, and might as well be spoken of in the same way, and instanced chemistry and medicine, and he asked if *we* kept up with the new discoveries in Phrenology, naming some of those foreign philosophers. I replied that we phrenologists had always taught that the temperament and the physiological organization were as indicative of character as the external contour of the cranium, and that an expert in the art of

reading character phrenologically can tell what organs are the most active, and that we had always taught that "*other things being equal—ceteris paribus*—" size is always an indication of power; but our opponents never give us credit for that phase, and then oppose us for what we do not teach, and I was glad they had discovered something at last that compelled them to acknowledge that there is such a science as Phrenology. Did Gall and his coadjutor teach "the old Phrenology"? If they did not, who did? for its opponents have the idea that ~~such~~ a doctrine has been taught, and it is their mission to set the world straight, and if we are teaching error we want to know it, and will acknowledge it when convinced.

Dr. Bell gave a voluminous and lucid lecture on the telephonic efforts made to find the ball in the body of our martyred President; Mrs. Antoinette B. Blackwell read two papers, one of which she consented to allow us to publish in a future Number of the PHRENOLOGICAL.

Mrs. Erminie B. Smith told us about the creeds of some tribes of Indians, and Miss Alice Fletcher related some of her experiences among the Indians of the West, in Nebraska principally; and others told what they knew of the mounds and old graves supposed to be Indian graves. Others showed us implements that had been found, not merely in the West, but also South, in Florida; and Prof. Perkins, of the University in Burlington, Vt., showed us recent discoveries in that region. Indeed, the Indian was one of *the* most popular topics in the anthropological section.

Eventually, these statistics may lead to something very valuable, for we need not expect to learn all about the past except by littles, and "every little helps."

Much more might be told of our meetings, but it would render my paper too long; besides, the leading newspapers throughout the country have given digests of the proceedings, so that it is unnecessary for me to dwell further upon them.

As regards our treatment by the Canadian people, Montreal and Quebec and Ottawa and places near Montreal seemed to vie with each other in offering the A. A. S. entertainments.

In Montreal we were invited to visit the steamer *Parisienne* of the Allan Line, which plies between Montreal and Liverpool, and so pleased was I with it that I almost resolved that when I go to Europe it will be by that line. We were also taken to the great workshops of the Grand Trunk Railway, to the Victoria Bridge, and all around the harbor, and those who wished had the privilege of "shooting the Rapids."

Invitations to garden-parties, breakfasts, soirees, etc., were extended to us almost daily; but the most popular one was the reception by the President, Dr. — Dawson of McGill College, at the Peter Redpath Museum. It was also the formal opening of the Museum. We were invited besides to the beautiful Gallery of Arts, the City Library, and other places.

Ottawa and Quebec invited us for the same day to take an excursion to their cities. Some went to Ottawa, and many to Quebec; among the latter I was found. We were met by the mayor and other dignitaries, who addressed us, gave us the "freedom of the city," took us up on the Dufferin Terrace and on the Citadel, and through Laval University.

We were taken around the harbor of Quebec, and speeches were made, telling us about various objects; and we had

beautiful views of the Falls of Montmorenci and other places between the Falls and Quebec. Then we took carriages, and rode about the city in every direction. There we saw that peculiar conveyance called the *calaché*, and some of our members tried it, and were pleased with its motion. I think the vehicle would be beneficial for dyspeptics; but, alas! we were told that is the only place in the country where the real *calaché* is used, except, perhaps, a few scattering ones may be found. We were also taken to Newport, Vt., where we took the steamer *Lady of the Lake*, on Lake Memphremagog, and had an exceedingly enjoyable sail up and down that picturesque body of water, which lies partly in Vermont and Canada.

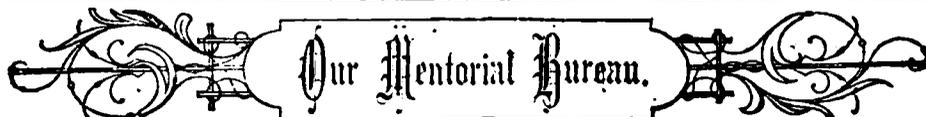
The friends we found and the acquaintances we formed, were and are highly prized, and will never be forgotten, especially the many good words that were spoken for Phrenology. Rev. Mr. Clark, of Quebec, said he could not see how any one with good common sense can disbelieve it or not see its benefits; and that was the testimony of many who told me of having had an examination—phrenological—of their families and themselves, and of having heard many lectures.

The sessions of the A. A. S. began August 23d, and adjourned on the 30th; and from the dilatoriness of many of the members in leaving the McGill College, where they were convened, it would seem as if they had become attached to the place and did not like to leave it. I shared in that feeling myself, for besides the charm of the mental food we had enjoyed, there were also the attractions of the city itself. Everything in its composition looked useful; the buildings, the

wharves, the bridges, the reservoir, etc., looked as if they were built to stay, and as if nothing less than an earthquake could destroy them.

I shall ever retain a delightful memory of my visit and participation in the Montreal meeting.

C. F. W.



To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A two-column article is read by four times as many people as one of double that length.
6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

DEPILATORIES.—M. D. J.—There are numerous preparations which are said to be effective in destroying or removing hair from the face. Their efficacy is dependent upon acids or caustics, and they are injurious. A liquid or powder which will destroy live hair will destroy the softer skin. Within a few years past the galvanic cautery has been applied to the removal of hair, and it is said to accomplish its work very satisfactorily. A surgeon who is conversant with the use of the galvanic battery in electrolysis could give you full information. The hot needle is thrust into the hair cell, and the destruction of that prevents, of course, all further growth of the objectionable thing.

PARALYSIS HEREDITARY.—B. G.—Yes, paralysis, like almost every form of disease, may

exist in the diathetical form by inheritance. There may be conditions of the nervous system which conduce to easy exhaustion, which is a fruitful source of paralytic trouble.

COUSIN MARRIAGES.—G. C. H.—In our combined Annuals this question is considered at length, and from time to time it is touched upon in these columns. The old view with regard to marriages of kin so low down as first and second cousin is not so strongly advocated at this date, some physiologists taking the ground that certain peoples, like the Jews, Gypsies, and certain Asiatic races, do not exhibit the deterioration which ought to be expected if in-and-in breeding be pernicious to vitality and mental integrity. We, however, from what we have observed concerning the results of cousin marriages, are slow to advise them, although certain temperamental conditions in the parties contemplating a union may sometimes point to no probable bad consequences.

ARSENIC-EATING.—C. M. C.—Were you to examine a file of the *London Lancet*, or the *Boston Medical and Surgical Journal*, you would probably find a good deal of matter relating to this subject. Von Tschudi has written an interesting account of the habitual use of arsenic by the peasants of Styria. We can not now refer to a book in which this can be found, but in the *Edinburgh Medical Journal* for 1894, there is an account of arsenic-eating, in which the amount taken was very large; thirty or forty times as much as an old school physician would prescribe in a case of disease which, according to the code, rendered the administration of such mineral poison proper.

GROWTH OF BRAIN.—*Question*: Does the growth of the brain expand the cranium?

H. A. K.

Answer: The brain and skull grow until a man is thirty-five or forty years of age; that is the received opinion, forty years being taken as the climacteric of nervous development. But we are of opinion that a sensible growth continues in those who are very active in the exercise of their mental faculties; indeed, the cases are not infrequent, in which growth has been observed in men well advanced in years, whose

pursuits were chiefly intellectual, and who kept themselves fully apace with the time. Generally, the exercise of the brain is confined to a few organs in correspondence with the faculties operated, so that while there may be actual development in them, other parts of the brain deteriorate from non-exercise. In persons past fifty years of age, we have known the cranial configuration to change perceptibly.

LEARNING TELEGRAPHY.—*Question:* Can I learn to operate on the telegraph instrument by self-study?

Answer: You can; instruments are now made for that purpose at a very low price, and books of instruction accompany them, but it is much better for one to attend a school of telegraphy. The *Journal of the Telegraph*, in answer to a similar inquiry, states that it is not easy for one to get a place in a telegraph office with the expectation of learning telegraphy there, as the office rules will not permit it. The regular telegraph office is, of course, the best place for men to learn; the next best place is a good telegraph school or private instruction. Having made some advancement, the learner may then get a place in an office and, ere long, become an excellent operator.

DEFORMED LIMBS.—*Question:* What is the cause, prevention, and cure of bow legs?

J. P.

Answer: In most cases, bowed legs are the consequence of a child having been urged or permitted to attempt to walk before the bones had become sufficiently developed and firm to bear the weight of the body. There are too many cases of this kind; we meet them nearly every day, especially among the children of negroes. The way a child lies in the cradle, on the side with the legs drawn up, is also said to be conducive to bowleggedness. In your case, for their possible correction, we would advise consultation with a surgeon. Apparatus may be devised which will exert a steady pressure on the limb and in time reduce the bone to shape approaching the normal.

PROMINENT EARS.—A. E. G.—It is supposed by some observers that large ears, projecting widely, indicate generosity and frankness, with a relatively even disposition. Others think that they indicate softness and susceptibility, or no great amount of that hard practical common sense which is quite essential to material success in these enterprising days. In the January Number of this JOURNAL for 1875, an elaborate article on ears was published, in which attention was given to such a type of ear-growth.

[Several Answers must be deferred to our next Number.]



Communications are invited on any topic of interest; the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

OUR BOYS AND GIRLS.—It is one of the saddest facts of the present day that so many of our boys, yes, and girls too, go from their homes day after day, and night after night, seeking their pleasures and companions apart from home influences. Every parent should search diligently into their hearts and lives; into the home-life—which is but an expression of themselves—leaving no stone unturned in their endeavors to learn whether the cause of their children's wandering may not lie at their own door, and may not be remediable by their own agency. It is weary work endeavoring to undo the work of years, but with unflinching love and patience it may be done. It is better, in every way, in every result, to begin at the beginning. The little child instinctively turns to its mother and father for love, help, comfort, everything—looking to them in the full faith of ignorance and perfect innocence, believing their knowledge to be endless and infallible.

Can we not find some way of retaining this natural outpouring of our children's hearts; even though as they grow older they must learn that we too are fallible, that we too are human, having our own battles to fight, our own victories to win? Still, if they see us always courageous, brave, living consistent, upright, conscientious lives; unflinching in honesty and integrity of purpose; trying to be patient in adversity, gentle, and gracious always, shall we not win their love and confidence to a greater extent than as though we were the perfect beings they at first imagined us to be, because they will be more sure of our sympathetic comprehension?

Let our children feel, always, that no matter what their joy or their sorrow, their pleasure or pain, that there is nothing that interests them which is too insignificant to interest us also. If they do right, let us rejoice with them; if they do wrong, let us chide if need be, but lovingly, helping to set the wrong right, helping to bear the consequences of the sin by our loving compassion. They must never come to us for sympathy and find the fountain dry, unless we expect to reap bitter seed from it. Sympathy they will have somewhere, and if not at home, then elsewhere, and woe is the day that a child turns from home to find its nearest counselors and friends.

Let us make it our business, as it should be our greatest pleasure, to make home the "dearest spot on earth." Try to be ourselves in habit, manners, life what we wish our children to be;

drawing around us those with whom we prefer they should associate. Let us have the spirit of our homes bright, cheerful, attractive. "The heart and spirit are more than furniture and dwelling."

Let us keep ourselves young in heart and in sympathy, that we may be companions for our children, while their mentors; we should dance, laugh, play, "have a jolly good time" with them. Also read, study, talk, plan, work with them and they with us. In this way alone, I think, can we firmly bind their hearts and lives to ours in such a way as to lead them into right channels, and hedge them in from the temptations that will meet them, from the "forbidden and dangerous ways" that will allure them.

It may seem hard, to many, to do all this, but it is harder, infinitely harder, to see our loved ones go astray. If we strive earnestly the way will be made plain, we shall be strengthened unto our need, and the reward will be greater than we can comprehend, even the "peace which passeth understanding."

AUNTIE.

THE PHRENOLOGICAL JOURNAL, once deemed to be somewhat free in its treatment of evangelical religion, we now believe to be in the front rank of really valuable leaders of thought and moral culture. We ask no better thing for a child of ours than a life shaped by the principles inculcated in the JOURNAL.—*Whispers of Peace.*

PERSONAL.

A CHEROKEE Indian girl secured a prize offered last April to the students of Kirkwood Seminary by Mrs. Mary F. Henderson, of St. Louis, for the best essay on "Common-sense about Women."

Mrs. MARTHA DAVIDSON, of Junction City, Kansas, is one of our American women who believes in American silk culture. She has raised as many as 5,000 silk-worms on Osage orange leaves.

Of the late Dr. Gray, homeopathist, of New York, it is said that a poor sewing-girl went to him for advice and was given a vial of medicine and told to go home and go to bed. "I can't do that, doctor," the girl replied, "for I am dependent on what I earn for my living." "If that is so," said Dr. Gray, "I'll change the medicine a little. Give me back the vial." He then wrapped around it a ten-dollar bill, and returning it to her, reiterated his order, "Go home and go to bed," adding, "Take the medicine, cover and all." Sound homeopathy that, certainly!

DR. EDWARD B. PUSEY, the leader of the famous Tractarian movement, died in September last. Dr. Pusey was born in 1800. In 1828 he took holy orders, and succeeded Dr. Nicoll as

Canon of Christ Church, and Regius Professor of Hebrew in the University of Oxford. The publication of the celebrated "Tracts for the Times" began about 1833. To these Dr. Pusey was a large contributor, writing, among others, the treatise on baptism, the apostolic succession, the supreme authority of the Church, the value of auricular confession, and a more elaborate ritual which came to be regarded as what was called "Puseyism." The great object of his life was to bring back the Church of England to a true conception of catholic doctrine, and in his later years he was out of sympathy with the extreme Ritualists, and condemned their extravagant practices.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

ONE must be poor to know the luxury of giving.—*George Eliot.*

THE good man accomplishes the most beautiful works; and is, in his way, the greatest of all artists.

THE progress of knowledge is like that of the sun, so slow that we can not see it, but sure to change night into day.

A CERTAIN amount of opposition is a great help. Kites rise against, and not with, the wind. Even a head wind is better than none.

O FEAR not in a world like this,
And thou shalt know ere long,
Know how sublime a thing it is
To suffer and be strong.

WE will hope the best rather than fear the worst, and believe that there never was a right thing done or a wise one spoken in vain, although the fruit of them may not spring up in the place designated or at the time expected.—*Landor.*

GAMING is a kind of tacit confession that the company engaged therein do, in general, exceed the bounds of their respective fortunes, and therefore they cast lots to determine upon whom the ruin shall at present fall, that the rest may be saved a little longer.—*Blackstone.*

THE man who goes through life with an uncertain doctrine, not knowing what he believes—what a poor powerless creature he is! He goes around through the world as a man goes down the street with a poor, wounded arm, forever dodging people he meets on the street for fear they may touch him.—*Phillips Brooks.*

MIRTH.

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

"THERE'S music in the heir," said the father as he paced the floor at one o'clock with the baby in his arms.

A BUFFALO Irishman bought a pineapple and took it home, and the next day he inquired of the storekeeper: "Are them better biled wid salt poruk, or corn bafe?"

AT Norwich, Miss Maria Baker was married to Mr. Butcher. The bride was given away by her uncle, Mr. Brewer, and the clergyman who married them was Mr. Painter.

"You made a fool of me," said a man to his wife. "My love," she responded, "you do yourself injustice. Call yourself a fool, if you wish, but remember you claim to be a self-made man."

A SINGLE doctor like a sculler plies;
The patient lingers, and by inches dies;
But two physicians, like a pair of oars,
Waft him with swiftness to the Stygian shores.
—*London Medical Gazette.*

AN ill-bred English squire, wishing to annoy the Rev. Sidney Smith, said to him: "If I had a son who was an idiot, I'd make a parson of him!" "Indeed," retorted the wit; "your father seems to have been of a different mind."

"BREDDERN," said a plantation preacher, "I will now discourse to you out of the 'pistle of clover." "No, Pomp," cried one of his sable congregation, "you means de eplistle ob Timothy." "No matter," replied the preacher, "any kind ob grass will do, so dat it be good fodder."

A JOLLY-LOOKING German was quietly walking down the street when he was approached by a man who said: "Hello, Joe! What are you doing here?" The old man looked up and said: "But I am not here at all." "Not here?" said the man. "What do you mean by that?" "Vell, now, you see my name is not Joe, and so how could I be here? You must mean some other man."

AT Brighton lives a very tender-hearted lady. One morning a blue-bottle fly was bumping his head against the window-pane. "Jane," said she to the servant, "open the window and let the poor fly out." "But it is pouring with rain!" said Jane. "You have a kind heart, Jane; let him go into the next room, where it is warm, and when the shower is over, let him out."



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 and physiological science. We can usually supply any of those noticed.

SUNSET ON MOUNT BLANC. By Mary F. Martin, author of "Amid the Shadows," etc. 18mo, pp. 456. Price, cloth, \$1.50. New York: National Temperance Society and Publication House.

An odd title this seems at first view for a temperance tale, but the first chapter explains whatever of mystery may have been suggested, and it is discovered to be an appropriate symbol of a true and noble human life. The story is written for girls, and sketched with a pen which fully understands girlish nature, its high and low lights, its nonsense and superficial caprices, and its deep and earnest humors and longings, especially those of the moral and religious type. Pictures of life in a young ladies' school are given, in which contrasts of character are drawn with much care, and the influence of good and evil spirits signalized. We are given also pictures of life in a wealthy circle, the insidious effect of what are termed refined customs, party-giving, with much drinking of costly wines in expensive glasses, and, better than all, the influence of upright and sweet Christian character in moulding young and frivolous associates. The book is a worthy one, and deserving of a place in every collection of books suitable for the reading of youth. Yet one thought: Why is it that so much must be inserted in such a story of love-making and marriage? Can one not be written that will interest the young without such unnecessary and sensational connections?

HOW TO KEEP A STORE. Embodying the Conclusions of Thirty Years' Experience in Merchandizing. By Samuel H. Terry. 12mo, pp. 408. Price, \$1.50. Fowler & Wells, Publishers, New York.

One who contemplates entering a profession like the law or medicine, or engineering, finds himself helped toward his object by the book publishers and the schools, and if he entered straightway the office of a person in practice instead of pursuing a two or three years' course of reading and study as an initial step, he would be regarded as lacking in the essential groundwork for the effective prosecution of his chosen calling. For commercial life, however, it seems to be generally thought that all a young man

needs is the ordinary training of an English course, such as the State furnishes in the grammar school. He may also, if he feel inclined, attend a winter term in some "business college," and then is "finished" for his life-work. The truth, however, soon shows itself that of the practical duties of the counting-room and warehouse he knows comparatively nothing, and he feels for a considerable time his rawness and his ignorance, and, in a large proportion of cases, becomes quite discouraged at the prospect of what he must learn in order to be a clever or "smart" business man. There are books, to be sure, on business, but very few of them are more than dry, theoretical discussions. In fact, the most of them were written by men who had little or no experience as merchants or shop-keepers, and so could not explain the many details of every-day mercantile life. Mr. Terry's book is of a different stamp. On opening it the reader is at once impressed that here is a "business" writer who knows what he is writing about. The air of the counter pervades its pages, and a hundred little hints incidentally dropped here and there, each of special value to the clerk or the newly-embarked dealer, could not have been thought of but by an experienced storekeeper. How to buy goods, how to sell them; how to secure credit, how to use one's capital advantageously, good seasons and bad seasons, attending auction sales, the laws of business, how to keep accounts, and a multitude of other topics are discussed in the four hundred solid pages. The book is valuable to the man in business, as it contains advice which he would find of use to him in prosperous trade and in an emergency; while for the young man about to commence for himself or as a clerk it is invaluable.

THE ART OF ORATORY. System of Delsarte. From the French of M. L'abbe Delamoune. By Francis A. Shaw. 12mo, cloth. Albany: Edgar S. Werner.

For ten years or more there has been much discussion in dramatic and elocutionary circles with regard to the merits of the system of voice culture and dramatic expression, taught by M. Delsarte, who has been much enlogized by some critics as an actor and teacher. Edwin Forrest spoke in admiring terms of him and accorded him the gratitude of a man who feels benefited by the counsel of another, and is frank in its acknowledgment. Mallbran, Rachel, Macready, Sontag, Pascal, Gounod, Hyacinthe were among his pupils. We have indulged some curiosity about Delsarte and his method, and now, for the first time, a volume comes into our hands which supplies us with an epitome of its philosophy and procedure. The relations of gesture, position of hand, arm, body, leg, foot, the expression of lip, nose, eye, and attitude of head, etc.,

are elucidated with numerous illustrations. What is compatible and true in the indications of voice, when taken in connection with attitude and featural expression, is set forth, and irregularities and improprieties of intonation, etc., are described. The book is an interesting one and of special value to speakers, actors, readers, etc.

PUBLICATIONS RECEIVED.

LAWS AUTHORIZING THE CORPORATION OF CLUBS, Societies, Associations for Literary, Social, and Sporting Purposes, also the General Provisions of the Law applicable to Volunteer Benevolent Societies, as to the mode in which they may issue and be issued, embracing the provisions as to the Rights and Liabilities of Individual Members. By William L. Snyder, of the New York Bar. Published by Baker, Voorhis & Co., New York. Price, 30 cents.

WINTER AND ITS DANGERS. By Hamilton Osgood, M.D., of the editorial staff of the Boston *Medical and Surgical Journal*. We have had occasion to notice two or three other publications belonging, like this little volume, to the series of "American Health Primers" in course of publication by Presley Blackiston, of Philadelphia, and find that "Winter and its Dangers" is, like the others, an admirable epitome of needed information on the subject of its speciality. Dangers arising from errors in dress, carelessness or ignorance in bathing, inattention to proper food and to ventilation; carelessness or ignorance of parents or teachers in reference to the physical condition of children, are among the topics which are discussed in the book by the experienced author. The 55 pages may be read in a single sitting, yet furnishing a thoughtful reader with valuable information regarding his own health and that of others. The price of the book is but 30 cents.

THE MORMON PROBLEM: A Letter to the Massachusetts Members of Congress, on Plural Marriage, its Morality and Lawfulness. By a Citizen of Massachusetts. The bearing of this pamphlet may be inferred from the prefatory remarks of the author, in which he says: "Believing that in a republic, free, fair dealing, not oppression, can promote general peace, prosperity, and happiness, the writer, who has hitherto voted with the Republican party, views with abhorrence its proposed unjust and treacherous legislation in respect to the Mormons, and hopes that certain considerations in this letter will be of service in solving the Mormon problem." He is earnest in the assertion of liberty of conscience in religious matters, and assumes in the discussion of the Mormon question their maintenance of polygamy to be a co-efficient of their peculiar faith.

THE BODLEY GRANDCHILDREN, and Their Journey Through Holland.

SWABIAN STORIES. By Theodore Tilton.

More extended mention of these in the December Number.

THE LONDON GRAPHIC, Summer Number, is one of the richest exhibitions of color-printing in a weekly publication we have seen. Upward of \$80,000 was expended upon it, we are told, and its circulation will probably exceed half a million copies. With its thirty-six pages folio, one-half being full-page colored prints of admirably executed designs, it is certainly a remarkable accomplishment of modern art.

The National Temperance Society of New York has published for The Woman's National Christian Temperance Union the following pamphlets :

THE HEREDITY OF ALCOHOL. By Norman Kerr, M.D., F.L.S., and **THE EFFECTS OF ALCOHOL ON OFFSPRING.** By Nathan Allen, M.D. Price, 5 cts.—**DIET FOR MOTHERS**, including the Question of Alcoholic Drinks. By James Edmunds, M.D. Price, 10 cts.—**STIMULANTS AND NARCOTICS.** By James Muir Howie, M.D. Price, 10 cts.—**THE GOOD TIME COMING.** By Julia Colman. Price, 2 cts.—**TRANSMITTED EFFECTS OF ALCOHOL.** Price, 1 cent. Any of the above little treatises, which are just the thing for campaign workers in temperance to distribute, can be procured by addressing the Woman's National Christian Temperance Union, 76 Bible House, New York.

THE HOUR. A weekly journal devoted to social interests, discusses all topics of the time in a brief, pointed, and candid manner, and thus furnishes a convenient digest of passing events for the busy man. Published at New York.

THE ECLECTIC MAGAZINE, for October, has an excellent selection from late literature. Dr. Freeman's "Impressions of the United States" differ much from Mr. Arnold's, in being far more complimentary, and will be read with more agreeable interest. We have a good essay from Mr. Arnold's pen in his true line on the relations of "Literature and Science." The papers on "Cooperation," "The Salvation Army," "An American View of Ireland," "Letters from Constantinople," and "Disease Germs," are thoroughly seasonable and well filled with information.

THE POPULAR SCIENCE MONTHLY, for the same month, gives us in "Massage" a prominent physician's views on the part manipulation has in the treatment of disease; "What are Clouds?" "Mozley on Evolution," by Mr. Spencer; "The Utility of Drunkenness," by Mr. Williams, con-

cerning which we shall have something to say in our next number; "Progress of American Mineralogy," "Physiognomic Curiosities," "Industrial Education in the Public Schools," and others, have features of suggestiveness to the thoughtful reader, and only thoughtful readers can appreciate them.

HARPER'S NEW MONTHLY, also for the same month, gives us some further glimpses of rural beauty in Surrey, England, an elaborately illustrated sketch of "Medical Education in New York," some well constructed and furnished interiors of New York, an attractive article on "Southern California," with numerous views evidently drawn from life direct, and other readable matters, with the usual variety of lively, chatty criticism and thought, in small type.

In the **YOUNG PEOPLE**, which our enterprising neighbors of Franklin Square publish weekly, the new serial story, entitled "The Cruise of the Canoe Club," is a most attractive feature among the variety of sketches, anecdotes, etc., which must please the young folks.

A PICTORIAL VIEW OF THE WORLD, recently introduced to our notice by Mr. J. Beardshaw, agent for the publishers, is a handsome colored chart, containing among other things a map of the world in hemispheres, a foot in diameter; thirteen views of the racial types of man, from the Teuton to the Bushman; the costumes of all nations, flags and metallic currency, a list of the great battles of history, a calendar of one hundred and fifty great men, a projection of the solar system, and of the chief geological characteristics of the earth, besides a variety of statistics relating to area, population, government, invention, etc. A handbook explanatory of the chart accompanies it, and the two form a very useful instrumentality for household and school education. May be ordered of us, or at 112 Chambers St.

THE CENTURY, for October, furnishes a very realizing series of pictures of Mexican life and architecture. We are impressed that we have at our very doors an old civilization which deserves our study just as much as what our friends over the sea proudly call theirs. "The Corcoran Gallery of Art" is noteworthy for its illustrations of the power of wealth in accumulating the beautiful and educational for public uses. Quebec is freely illustrated, and so is the sketch of Southern life, entitled "A Georgia Corn-Shucking." The story of the "Obelisk" meets us near the middle of the pictorial magazine, and refreshes our memory concerning a not unimportant contribution of unhappy Egypt to prosperous America.

THE
PHRENOLOGICAL JOURNAL
AND
LIFE ILLUSTRATED.
VOL. 75. 1882

NUMBER 6.]

December, 1882.

[WHOLE No. 529.]



EASTMAN JOHNSON,

A REPRESENTATIVE AMERICAN ARTIST.

HAZLITT was a painter before he became a writer, an artist before he was an author. He used colors on canvas first, and his artistic skill as a critic afterward. When he saw a picture he recognized its beauties, and if it had de-

fects he saw them also. Pigments were not intended to conceal the mistakes of the pencil, but to bring out the nice and, if possible, the exact, resemblance of nature; and this prince of essayists acknowledged in his "Table Talk" that with him

the pleasure of painting far exceeded that of authorship. In the transfer of thought and feeling in colors to the canvas, the artist sits opposite to nature, and, in calm patience, he copies the original, which came from the hand of the Great Master. "He thinks God's thought after Him." Light and shade are the wings of his guiding angel. Shadows of the fancy become substance under the movements of the brush. That which was a dream of beauty grows into a reality to the sight and to the touch. The prose of a mechanical outline becomes a poem in paint. The born artist has the exquisite pleasure of seeing a new creation coming forth at his command. The grass dotted with daisies and dandelions expands into a meadow with fleecy flocks and cattle, "forty feeding like one." Trees with roots clasping the earth, while their trunks tower to the clouds and throw out branches, little juvenile trees in the arms of their parents; adult and baby trees that seem to clap their green palms in an imaginary atmosphere; the delicate tints of flowers; the varied hues of appetizing fruits—all are brought out in their wealth and splendor by the skill and genius of the colorist. His power is not like Milton's lion, held to the ground while pawing to get free. It is unencumbered and exultant in its freedom. The clouds obey his behest, and sail in fleets before the wind, or, like vast forts near the sky, veil the artillery of the storm that shakes the rocks with thunder. Or he gives us a shower of rain and gleams of sunshine, with a bow of glory spanning the heavens—a bridge of beauty fit for the spirits of the departed to ascend upon to the gates of the celestial city. He may use his skill in depicting the sea in calm or in storm, as a mighty force against which the hand of man is powerless, or as a ferry of commerce, bearing great ships from port to port around the round world. Again Hazlitt says, "The most sensible men I know are painters—that is, they are the most lively observers of what passes in the world about them, and the closest observers of what passes

in their own minds." The writer is not an artist *connoisseur* nor critic, but he will venture to say there is no department of the "art beautiful" superior to that of portrait painting. A genuine master breathes a living soul into his colors, and the canvas palpitates with life. He shows the faculties, attributes, appetites, and passions of the prototype in the type taken from his easel. At the suggestion and under the direction of his brain and heart, his taste and genius, his judgment and skill, his labor is so

"—distinctly wrought,
That you might almost say his picture thought."

There seems to be a similarity in the gifts and graces distributed to painters and poets. They are endowed with taste, fancy, and imagination. They have an unquenchable desire to embody their ideas, with the pen or pencil, on paper or on canvas. Now and then we find, as we do in the work of Rossetti in England and Buchanan Read in America, artist and author combined in one person. Michael Angelo and Leonardo da Vinci were painters, sculptors, philosophers, and poets. Durer, Cellini, Northcote, Reynolds, and Haydon were literary men. Ernest Longfellow, son of the poet, is a painter. I have the impression that Browning has a son who paints. The late Governor Dix, who was a literary man of poetic tastes, had a son who was an artist. R. H. Stoddard has a son of artistic taste and skill. The intellectual and moral qualities of a true poet are sure to be found in a genuine artist.

In Tuckerman's "Book of the Artist" I find the following sketch of Eastman Johnson, who is entitled to a place in my gallery as a representative painter. I wish I could put him in a more artistic frame and in better light: "He was born in the little town of Lovell, near Freyberg, in the State of Maine. His father long held, with eminent credit, a responsible office in the United States Treasury Department. His artist son was first known to fame as a crayon limner, wherein his skill in catching a likeness

and the grace and vigor of his drawing rendered him popular and prosperous, so that in a few years he was enabled to visit Europe, where he commenced an earnest system of study, and began to practice in oil. He remained two years at Dusseldorf, and although greater facility and accuracy in drawing were thus acquired, he did not learn much which promoted his special artistic development, and therefore started with alacrity for Italy, by the way of Paris and Holland, visiting the best galleries and studios. At The Hague he fell in with Mignot, and tarried ostensibly to copy a remarkable picture in the royal collection. Intending to remain but a few weeks, his sojourn lasted four years, for then and there he struck upon a congenial vein of work, found unexpected opportunities for study, and met with flattering success in portraiture. He executed at The Hague his first original and elaborate work in oil. It was to him a labor of love, and he gave to it the time and the care which the genuine artist delights in bestowing upon what he feels to be his appropriate task." It was the picture of a boy with dark eyes and hair and olive complexion, in the rude dress of a peasant.

Success encouraged him to paint others, which were sent to his home in the United States, where they found ready and liberal purchasers. He also executed in oil and colored crayons, portraits for the court, and many of the leading families at The Hague, receiving generous prices for his work. On his return to this country, he turned his attention to native subjects, and no one has surpassed him in delineating the Indian and negro. Among his best works are "The Old Kentucky Home," "The Drummer Boy," "The Pension Claim Agent," "Sunday Morning," "Cossette," "Mount Vernon Kitchen," "The Albino Girl," "The Corn-Sheller," "A Drop on the Sly," "Not enough for Two," "Getting Warm," "The Little Storekeeper," "The Young Letter-Writer," "The Musicians," "The Chimney Sweep," "The Chimney Corner," "The New England Boy at Breakfast," "The

Post Boy," "Lady at Prayer," "Hard Cider," "The Woodsman," and "The Organ Boy." These pictures are distributed among the wealthy lovers of the best artistic work. Eastman Johnson has achieved success and fame, especially as the delineator of the negro's features and character. The crisp hair that seems to entangle the thought under it; the thick lips, over which the idea stumbles in speech; the white teeth, uncovered by broad humor; the ebony skin, clear enough for the soul to shine dimly through it as a star struggles through a cloud at night, are visible in his portraiture of the negro. In all his pictures he displays the skill of creative genius. The canvas under his manipulation is endowed with life, the heart beats, the blood flows, the brain thinks, the bosom palpitates, the face mirrors the mind, and is sad or happy, pleased or angry, in accordance with his will. He is a master in his best efforts at giving life-like expression. If some of his figures should step out of their gilded frames and speak to us, it would hardly surprise the beholder—indeed, it is what in a moment of forgetfulness one might look for with ecstatic expectation.

Mr. Johnson was first prompted to try his skill, by seeing the crayon drawings executed by Seth Cheney, which were at the time among the best things done in art in this country. At that time he had no teacher, but drew directly from nature. In 1849, when he was twenty-five years old, he went to Europe, where he was constantly and successfully employed. Before crossing the sea, he had not painted in oil anything worthy of particular notice. He entered, immediately after his arrival in Dusseldorf, the Prussian Royal Academy. As before stated, he remained there two years; then he went to The Hague, where he remained four years. His first pictures that attracted attention were the "Peasant Boy" and the "Card Players." At The Hague he was under no teacher save the influence exerted by the work of old masters in their pictures. He went from Dusseldorf

to London, stopping on his return, in Holland, afterward making a hasty trip through Italy to Paris, where he established himself in a fine studio, intending to make that city his home for a considerable time. But news of the death of his mother, in the year 1856, entirely changed his plans, and he determined at once to return to his home in the city of Washington. There he passed the following winter, and in the succeeding summer made a trip to Lake Superior, where he made many studies of Indians and frontier characters, returning to Washington in the winter, and going back to the North-west in the summer, stopping on his return at Cincinnati, where he secured a studio and painted a number of portraits. He reached Washington in the month of June, 1858, and during that summer at the Capital he painted one of his

largest pictures, and called it "The Old Kentucky Home." In the autumn of the same year he established himself in a studio in University Building, New York, and remained there fourteen years.

Mr. Johnson was born in 1824, was married to Elizabeth Buckley in 1869, and has one daughter. When I began this essay, I intended to group a number of artists about the subject of this sketch, and make him the central star; but, on looking over the list, I found such a large number of distinguished painters in all the departments of the art, which, like that of printing, is, though in a higher sense, preservative of art, that I determined to let him, like Wordsworth's star, stand and shine alone.

G. W. BUNGAY.*

*From "Traits of Representative Men," with portraits. Published by Fowler & Wells, New York.

SUGGESTIONS.

ONE might apprehend that the beginning of centuries is favorable to genius. The great men of our Revolution were men of genius in one shape or other. Their ages ranged within a score of each other, the Nestors of the period coming in with 1700, as witness that wonderful man, Benjamin Franklin, scientist, moralist, patriot, philosopher, born 1706.

Every man has his counterpart, his double, his bane, his antidote. Alexander had his Aristotle; Cæsar his Brutus; Seneca his Nero; Hypatia her Cyril; Luther his Loyola; Mary Stuart her Elizabeth; Charles First his Cromwell; Buonaparte his Wellington.

Great men and women come in groups. Socrates and Plato, Pericles and Aspasia; Cæsar, Anthony, Cleopatra, Herod, and so on through the ages. There must be greatness to reflect greatness, and give back the key-note. Leo the Magnificent was intensified by Luther and Loyola; observe the alliteration of the three, in itself curious. The chords struck by these two, Luther and Loyola, are still vibrating—dividing the civilized world—and

each in its peculiar way tending to utter negation. The intelligent Catholic, spurning the dogmas of the Church that sets itself against human thought and progressive ideas, lands himself in materialism; while the Protestant, carrying *his* ideas to their ultimate issues, finds himself at length in the same category of utter unbelief.

What is truth? asked Pilot of Jesus, not in mockery, but in simple desire to learn, even from the despised Nazarene; and it is the question we are all forced to ask in many ways.

The groups of persons that have made their mark in the world are not always wholesome in character, but there they are, marking with pen of iron the age in which they lived. Charles V., the Duke of Alva, Catharine de Medici, Mary Stuart, Mary of England, Philip of Spain, contrasting with the royal Elizabeth and Bacon and Raleigh and Shakespeare, followed by Hampden and Cromwell and Milton, great double stars, that make us exclaim—

"Look how the canopy of heaven
Is thick inlaid with patins of fine gold."

Even in our day the group of writers coming early in the century have achieved more or less of celebrity—as witness, Willis, Longfellow, Holmes, Hoffman, Whipple; but the chances are growing less, year by year, for even high genius to win distinction, whether or not distinction be desirable. The passion for wealth, and the perpetual wear and tear of our elective system are unfavorable to the imaginative or æsthetic element. If either in politics or religion any stability existed, time for the creative thinker might be found; but as it now is, the writer has no time for elaboration, and hurries his progeny into public view, either from the stress of poverty or because he fears that somebody will “run away with his thunder,” so much do all think alike, and hence there is something crude and premature, not only in authorship, but everything else about us.

We do not take time enough to do what we attempt, well. Our scientists are an exception; but as a rule, we know too much in the same line, and either do not think at all, or all think alike, talk alike, and write alike, partly because we are too cowardly to face public opinion and public abuse.

We are in a chronic hurry and chronic tiredness. “What’s the use?” is growing to be the excuse for our shortcomings and imperfect achievements. Pre-

matureness prevails in courts of law and halls of legislation, no less than in the lucubrations of authorship and prophecies of the future. American babies have something premature about them, and do not suck the thumb like foreign babies. I have a suspicion that they have eschewed the creeping upon all-fours, and hitch along in unseemly wise fashion, while seated, like a young monkey.

Our young men, guilty of much youngness, are now going into politics, which promises to be a relief from party old-fogyism. Cromwell was ill content at the indifference of his son Richard to the interests of the Commonwealth of England, and wrote in this connection, “It went to my heart when Henry died.” What might have been the destiny of England had it been that he lived?

Henry died, and Richard, who did not inherit the century, but came somewhere in the middle of it, was passive, if not lazy. This must be the fact with myriads of us who are born midway in time, and hence the sound conservative commonsense of the majorities in civilized nations.

Perhaps the world is outgrowing the need of genius. Perhaps it is resting now, as it has rested often in the long ages, waiting for its revelators, its sibyls, its prophets.

ELIZABETH OAKES SMITH.

ON A PICTURE

IN THE METROPOLITAN MUSEUM, NEW YORK.

It is a childish face; but such a face
As breathes alone from canvas of old time,
Where loveliest poetry and life combine
With strength to form an ideal boyish grace,
And shadowed from the forehead’s flushing
height,
And shadowed from the mystic darkling eyes
Is all the loveliness of Italian skies,
And all the beauty of the Italian night.
But in those orbs and on that forehead’s space
More yet there lingers as of olden song,
Or memories glorious, such as sweep along
Undimmed by each succeeding age’s trace.

And the deep flush that rests upon the cheek,
More darkly sensuous than the tropic rose,
And all the mouth’s full-lipped and red repose,
The dawn of future proudest passion speak.

But is naught known of him who thus inspired
The artist’s pencil? save that feudal time
Marked him as one lord of a lordly line—
Say, were not those bright eyes by glory fired?
Did no triumphal prime, no full heyday
Complete the promise of this early glow?
All vainly would we moderns seek to know,
Few echoes come from out the past to say.

EILEEN COX.

STUDIES IN COMPARATIVE PHRENOLOGY.

CHAPTER XII.—(Continued.)

RACIAL CHARACTERISTICS—THE MONGOLIAN TYPE.

WE have said that the head of the negro belongs to the *dolichocephalic*, or narrow-headed class; and to be



Fig. 252.—CHINESE DIGNITARY.

specific, it should be noted that Quatrefages and other naturalists accept the following proportions of length and width as a standard by which crania are distributed into classes, having relationship to size: When the ratio of the longitudinal diameter to the transverse diameter is less than that of 100 to 78, the cranium is said to be *dolichocephalic*, or elongated; when the ratio varies from 100 to 78 or 80, the cranium is *mesocephalic*, or of medium size; and when the relation varies from 100 to 80 and above 80, the cranium is said to be *brachycephalic*, or wide.

In the Chinaman we meet with the type of the great Mongolian family, which next receives our attention. The general outline of the face is oblong oval; the forehead, cheek-bones, and upper maxillary, or jaw-bone, being broad, al-

though the frontal bone is narrow in proportion to the width of the face. The forehead is more developed in the upper or reflective region than in the negro, the supra-marginal convolutions of the anterior lobes being generally more extensive, especially adjacent to the outer cranial ridge which borders the temporal region. The facial angle as employed by Camper in its application to this type varies from 70° to 80° , while in the case of the negro it ranges from 65° to 70° . According to Dr. Morton the area of the brain-pan ranges in the Mongolian from 69 to 93 cubic inches. The face appears flat, owing to the vertical direction of the teeth, the small and flattened nose, and small depressed eyes; but the head is large and rounded, somewhat conical in profile, owing to the long, retreating forehead, but well-developed in the lateral regions from the temples to the occiput. In the supero-posterior lateral region the cranium is very broad, the centers of ossification being particularly prominent, and the head rounding downward from them to the ear; while the crown is rela-



Fig. 253.—CHINAMAN OF THE SOUTH.

tively flat, being usually higher at the superior margin of the frontal bone, or the summit of the forehead, than at the cen-

ter of the sagittal suture. In this respect, besides being of the brachycephalic class, it differs from the negro type, which,



Fig. 254.—MONGOLIAN SKULL, HIGH TYPE.

though narrow and conical in the coronal region, is more elevated, especially in the track of the sagittal suture.

Dr. Prichard, in describing the Chinese, quotes from Finlayren's "Embassy to Siam and Hue": "The head is peculiar; the antero-posterior diameter being uncommonly short; the general form is rather cylindrical; . . . the top of the head is often very flat. The eyes have an oblique direction, as if drawn up at the outer angle toward the temples, which is due chiefly to the droop of the upper lid at its outer margin downward and over the lachrymal gland, concealing it from view—a provision of nature common to the ruminants of high latitudes and very elevated country—because probably the lachrymal organism can not be exposed in a severely cold climate without positive injury to the eyes."

The bilious temperament is characteristic of the Mongolian. Among the Chinese many varieties of it are found; those whose life is active and frugal, indicate the muscular or motive phase predominating; while among the wealthy, the more educated, and ruling class, especially in the southern provinces of the empire, it is found in combination with the lymphatic temperament, so that in this case the face is less rugged and harsh, and exhibits a higher grade of mental culture. The common people of the cities south of Peking exhibit in the pale yellowish parchment-like hue of

their strongly-marked features a physical condition bordering on the morbid; the bilious temperament, by reason of their scanty diet and exposure, in its intensity showing an altered or deranged state of the organic functions of vegetative life, peculiar or idiosyncratic.

The character of the Chinese as summed up by the missionary, Dr. Morrison, has for the good traits as indicated among themselves, "mildness and urbanity; a wish to show that their conduct is reasonable, and generally a willingness to yield to what appears so; docility, industry, subordination of juniors; respect for the aged and for parents; acknowledging the claims of kindred." "These," he adds, "are virtues of public opinion which, of course, are in particular cases often more show than reality; for, on the other hand, the Chinese are specious, but insincere; jealous, envious, and distrustful to a high degree. Conscience has but few checks but the law of the land; and a little frigid ratiocination on the fitness of things, which is not generally found effectual to restrain when the selfish and vicious propensities of our nature may be indulged with present impunity. The Chinese are generally selfish, cold-blooded, and inhumane."

In this brief reviewal of an experienced observer, we notice a close correspond-

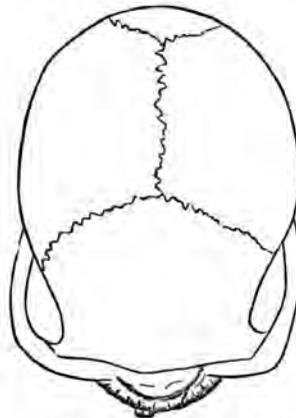


Fig. 255.—MONGOLIAN SKULL, TOP VIEW.

ence to the indications of cerebral organization and to temperamental effects upon character; the latter impressing the cold,

impassive demeanor which accompanies even deeds of atrocious violence and cruelty. In the contour of the head of



Fig. 256.—MONGOLIAN SKULL, POSTERIOR VIEW.

the Chinaman of the better class are seen indications of energy, industry, self-reliance, curiosity, yet reserve and reticence, pertinacity, with no great stock of social feeling. Hamilton Smith describes the race, or rather that portion of it that inhabits the upper regions of the Chinese empire, as "less under amatory influences, less prolific, less enduring of toil than the other typical forms of man; hence he is more disposed to severity when he has power; inflicting needless torture on a victim or captive, less from natural ferocity than from the want of individual self-reliance, which is thus prone to express fear by precaution. More readily reduced to order when subdued, he evades rather than resists oppression by force; he is more obstinate than brave, but savage to self-destruction when roused by despair; avoiding personal exertion, he rides in every region where the horse is accessible; more imitative than inventive, he exerts his ingenuity to apply mechanical aids to necessary labors. Sitting at work he is dexterous, but little tasteful, at handicraft professions, preferring patient elaboration to exertion; lazy yet gluttonous, omnivorous, with scarcely any distinction; filthy, amounting to a dread of water; in war trusting to his horse or to numbers, and finding sudden eruption, cruelty, plunder, and desolation more congenial than open battle and victory."*

* "Natural History of the Human Species."

This description applies to the tribes of Chinese Tartary and to other hyperborean branches of the Mongolian, with much more fidelity than to the people of China proper, who are known for their industry, patience, and orderly habits. (See Fig.) Still less does it apply to the Japanese, a somewhat higher type of the Mongolian, whose similar life has in many respects developed a more liberal species of intellectual activity, a more receptive spirit, if it has not changed much the religious character. On this point Col. Smith says: "With the mind more vacant than contemplative, the religious sentiment has never risen above an indistinct idea of a Supreme Being, a heaven, or a solar worship. A deified or ancestral and fraternal obedience stands in lieu of practical religion, and is the key-stone of absolute power in the State; hence coercion is the civilization of the masses, ceremonious punctiliousness that of their superiors; ignorant self-laudation the acquirement of the literati; and insolence the portion of all. . . . Though early in the



Fig. 257.—HYPERBOREAN MONGOLIAN SKULL.

possession of the mariner's compass, and particularly the Japanese, long compelled to familiarity with the sea, none of the

beardless tribes ever became true navigators or reasoning ship-builders."

The temperament of the Mongolian as indicated by his physiology, and especially by his complexion, exerts an influence upon his mental faculties which is well expressed by the term *passive*. In the case of the negro we may with consistency regard the temperament as sluggish, as in point of sensibility he is inferior to the Mongolian, while the latter is inferior to the European. The skin of the negro, like that of all the dark races, is furnished with a more liberal endowment of the third layer (the mucous membrane of Malpighi, or *rete-mucosum*, which interposes between the scarf and true skin, and furnishes the coloring matter) than the lighter races. This membrane is rather thicker in the negro than the epidermis, and vascular in organization. The comparative sensibility of the cuticle in the dark races depends upon the thickness of this inter-layer, and on account of its greater thickness in him, the sensibility of a negro is vastly less than that of a white man; and as in the skin of the yellow race, the *rete-mucosum* is thinner than in the skin of the negro, the Chinaman possesses much more nervous sensibility than the black, yet in comparison with the European, whose *cutis vera*, or true skin, with its minute network of nerves, is mainly protected by the epidermis, his sensibility is greatly inferior.

In correspondence with their lack of nervous susceptibility, the negroes of Africa and their related tribes of Oceanica are not subject to nervous diseases. They sleep soundly in every disease, and mental disturbances do not keep them awake. They can bear surgical operations with less inconvenience than white men; what would cause intolerable suffering to the latter, a negro will almost disregard.*

So the passive temperament of the Chinaman, Tartar, and Japanese enables them to bear pain with comparative ease, and this want of delicate sensibility is

* Dr. Moseby's "Treatise on Tropical Diseases."

commensurate with their cerebral susceptibility. The Mongolian may attain to a certain degree of civilization, but beyond that, unaided, he can not pass. Intellectually he is vastly superior to the negro, yet not originaive or speculative; his imitative faculty is active, while invention is exercised to a very moderate extent, producing no great results, nothing of that startling, transforming nature which has become almost characteristic of Western civilization. A considerable advance may be noticeable in his practice of the useful arts, but very little in the sciences; the science of numbers is scarcely more than rudimentary, and therefore



Fig. 258.—A TARTAR.

all the sciences depending on it are of the same nature; and then all the arts which relate to the conveniences of life are in much the same condition which has been theirs for ages. Morally, he has elements of superstition; his worship is formal and cold, yet arbitrary in its prescriptions; there is little or nothing of warm, religious devotion. He is inferior to the negro in his appreciation of a supernatural power ruling the universe, yet less susceptible to the effort of the missionary to draw him away from the idols of his superstition. He reveres the past, the sword of his rulers, his teachers, his ancestors, and the usages of centuries have a paramount influence in his convictions. He is not aggressive or courageous, yet

politic, sly, treacherous, and revengeful. Hence it is that intercourse in his country with other nations is forbidden or partially permitted.

The great expansion of the temporal region of the Chinese head, indicating as it does the large development of the cerebral parts within, has its complement in the racial character as we have seen, but it is further illustrated by the descriptions of the peculiar habits and customs of the Chinese published in the writings of travelers who have visited the country of our typical Mongolian.

One writer says: "A more selfish nation is not to be found on earth. The organs of Acquisitiveness, Secretiveness, and Cautiousness are greatly developed, and exercised in industrious traffic among themselves and more immediate neighbors to the exclusion of 'outside barbarians.' There are few points in their character which are worthy of admiration besides their peacefulness, industry, and thrift. The desire for gain renders them industrious and thrifty; the fear of its loss renders them peaceful and contented.

Cautiousness and Secretiveness (being very influential) render them timid, suspicious, and reserved; and ridiculously large Self-esteem causes them to regard themselves as 'the Celestials,' the only civilized and enlightened nation on the face of the earth, and the repository of all the arts and sciences for tens of thousands of years gone by."

In the Turk, a branch of the Mongolian, we observe similar features of organization and character, although the Turk has been much modified by his long neighborhood with Western peoples and white civilization; his more aggressive elements having led him to venture into distant regions, and by war and conquest add to his territorial possessions and wealth, and thus gratify the demands of his selfish nature. The cranium of the Turk has a somewhat more elevated contour than the Chinese head, is prominent in the crown, and approaching the conical in general form. The ruling class in China, the Mantchu, originally came from the same nomadic stock out of which sprang the modern Turk.

SELF-ESTEEM.

ONE peculiarity with Phrenology is the simplicity, appropriateness, and common sense of its terms.

It is remarkable that the founders of this science should have used such simple terms, and quite as remarkable, if not more so, that those who introduced the science to the English-speaking world should have reproduced these terms in plain Quaker-like English at first, and that they did not follow the practice of other branches of science and devise names from the Latin or Greek. Perhaps if they had, this noble science would have received more attention and respect from the world at large; but with the sensible it would not, merely on that account, have been received with any more favor.

The world, however, is graduating from the idea that it is more appropriate and

more intellectual to devise and use names from the dead languages than from our present living tongue. We will not quarrel with the past. We accept in other branches what the world has handed down to us, with the hope that even these terms may be simplified, and hail with pleasure every attempt in the direction of simplicity and common-sense. Certainly Phrenology set a good example in nomenclature as well as in science. To some "Self-esteem," Latinized or put into Greek, would appear more learned and beautiful; but to the sensible world such terms are merely arbitrary sounds, and do not convey near as much meaning as when in the mother tongue. In more ways than at first appears, Phrenology is the grandest and most sensible of sciences. It teaches of the grandest element in man—of the highest created

thing in nature—of the human brain, within the recesses of which lie the subtle forces that overcome and rule the world and link the material with the spiritual; and the only element or force that has power to develop aspirations for the advancement of man, and to build up a Jacob's ladder toward the Infinite.

All words have their peculiar shades of meaning; and the same word does not, under all circumstances, have the same significance. So such a science as Phrenology can certainly take as much liberty in words as is taken with them in every-day conversation. When words are adopted as names for certain objects, whether scientific or mechanical, they become, as it were, new words; they have a technical meaning, much like a color under a different or peculiar light; it is the same color, yet its effect is peculiar and unlike what it would be under ordinary conditions.

The phrenologist uses the word "Self-esteem" to designate a certain faculty of the mind. People outside of those familiar with Phrenology do not understand the peculiar shade of meaning that is intended by this term, and invariably they give it its literal and not its technical meaning. Tell one unfamiliar with the technical use of this term that he has "Self-esteem" well developed, and he will consider it an insult, while it may be a very high compliment.

The nomenclature of Phrenology is simple and complete, and it would seem that no one could reasonably find much fault with it. Even though I admit this, yet for reasons herein given I should like to make a slight change in designating this one faculty, "Self-esteem," and only in this one. I should like to substitute *control* for "esteem," so that it would stand "Self-control." Perhaps I may be mistaken in my understanding of this faculty, but as I view it, "Self-control" would have been more applicable, and would more forcibly represent the peculiar property of this faculty or power of the brain. I have no desire to remove "the ancient landmarks," at least with-

out good and sufficient reasons, nor to force any change that may not be for the better. I only offer this as a suggestion. As I view the faculty now known as "Self-esteem," it is not so much a property that makes us think well of ourselves as it is a property that gives us power to do what we desire, or the power to carry out the desires of the mind.

It may be said that other faculties, such as "Firmness," "Imitation," "Combativeness," etc., give us this power; but a person may have all the other faculties well developed, but if "Self-esteem" is small, he will lack the power to use his faculties to the best advantage. With small "Self-esteem," we are like children—we may have the ability, but we lack the power to use that ability to the fullest extent with success. Oftentimes in life we see a man with immense intellect, and even a well-balanced brain, but lacking in "Self-esteem." He is like a hundred-horse-power engine that, for some deficiency in its parts, can only be worked up to fifty or seventy-five horse-power at the most; while, on the other hand, we often see men with ordinary intellects who in practical life are superior to those whose intellectual faculties (so called) far surpass them. The world somehow weighs men correctly [through "Human Nature"], yet it wonders how it is. If brain-size is an indication of brain-power, how is it that B. is superior to A., when it would seem that A., according to *their* understanding of the rules of Phrenology, should be the abler man? Because they can not understand it, simply for the reason that they will not heed the teachings of the only science that will divulge this secret of nature to them: they, with little thought or care, condemn the very agent that can enlighten them.

Of course other faculties come in and aid the mind, or better, make up the mind; the mind acts as a whole, although its acts are colored by the faculty which, for the time being, is the most active or predominant. "Firmness" aids a man in the use of his other faculties,

and is closely allied and in close juxtaposition to "Self-esteem." While bearing this in mind, I do not care to depart from the faculty at present before me.

One of the most surprising things in this world is to see how well artists have, as it were by a high grade of instinct, put so much character in the mere outline of the heads of noted individuals of the past. How true they have been to nature! not only long before the age of Phrenology and independent of it; but how well they have conveyed to the eye the characteristics of men of prehistoric time!

None of them ever saw Esau or Jacob; yet when they desire to portray those two characters, how well they do it, *i.e.*, convey the characters of the two men as we learn of them from history. Two good artists, unknown to each other and in different parts of the world, and even in different ages of the world, would not essentially vary in their delineation of these characters. There would be a variation in detail, but in the essential features which govern the intellectual qualities of the two they would agree. We see this in Homer—in Ulysses. But the most striking characters, and which best illustrate our subject, are Moses and Aaron.

Moses and Aaron lived thousands of years ago, and it is not at all probable that portraits of them were then taken or thought of; yet see how nicely the conventional portraits of these two great founders of an immortal school agree with the description of their characters as handed down to us. Moses had intellect; he had executive ability; he had spirituality and force; he had the qualities to organize and direct; yet with all his great and wonderful powers he is weak. The theological world says *humble*. What is the trouble? Aaron is made his lieutenant, and supplies the needed quality. It is not Firmness, for we see that Moses is firm; it is not intellect, for in this Aaron is inferior to Moses; it is not Spirituality or force, for Moses is not lacking in these; it is not steadfastness

of purpose, for in this Moses is a most superior character. Moses lacks self-trust; lacks the power to use his great ability for the great purpose of developing a new system. Some may think it a want of Language; but had he had Self-esteem well developed there would have been no trouble on account of Language.

Moses had great ideas; he had power to grasp the right and to reject the wrong; wisdom to perceive that which was best for his people and to make the best use of the wisdom of the age. But the mind lacked faith in itself; it lacked control or mastership of its great faculties and powers.

The world is full of such men; and many a Moses has sighed for an Aaron, and many an Aaron has been lifted up above the plane of mediocrity by some unseen power directing him to unite himself with a Moses. Moses and Aaron united, to use a forcible yet common phrase, made a "strong combination." Independent of each other, they were weak.

After studying these men, their times, and their works, let us turn to the ideal portraits of them by the noted artists of the world. We find Moses represented with a noble forehead and good general outline, a good, well-developed and large back-head, but with a concave line in the region of Self-esteem; while in Aaron the forehead is not so well developed, quite straight on top and with a square turn at the occiput; Self-esteem large and full. The power that Aaron contributed was just what was needed; what he lacked in intellect he made up in the power to use to the best advantage, not only what he had, but what Moses was unable to use because of what the world calls "modesty."

In this connection I should like to go a little out of my way to make one other remark in regard to these men. Of late there has been a disposition to criticise their works. I think it well, and not only well, but just and right to judge these men, and all men, by the age in which they live, particularly so when we see

that the general aim of their lives was to do good; to advance the world to a higher sphere; to liberate a race or a people. A brute like Nero or Constantine does not deserve this liberal interpretation of his acts. Judge not a man who lived three or five thousand years ago by the light, and I might say darkness, of the present age, inasmuch as we must necessarily be in the dark as to many details of a past and remote age.

Again, in connection with the subject of art, although artists have succeeded so well, even centuries ago, in delineating character independent of the science of Phrenology, I do not think there is one that would not be a better artist by the study of this science; he would not be obliged, as was undoubtedly the case with these ancient artists in drawing Moses and Aaron, to resort to models. He would be independent of models, at least in this particular, and he would be always ready to make his outlines conform to the character he wished to portray. He would not longer need to search the wide world for a model to suit his imagination. The models he wanted would be ever present with him, and he would only need to consult his own imagination to call them forth when required by the demands of the hour.

Sometimes we see a man who appears to be very diffident. Perhaps he has an object in assuming a character favorable for his ambition. For some sinister purpose he may assume the *rôle* of the very modest man, but so soon as the objective point is gained, we see he has no lack of self-confidence. He has perfect self-control, and his assumed bashfulness suddenly disappears. When a person with a well-developed occiput, a right-angle turn at Self-esteem or long projection at this point, appears to be very bashful, the world may well doubt his sincerity. One who has been living in the country, away from the crowd of cities, may honestly appear bashful or embarrassed on being introduced to an assembly beyond what he is accustomed to, but he soon rallies and gains confidence, and with a little

association is as much at home in the greater crowd of a city, as he was in the smaller circle of his country home. Again: the man raised in the city amid noise and strife, even though self-esteem be smaller in him than in the man from the country, will, from the surroundings of his every-day life, become accustomed to the multitude and busy affairs of the city, and be much less affected by it than if he grew up in some quiet country place. Again: Self-esteem must be measured, as all other faculties, and even as all other things are, by its surroundings. The ignorant man in the presence of the cultivated man, feels his inferiority. But the diffidence or bashfulness that grows out of a man's consciousness of his inferiority or lowness of rank must not be confounded with his self-esteem. For example, take the slave or the peasant; they may have immense self-esteem, and in the presence of their equals or peers may assert it, while in the presence of superiors they may appear, and honestly so, to be diffident. But this diffidence is a matter of relative culture, and not a matter of relative balance of brain. Look well to the occiput and we will *not* be taken by surprise in this matter. We will not be deceived by artificial surroundings or by assumed manner, for Self-esteem, as well as the other faculties, will assert itself; only self-ignorance can deceive us in this matter.

Rope-walkers, acrobats, and marksmen, in addition to their other faculties, want large Self-esteem, or *self-control*. It is commonly called "nerve"—at least nerve is the only word non-phrenologists have to describe self-control in a man; they must have some word, and "nerve" sounds well, so they use it. Well, *it is nerve* inasmuch as the organ of Self-esteem is a part of the great nerve-force—the brain—which governs and directs the actions of men. All public men, actors, opera-singers, etc., need and have Self-esteem well-developed. Some are not as well-developed in this organ as others, yet, *other things being equal*, the larger Self-esteem, will guarantee the more

success. Self-esteem, or *control*, is especially necessary in all such professions, as it gives and inspires confidence in one's ability to carry out the conceptions of the mind.

Artists and engravers need this faculty well-developed, and it is quite as essential in the good penman; though a man with large Self-esteem may from indifference become very careless, but the fine, even, and elegant lines can not be made without large Self-esteem back of the other faculties. The artist requires it not only for his lines, but for his colors; it gives him power to "lay on" the color in such a masterly manner as shall produce the effect required; while it gives the engraver mastership over the hand, whereby he produces those marvelous effects of light and shade with mere lines.

The witty man must necessarily have large Self-esteem; no matter what the sense of wit and humor may be, it can not be ever ready without Self-esteem. A person with small Self-esteem, I think, was never good at repartee. His wit, if he has any, will always be too late; it will not be on the "spur of the moment," and thereby produce its best effect. The man who wants to excel as a "clown" or "end-man" must, in connection with his temperament and wit, have well-developed Self-esteem. The Chinese literati must have this faculty large, otherwise they could not do what is required of them. In the civil service of China it is said the literati play a very active part. At stated periods they compete for some office under the government. They are put into separate rooms, furnished with pen, ink, and paper, and given a theme on which to write. He who produces the best manuscript—best in composition, combination of thought, with neatness and rapidity—is pronounced the best man. Large Self-esteem is certain of its marks, and therefore produces the superior work. There is little or no hesitation or changeableness of mind which requires erasures, interlineations, etc. Large Self-esteem knows what it wants to do, and with unfaltering hand does it.

In public speaking, more than in writing, this faculty asserts itself. Of course other faculties are needed, but Self-esteem, more than any other, gives the power to act, or, as was expressed by a public man some time since, "to think on one's legs." Small Self-esteem can not do this. Over-balanced Self-esteem, however, instead of being advantageous is detrimental, as it causes one to make a fool of himself by attempting more than his faculties are capable of. With much assurance he mounts the public stage or attempts a *rôle* beyond his powers. People call him conceited, or a "crank." His confidence in himself is larger than his ability to do.

Oftentimes, though, men who are termed conceited seem not to lack in ability when brought to the test, for the simple reason that their large Self-esteem, or *control*, gives them the power to use their other faculties to the best advantage; and although they may be inferior on common occasions, men of superior talents are obliged to admit that "they did admirably," and that they "surpassed themselves." The circumstances of the hour simply forced them to concentrate their strength, and enabled them to show it up to the best advantage—only through a large and well-developed occiput were they able to do this.

In olden times the ready speaker was thought to be inspired; indeed, it is a common thing, even now, among the lower grades of society, to see a peculiar regard—almost veneration—for the ready, off-hand speaker; ignorant people think it akin to the "inspiration of the past." In olden times men were necessarily obliged to cultivate this ready faculty more than at present, but as society advances it requires a finish that can not be attained by this process. The Press has, to a considerable extent, introduced a new order of things. The Press is an ever-ready agent; it *comes* to the people, and people have not to go to the scene of action to see or hear for themselves. Notwithstanding the changes wrought by the Press, good speaking will continue

to be in demand—the Press will be its auxiliary and not its opponent.

Men at times appear to speak extemporaneously, but behind this there is a studied preparation that the world knows nothing about. Under these circumstances a man shows to better advantage on a subject with which he is familiar than on one strange and new to him, and when he has to do his original thinking "on his legs." When the subject is very familiar to him—when he has been over the ground many times—he may not require any notes, and may even do better without them. Members of Congress, or lawyers in the halls of Congress or before the bar, as extemporaneous speakers may be very effective; but invite the same men to deliver an address before some institute, some college or university, and it is seldom that they will venture to do the same in an extemporaneous manner; they may make a few remarks, but for a regular, set address, they prefer to have the manuscript before them or on such occasions they are addressing scholars who will not only weigh every thought, but every expression, and measure it by their own high standard. What the vulgar think inspiration, the scholar thinks crude and unfinished. But in whatever capacity man has to act publicly, he needs Self-esteem in order to do his work well—to do it in a manner that will command attention and respect.

Probably in no department of cultivated life is Self-esteem so much thought of and demanded by those in authority as in the army or navy of a country. Let two young men go to the military or naval academy, one with Self-esteem *large*, and the other with not more than an *average* development; the one with large Self-esteem, which prompts him to carry his head well up and to manifest dignity in his carriage, will be regarded with the most favor, even though his talents be quite inferior to the other. Here lies one strong reason why Phrenology should be accepted in these schools, and why the old system should be done away. Mere Self-esteem does not make

the man in any particular. The bully, the coward, and the thief, generally have this faculty well-developed; yet at first glance the assurance that this faculty imparts to the world at large, is that of courage, ability, and even honesty. Unless other faculties support one's courage—support their self-esteem—Self-esteem itself soon becomes a pernicious element, and is as bold in being the coward as it was in playing the part of the brave. To our sorrow, we had many instances of this during the war. Men were chosen to command simply because of their imposing carriage *in times of peace*. The man with merely large Self-esteem, but small Firmness, Combativeness, etc., may appear brave and confident when there is no need of their exercise, but when tried the coward develops in him rapidly; while the man with only average Self-esteem, but with large Firmness, Combativeness, etc., grows at every moment.

During the war an officer came to Washington. He had a most noble carriage, was the envy of weak men, the admiration of the lower grades, and of society at large. His "noble presence," more than anything else, obtained him a prominent command. He proved a very ordinary man, even imbecile, but to the last he carried his "noble presence"; *i. e.*, he stood very erect. He spoke, what ordinary talk he had to say, with much dignity. His "small talk" seemed wisdom to the simple, but his peers in rank—the old soldiers—soon weighed him, and always spoke of him with a certain easy contempt; mere "noble presence" did not go far with them; they wanted something more solid. The world at large does not seem to know the reason why such men "take," when better men do not. "Oh," they say with Barnum, "the world likes to be humbugged." Take off the man's hat, stand him in profile, and the secret is soon read by the phrenologist—"occiput well-developed."

Some years ago a party of about half a dozen young folks were, after dark, going "cross lots" and over a certain railroad. A young military student among them

seemed to be their leader. There was a double track, and trains were approaching from both ways. Strange to say, they had rushed headlong on the tracks, without first using their common-sense, to learn the condition of things. The trains were coming; they were in a "cut" surrounded by rocks. What should they do?

The party naturally turned to the young would-be military man for counsel. His idea was for all to stand straight as an arrow, between the tracks! and let the trains pass. What a ridiculous idea! and he did his utmost to get the young ladies and others with him to do this. But their common-sense prompted them to seek the side of the track and the recessed portions of the rock. The young gentleman, however, carried out his plan alone. When the trains had passed, the rest of the party came out safely from their retreat, and expected to find their comrade as safe as themselves, but he responded not to their calls, nor could they, for some time, find his scattered remains. Now, if this young man had lived to have fulfilled his ambition as an officer, and had a company of soldiers under him, and in a similar position, according to the military laws of the world they would have had to obey him. The service and the country might have suffered the loss of many valuable lives.

For our army and navy we want good, able, practical, and dignified men; we do not want men chosen on the basis of one faculty, or even a few faculties, but on their general practical make-up. Self-esteem is a good and necessary quality in an officer, but alone it does not give the qualities to command.

There is an old saying, "Learn to command by first learning to obey." This is the merest nonsense, for the very men who will be the most servile to superiors, and most ready to obey, are the last to be intrusted with an important command. Unless a man has the natural gifts to command, he will not make much of a commander. He may learn, like a parrot, how to repeat commands that he has learned from the books, but he can

never be a true leader and director of men. With large Self-esteem he may be a good "figure-head," and in times of peace give with dignity the stereotyped commands of his rank, but in the day of contest he will be found wanting, unless Firmness, Combativeness, and other essential faculties come in to support him in the hour of need. In no place is Phrenology more essential than in determining the characters of young men about to enter our land or sea service, and I hope the day will come when this truth will be recognized, and when mere self-esteem will not be the highest recommendation.

It is well enough for a young man to stand erect and look "manly," but a ram-rod down a boy's back does not make a man or a hero of him, and learning to fill a low position does not qualify him to command in a higher one. Many a man who would make an admirable non-commissioned officer, would not be worth anything as a captain, major, colonel, or general; and a man who might make a first-class captain-general, might not be worth anything as a colonel, captain, or even as a sergeant. Many a man who would make a good colonel would not be a success as a general, and the reverse. The idea of learning to command by learning to obey—learning to fill a high position by learning to fill a low one, is ridiculous. Some men in the ranks, with suitable surroundings and culture, might make first-class generals, but if they did, it would be because of their inherited talents, and the power of self-esteem to use those talents to the best advantage, and not because they had served through all the grades, from the highest to the lowest.

In due parts and proportions this is a strong organ; it is a General of the forces; it acts at the proper time, and in the most effective manner; it is the ever-ready faculty, the faculty that maintains self-control, that dictates calmness to the General in the heat of battle, and shows when and how to act in the most effective manner. It is the faculty demanded by the captain of a vessel, when shipwreck is

imminent, and bids him keep cool and give the best order for the moment. It is equally as essential in the commanding fireman, when a fierce fire is raging, and much life and property are at stake.

It is demanded in the nice surgical operation, when a slight cut in the wrong direction will destroy the life of the patient. It is the faculty or power that imparts coolness to others, and under the most trying circumstances is not bewildered. In every department of life Self-esteem comes in with its important part. In the severe trials of the polar

sea, in the exploring expedition when life often hangs by a thread; in the presence of danger, in the roar of battles, in the quiet of the sick-room, in the emergencies of every-day life; on the stage, in the railroad accident, or catastrophe at sea, it is the faculty that whispers in the ear, "Keep cool," "Don't lose your head, as all depends on how you act."

Self-esteem is the quality that gives self-control, and when sustained by the higher faculties of the brain, it becomes a most noble element in our nature.

ISAAC P. NOYES.

HOUSEHOLD PESTS.

"MY goodness, Calantha, just look at these disgusting black bugs in the meal-tub! You must have left the cover off."

Calantha was sure that she had not left the cover off, and was equally positive that the meal-tub had not been opened for three weeks.

"Well, I don't understand it," said Mrs. Householder, as she tipped the bucket down upon its side to let the "bugs" run out.

The insects complained of were rather elongate beetles, between half an inch and three-quarters in length, dull brownish black in color, and very active; and their presence in the meal-tub was not such a wonderful thing after all. In



Fig. 1.—MEAL-WORM. PUPA, LARVA, AND BEETLE.*

short, they were the perfect insects of the meal-worm (*Tenebrio molitor*), which

* The straight line shows length of chrysalis in nature.

infests flour-mills, bake-houses, granaries, etc., sometimes doing considerable damage, by their injuries, to farinaceous substances.

The worms are about an inch long, yellowish brown in color, quite smooth, cylindrical in form, with the body divided into thirteen rings or joints, counting the head as one. The larvæ shed their skins several times, and change to pupæ without previously making a cocoon, and the perfect insects come forth in about six weeks. This beetle is sometimes very destructive to ship-biscuit packed in casks—both larvæ and beetles eating them through and through. They sometimes make themselves troublesome to the housewife when the meal or flour is old and stale; they are rarely found in that which is fresh or sweet, though they may get into it if allowed about the premises. The larvæ form quite a dainty food for mocking-birds, and may be bred for this purpose in close tin or metallic vessels containing stale bread, meal, or flour.

There is another insect which may be mentioned as affecting farinaceous substances, a minute reddish brown beetle hardly an eighth of an inch in length, known to science as *Sitodrepa* (*Anobium panicea*.) It is destructive in museums and store-houses, and is found in stale bread, crackers, oatmeal, stored grain, and even such substances as ginger, cay-

enne pepper, and tobacco; in fact, it can "make a living" upon almost anything it chances to get into.

Animal food is injured by insect life

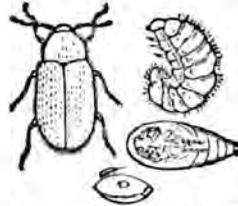


Fig. 2.—ANOBIMUM PANICEA (ENLARGED).

fully as much or more than the farinaeous. Of course, the most serious tormentors are the flies, which come in many different forms, from the teasing house-fly to the disgusting creature that "blows" meats of all kinds, not put beyond their reach, and particularly that which has just begun to be tainted. Although flies are such a nuisance, they do a vast amount of good, and render our cities much more habitable than they otherwise would be, in their capacity of scavengers. The flies in their perfect state may do little or no good in this direction; the eggs producing their larvæ or maggots, however, are invariably deposited in filth or decaying animal matter, as this is one of the ways in which nature reduces useless matter again to its original elements. All food and meats should be kept covered, even upon the table, if possible, as you may not always be sure that the flies wiped their feet when they came in, and you can not say where their last visits were paid. Rest assured, reader, if you have more flies than your neighbor, there is a good and sufficient reason for it, and you may be able to a certain extent to supply the remedy.

Fresh meats are not alone injured, for a few days after the discovery of the meal-worm, Mrs. Householder was astonished to find some very singular objects looking like the dried skins of a short bristly worm, upon one of the unused pantry shelves. Calantha was summoned again, but had never seen such an exhibition before, and could not account for

it. The *débris* was cleared away, however, but in a few days more was found in exactly the same place again.

"I never did see the beat of it, Calantha; they must come from something alive, and I'm going to find out what it is." The remains of a ham, hanging upon a nail high above the shelf, gave the solution of the mystery.

The Larder-beetle (*Dermestes lardarius*) had found the old hock a convenient receptacle for its eggs, and these, deposited in crevices in the meat, had hatched into short brownish worms, or larvæ, with bristly hairs, as seen in our figure. These, after changing their skins several times, finally burrow into the meat and there go through the succeeding metamorphoses, finally coming forth as mature beetles. They are about a quarter of an inch in length, dull black, with a buff band across the base of the wing covers (see magnified figure). This pest is more frequently found in smoked meats that have become tainted or injured, than in that which is perfectly fresh. All smoked meats are liable to attack, and should therefore be covered with canvas, or protected in some other manner. There are several small species of Dermestidæ, which are sometimes found in houses; a description of them, however, will hardly be necessary in this article.

Beetles are not alone the mischief-mak-

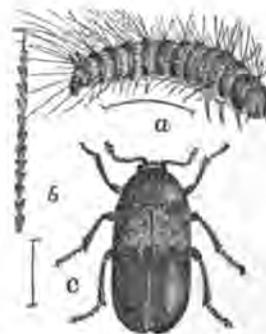


Fig. 3.—LARDER BEETLE (ENLARGED).

ers in the pantry. The Grease-moth (*Aglossa pinguinialis*) feeds upon butter, lard, and fatty matters, constructing tubes in the larvæ, conceal themselves, cover-

ing them mainly with granules of their own excrement. The larvæ are naked caterpillars, blackish brown in color, and glossy. The moth is known by its narrow glossy wings, of a smoky gray color, crossed by wavy, lighter-colored bands.



Fig. 4.—MEAL MOTH.

The next figure illustrates a very pretty little moth sometimes seen resting upon the walls and ceilings of our kitchens. In color it is brownish, chocolate, and white, and it has the habit of turning its tail up over its back when at rest. The insect is known as the meal-moth (*pyralis farinalis*), and its caterpillars may be found around old flour-barrels, and in similar places. They should be destroyed whenever seen, to prevent their depositing their eggs.

Of course Mrs. Householder was greatly troubled with cockroaches of two or three species. First, there were small armies of the black cockroach (*Blatta orientalis*), which makes itself such a pest in the pantry and kitchen. Then the "croton bugs" (*Ectobia germanica*) lived all over the house, in cupboards and closets; in the book-case, and even in the table-drawers. They fairly swarmed in an old safe-drawer—devoted principally to strings and empty paper bags from the grocer's, not *always* thoroughly emptied. They got into the food, gnawed paper, ate the glazing from the cloth-covered books in the library, and made themselves at home everywhere, as there is *nothing* that they will not attack if it comes in their way and *can* be eaten. The black species, as the name implies, is of Eastern origin, and is supposed to have come from Asia, first spreading over Europe, and thence to our own country. Commerce has now disseminated the species throughout the world. The insects are miniature roaches the moment they burst from the egg, and are found in all sizes, from that of an apple-seed, or less, to respectable old patriarchs an inch and a quarter in length. The wings are not

acquired until the last moult of the skin, those of the male being a little shorter than the body, while with the female they are very rudimentary. The eggs are deposited in a mass, in a pod-shaped case, arranged in two rows upon either side. The American species (*Periplaneta americana*) is much larger than the preceding, and may be known by its longer wings, reaching beyond the body. It is very generally distributed. The "croton-bug," or German roach, is not more than half the size of either of the preceding species, and is much lighter colored. They are more frequently found in offices or in houses heated by steam.

Cleanliness and powdered borax (the mineral sprinkled about their haunts) would have rid Mrs. H. of these pests, but Calantha was not over-careful to remove barrels and boxes when sweeping in the pantry; food was left around carelessly, and things were often "tucked away" to save time, so the roaches "increased and multiplied" without let or hindrance. Of course we will not hold that these insects can always be *entirely* eradicated—particularly the "croton-bugs"—for most careful housewives are often troubled with invasions that come, no one knows how, or from whence, but the writer does hold that it is possible to keep free from them a greater part of the time. Persian insect powder or pyrethrum is also a safe and useful remedy.

Has the reader ever seen a clothes-moth, to know the little creature? or are the many-colored millers that fly to our lighted rooms in the early summer evenings taken for them, and slaughtered indiscriminately? "There is a moth-miller—kill it!" is the usual expression, as some poor night-flyer, with wings expanded an *inch* or more, flits across the room. Now be it understood that all millers, candle-flies, etc., are moths; but all moths are not moths, as the name *moth* has been given to an entire group of nocturnal insects comprising many hun-

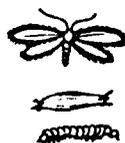


Fig. 5.—CLOTHES MOTH.

dred species, to distinguish them from another group, the day-flyers, called familiarly *butterflies*. The moth that injures our clothing is a minute four-winged insect, hardly expanding a quarter to half an inch, of a light cinnamon color, with the luster of satin, and with a thick orange tuft upon the head. The wings are long and narrow, and are most beautifully and delicately bordered with a silken fringe, which at their base is quite long. They begin to appear about May, and their eggs are deposited in the folds of curtains, under the edges of carpets, in garments hanging in closets or placed in chests or drawers; and, in fact,

posing all garments that have been packed away in closets, wardrobes, or chests, to the air and the heat of the sun, in May or June, when the moths first appear, thoroughly shaking, brushing, or beating them before they are finally put away again. A few lumps of camphor will keep them out most effectually. It is also claimed that snuff or black pepper strewed under the edges of carpets will repel the moths from such situations. Furs should be well beaten, and placed in linen bags with camphor, and there will be little danger of injury.

"The new Carpet-bug" (*Anthrenus scrophulariæ*) is an insect that has been

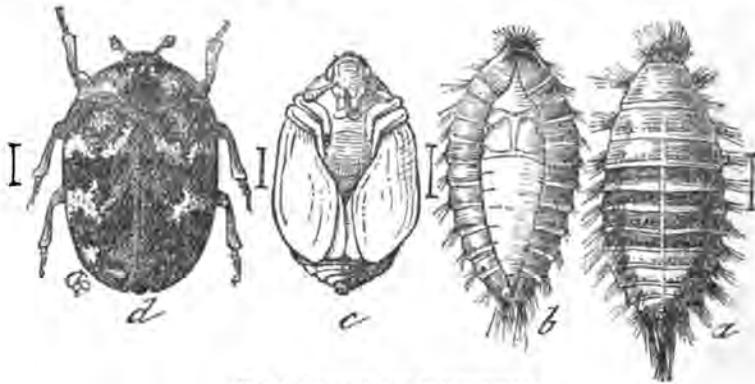


Fig. 6.—CARPET BUG (MAGNIFIED).

anywhere where their larvæ may find suitable food. These larvæ—which do all the damage—construct slender cases of woolly fibers or soft hairs, cut into bits, joining them together by silken threads, and lining the interior of this cylindrical tube with the finest silk. The caterpillar carries his house around with him, enlarging it from time to time, as he needs more space. The full-grown larva measures about one-fifth of an inch in length, is whitish, with a dark-colored head, and changes to a chrysalis or pupa, at first whitish, then chestnut brown. From this, in a few days, emerges the perfect insect, to lay more eggs for new generations.

Where care is taken to prevent their ravages, it is not a hard matter to keep free from them. Harris recommends ex-

imported from Europe, and which in the last three or four years has been quite destructive. The larvæ work beneath the borders of carpets where they are nailed to the floor, eating in those portions numerous holes an inch or more in diameter. "They sometimes live in the crevices of the floor, and following along the joint between two boards, cut entirely across several breadths of carpeting as with scissors." The larvæ are clothed with hairs, as in the drawing, and when full-grown measure three-sixteenths of an inch in length. In color they are brownish, banded in two shades. The mature insect—only an eighth of an inch in length—appears in October, and may be known by its beautiful markings of white, black, and scarlet. Prof. J. A. Lintner, in his admirable report of this

insect,* says: "It will unquestionably prove an exceedingly difficult insect to dislodge. The ordinary applications of camphor, pepper, tobacco, turpentine, carbolic acid, etc., are powerless against it. It has even been asserted that 'it grows' fat upon these substances. . . . The free use of benzine has been recommended, to be used in the saturation of cotton, with which to fill the joinings of the floors, and crevices beneath the baseboards. This is to be done in the winter months." Kerosene oil is also recommended as less dangerous and equally efficient.

* Thirteenth Annual Report of the New York State Museum of Natural History for the year 1876.

There is another household pest, the scientific name of which is *Cimex lectularius*. It is hardly necessary to give its common name, and no housekeeper should tolerate them *a day* after discovering their presence. Washing the bed with soap and hot water to destroy the nits, or young ones, and applying to all crevices, cracks, and nail-holes a saturated solution of corrosive sublimate in alcohol (applied by means of a feather), is the best known and most efficient remedy. As the alcohol will turn varnish white, a little care should be exercised in using the preparation. A second application may sometimes be necessary.

CHARLES RICHARDS DODGE.

THE ROBINS.

WHEN morning lifts his languid eyes
Above the silent hills;
And vapors hang like misty shrouds
O'er softly-flowing rills,
While through my window, dewy-fresh,
The lllac-odors float,
A robin comes beneath my sill
And pours his lusty note.

His homestead is a mighty elm,
Amlid whose rafters rude
Himself and partner yearly lodge
To rear their dusky brood.
And doubtless many a roving elf,
Beneath a foreign sky,
Oft sing* of the green cathedral
Where first he learned to fly.

Unlike the flaming oriole
His dress is passing plain,
A badge of crimson in the breast
Being all that he can claim.

Secure amid the trembling leaves
His wife and children rest,
Whilst he, with gallant eagerness,
Serves breakfast in the nest.

"Cheer up!" I hear him warble,
"Night's gloomy reign is o'er,
And Phoebus' smile is breaking
Upon the world once more.
There's health for all who labor,
And to labor's to be blest,
For the sunlight bringeth gladness,
And the moonlight bringeth rest."

I love my brown philosopher,
So earnest, yet so gay,
And gladly lie awake to hear
His unpretentious lay.
I've tolled thro' many a weary tome,
And many a sermon grim,
Yet have not found such store of hope
As I have gained from him.

AUGUSTUS WATERS.

THE TRAINING OF CHILDREN.

FROM A PHRENOLOGICAL POINT OF VIEW.

THE training or government of children has been a vexed, unsettled question almost from time immemorial. From one of the earliest records we have in the Bible, when King Solomon so tersely said, "Spare the rod and spoil the child," down to the books on management of the children of the nineteenth

century, only one or two of the great minds that have existed have given any good, permanent ideas that have been handed down as useful and beneficial. Among these we may mention Locke's volume, entitled "Thoughts on Education," and Jean Jacques Rousseau's four volumes, translated from the French.

Locke's main idea is that "education is not so much learning facts as forming habits."

We live in a progressive age and can not use altogether the books of the past on this subject; it is doubtful even if we should use anything but our own common sense. Those who feel that they have a failing in regard to government, might well read a few of the books of the nineteenth century on this subject, such as Jacob Abbott's volumes, entitled "Gentle Measures in Training of the Young"; "H. H.'s" four articles on "Training of Children"; Herbert Spencer's work, and Miss Sewell's work, entitled "Principles of Education." The works of the above-named authors on training and education of children have done more good by the little practical suggestions there are in them than all the theories advanced in centuries past. In such a case as this and at such times, we naturally look for something even better than thoughts expressed by writers of the past, no matter how good. If parents and guardians were more apt to govern their charges by the common-sense practical rules found in Phrenology, there would be less trouble; less talk of the bad manners of the present generation.

When a parent studies the defects and virtues of each child separately, remembering that hardly any two children are so much alike that they can be governed in the same manner, he may then arrive at some settled method which in the end will prove beneficial. Alas! parents are too often apt to think their precious charges unworthy so much attention and treat the younger and elder alike. A careful examination of each child's idiosyncrasies from the cradle up to manhood must result in parents finding, if they are faithful and conscientious, that each one needs firm management throughout. Not using power in a tyrannical way, for that invariably gives a child a dim sense of your love of dictation, and he naturally rebels; but kindness should be used with it to effectually carry out your designs. When a child has learned that the first

thing is to obey, then half his character is formed. It is easy for any child to get on in life if he once realizes that his good lies in obeying his superiors, not that his superiors have a right to dictate anything that is not for his good; but if he realizes that his parents' aim is to save him future trouble, annoyance, and disgrace, and not love of power, he will be much more apt to fall in with their wishes. A child that has a sensitive or stubborn nature should never be whipped; half the evils in government of children have arisen from resorting to corporal punishment. A stubborn child is invariably made worse, and a sensitive child will brood over it for days, and neither, naturally, will take the punishment in its intended light; their dispositions can not be improved by such means of government.

The prevalence of corporal punishment in the days of our grandparents led to many serious results, many homes being quite broken up through its influence. This enlightened age, to be sure, has done away with it, in a great measure; still there can never be too much said against it.

"Men are but children of a larger growth," and if they treated their children kindly, firmly, and courteously, as they are supposed to treat their equals, they would realize and perceive a difference immediately.

Parents expect too much, and do not begin early enough in the government of their little ones, then mourn their waywardness later, and wonder why they are afflicted with such rude, ill-mannered children. They forget that there should be no cessation in their work; that it is not the work of a day or year, or a thing that can be accomplished by the job. A quiet, unseen, unceasing influence for good, can do much more toward moulding a child's character in a perfect manner and eradicate the evil than a great deal of severe punishment at odd times. We have never seen a child which could not, sooner or later, be conquered by kindness, and there is no necessity at any time for being harsh, but the parent must use time and patience.

Many we meet think their work a complete failure if they do not see results at once; and yet many of the children longest despaired of, become the best men and women in after years, and acknowledge that their success in life was entirely owing to unceasing care and patience combined with judicious government, which so impressed itself upon them that it followed them through life. If we expect aught but good of our children, even

the worst, we can never succeed. Often their deficiencies are inherited from us, and we, knowing by experience where we have been benefited by certain treatment in such cases, can act accordingly. As Dr. Lyman Abbott tersely says, "Success is not fees, nor office, nor salary, nor land, nor machinery—it is results obtained; harvests reaped, garnered, distributed; humanity bettered; the nation improved; the world enriched."

CECIL HAMPDEN HOWARD.

THE STRANGER AT A SPANISH INN.

ALL the region for miles and miles around Arcos is thickly planted with olives, which give a pleasing aspect to this hilly country. It was late twilight when we came clattering into the ancient town, and were set down at the house where the diligence stopped, which seemed to be presided over by three old women. We were surrounded at once by a curious and helpful population, all eager to seize our pieces of luggage and bear them to parts unknown. The driver, who was our friend, appeared to be having a conference with the old women as to whether they should have the plucking of us, or would send us to the regular posada, to which we wished to go. In the growing darkness it was impossible to see where we were, or where the posada was, and it required all our vigilance to keep track of our luggage. After a great deal of confusion, we found ourselves transferred, bag and baggage, to the posada, which was almost exactly opposite, in debt to half the loafers of Arcos for their valuable assistance. The posada, the best in the place, showed no sign of light or life. We entered the stables, and made our way up a stone staircase to the hotel apartments. No obsequious landlord or landlady welcomed us, but we at last discovered a tall, sour-faced maid-of-all-work, haughty and dirty, who condescended to show us a couple of clean but utterly bare little rooms, and undertook to get us something to eat. We felt humbly

obliged. The stranger in Spain, at most inns and elsewhere, is treated as if the most acceptable thing he could do would be to take himself speedily out of the country. Our apartments were furnished with Spartan simplicity; the guest is allowed a wash-bowl, but no pitcher, and the water given him in the bowl is supposed to be quite enough for his needs; but the bed, though the mattress is made of uncomfortable lumps of wool, is scrupulously clean. Our repast was all that we could expect. The person who is fond of tasteless beans will find Spain a paradise. In this land of olives, those served on the table are bitter and disagreeable, and the oil, in which everything is cooked, is uniformly rancid. But it should be confessed that the oil is better than the butter, when the latter luxury is attainable. Something seems to be the matter with the cows. I do not wonder that the Spaniards are at table a temperate and abstemious race. It is no merit to be abstemious, with such food and cooking. The wine at Arcos, however, was a sort of manzanilla, that made us regard any food with favor. It was a medicinal draught, with a very strong flavor of camomile; a very useful sort, I believe, in the manipulation of the market sherry, and exceedingly wholesome. So long as a man can drink this wine he will not die. I should recommend the total abstinence society to introduce it into our country.—*Atlantic Monthly*.

THE CHIN AS AN INDEX OF CHARACTER.

IF the experience of mankind is competent to interpret facial indications, some of the "propensities" and "perceptives" which Spurzheim lodges in the back rooms of his pan-sensorium must have a *penchant* for changing their quarters. "Firmness," for instance, which he locates in the posterior part of the upper head, undoubtedly manifests itself in the prominence of the *chin*. "Draw a face in profile," says Winckelmann, "and observe how timidity or its opposite can be expressed by the shape of the lower jaw. Let the chin be receding, and your profile can be made to express pusillanimity and feebleness of character, even to the degree of imbecility. Then, without changing any upper line of the profile, combine it with a prominent chin, and it will exhibit firmness. Exaggerate the prominence, and you can intensify that expression to one of obstinacy and ferocity. That such contrasts are less striking in living faces is owing to the circumstance that we take in the expression of all features at a single glance, without analyzing the complex effect."

Have we not here a positive criterion, a rule without an exception? Does it not occur to us, on after-thought, that *all* warlike, aggressive nations have such projecting chins, while the weak or degenerate ones are more or less chinless? In their classification of the North American aborigines the Spaniards distinguish between *Indios mansos* and *Indios bravos* (tame and savage Indians). The former comprise the different agricultural tribes of Central and South America, ignorant but harmless creatures, who subsist on a vegetable diet; the latter the carnivorous savages of the North, who divided their time between hunting and warfare. In their physical characteristics these various tribes of the American autochthones could hardly be distinguished, if it were not for a slight variation in the color of their skins and a very marked difference in the shape of their *chins*. Our redskins *have* chins, though they can

not emulate those of the Indo-Germanic race; the Indians of Mexico and South America have none. In the profile of a vegetarian Indian from the neighborhood of Vera Cruz, the lower jaw recedes in a sharp line from the mouth to the throat, so that his nose, though not excessive in size, becomes ridiculously prominent. Obstinacy with a projecting chin and shrinking timidity with a receding one are here strongly contrasted, and the study of individual faces proves Winckelmann's rule to be almost, if not altogether, infallible. Can Professor Fowler point out a corresponding difference in the shape of the posterior skull? * "Amativeness," too, may or may not affect the bones above the nape, but Theophrastus, Galen, Della Porta, Lavater, Dr. Redfield, and all portrait-painters, agree that it is disclosed by the *eyelids*, especially the lower ones. —*Popular Science Monthly*.

* Yes, a relation is generally found to exist between the chin and the occipital region, especially the lower part. A well-developed temporal lobe usually accompanies a large chin.

ROBERT FULTON AND THE CONSERVATIVES OF PUBLIC ORDER.—Seventy-five years ago Robert Fulton requested of Congress the use of the Hall of the House of Representatives, to deliver an address on the use of steam for propelling boats, but was refused; the "assembled wisdom" of the nation deeming the idea too absurd for the consideration of reasonable men.

NO MAN can safely go abroad that does not love to stay at home; no man can safely speak that does not willingly hold his tongue; no man can safely govern that would not cheerfully become subject; no man can safely command that has not truly learned to obey; and no man can safely rejoice but he that has the testimony of a good conscience.

HOW A TENOR WAS SAVED.

A MOONLIGHT night in the wilds of Canada; a tent, and a camp-fire, and five men sitting before it in various attitudes of slouchy picturesqueness. They had turned their backs upon civilization with the one paramount intention of doing as they pleased. This included many minor amusements, such as enjoyment of old clothes, fishing, hunting, cooking, eating, etc., etc. A novelist, a reporter, a lawyer, a private citizen, and the public's favorite tenor, Signor Del Sante, made up the party. That day one of the guides had returned from town with supplies and the mail. Dick Halbreth, the lawyer, had not seemed altogether satisfied with his communication, making the fact known by various shrugs, groans, and whistles, which had "given the thing away," as Ike Hastings, the reporter, remarked, "Say, what's the use of sulking?" the private citizen inquired of Dick, who smoked his pipe in gloomy silence.

"I guess you'd sulk if you had received such a letter as I have to-day," Dick replied. "My wife says she is so lonesome and so wretched that she don't see how she can possibly endure it another week. I don't see what's the use of making a fellow uncomfortable. Confound old Pratt, I say! Why couldn't he have brought supplies enough in the first place? If he had, this letter might have been quietly reposing in the post-office, instead of bothering me to death."

"Is your wife sick?" the novelist inquired.

"She don't say anything about being sick. She was well enough when I came away, barring her red eyes. Heaven help a fellow, I say, who is married to a woman who weeps on every occasion."

"Tears are a sign of sensibility!" said Signor Del Sante, who had been humming softly to himself, while this conversation was going on. "It should give you pride and pleasure, that your wife is miserable without you. Comrades, would you be pleased to listen to a little story of my own? It may not be worth much to any

one beside myself," as the party expressed its desire to hear it; "but it may, perhaps, be of a little service. When I was very young, I married a lady of Genoa. She was very young also, and very child-like and simple, but singularly exacting. At least that is what it seemed to me. If I did not come at the exact moment, then she wept for fear that some accident had befallen me. When business took me from home, if my wife could not be my companion, then was she inconsolable. It would take me an hour to make my adieux, and then I would be compelled to tear her from my arms, and run, lest she should overtake me, and it would all have to be done over again."

"That's my wife to a dot!" the lawyer interrupted, bringing his hand down on his leg with a resounding slap.

"Well," Del Sante proceeded, "after a while I became weary of so constant a display of affection, and at last the day arrived when I communicated to my wife my dislike of it.

"I can not and will not submit longer to your tyranny,' I told her. 'It has at last become insupportable. On account of your tears I have no pleasure in the thought of coming home; and when I am at home I can not enjoy myself, because I am always thinking of the trouble I shall undergo at parting.'"

"That was a square deal!" Halbreth interrupted again; "a man has a right to expect his wife to be a woman, and not a baby."

"Well, how did it work?" the novelist inquired, as Del Sante did not immediately go on with his narrative.

"It had a strange effect," he replied. "My wife did not contradict a single statement that I made, nor did she attempt to defend herself. When I left the house she received my parting kiss with all the coldness and impassiveness of a marble statue.

"Oh! Rosa!' I cried. 'This is not what I intended. I have only the wish to make you sensible like other ladies.'

"'I can only be myself,' she said."

"'But you are not yourself now,' I told her.

"'This is my other self,' she replied.

"That day I was more miserable than ever. We were living in Rome at this time, and I was studying very hard. My voice had begun to attract attention, and I had obtained a small engagement to sing in a very bad opera company; but that was nothing, as all I wished was a chance to show what I could do. My wife had a wonderful contralto, and we were accustomed to sing much together. She had been thoroughly instructed, and was also a fine critic. Indeed, she was as much my superior in intellect, as she was in heart."

"Oh! that's the way the wind blows, is it?" Dick put in again.

"Say, Dick," the novelist entreated, "it's very bad manners to interrupt the speaker."

"We left our parliamentary manners behind us," said Dick, "but I'm mum. Drive ahead, Signor."

"After this," Del Sante resumed, "there were no more tears, no more demonstrations of affection. My wife sang with me when I wished, or sang for me if I desired. Our friends frequently commented on the similarity of some of our tones. We had often amused our visitors by going into another room, and allowing them to guess which were Rosa's and which were mine. They were always puzzled. Before people my wife seemed the same as formerly, because she was never demonstrative in company."

"Nor mine, either," Dick exclaimed. "By George, those women are as alike as two peas."

"But when we were alone! ay, that was indescribable torture. My wife replied pleasantly when I addressed her, but never introduced a subject. When I kissed her she was ice, although she never expressed by word or action that my caresses were unwelcome. This state of things was a thousand times worse than the preceding one; and, of course, could not long continue. 'Do you know, Rosa,

that I will not longer endure such conduct?' I said to her, one evening toward the last.

"'Yes, I know,' she replied, simply.

"'But the worst need not come!' I urged. 'You have only to be sensible and kind to make everything as it used to be.'

"She was deadly pale as she turned her eyes on my face, for a moment before answering.

"'There is no "used to be,"' she said calmly; 'and that is the worst of all. If I could remember one time when you did not scorn my love, I could be happy many times, thinking of that; but there never was, so there is nothing but desolation to look back upon, as well as nothing to anticipate.'

"A few days after this I left Rome. I acted like a coward and a villain, but at the time I hardly knew what I was doing; I was beside myself with rage and mortification. Then, again, I had found out how much my wife really was to me, notwithstanding my dissatisfaction with the excess of her affection. I had wounded her in the tenderest spot, and beyond reparation. This is the fault of all mankind. I think we seldom appreciate our happiness until it is removed."

"May be," said Dick *sotto voce*.

"After a few months spent in traveling, I obtained an engagement in Berlin, and my voice and method came to be well thought of. Indeed, I found myself quite popular. For some time I persevered in regularly sending remittances to my wife, but the money was always returned without a word."

"I don't know whether my wife would do that or not," Dick remarked, speculatively.

"Suppose you try and find out?" the novelist suggested, aggravated beyond endurance by his companion's interruptions.

"Not that," said the tenor, gravely. "Loving, sensitive women are the same all over the world, and your wife would doubtless send your money back just as mine did. Well, one day I met with misfortune. A severe cold, which kept me

in bed for many weeks, left my voice thick and uncertain. My manager was kind, and the public indulgent, but after a while it began to be noised about that Signor Del Sante had lost his voice. My enemies—I had but a few, but they made up in ferocity what they lacked in numbers—set about to ruin me. The high notes, those that had chiefly made my reputation in fact, were for a long time quite unattainable. My physician assured me that the slightest effort to sing would be disastrous. I knew it would be the death of my reputation to sing in public, and so I kept on making excuses until the time arrived when I must either sing or sacrifice my position. One day my manager said to me, ‘Del Sante, you must take your place right away, or I shall be obliged to find some one to fill it. I sympathize with you fully, but the fact is, your long illness has almost ruined me. Suppose we have a private rehearsal, and let me see how you make out.’ I refused this, but agreed to appear the following week. I had so far recovered that I could manage most of the music as well as ever. Indeed, I did not know but forced rest would enable me to do better with the part than I ever had done. But the high notes! I dared not practice for fear of making things worse. There was one song which had always been received with the greatest enthusiasm. In fact, it seemed as if the audiences could never get enough of it. There were several *ad libitum* passages, and so I had accustomed the people to considerable elaboration. The *finale* had always taxed my voice to the utmost, and such is the inconsistency and ignorance of even cultured audiences, that a better performance than usual in all the rest of my part, would not have compensated for the omission of a single rocket in the last display. The night came at last, and I appeared according to announcement. My welcome was somewhat questionable, but after the second act I was called before the curtain. This would have been comforting if it had not been for the hisses that I knew were waiting for me in the last act. Nothing could

avert them, I was sure. There was nothing to do but to alter the closing part, and take the consequences. As I left my dressing-room, all ready for the sacrifice, the prompter handed me a little note. This is what it said: ‘Appear to take *E*, and trust the rest to Rosa.’”

“How’s that for high?” Dick exclaimed, with singular appropriateness.

“Ah! comrades! if I could describe to you my feelings at this moment! I was in ecstasy. I was in despair. I was warm to suffocation. I was cold as ice. I was a saint in Paradise. I was a sinner in lowest hell. I was all things. I was nothing. Something of my state of feeling must have communicated itself to the house, for before I opened my mouth, the people were with me. It was fully five minutes before they would allow me to commence the favorite song.

“Ah! if I had failed at the last, what a stupendous failure it would have been, after such enthusiasm. But, comrades, I did not sing to those people. I sang to Rosa. Her little note was next my heart, and the fragrance of it made everything sweet about me. We had practiced together so much in this very way, that I knew exactly what would be her method of attack, and she did not disappoint me. I appeared to take *E* as I was told. After the supreme effort of the evening, I could not have touched it even. Oh! how her voice rang out! How clear and brave was the tone. I have had many ovations in my life, but never such an one. I returned to the stage a dozen times at least, but I did not dare repeat the song for fear the ruse might possibly be discovered. So the manager went on, and asked the indulgence of the house for Signor Del Sante, whose enthusiasm for his art, and devotion to his audiences, had already led him to make more effort than his strength would permit. There was only one person in the house beside myself who knew what had been done, and he was the prompter, whose place Rosa had occupied during the song. I was alone on the stage, and stood exactly in front of the prompter’s box.”

"Didn't you sing the next night?" the reporter inquired, after a moment's pause.

"No, nor for many weeks afterward. I had convinced the people of my continued ability, and could easily have been excused until I was perfectly recovered. Rosa, you see, had not only saved me, but she had saved the manager also. As long as his tenor had proved that his voice was not impaired, why, the public would accept some other opera in which he was not cast. But—"

"But what?" Dick inquired, impatiently. "Where is your wife now, Del Sante?"

"In heaven, my friend. She died in my arms, two weeks after this memorable evening; and, Halbreth, I have the inexpressible misery of knowing that I killed her by my cruelty and meanness. I tried to transform the sweetest and most loving woman that ever lived into a lukewarm every-day creature, whom, if I had been successful, I could never have cared about. The women who weep, and are lonely without their husbands, are not necessarily weak or babyish. Oh! no. My Rosa was stronger and better than I, but

I did not know how to value her until she was gone from me forever."

"You had time to make some explanations, didn't you, Signor?" Dick inquired, in a choking tone.

"Yes, she knew at last that I loved her," Del Sante replied; "and that knowledge, she told me, would make her happy until we were again united. If I did not believe that this was the truth, I should curse myself night and day. Comrades, I have imagined all the time I have been talking, that Rosa was listening to me. If my experience could do any of you good, I am sure she would wish me to relate it, for she was noble, unselfish, and true; and I—I am a repentant, heart-aching man, the lonely tenor of the 'Rival Opera Company,' whose popularity is due to the wife he scorned and deserted."

Dick Halbreth started for town early the next morning, and telegraphed his wife that he would start at once for home, if she said the word. She replied that she was feeling much better, and to stay and have a good time; so the party remained unbroken.

ELEANOR KIRK.

WINTER.

'Tis winter now, and o'er the ground
Where once the sweet-lipp'd flow'ret bloomed
The weeds stand stark, and point like spears
To skies that break in frigid tears.

Above, the sky is draped with woe,
And answering sadness spreads below.
The waves of wind dash o'er the plain
And break in spray of snow and rain.

'Tis cold and cheerless on the roads,

For singing birds that loved and mated
Have gathered, long ago, in crowds,

Like men oppress'd, and emigrated.
The leaves that fluttered like the wing
Of frantic birds through happy Spring,
Now lay all soiled and uncaressed
Along the mountain's rugged breast.
On creeping streams, in valleys lone,
Piecemeal the robe of Spring is strown.
The harvests, which in Summer rolled
In waves of beauty green and gold,
Are now transformed, in "garbers" lay,
Or gathered in the stocks of bay;
While in the crib beside the barn
Are heaped the yellow banks of corn,
The red-cheek'd apples, which had swung

Like bells of fire through Summer's sun,
Now in the cellar stow'd away
Mature their flavors day by day.

Though Autumn's glories all are gone,
The sweetest times of all have come,

For in the house before the fire,
Though all without be dark and falling,

The dearest joys of life retire,
Domestic sweetness never falling.

There age and youth together brought
Give thought to mirth, and mirth to thought.
And all the charms that life can know
Are fused before the ruddy glow.

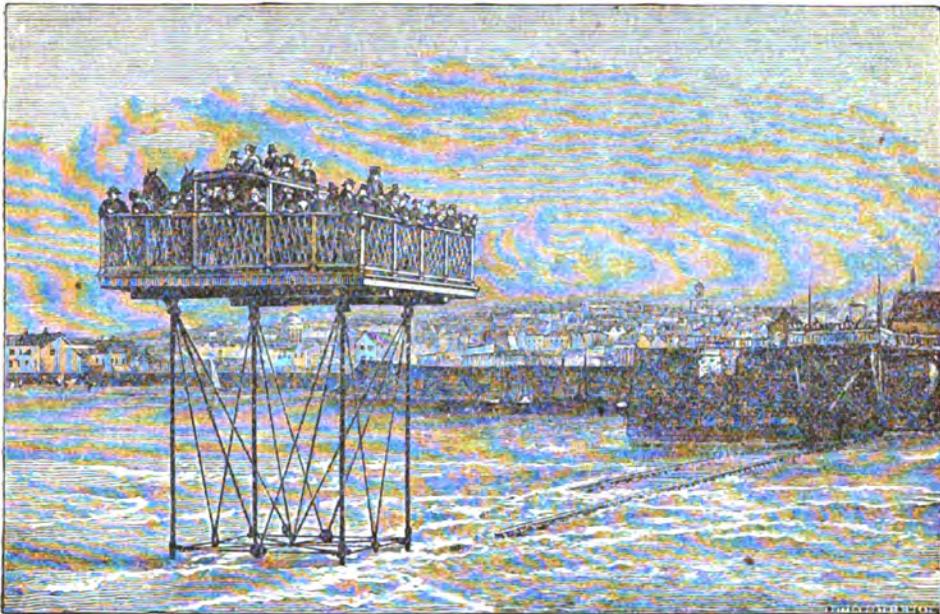
All, all in age that seems severe,
And all in youth that age can blame,

Does now most amiable appear,
Transformed before the cheerful flame.
So, welcome, welcome, long cold nights!
Bring all your troop of angry sprites
And storm the house with howl and roar;
Throw up snow forts against the door.

You but unite the happy throng,
You but the dearest scenes uncover

That ever mortal looked upon,
That memory ever brooded over.

KARL KARLINGTON.



ST. MALO AND ITS ROLLING BRIDGE.

THE old town of St. Malo, in the department of France called Ille et Vilaine, is built upon a small, rocky island, which communicates with the mainland by a causeway artificially constructed. The town covers the whole island, and is of no little importance as a center of trade and seaport. Strong ramparts surround it, flanked with towers and bastions, which impart a picturesqueness to its appearance. The buildings are generally high and well constructed, although the streets, like those of the older towns in Southern Europe, are narrow. The most conspicuous building is the castle, built by Anne, duchess of Brittany, and which forms part of the fortifications. Including the harbor and the suburb of St. Servan, the population is upward of 21,000. The harbor lies south of the town, and has considerable extent, but its entrance is somewhat intricate, on account of the great number of small islands and rocky eminences which stud that part of the French coast. Large ships, however, can enter, and find a secure roadstead therein. A broad quay runs just under the walls of

the town, and lines the harbor, thus furnishing a convenient landing for cargoes. The trade, both export and import, is considerable. The products of the fertile soil of Brittany and the fabrics of its many factories are sent, in great part, to foreign markets, through St. Malo. Here, also, is an important center for the fish trade of France, vessels being fitted out for taking whales, cod, and mackerel.

Perhaps, as a summer resort, St. Malo is even better known to the outside world than as a commercial point, because its facilities for sea-bathing attract a large concourse of visitors in the warm season. Steamers from Southampton bound for points along the coast stop at St. Malo, and many English people are in the habit of making a short stay there in summer.

One of the curiosities of the place, but quite a modern affair, is the rolling bridge, which runs between St. Malo and St. Servan. A view of it is well given by the illustration. Rails have been laid upon the ground, which is visible at low water, and over them roll the wheels of the great iron skeleton which supports the platform

of the bridge. The movement is by traction, a small steam engine on one side of the harbor working a cable attached to the frame of the bridge. The tide rises very high at St. Malo, so that when it is up, but little of the bridge's support or car-

riage can be seen, and its rapid movement, when gliding across the channel with its load of human and other freight, and that without any visible agency of propulsion, seems odd enough to the stranger.

DISPELLING ILLUSIONS.

IN the Toledo *Blade*, that well-known humorist, D. R. Locke, writes with becoming gravity on the above topic, in its application to a very common experience in our fast American life:

"What Western man is there who, after a stay in the new West of ten or a dozen years, did not go back to his old home in Massachusetts or New York, with great anticipations of pleasure? He dreamed of it for months before starting, and he made careful preparations to make the stay at 'the old place' a long one. He called to mind the Jims and Toms and Susies and Marys of his boyhood, and thought how delightful it would be to meet them. He remembered Sloan's Pond, where he fished when a boy, the mill on the creek from the pond of which he had pulled so many bull-heads, the hill which every winter of his boyhood had been his resort with his sled, the old red school-house, every orchard and water-melon patch he had robbed came freshly before him. His blood coursed quicker as the train moved into the station (it was a stage-coach in his day), and he was in the seventh heaven of expected pleasure by the time he had got to his mother's house.

"Disappointment of a most sickening kind followed. One Jim was in Wisconsin, another was lying in the graveyard. The village itself had changed so that he could not recognize it. The old Eagle Tavern was gone, and in its place was the Union Hotel. Peck's store, with the village doctor and justice of the peace sitting in front, was not there, but in its stead a huge block of brick buildings. The railroad had given the village a start, and it

was about the same as the one he had left in the West. The woods had all been cut off the hills, and Sloan's Pond in consequence had dried up, the mill had been torn down long ago, and the very river had shrunk. Possibly it was as large as ever, but men's eyes are different from boy's eyes. Round Hill wasn't exactly the shape of a sugar loaf, as he had always had it in his mind, and the laughing, romping, red-cheeked Susies and Marys of his boyhood, he found staid, sober, worn matrons with other Susies and Marys to care for. And when Tom came to him he found him not a rosy-cheeked boy with his trousers hanging by one suspender, but a tall, bearded man, who had but a minute to give him. Jim, the most promising boy in the village school, and the prize scholar in the Sabbath-school, who was intended for the ministry, he found a blear-eyed loafer, hanging about the gin-mills (in his day root-beer was the only beverage sold in the village), and Sam, the stupidest boy in school, was the principal lawyer in the county, and was being talked of for Congress.

"And to add to his trouble, the dishes cooked by his mother, of which he had been so fond when a boy, tasted entirely different, and so he told the good old lady, and she replied with a sigh:

"I cook it just as I used to, but you must remember there is a difference between a boy of fourteen who can relish anything, and a man of thirty. You have changed—not I."

"And so instead of making a long stay he found the place unendurable, and packed his valise and went home at the end of the third day."

THE "BUSY BEES."

"YOU must take your new cousin to see the 'Busy Bees,'" said aunt Esther one day when I was making my first visit to my husband's relatives.

"Busy bees, aunt Esther?" queried I. "Where are we to go to find them; and will they sting?"

"I will warrant you shall not be injured by them," replied the sweet old lady, laughing heartily—"and this evening you shall see where they are kept," put in cousin Naomi.

After tea we walked down the village street by the brilliant light of the November moon, and paused before a residence that I had often noticed on account of the beautiful and fanciful trellises, arbors, railings, gates, bird houses and dog kennel which ornamented the neatly kept grounds, and the lovely specimens of wood carving that adorned the front piazza. I had thought every time I passed the house that its occupants must of necessity possess great wealth as well as exquisite taste.

Before I could ask a question cousin Naomi rang the door bell that was immediately answered by a cheerful-faced young woman who was introduced to me as "Miss Hillman." She ushered us into a sitting-room which at first sight impressed me as being a little paradise of birds, plants and pictures, where comfortable easy-chairs and lounges nestled in cosy nooks and corners.

Through an open door-way I could not help noticing an unmistakable family group gathered about an extension table upon which burned an elegant German student lamp. One glance showed me a fireplace of the old-fashioned dimensions and design, where a jolly blaze flashed and crackled up the wide throat of the chimney, sending a cheerful glow over the large, handsome dining-room. I saw that the floor was of polished woods in a mosaic pattern that flashed back the dancing flames with a pleasing suggestion of warmth—an effect exactly the op-

posite from what one would have expected.

The father and five noble-looking sons were all in dressing gowns or jaunty jackets with bright colored facings, busily at work, while the mother, a middle-aged matron, in a dress of soft gray, was reading aloud from a volume of poems. The younger of the sisters was arranging apples and pears in a fruit basket at a side table. The reading presently ceased, the mother rising, coming forward and greeting us most cordially.

"Please, Mrs. Hillman, let us go out and sit down at the round table with the 'Busy bees,'" said cousin Naomi. "We have brought our work with us so as not to appear as drones in the hive, and I want James to teach Charlie's wife here how to make that new shell tidy."

My wraps were off in a twinkling. Mr. Hillman let go a knitting needle to give me a cordial hand-shaking, and the sons relinquished their several domestic and so-called feminine occupations long enough to acknowledge their introduction to me in a way to make me feel at home. James exchanged his wood carving for my worsted and crochet hook, and soon his deft fingers initiated me into the mysteries of the new Afghan stitch. After I had taken the work into my own hands he brought from the parlor for my inspection a tidy of the same pattern that he had completed, pleasantly explaining the "ins and outs" of the intricate design. As our party pretty thoroughly talked up the subject of fancywork in general, I found that these boys were all adepts with the needle. Upon expressing my very natural surprise at this, Mr. Hillman explained:

"You see, dear madam, our neighbors call us the 'Busy bees.' My mother made a slave of herself waiting upon a large family of boys who were never taught that it was possible for them to take a step or lift a finger to ease her domestic labors—hardly to help them-

selves. She died a worn-out mother. The cause of her early death taught me a lesson, and I made up my mind that were I ever to marry I would try to be considerate toward my wife, and were children given us, that I would teach them to be likewise.

"Our neighbors say 'the Hillman boys can do anything,' and I think myself they are pretty handy boys for a mother to have about the house. They were taught from the first to be helpful, for I can see no reason why a *man* should not devote some of his spare time in saving the steps of the women folks and in lightening their labors generally. My boys are as neat and orderly in their ways as my girls. They take care of their own rooms, and they can make fires, sweep, set the table (and put the cloth on straight), cook a meal of victuals, not excepting the bread and pastry, and wash and iron. We can not afford to hire servants, so you see we are really independent. Mother here never does a washing; she don't get the chance. It is over and out before breakfast is ready Monday mornings. Each of my boys can sew on the machine, and knit and darn their own stockings. They also do fancywork, as you see, on the evenings that are not devoted to reading and study—and their wood carving, I am very proud of that. You shall go over the house if you would like to."

I declared it was what I would like of all things. I was surprised and delighted at every turn. It was really the prettiest house I was ever in, and it was furnished with exquisite taste. There were specimens of elegant woodwork in every room—from the polished mosaic of the dining-room floor to elaborately carved cornices, moldings and mantels. About the rooms, halls and bay windows, were brackets, picture-frames, chairs, tables, bookcases, cabinets, and all sorts of beautifully carved knick-knacks.

When I exclaimed anew over the amount of work accomplished, Mr. Hillman said, "There are a good many of us and we make the most of our time. All

that I have shown you here in the house, and the ornamentations on the outside of the buildings and about the grounds have been done after our regular study, school and business hours—at times when many men and boys are sitting in stores, hotels and billiard saloons, or if at home, playing at cards, chess or checkers, or, perhaps, asleep on lounge or in easy-chair, while the tired women of the family are filling out their measure of daily toil."

"But your wife and daughters," I asked; "are they not spoiled by this assiduous helpfulness on the part of yourself and boys?"

"Not in the least. My girls are as active and efficient as their brothers. They have been taught to be thorough housekeepers."

I was glad to have made the acquaintance of this family. "What husbands these young men will make!" thought I; "what thoroughgoing, practical men." I wondered why there were so few hives of bees—all "Busy bees"—like this one, with no drones.

This is written as a suggestion merely to all young men whose leisure hours hang heavily on their hands, and who on that account are led, in too many instances, to form evil associations.

A. A. PRESTON.

THE great objection urged by many hard-headed people against a liberal education is that when a boy has gone through college he is unfitted for manual labor and generally thinks himself above learning a trade, but must support himself by his brains. If, however, while he is fitting for college he were at the same time learning a trade by which he could support himself in whole or in part while taking his college course, such objections would be removed, and great good be done the youth. There are industrial schools, but they do not flourish as they will when the idea of combining theoretical and practical training is popularized by adoption in our public schools.



MEDICAL EDUCATION OF THE PEOPLE THEIR BEST SAFEGUARD.

[From Transactions of Michigan State Medical Society.]

IN view of the fact that there is still in the world the most extraordinary misconception with regard to the true functions of medicines and medical men, it may not seem wholly unfit that we should somewhat briefly advert to it here.

As it existed among the people in earlier times, it amuses us now perhaps more than it surprises us; and when we recognize it still here and there among those in lowly favored circumstances of life, it usually makes little or no impression upon us; but when we so often see it among the refined and cultured of our time we are sometimes led to inquire why it is. But this misconception is not confined entirely to the laity or to the crude charlatan, but more or less pervades the educated and legitimate medical fraternity itself; and it is no uncommon thing to see among the younger members of our profession men confidently attributing to medicines particular cures that they never produced. And even the older practitioners, with quite an abiding faith, sometimes prescribe remedies that serve little more than to satisfy the minds of the patient and the doctor that the necessary and essential thing has been done in the premises.

This undue credit to the effect of the drugs prescribed, when it occurs among medical men, probably arises mostly from the habit and routine of always prescrib-

ing in certain approved manners in certain kinds of cases; and when improvement takes place, forgetting to allow sufficiently for the healing power of time and nature herself.

As it occurs in the masses of the laity, however, when they throw themselves unreservedly upon the mercies of some of the many artful impostors of the day, or, almost regardless of the man, cling to some of the schools of medicine or forms of treatment with an ardor that often amounts to fanaticism, it seems to arise from the fact that there is still in man an inherent tendency to rely alone on some mysterious or supernatural intervention in behalf of his physical as well as his spiritual welfare. Men in a great measure seem not ready to act upon the idea that while there may occur at times special and supernatural intervention in behalf of our spiritual welfare, it is nevertheless probable that the greatest amount of mental enjoyment is only obtained by the greatest amount of willing obedience to those social and moral laws of life which produce it. So with regard to our physical being, men largely rely upon medical aid and supernatural protection, and neglect to observe and conform to those natural laws which regulate and govern the functions of our organism in health and in disease.

With medical men the hope to hit at

last upon the lucky remedy or successful plan has in all ages led to the adoption, at times, of many absurd modes of treatment that have been discarded after more careful observation and riper experience—sometimes to excessive dosing and too heroic treatment; and sometimes to the other extreme, as in the high dilutions once generally indorsed and still sometimes used by some of those who pursue what is called the homœopathic plan.

When, then, there are in the minds of those who devote themselves specially to the science and practice of medicine so many absurd notions with regard to it, and so much faith in much of it that is not warranted in fact, it is not a wonder that the masses, and even the educated portions of the laity, should treat us now and then, as they do, to such sublime exhibitions of their faith in some particular drug, plan of treatment, or school of medicine, while they evince often only very little knowledge or concern as to the proficiency or character of the man prescribing it.

As nothing but hard-learned experience and frequently disappointed hopes in his scientific prescriptions will ever thoroughly convince the young practitioner of their frequent inutility, so nothing but the proper kind of education on these matters will ever convince the people of their frequent too great confidence in the efficacy of drugs alone.

To this end, the study of anatomy, physiology, hygiene, and particularly the laws of life, with the influence thereon of habits, conditions, and surroundings, should enter largely into, and be assiduously carried all the way through, the education of the young, even if it be to the exclusion of almost no matter what other branch besides. And if the use of drugs be referred to at all in their education, it should be with an especial care that they be taught the facts as they are—that the essential and useful drugs are really few and their administration rarely necessary; that in the aggregate in the world it is probable enough that

more harm is being yearly done by their indiscriminate and unskilled use than there is good by their timely and judicious employment.

Physicians can do much more than is usually done in this direction by their individual influence in practice. Each physician should constantly endeavor to establish in the minds of his patrons the fact that they should seek intelligent opinions and skilled advice more than prescriptions. And even at an occasional risk of losing patronage, when medicine is not required at all, he should dare to say so, and give the right advice instead. Doctors should be educators more than physic-mongers. Whatever time the occasion demands should be taken to fully explain the trouble for which persons present themselves, and the best regulation of living to be adopted under the circumstances; and for this opinion and advice alone, when kindly given, they should pay and generally expect to pay.

Physicians should endeavor at all times to divest their practice of every appearance of mystery; and in this connection they should certainly abolish the common practice of retiring from the family and holding private conversation after having seen a patient in consultation. They should rather insist on some members of the family or persons most concerned being present when conversation may not advantageously be had with the patient; otherwise such mysterious movements and awe-inspiring manners tend not at all to enlighten, but very much to becloud the minds of many people, and leave them a more ready prey to the quack, who can as well, and always does with effect, imitate those and all kindred mysterious ceremonies.

Physicians can with the utmost politeness to each other and the very kindest consideration for the opinions of each, discuss conditions and agree on treatment in the presence of some of those concerned; and it is the people's right to see and know exactly what their physician thinks and does in their case either alone or in consultation.

If imposition and quackery are ever removed or lessened at all, it will be in exact proportion to the amount of correct information and thorough enlightenment the people may obtain on this subject, for it can never avail very much that a few educated and honorable practitioners labor to bring the comparative few whom they reach up to a reasonable and correct estimation of the practice of medicine, while the masses remain unable to discriminate between the imaginary and what is real in it, or between the artful and unscrupulous pretender and the genuine medical man. As long as there is a general and popular demand for the different forms of quackery, there will always be found an ample supply; and legislation, though necessary and good as far as it goes, can never entirely prevent it. The early and continued education of each individual on the subject is the only successful remedy.

And since none can see and feel as well as physicians the need of the people with regard to it, it becomes us and would seem our direct and humane duty to interfere, and move to the extent of our opportunity in establishing if possible somewhat of a medical education in all the common schools throughout the country. This is perfectly practicable, and probably would be nowhere unfavorably received.

Let the people become properly and generally enlightened on the medical subject, and we will not see them cajoled and carried away with extravagant advertisements and pretentious modes of cure, not even hear them ask: "Is he a homeopath or an allopath?" but only hear them inquire of him, as they should of one assuming that capacity: "Is he an educated, trained, ingenious, industrious, and in every way competent and upright medical man?"

THE INFLUENCE OF CHEERFULNESS ON HEALTH.

CHEERFULNESS exerts an important influence upon the health as well as contributing much to the happiness of mankind. The cheerful man, woman, or child is more likely to be healthy than the gloomy one. Cheerfulness promotes digestion of the food, quickens the circulation of the blood, and facilitates the proper performance of all the healthy functions of the body. The food eaten with pleasant companions is less likely to disagree with the dyspeptic than that eaten in solitude. Some dyspeptic persons have often remarked, that when dining with friends and agreeable acquaintances, whose companionship cheered them, they might eat freely, without subsequent harm, of substances which were sure to occasion distress when eaten at home alone. Not a few have noticed that when feeling despondent or feeble while alone at home, the arrival of pleasant acquaintances, or a visit to friends, would at once make them

cheerful and cause them to feel like new creatures. If short seasons of cheerfulness will do so much for improving the condition of a person's health, it is easily conceivable that habitual cheerfulness would be a potent means of maintaining a constant state of healthfulness and physical enjoyment.

It may be urged, however, that good health promotes cheerfulness, and, consequently, instead of cheerfulness being the cause of good health, it may be the consequence. It is true, that good health is conducive to cheerfulness, yet there may be good health without cheerfulness. The two, however, have been designed by nature to be intimately associated. Every healthy child is generally cheerful and happy. So universally is this the rule, that many are disposed to regard childhood as the most enjoyable period of human existence, and regret that they are no more to experience the pleasant joys of youth. The child, however, has its

troubles and sorrows, but is more cheerful than those of a "larger growth," simply because it sooner forgets its griefs and gives itself to the enjoyment of the pleasant things of its existence. The child is really a better philosopher than the man, and, consequently, finds more enjoyment in life, thus preserving its cheerfulness.

Some persons are notably more cheerful than others. For those who are naturally cheerful, it seems easy for them to maintain their cheerfulness; but, how are the naturally gloomy to put on cheerfulness? Will cheerfulness come at the bidding? The despondent can not become cheerful by willing it. The proper conditions must be complied with, and cheerfulness comes as its result. Well-directed efforts promote the attainment of cheerfulness. The mind must resolutely put aside corroding cares, keep aloof from worry, and take a hopeful view of the future. The mind may be active and devoted to the business of life, and yet so hold itself that life shall be full of cheerfulness. The cheerful mind is more likely to succeed in life than the gloomy one. Cheerfulness strengthens the power of the mind as well as the body, and the cheerful mind is better able to cope with the difficulties of life than the gloomy mind is. The man who is busily engaged in business does not need to shut out cheer-

fulness from his life in order to succeed; on the contrary, by so doing he is less likely to succeed. By persistent effort every one may attain to a fair degree of cheerfulness. Well-directed efforts are almost sure to be crowned with success. Every one who will, may be cheerful.

Cheerfulness is one of the good things of life and is well worth possessing. Ralph Waldo Emerson well said: "The best part of health is a fine disposition." It is more essential than talent, even in works of talent. Nothing will supply the want of sunshine to peaches; and to make knowledge valuable, you must have the wisdom of cheerfulness. Whenever you are sincerely pleased, you are nourished. The joy of the spirit indicates its strength. All healthy things are sweet-tempered. Genius works in sport, and goodness smiles to the last; and, for that reason, whoever sees the law which distributes things, does not despond, but is animated to great desires and endeavors. He who desponds, betrays that he has not seen it. As we advance in years and in knowledge from youth upwards, instead of becoming less cheerful, as is frequently the case, we should become more cheerful. Cheerfulness not only best promotes health, but it also facilitates success in all of our undertakings, besides contributing to the enjoyment of life.

HENRY REYNOLDS, M.D.

A REMARKABLE WOUND OF THE BRAIN.

IN the London *Lancet* not long since was published a brief account of a wound self-inflicted in the head, which is one of the few instances of singular tolerance of severe injury to the brain. The case was communicated by M. Dubrisay to the Société de Médecine de Paris.

A man aged forty-four, in an attempt at suicide, sent a small dagger through his skull into the brain. The weapon was ten centimeters long and one wide. He had held the dagger in his left hand, and

given it with the right several blows with a mallet, believing that he would fall dead at the first blow. To his profound surprise he felt no pain, and observed no particular phenomenon. He struck the dagger, in all, about a dozen times. The man was a drunkard, but was sober at the moment of the attempt. When seen, about two hours later, the handle of the dagger was projecting from the skull at the junction of the posterior and middle third, a little to the right of the middle line, and in a transverse position. The

whole blade was imbedded except a part one centimeter in length. For half an hour unsuccessful attempts were made to get the dagger out. The patient was placed on the ground, two vigorous persons fixed his shoulders, and, aided by a strong pair of carpenter's pincers, repeated attempts were made, but without success. The patient and assistants were raised off the ground, but the dagger was immovable. These attempts caused no pain. More powerful mechanical instruments were then employed. The patient, who walked well, and complained of no headache, was taken to a coppersmith's, and by strong pincers the handle of the dagger was fastened to a chain which was passed over a cylinder turned by steam-power. The pincers, used for drawing out tubes of copper, were so made that the more they were pulled the tighter they grasped. The man was then fastened to rings fixed in the ground, and the cylinder was gently set in motion. At the second turn the dagger came out. The blade measured ten centimeters in length, of which nine had entered the interior of the skull.

The patient, who had submitted with the greatest coolness to these maneuvers, suffered no pain or inconvenience. Some drops of blood escaped, and in a few minutes afterward the man was able to walk away to a hospital, where he remained in bed for ten days, but without fever or pain. He then returned to his work, and the wound gradually healed. M. Dubrisay endeavored by a post-mortem experiment to ascertain what parts of the brain had been injured. He drove the dagger into the head of a cadaver in the same situation, and to the same depth, and found that, without injuring the superior longitudinal sinus, it had passed into the cerebral substance, just behind the ascending parietal convolution, and thus behind the motor zone; the point had not reached the base. The difficulty of extraction had been due solely to the fixation of the instrument by the edges of the wound in the bone.

[The dagger appears to have passed into the brain in such a manner as to separate the convolutions—or cerebral tissue—without lacerating them].

KITCHEN LEAFLETS, No. 12.

FARINACEOUS vs. FLESH DIET—"MEDICINAL FOOD"—HINTS—BISCUIT—BEANS—PUDDING, ETC.

IT must be encouraging to all who are interested in hygienic progress, to notice the change which is taking place in the opinion of people at large respecting food. It is not many years since Graham, Trall, Jackson, and that staunch pioneer in reform, the *Water-Cure Journal*, were ridiculed and jeered at on account of their advocacy of whole-wheat bread, oatmeal, corn-meal, fruits, and vegetables, as more suitable food than the flesh of beast and bird. Their persistent adherence to the truth which history, chemistry, and personal experience revealed, won increasing attention, and today there are thousands who are ready to stand up, and in the strength of an

improved physiology and a clearer mind, declare their preference for food in which there is no smell of blood. And their testimony doesn't excite raillery. No; for the toothsome porridge of crushed wheat or oatmeal, or the "bran-meal" loaf, is a familiar part of the table furnishing in almost every well-ordered household. And hundreds, yea, thousands, who still cling to their breakfast chop, would consider the meal incomplete if they were not served with a dish of oatmeal and milk. Where once the hot biscuit, smoking with the odors of soda and saleratus, was an inseparable adjunct of the morning coffee in hundreds of families, the dish of crushed wheat with

its dressing of milk or sugar is preferred. And *paterfamilias* somehow insists that it "sets better on his stomach" than the time-honored product of superfine flour, yeast, and a hasty oven. Now we find organs of conservative principles yielding to the pressure of truth. Even the old London *Lancet* has admitted to its columns testimony in behalf of the superior nutritive value of cereal food; and in this country hygiene, coupled with a bias toward vegetarianism, has several literary representatives. The growth of the trade in preparations of oats, wheat, barley, rice, etc., for convenient use, has been wonderful during the past ten years. Mills making different forms of wheat-meal, oatmeal, etc., their specialty, have sprung up in different parts of the country, and a hundred different names for as many different preparations have been known to the public. We have "crushed wheat," "cracked wheat," "pearled wheat," "granulated wheat," and "wheatena," and oatmeal with names descriptive of its relative coarseness, "avena," etc.; corn in several forms, any one of which is a great improvement on the "hominy" of our childhood. A New York provision dealer informed me that he sold twenty barrels of oatmeal now to one of ten years ago, besides having a large trade in its packed forms. All this shows, beyond cavil, that people don't eat as much beef, mutton, and pork as they used to.

Besides, I have noticed a good deal of discussion has been awakened in medical circles about the uses of vegetables and fruits as curative agencies; for instance, some claim that if a man sick with a fever be limited to a vegetable and milk diet, his chances of recovery will be increased; and some are of opinion that eruptive diseases are much less violent if the patient confine himself to fruit and bread. Thus a tendency is indicated to substitute a hygienic diet for the old pills and powders—to cure the patient by food. The quacks and charlatans who are quick to seize upon any popular tendency in its very outset, have been some time in the market with their "tonic extracts" of

wheat, oatmeal, celery, etc., the character of the "extract" being apparent enough on the first sniff after the bottle is opened, as for the most part composed of a very long-known distillation, remarkable chiefly for its *toxic* properties.

There is a humorous side to this in the fact that men should turn to good and natural *food*, the very thing they should eat at all times, as to a regimen possessing a medicinal property curative of their ills. However, for the benefit of those who will persist in looking upon oatmeal as a substance for gruel, and cracked wheat as only fit for dyspeptics, I insist, on the authority of medical science, that asparagus has much value as a diuretic, and is excellent for those troubled with rheumatism. Sorrel is cooling in its effect upon the blood in fevers. The carrot, of which the yellow core should be rejected, because not easily digested, is helpful in liver derangement. Cauliflower and celery are serviceable to people whose employments are sedentary, the former being easy of digestion and highly nutritive, and the latter cooling and refreshing to the nerves. The lettuce has its value, too, in febrile excitement, but should be simply prepared, and not in the common fashion of the highly-seasoned and over-oiled salad, but boiled to adapt it to a delicate stomach, or eaten fresh from the garden with one's bread.

As this contribution will form the last of the series of "Leaflets" for the year, a few remarks are in point with regard to certain inquiries which have been made on the character of the recipes. As to salt, I advise the use of very little salt, as it is caustic in its nature, and constituted of elements, chlorine and soda, which are not, in the inorganic state, healthful. All condiments impair the taste and quality of *good food*, irritate the mouth and stomach, and increase the disposition to drink.

Success in the production of good gems and bread depends much upon the flour, the Graham, or gluten, should be fresh, and procured from a trustworthy miller. The ordinary Graham flour of the grocers

should not be used without sifting, as there is usually a considerable amount of useless woody substance in it.

Quick oven means one so hot that the hand can be held in it a few seconds only. *Slow* oven is one in which the hand can be held for half a minute. These definitions are as nearly precise as can be given without recourse to a thermometer. *Tepid* water is made with two parts cold water and one part hot; the temperature of the cold being about 60°, and that of the hot 212°, or at boiling point.

Perhaps some of the difficulty which certain housekeepers find in baking gems is due to the tin pans they may use. The best pans are of cast-iron, made in sets of a dozen, oval in form, and not deeper than three-fourths of an inch.

WHITE FLOUR BISCUIT.

- 1 pint of sweet milk.
- 1 tablespoonful of butter.
- ‡ teaspoonful of salt.
- 3 teaspoonfuls of the Royal Baking Powder.
- 2 pints of flour.

Sift the flour, after stirring in the baking powder, several times before beginning to make the biscuit. Have the milk hot and the pan hot. Mix the butter through the dough, stir all together quickly, and turn out on the kneading-board; roll out into a form about † inch thick, and cut with a biscuit-cutter. Place the sections in the pan closely together, and bake in a hot oven from ten to fifteen minutes. This recipe makes about twenty-five.

RYE GEMS.

- 1 quart of cold water.
- 3‡ pints of rye flour.

Proceed in the same manner as for Graham gems, and bake ten or fifteen minutes longer. Those who do not like the taste of rye alone, can mix with it wheat flour or corn-meal, to the extent of one-third of the whole quantity. If corn-meal be used, it is better to scald it and let it cool, before mixing up.

BAKED BEANS.

Take the quantity desired, wash them well, and put them to soak in cold water at night. In the morning early pour off the water, and put them in a pipkin with cold water enough to cover them, and place them on to cook. When they are tender, but not broken, skim them out into the bean-pot; place a small piece of cooked

corned beef (if meat is desired) in the center of them; cover the pot, to prevent a hard crust from forming on the top of the beans; place them in a hot oven, and bake about three hours. If corned beef is not liked, substitute a piece of sweet butter to moisten them. A small quantity of sugar can be added, although I think the bean contains ample sweetness in itself. The success of baked beans depends much upon the first process of cooking in the pipkin.

BEAN SOUP AND PORRIDGE.

Dried beans cooked in the form of a thick soup are, perhaps, the most healthful for the average digestion. They should be cooked with plenty of water, in a double boiler, five or six hours, until the outside shell is thoroughly softened, then strained; and when cold they will form a solid jelly. Such bean-food eaten with bread is delicious.

BOILED SPLIT PEAS.

Look them over carefully, and put them to cook with about three pints of water to one pint of the peas. Cook slowly for three hours, or until they are soft. If cooked gently they may not need any more water. Have them, however, any consistency you choose—about like mush is suitable, if they are to be served with vegetables for dinner.

GRANULA PUDDING.

Take dry gluten and Graham gems, grind them into small particles. To one cup of the crumbs, one quart of milk, one egg, half a cup of white sugar, one cup of seeded raisins are to be added. Put the milk in a pan over a steamer on the stove, stir the crumbs in the milk, and let them stand until they all swell; then remove from the stove, and, when cool, stir in the egg, well-beaten, the sugar and raisins; mix all together thoroughly, and pour into a baking-dish. Have a hot oven, and bake an hour and a half. The raisins can be omitted and more sugar added, if liked.—*W. W. Cure.*

BREAD-AND-APPLE PUDDING.

- 1 quart of bread crumbs.
- 1‡ pints of milk.
- 2 eggs.
- 8 sour apples (medium sized).
- 1 scant teacup of white sugar.

Cut the apples in quarters, then slice them. Butter the pudding-dish; spread a thick layer of bread crumbs on the bottom, then a layer of apple, with little bits of butter scattered over the top; then a layer of bread crumbs, a layer of apples and butter, lastly a layer of bread crumbs. Beat up the eggs, mix them with the milk and sugar, and pour over the bread. Bake in a hot oven about one hour. This rule is sufficient for eight persons.

MIRA EATON.

NOTES IN SCIENCE AND AGRICULTURE.

The Cause of Life.—We are getting down to it. Bioplasm, protoplasm, etc., show us the mechanical composition of certain ingredients which somehow are alive and contribute to the making up of our bodies. Up to within a few years physiology did not suspect that there was any chemical difference between dead and living protoplasm. But recent researches, beginning with an article of Pflüger's in 1875, point strongly in an opposite direction. One of the ablest essays in the affirmative was written last year by Drs. Oscar, Loew, and Bokorny, and published in Munich. The result of their investigation goes to show that living protoplasm owes its property of life to the presence of aldehyde groups, which are characterized by intensely active atomic movement. When death takes place, it is coeval with and caused by a transformation of these aldehyde groups into amide groups, with diminished molecular motion, thus leading to cessation of action. What causes the transformation, however, is still an unsolved problem.

A New Electric Light.—A new candidate for favor in the way of an incandescent electric light, is that manufactured by the Bernstein Electric Light Manufacturing Co., of 41 Arch Street, Boston. This light has some special features, was patented as lately as June, 1882, and is based on entirely different principles from all the known systems of incandescent lamps, being unlike the Edison, Swan, and Maxim; where each of these use a very delicate carbon filament as a light-giving body (and these filaments do not long withstand the action of strong currents of electricity, and economy in an incandescent system of lighting is obtained by an application of a strong current), in the Bernstein lamp, the light is given out by an unfusible and insulating material which has been covered with a deposit of carbon having the shape of a cylinder. This lamp, the Bernstein, gives a very brilliant light, which can be regulated or graduated just as appears desirable or necessary.

The Comet.—The last comet, known as E 1882, well deserved the attention it has received, for it was a very conspicuous object in our eastern horizon for some time to those who arose early to observe it. It was first observed in Colorado and Kansas, where it was reported visible to the naked eye on Sept. 18th. On the afternoon of the 19th, as seen from the Naval Observatory at Washington, it was in right ascension 11 hours, 19, 30", and declination north, 8', 40". The comet then presented the appearance of a short tail, with a bright head of considerable extent. In the telescope the nucleus showed as a confused mass of bright light, indicating a large comet. Extending on both sides were seen bright arcs of light, presenting the appearance of a bird with outstretched wings.

The same afternoon a dispatch was received from the Observatory of Paris to the following effect: "Thallon's comet, observed at Nice about noon, Sept. 18th, 3 degrees west of the sun. . . . Both tail and nucleus give the sodium lines extremely brilliant, very sharply divided and characteristic," etc. This is the second comet that has shown a sodium spectrum. The displacement of the sodium lines would indicate a rapid movement of the comet toward the earth. From observations at Cincinnati and Cambridge on the 18th, 19th, and 20th, its approximate orbit is thus computed: Time of perihelion passage, 1882, August 30.5; longitude of perihelion, 271 degrees; longitude of node, 173 degrees; inclination of orbit, 17 degrees; perihelion distance, 27,000,000 miles. At the time of first observation the comet was about 36,000,000 miles distant from the earth, and, at the time of the third observation, 32,500,000. This corresponds to a rate of speed of 1,500,000 miles per day. Assuming the above calculated results to be strictly correct, they indicate that the comet approached within 15,000,000 miles of the earth in October, and for two weeks exhibited a train 30,000,000 or more miles in length. Last year one of the small ones observed came within 12,000,000 miles of this planet, and this nearness was deemed extraordinary. Prof. Proctor, who at first denied that the present visitor was identical with the comet of 1843 and 1880, has acknowledged himself in error, and the celebrated English Astronomer-Royal, Prof. Piazzi Smith, has declared that the comet was identical with that of 1843 and 1880, and was almost certain to return in 1883, when it might fall into the sun.

Vale the Steam Engine.—Speaking of electric lighting reminds us that the use of electricity as a motor is developing rapidly, and an investigator in this line, Dr. Siemens, is certain that the steam engine is doomed. Its fate is first to be confined to the driving of large dynamo machines, which will distribute force at present supplied by a myriad of small and wasteful steam engines, and then to be superseded altogether by the gas engine. Gas and electricity may be mutually hostile, but they are to unite their forces in order to extirpate the steam engine. The unpardonable sin of the steam engine is that of waste. Even the best of them consume two pounds of coal per horse-power per hour; whereas, says Dr. Siemens, when the gas-producer has taken the place of the complex and dangerous steam boiler, it will not take one pound of coal to develop one horse-power for one hour. But before gas banishes steam it will supersede coal as the agent for the development of steam. A pound of gas gives forth exactly twice the heat of a pound of coal, and even this may be improved upon. Dr. Siemens gives some startling figures to prove that the by-products of the coal annu-

the dog to quit the field, limping and yelling. Formerly, when a dog entered a sheep-field at night, the sheep would run wildly around and cry piteously. Since the goats have been used to guard them they form in line behind the goats, and seem to enjoy the fun. The idea of utilizing goats in this way came from the West, where they are put in sheep-pens to drive away wolves.

The Oldest Newspaper.—The oldest newspaper in the world, the Celestials claim, and not without some warrant, is the *King-Pau*, or "Capital Sheet," published in Peking. It first appeared A.D. 911, but was irregular in its issues until 1351. Since then it has been published weekly until the 4th day of June last, when by order of the reigning emperor, it was converted into a daily, with three editions—morning, midday, and evening. The first edition appears early and is printed on yellow paper. This issue is called *Hsing-Pau* ("Business Sheet"), and contains trade prices, exchange quotations, and all manner of commercial intelligence. Its circulation is a little over 8,000. The second edition, which comes out during the forenoon, also printed upon yellow paper, is devoted to official announcements, fashionable intelligence, and general news. Besides its ancient title of *King-Pau* it owns another designation, that of *Shuen-Pau*, or "Official Sheet." The third edition appears late in the afternoon, is printed on red paper, and bears the name of *Tilani-Pau* ("Country Sheet"). It consists of extracts from the earliest editions and is largely subscribed for in the provinces. All three issues of the *King-Pau* are edited by six members of the Han-Lin Academy of Science, appointed and salaried by the Chinese State. The total number of copies printed daily varies between 13,000 and 14,000.

The Center of Population CHANGING.—The center of population in the United States was 22 miles from Baltimore in 1790, and has moved westward at the average rate of about 51 miles every decade, never deviating to the extent of a degree north or south of the 39th parallel. The greatest progress was between the years 1850-1860, when it traveled 81 miles from a point in Virginia to 20 miles south of Chillicothe, Ohio. This movement was caused by the settlement of the Pacific coast. The center of population in 1870 was 48 miles north-east of Cincinnati. According to the last census, the center had advanced westward 58 miles, and deflected to the south, being near the village of Taylorsville, Ky., about eight miles from Cincinnati. It is anticipated that the next census will find it in Jennings County, Indiana. Supposing the westward movement of population to continue, the central point should cross the Mississippi about 1950, not far from the mouth of the Missouri. It is considered probable, however, that it will never go so far westward, as there are large areas in the West which are only adapted to mining and grazing pursuits, and will support

but a scanty population. The increase in the region beyond the Mississippi, after the close of the present century, may not much more than counterbalance that of the rest of the country, in which case the center of population will remain almost stationary in Southern Illinois.

Fat of the Old and Young.—The influence of age on the chemistry of the body is a department of physiology as yet very imperfectly investigated. The composition of the fat, however, at different periods of life, is obviously one of the simplest problems connected with the question, and it has been lately investigated by Lanquer. In newly-born children the fat has a particularly firm consistence, constituting a peculiar tallow-like mass, with a melting point of 45° C., (114° F). The fat of adults separates at the ordinary temperature of a room into two layers. The upper layer is completely fluid, translucent and of a yellowish color, and only solidifies at temperatures under zero, Centigrade. The lower layer is a crystalline mass, which has its melting point at 36° C. Further investigations were made on about a kilogram of each kind of fat. The fatty acids obtained from the fat of newly-born children (after precipitation with hydrochloric acid), were found to melt at 51° C., and those obtained from the fat of adults had a melting point of 38° C. The former was found to contain three times as much palmitic and stearic acid as the latter. The palmitic acid preponderated over the stearic in each kind of fat, but much more in that of children than of adults, the proportion being in the former four to one, but in the latter nine to one. There are 86 per cent. of oleic acid, 8 per cent. of palmitic acid, and 2 per cent. of stearic acid in the fat of an adult; whereas in the child the proportion of oleic acid is only 65 per cent., the palmitic acid 28 per cent., and the stearic acid 3 per cent.

Overloaded Trees.—A tree overloaded with fruit can neither perfect the fruit nor ripen its wood properly, and in a severe climate is quite likely to succumb to a degree of cold which, under proper treatment, it could have resisted perfectly. The grape is very sensitive in this respect; if overloaded, the fruit will not color or ripen, nor will the wood ripen.

A SAPONACEOUS PEACE-MAKER.

MESSRS. WATER & OIL
 One day had a broil,
 As down on the grass they were dropping,
 And would not unite,
 But continued to fight
 Without any prospect of stopping.
 Mr. Pearlash o'erheard,
 And, quick as a word,
 He jumped in the midst of the clashing,
 When all three agreed,
 And united with speed,
 And came out ready for washing.



CHARLOTTE FOWLER WELLS, *Proprietor.*
H. S. DRAYTON, A. M., *Editor.* N. SIZER, *Associate.*

NEW YORK,
DECEMBER, 1882.

READING CHARACTER FROM CONDUCT.

AN intelligent teacher should have little trouble in determining the general drift of a pupil's character, for he has but to observe the boy or girl in association with the other pupils, and while engaged in study and at recitation, to obtain striking hints of what qualities are dominant. A child of eight is, to be sure, more freely expressive of his disposition than a youth of thirteen; but in the sports of the play-ground and under excitement, those much older indicate clearly the faculties which most strongly influence them. Large Firmness, Combativeness, Approbativeness, Self-esteem, Cautiousness, Friendship, Benevolence, speak out clearly in the conduct of children; and if the observer is acquainted with the characteristics of each faculty, he can read, to an extent which may be made of much practical utility, the general disposition and intellectual bearing of the young. It is not necessary that one should be able to locate faculties on the head—to trace their physical relations—although that is of importance in a close analysis; just as a parent need not be a proficient in medi-

cine to treat successfully the minor ailments of his children. A good acquaintance with mental classification, a knowledge of definitions, will enable one to interpret the language or phenomena of conduct, and so to obtain an insight of character which may be turned to material account.

An incident in the school-life of a teacher, as related by herself, illustrates our point. She had charge of a school in a country town early in her career, and among her scholars was a boy about fourteen years old, who cared very little about study, and showed no interest apparently in anything connected with the school. Day after day he failed in his lessons, and detentions after school-hours and notes to his widowed mother, had no effect. One day the teacher had sent him to his seat, after a vain effort to get from him a single correct answer to questions in grammar, and, feeling somewhat nettled, she watched his conduct. Having taken his seat, he pushed the book impatiently aside, and espying a fly, caught it with a dexterous sweep of the hand, and then betook himself to a close inspection of the insect. For fifteen minutes or more the boy was thus occupied, heedless of surroundings, and the expression of his face told the teacher that it was more than idle curiosity that possessed his mind. A thought struck her, which she put into practice at the first opportunity that day. "Boys," said she, "what can you tell me about flies?" and calling several of the brightest by name, she asked them if they could tell her something of a fly's constitution and habits. They had very little to say about the insect. They often caught one, but only for sport, and did not think it worth while to study so common an

insect. Finally she asked the dunce, who had silently, but with kindling eyes, listened to what his schoolmates hesitatingly said. He burst out with a description of the head, eyes, wings, and feet of the little creature, so full and enthusiastic, that the teacher was astonished and the whole school struck with wonder. He told how it walked and how it ate, and many things which were entirely new to his teacher. So that when he had finished she said: "Thank you! You have given us a real lecture in natural history, and you have learned it all yourself."

After the school closed that afternoon, she had a long talk with the boy, and found that he was fond of going into the woods and meadows and collecting insects and watching birds, but that his mother thought he was wasting his time. The teacher, however, wisely encouraged him in this pursuit, and asked him to bring beetles and butterflies and caterpillars to school, and tell what he knew about them. The boy was delighted by this unexpected turn of affairs, and in a few days the listless dunce was the marked boy of that school. Books on natural history were procured for him, and a world of wonders opened to his appreciative eyes. He read and studied and examined; he soon understood the necessity of knowing something of mathematics, geography, and grammar for the successful carrying on of his favorite study, and he made rapid progress in his classes. In short, twenty years later he was eminent as a naturalist, and owed his success, as he never hesitated to acknowledge, to that discerning teacher.

Character must express itself. It matters not the kind of culture one has, his

conduct will indicate the type of his disposition, as much as the lineaments of his face and the contours of his body indicate family lineage, and the systematic study of the phenomena of mental expression will lead to conclusions, in particular cases, which are scientifically precise.

PHYSIOGNOMY vs. PHRENOLOGY IN AUSTRALIA.

A CERTAIN lecturer on physiognomy, having some reputation in the West, where he practiced his art of delineating character with indefatigable zeal, has recently pushed his enterprise into a new domain, by going to Australia. There he probably supposed that he had the public quite to himself, and could ventilate his views on the physical evidences of character with freedom. It would appear from what we have read in certain newspapers published in that far-off dependency of Britain, that this physiognomist has sought to "magnify his office" by depreciative allusions and criticisms of the doctrines and practice of phrenologists. He even went so far as to publish an article or two in a prominent Sydney daily, in which a bold attempt was made to refute the proposition that "Size is a measure of power," culling from various sources, scientific and otherwise, apparent evidences in support of his assertion that the brain, by its development and contour, is not to be considered an index of mental capability; but that the face contains trustworthy signs, and should be preferred. In the face, however, this physiognomist includes the forehead, and imputes to that a typical relation to the character, which is of primary importance in his scheme of physical expression. He

must know that the frontal bone largely owes its shape to the development of the brain it covers, otherwise the data he cites in his attack upon Phrenology are not the fruit of his own readings in the physiology of the brain. It seems impossible that a man could have gone over a rather broad course of examination among authorities, if only to gather material for a settled purpose, without frequently meeting with definite statements regarding the origin and growth of the brain, and how the cranium is related to it. But the man who can intimate that the forehead does not belong to Phrenology fully as much as to Physiognomy or any other system of character-reading founded upon the physiology of man, as this gentleman has endeavored to show to his public audiences, convicts himself of positive hostility to Phrenology.

His statements and published articles aroused the indignation of advocates of Phrenology, many of whom are to be found in Australia, and they replied to him through the newspaper he chose as the medium of his attack on the science. He found, probably to his great surprise, that he had mistaken the community, and that there were men who could reason profoundly from Gall and Spurzheim in that far-off country, and could measure lances with him in his chosen department of professional work.

A controversy of some length was the result; in the course of which, as we are pleased to see, the advocates for Phrenology exhibited a good degree of polemical skill, and a fund of information bearing on the organization of the brain, and the evidences of its relation to the mind, which could not be otherwise than the fruit of extended study. It is noticeable that the physiognomist himself made no

replies to his critics, but that his cause was championed by another, whose ability in discussion, while it shows the man of culture and literary experience, helped to impart to the controversy much spirit and interest.

A NEW "MEDICAL DISCOVERY!"—
Alexander H. Stephens, at the close of his campaign for Governor of Georgia, said:

"I think the stump sweat did me good. When I used to campaign a great deal I frequently went on the platform feeling hardly able to stand up. I would speak and perspire freely. Afterward a good rubbing and a change of clothes would make me feel like a new man. In the recent trip I felt better after making speeches than I did before, except at Albany, and there the day was very hot. I believe a 'stump sweat' has almost as much virtue as the Indian 'ground sweat,' a remedy they applied in desperate cases. They would dig a pit, as if for a barbecue, and when it was well filled with coals, would pour water in upon it. In the hot vapor that arose they would place their patient wrapped in a wet blanket. If that didn't cure him his case was hopeless."

We do not know but that Mr. Stephens is right, and that political stump-speaking, which produces the sudatory effects described, is a method of treatment allied to the hydropathic, and productive of certain remedial effects much needed by most politicians. We've no doubt that the man who goes into a political campaign wholly in earnest believing that his cause is "holy, just, and true," and after a day "on the stump" receives the attention Mr. Stephens enjoyed in the way of rubbing, changes, etc., would find the experience an excellent substitute for bathing in the Russian or Turkish fashion. If politics, stumping, etc., were not

so mixed, we don't know but that we'd try the treatment ourselves—if we had a chance.

HOW DID YOU VOTE?

SPEAKING of "stumping" prompts further remarks on political affairs. The fall elections have just taken place, and in many States scenes of bribery and fraud in the management of conventions, trickery and vote manipulations at the polls have been witnessed, exceeding perhaps almost any similar doings in the past. On one side, a successful hold on national affairs for nearly twenty years has encouraged politicians who claim loyalty to that side to employ bold methods, for the assurance of a further term of control, which could not be sanctioned by either propriety or decency, and much less by justice. On the other side, eagerness to obtain the highest offices "in the gift of the nation," has been accompanied by doings on the part of the primary managers and district bosses, in which conscience and honor appear to be totally minus factors. The good citizen, no matter what his proclivity might be, whether Republican or Democrat, if not too much absorbed in his private affairs, must have looked on the turbulent hordes of greedy politicians with feelings of disgust akin to those expressed by Mercutio in "A plague upon both your houses."

The "good citizen!" When we reflect that four-fifths of the men who may be ranked under this category are good in every respect but one—that of duty to their civil relation; that they take no interest in politics, and so permit a condition of affairs in county, State, and national Governments to which they can not allude without reprobation, we are

forced to conclude that they suffer justly under the harrows of corrupt and ignorant legislation, and should not complain. The men who conduct the business of society, the men who own the real estate, the farmers and mechanics, are numerous and strong enough to revolutionize political affairs, if they would but take part in them. The clamorous gangs of coarse pot-house loungers, the vaunting machine-bosses, and whippers-in might contend at first, but their weakness would soon be evident before the calm, resolute power of the men whose intelligence and pecuniary resources give to American life what character for strength and nobility it possesses. We have no hope for the nation unless the "good citizen" comes forward and insists upon being counted in the game of politics, and because of his loyalty to law, and his provision of the means to pay the expenses of government, insists upon having his say as to the men who shall administer that government.

We think that the tendency is in that direction; that the "good citizen" is coming out, and that ere long a great change will be wrought in public matters. The extreme to which private jobbery in public measures has been carried has aroused so much indignant attention, that in the late elections there were intimations of a growing spirit among voters to support the better man and not the mere party candidate. We believe that the *good* Republican and the *good* Democrat can meet on this footing without a sacrifice of principle, and that while each may be desirous of the success of his banner—if there is one he can point to, as representing his true views—he is more desirous of purified methods in the selection of officials and in the

conduct of public business. He can not subscribe to ring combinations which defraud the people under a mantle of legal authority; nor can he palliate the leadership of a man in a State canvass who has been convicted of embezzlement on a grand scale by the conscience of the people, if he did barely escape prison by a jury's disagreement. Such bold crimes awaken the good citizen to a sense of duty, and persuade him of the necessity of independent personal freedom to reform in political morality.

Is it not time that the reign of propensity, selfishness, tyranny, greed, and ignorance came to an end in public affairs? But so long as the good citizen keeps out of politics, and like produces like, so long must it be expected to continue.

A BLUNDER, AND WORSE.

OUR attention has been called to an article published in the *Weekly Tribune* of Salt Lake City, which discloses a state of feeling in the writer's mind toward Phrenology, in great part made up of elements, contributed by excited Combativeness and Destructiveness, in connection with decidedly unsound intellectual impressions. Possibly Approbateness has something to do, also, with his mental state, its peculiar influence in his character being, let us suppose, very potent, and its special activity in this case being due, perhaps, to an unsatisfactory estimate of his powers by the standards of phrenological science. We copy a part of the article as furnished us by a clipping from the newspaper:

"We all recollect how, in that old humbug of a PHRENOLOGICAL JOURNAL, there were numerous cuts of living men whose craniological development was paraded

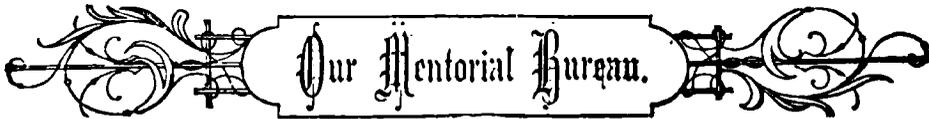
as exemplifying the unerring conclusions of Fowler's favorite phantasy. Among others, there was a cut showing the head of the Rev. Stephen H. Tyng, Jr., and it was dilated upon as marking the highest development of moral power, and a bright model upon which to mould and shape Christian skulls for all time to come. There was no bad point about Tyng; his perceptives, his responsiveness, his intellectual powers, his benevolence, his moral faculties, his spirituality, all assayed very high, and it was an absolutely sure thing that he would avoid the great fire test hereafter. There was nothing low or common about Tyng; his cranium showed him to be the acme of the morality and intellectuality of modern culture and development. But that was while Tyng occupied what was supposed to be the pinnacle of American pulpits. It could not be foreseen that in spite of all his evident exact adaptability to that place, he would afterward find out that it was all a mistake, and he wasn't that kind of a man; that he would descend not to ordinary business life, but to that most skeptical of all regular business, and become an insurance agent, whose spirituality and faith in God must be pretty well eliminated before he can 'crack up' his business. Yet even this didn't satisfy him; he presently begins the business of stock-gambling, like any Jim Fisk, and of course gets into the usual corners, and wriggles out of them in the usual way, and lands in the courts as natural as life, as the defendant in a suit wherein he is charged with swindling one of his old and confiding parishioners out of \$3,552."

This is sufficient to show the attitude of the Salt Lake writer—editor?—toward this magazine, or toward phrenologists, and needs no characterization on our part by metaphor or adjective, as regards motive or the terms by which it is indicated. Now, as to the fact in the case. The PHRENOLOGICAL JOURNAL never published in its pages any such description of the Rev. Stephen H. Tyng,

Jr. Further, the PHRENOLOGICAL JOURNAL never published a portrait, or a biographical sketch, or a phrenological delineation of the Rev. Stephen H. Tyng, Jr. This statement, which may be verified by any one who cares to take the trouble to examine the files of the said monthly, places the author of the above opprobrious aspersion in a most ludicrous light. The unfortunate clergyman who is made to serve the purpose of his antagonism, we should not treat uncharitably. We do not know the circumstances which led to his withdrawal from the ministry, and are not prepared to accept mere newspaper comments as exhibiting the true state of the case regarding his acceptance of a position abroad. To the discredit of the press, there are too many connected with it who appear to delight in an opportunity to sneer at and deride a man

who has fallen under censure, without taking any pains to learn whether or not he has actually done a discreditable thing. Like wolves, when a poor fellow has got down, they rush upon him, and tear him to pieces; their gall-dipped pens appear controlled by a sheer malignancy. If a man has done wrong, he should not be treated unjustly, much less should he be pursued by rancor and vituperation.

In asking for justice in behalf of others, we should not forget to ask it for ourselves, if propriety require, so in this connection we would intimate to our contemporary of the Salt Lake *Tribune*, that professional courtesy and honor should lead him to withdraw the incongruous aspersions which he has permitted to appear in his paper, and candidly own the mistake in the same public manner as it was uttered.



To Our Correspondents.

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.

TO OUR CONTRIBUTORS.—It will greatly aid the editor, and facilitate the work of the printer, if our contributors generally should observe the following rules when writing articles or communications intended for publication:

1. Write on one side of the sheet only. It is often necessary to cut the page into "takes" for compositors, and this can not be done when both sides are written upon.
2. Write clearly and distinctly, being particularly careful in the matter of proper names and quotations.
3. Don't write in a microscopic hand, as the compositor has to read it across his case, a distance of nearly two feet, and the editor often wants to make changes and additions.
4. Never roll your manuscript or paste the sheets together. Sheets about "Commercial note" size are the most satisfactory to editor and compositor.
5. Be brief. People don't like to read long stories. A

two-column article is read by four times as many people as one of double that length.

6. Always write your full name and address plainly at the end of your letter. If you use a pseudonym or initials, write your full name and address below it.

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, or what is better, a prepaid envelope, with their full address. Anonymous letters will not be considered.

SLEEPING WITH THE MOUTH OPEN.

—J. M. M.—The only true way for one to sleep as regards the position of the mouth, is to have it closed. Nature has designed the nostrils as the breathing passage for man and beast. If you will observe the animals around you, you will notice that when quiet the mouth is closed. Breathing with the mouth open not only introduces the air too abruptly to the lungs, but also affects the condition of the membranes of the mouth and alters the constitution of the secretions. One who sleeps with the mouth open, generally awakens with a dry, parched, disagreeable sensation, which does not wear away very quickly.

GOTHS AND VANDALS.—*Question*: Please tell me who these people were. We often hear them mentioned in conversation. L. M.

Answer: They were German or Teutonic tribes, who were prominent in the early part of our era on account of their warlike nature. The Goths lived along the Danube and the Alps in the days of Rome, and the Vandals dwelt below the Baltic Sea. They invaded Italy and Africa and Spain, and made their prowess felt by the Roman armies—even penetrated into the Roman capital, and carried off not a little booty. You doubtless have heard of Alaric. He was the greatest of the Gothic kings; captured Rome three times, and for a while wielded sway as an emperor in the Roman Empire. Rome's final fall in A.D. 476 was brought about by the allied armies of the Goths, Vandals, Huns, Alani, and Franks. The history of these barbaric peoples is exceedingly interesting, not only in itself, but especially on account of its connection with the development of European civilization.

A FARMER'S ORGANIZATION.—The farmer should have a level head; in other words, he should have a well-balanced organization; be strong and vigorous in body, and clear and well developed in mind. He needs good perceptive faculties of intellect, and a well-developed side-head, especially in the neighborhood of Constructiveness and Executiveness. He needs to be a practical man; thorough-going, positive, energetic, clear in his discriminations, hopeful, in earnest. He does not need so much philosophy as he does tact, but the better his organization the better farmer he should be.

NODDING HEADS.—*Question*: Can you tell me what is the cause of persons nodding their heads, just as though they were bowing to some one? H. J. H.

Answer: Such people have gotten into the bad habit of talking to themselves; carrying on an internal argument, and so on, and suiting the action to the thought. Large Benevolence and Agreeableness tend to the formation of the habit. Generally those who nod have Firmness more or less expressed, with a tolerable degree of Combativeness, so that the movement of the head adds, as they think, an emphasis to the internal remark.

BATHING THE EYES.—*Question*: Is it good for the eyes to immerse the face in a bowl of clear water, and then open and close the eyes while under the water, doing this at night just before retiring? H. G.

Answer: It will not injure the eyes to do so quickly in tepid water. The better way, we think, is to use a piece of soft sponge or linen, and bathe the eyes closed, and then to dry off

the excess of moisture with a soft towel. No pressure should be exerted.

[Several Answers must be deferred to our next Number.]



Communications are invited on any topic of interest: the writer's personal views, and facts from his experience bearing on our subjects, being preferred.

IMPROVING THE MEMORY.—Many rules are given for the regulation and improvement of the faculties of memory. One is, that he who wishes to have a clear and distinct remembrance should be temperate with respect to eating, drinking, and sleeping. The memory depends very much on the state of the brain, and, therefore, whatever is hurtful to the latter must be prejudicial to the former. Too much sleep congests the brain, and too little depletes it; therefore either of these extremes must, of course, hurt the memory, and ought carefully to be avoided.

The art of memory is little more than the art of attention. What we wish to remember we should attend to, so as to understand perfectly. We should disengage our minds from all other things, that we may attend more effectually to the object which we wish to retain. If the mind is employed on this subject, that, and the other, it falls to center at any particular point. Many readers note in the margin of their books the most important passages, the strongest arguments, or the brightest sentiments. Thus they load their minds with superfluous attention, repress the vehemence of curiosity by useless deliberation, and, by frequent interruption, break the current of revelation or the chain of reason, and at last close the volume, and forget the passages and the thought. The act of writing, itself, in such a case, distracts the thoughts, and what is read twice is commonly better remembered than what is transcribed. But to write an abridgment of a good book may sometimes be a very profitable exercise.

The mind is seldom fit for close attention soon after meals; the effort draws the blood and forces from their proper employment in digestion, and stomach derangement is apt to ensue, to the disturbance of the brain and the prejudice of the health. Both the mind and body should be easy and undisturbed when we engage in committing things to memory, and, therefore, quiet and retirement are most fit for it.

It is, indeed, hardly credible to what a degree both active and passive remembrance may be improved by long practice. Scaliger reports of himself, that in his youth he could repeat about

one hundred verses, having once read them; and Berthicus declares that he wrote his "Comment upon Claudian" without consulting the text. To hope, however, for such degrees of memory as these, would be equally vain as to hope for the strength of Hercules, or the swiftness of Achilles. There are clergymen who can get a sermon by heart in two hours, though their memory, when they began to exercise it, was rather weak.

Habits, to be strong, should be formed in early life, the memories of children should therefore be constantly exercised; but to oblige them to commit to memory what they do not understand perverts their faculties, and gives them a dislike to learning. In a word, those who have most occasion for memory—as students, orators, and public speakers—should not suffer it to lie idle, but constantly employ it in treasuring up and frequently reviving such things as may be of most importance to them, for by these means it will be more at their command, and they may place greater confidence in it on an emergency.

C. WHITTIER BROWN.

HAS NO DOUBT OF IT.—A correspondent of Morgan, Texas, in writing to this office, says: "Perhaps a few data of experience from one who has lived in Texas for twenty-five years may prove interesting to some of your readers. For some time I have been closely engaged in the investigation of mental phenomena; in fact, inherit a natural tendency to observe the character and motives of the mind, and ever since I learned to read I have sought after and read everything that I could procure on Phrenology. I made public and private examinations in various parts of the State, and can conscientiously say that every close observation I have made only adds to the sum total of my phrenological evidence. Mistakes I have sometimes made, but always found them to be the result of my carelessness instead of any defect in the science. I feel that I am stating only truth when I say, that there is not a single individual of ordinary intelligence who will give the noble science of Phrenology a fair and impartial investigation, but will be convinced that the honest expounders of mental science, according to Phrenology, are among the most noble benefactors of our race. When I hear persons speak lightly of this science or its teachers, I consider them as objects of pity, because they have evidently been wrongly informed, and do not understand its principles; at least they do not understand that it is a part of wisdom to keep the mind open and ready for the reception of facts, however opposite to preconceived opinions.

W. H. DAY."

FOR THE CONVENTION.—*Editor of the JOURNAL:* I must notice the suggestion made in the September number of the *JOURNAL* in

reference, to holding a Convention. It is a step in the right direction; in fact, I think it necessary, for the reason that we are improving scientifically, at the same time disseminating the truths of Phrenology to the public as they were never presented before. The public has confidence in us, and it is growing with the new generation, and it is our duty to stimulate this growth. *THE PHRENOLOGICAL JOURNAL* and *The Phrenological Magazine* are doing a great deal, but I consider that a convention would be an impulse to all interested in Phrenology. I should be willing to subscribe my share toward it, as a student, although, owing to my being so far away, I should not be able to attend its meetings. Perhaps there would be another, in course of time, held on my side of the water.

Yours truly,
WILLIAM MUSGROVE.
Oldham, England.

PERSONAL.

MR. KNIGHT, the new Lord Mayor of London, began business life as a warehouse porter in the city of which he is now chief magistrate. He enjoys (?) the glory of this high office one year.

M. PASTEUR is of low stature, but powerful frame, angular, spare, and weather-beaten. He is of humble origin. Although his reputation rests upon researches of the most material nature, he is a sincere believer in spiritualism. He is a man of few words.

THE HON. MARK FRANCIS NAPLIER, the counsel instructed to defend Arabi Pasha, is the second son of Lord Napier, formerly her Majesty's Ambassador at St. Petersburg. Mr. Napier has not long been called to the English bar, and this is probably the first important brief he has ever held.

THE fiftieth anniversary of the consecration of the Presiding Bishop of the Episcopal Church, the Right Rev. Benjamin Bosworth Smith, of Kentucky, was held in St. Paul's Chapel in this city on October 31st. On Sunday, the 29th, sermons were delivered by sons of the bishops who, together with Bishop McIlvaine, were consecrated with Bishop Smith.

MRS. AMELIA BLOOMER, responsible for the "Bloomer costume"—which, by the way, many good American housewives still wear when about their kitchen-work—is a quiet, sweet-faced, white-haired lady.

REV. DR. RAY PALMER celebrated his golden wedding on the evening of Oct. 11th last, at his home in Newark, N. J. There was a large company of friends present, among them several of considerable eminence. Dr. Palmer is known for his authorship of several beautiful hymns in common use.

WISDOM.

"Think truly, and thy thought
Shall be a fruitful seed."

POLITENESS is like great thoughts—it comes from the soul.

WE carry all our neighbors' crimes in sight, and throw all our own over our shoulders.

SORROWS are our best educators. A man may see farther through a tear than a telescope.

TRUE bravery is shown by performing without witness what one might be capable of doing before all the world.

THE worst education which teaches simplicity and self-denial is better than the best which teaches all else but this.—*Thomas Hughes.*

A MODERATE self-confidence is the foundation of true manliness of character, and the source whence have issued most of the noblest enterprises in the world's history.

POVERTY is hard, but debt is horrible; a man might as well have a smoky house and scolding wife, which are said to be the two worst evils of our life.—*Spurgeon.*

KNOWLEDGE is as food, and needs no less Her temperance over appetite, to know In measure what the mind may well contain; Oppresses else with surfeit, and soon turns Wisdom to folly, as nourishment to wind.

—*Milton.*

NOTHING is easier than fault-finding. No talent, no self-denial, no brains, no character, are required to set up in the grumbling business. But those who are moved by a genuine desire to do good have little time for murmuring or complaint.—*Robert West.*

HE that has no resources of mind is more to be pitied than he who is in want of necessaries for the body, and to be obliged to beg our daily happiness from others, bespeaks a more lamentable poverty than that of a man who begs for his daily bread.

MIRTH.

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

A KICK from an enemy often sends a man higher than a boost from a friend. For this reason love your enemies.

AN old lady, boasting the other day of the progress made by her son in arithmetic, exultingly said, "He's in the mortification table."

"YES," said Feaderson, with energy, "that man has been the making of me." "Has he?" replied Fogg. "You are his first attempt, I suppose."

"DEAR me!" said Mrs. Partington, the other day, "young girls nowadays are not what their mothers were. Half of them are sufferers from nervous perspiration."

A TROY lawyer asked a woman on the witness stand her age, and she promptly replied: "I sold milk for you to drink when a baby, and I haven't got my pay yet."

A SUBSCRIBER writes to an editor in the West: "I don't want your paper any longer." To which the editor replies: "I would not make it any longer even if you did; its present length just suits me."

TEACHER—"Feminine of friar?" *First Bright Boy*—"Hasn't any." *Teacher*—"Next." *Second Bright Boy*—"Nun." *Teacher*—"That's right." *First Bright Boy* (indignantly)—"That's just what I said."

IN a certain street are three tailors. The first to set up his shop hung out his sign: "Here is the best tailor in town." The next put up: "Here is the best tailor in the world." The third simply had this: "Here is the best tailor in this street." Bright "feller"!

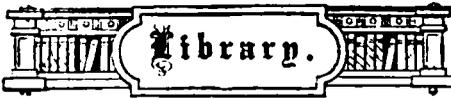
HER CHIN.

Tying her bonnet under her chin,
She tied her raven ringlets in.
But not alone in the silken snare
Did she catch her lovely floating hair;
For, tying her bonnet under her chin,
She tied a young man's heart within.

—*Norah Perry.*

THE company appeared to be discussing the subject of nocturnal assaults upon unoffending passers-by: "For my part," says Doctor X, "I was only attacked once in my life. I had been practicing about a year in a town of some importance, and one night I was set upon by four masked men, beaten to a jelly, sir, and left for dead." "Did you never discover the authors of the outrage, doctor?" "Yes, sir. Starving undertakers, sir."

A MEMBER of the House of Commons had been paying attention to a young lady for a long time, and had taken her to the House so constantly that she became well posted in the rules. On the last day of the session, as they came out, he bought her a bouquet of flowers, and said to her, "May I offer to you my handful of flowers?" She replied, "I move to amend, omitting all after the word 'hand.'" He blushing accepted the amendment. They were married a few weeks since.



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 and physiological science. We can usually supply any of those noticed.

TRAITS OF REPRESENTATIVE MEN. With Portraits. By Geo. W. Bungay, author of "Off-Hand Takings," "Crayon Sketches," "Creeds of the Bells," "Pen Portraits," etc. 12mo, extra cloth. Price \$1.50.

For him who finds biography an agreeable employment of his mind in the hours of leisure, Mr. Bungay has prepared a feast of good things in this well-printed and tastefully bound volume. We have examined very many sketches, long and short, of men and women whose merit and life-work were thought sufficient to warrant a writing-up by somebody of greater or less skill in putting words together, but we have rarely met with a writer who possessed as pleasing a style, combined with so happy an adaptation to the description and analysis of human character, as Mr. Bungay. He certainly appears at his best in this work, and it is easily inferred that he entered upon its preparation with zealous heartiness. The majority of the names on the list are or were personally known to him, and all have come within the radius of his study, so that he writes from the point of view of the original observer. A few names cited from the list—of, for instance, James Russell Lowell, Theodore Thomas, Wendell Phillips, Rev. Dr. John Hall, Thurlow Weed, William M. Everts, Thomas C. Acton, Edwin Booth, Henry Bergh, Elbert S. Porter, Samuel R. Wells, Rufus Choate, Sir John A. Macdonald, Rev. David Swing, Jacob M. Howard Bishop John Travers Lewis, Paul H. Hayne—indicate that live men and live issues for the most part engage his pen, and in presenting the array he does not attempt to cover a certain amount of space, so much as to present a fair review of the career of the men selected, and to show the characteristics which distinguished each in his sphere and the motives which led him on to the success the world has acknowledged. A subject like Longfellow, or Emerson, or Phillips, or Acton, or Edwin Booth, or Hayne, finds a warm interest in Mr. Bungay, and he works upon it *con amore*, and extracts from it admirable lessons for the life-work of the future reader, encouraging and happy motives for an ambitious youth, and interesting incidents worthy the perusal of all. There is nothing dry, nothing

stale in this book, although some of the names are as "familiar as household words" to the intelligent American. Here is an extract, taken almost at random, from the "pen-picture" of Edwin Booth: "It is said by those who are competent to judge, that this prince of tragedy excels, not in elegant comedy, but in fierce sarcasm and 'stimulated madness.' He has intense poetic sensibility, and being a 'man of moods,' like all men of real genius, he is unequal in his efforts. Even when he seems to lack warmth and color, there is always artistic treatment and poetic expression in his voice and manner. He studies, analyzes, and masters every point in a play, before its presentation on the stage. He is not satisfied until the spirit of Shakespeare gives life to his ideal. The mere memorizing of the words in a drama is but a small part in his preparation. The text in type is a mere body without the animating life. He does not rest until it contains a living soul, pulsing in the heart and throbbing in the brain. No detail of his study is neglected—historic accuracy is demanded, and the passion of the play is brought out as vividly as lightning from a thunder-cloud. A glance at the portrait before me makes it plain and clear that the face and head represent a refined and cultivated man—one whose fine and delicate organization combines the tenderness of a woman with the majesty of 'the true prince.'"

In this issue of the PHRENOLOGICAL JOURNAL is the sketch of the well-known artist of American life and character, Eastman Johnson, which will more fully exemplify Mr. Bungay's manner of dealing with his subject, and we doubt not that they who read that will desire to read what the author has to say concerning other "representative men" who have given our era character and progress in moral and intellectual things. The sketches are illustrated, in each case, with admirable portraits, so that, in this one respect the volume is of no small value to the American as an album of finely-engraved likenesses, whose fidelity to their originals is much above the average representation of faces in book-prints.

WINES: SCRIPTURAL AND ECCLESIASTICAL. By Norman Kerr, M.D., F.L.S., author of "Unfermented Wine a Fact," etc. 12mo, pp. 138. New York: National Temperance Society and Publication House.

The cause of the affirmants of the question, Were there two kinds of wine? in ancient times is gathering strength, and comparatively little is now heard from the negative. We had occasion within a short time to notice a book in which unfermented wine was discussed and testimony cited from secular and sacred authorities, and now a scientific writer adds another, in the course of which, without prolix argumentation, he goes quite over the field. The question, we admit, is

not an easy one when considered with regard to the Bible aspects of wine, on account of the varying views of divines and commentators, and Dr. Kerr does not treat it in a cavalier spirit, but with much frankness, recognizing the difficulty of exact definition, when one comes to explain the terms used in the Bible to indicate wine. He shows in a brief paragraph or two how words have changed in significance among Oriental peoples in their special application to beverages, and how "wine" does not always mean the same kind. The miracle of Cana, so often quoted by the advocates of alcohol, is taken in hand by our author and, with much force of reasoning, he shows that it was probably a harmless beverage which Christ produced. He cites, in this behalf, several early commentators who viewed the affair as an exhibition of power on the part of a divinely-endowed Person who accomplished in a moment what takes several months each year in the ordinary process of nature, the conversion of the watery sap of the vine into wine in the grape. In fact, the book is, in the main, a tabulation of authorities, going to show that the making of unfermented grape juice, of unfermented palm wine, etc., was not an uncommon practice in ancient times. We can commend the book as an excellent one for references in the study of the question.

SWABIAN STORIES. By Theodore Tilton. 12mo, pp. 297. Price \$1.50. New York: R. Worthington.

Adding to his character of the popular lecturer that of the poet, Mr. Tilton now invites attention to a new volume made up of legends drawn from that exhaustless fountain, old German life and character, and from probable events of mediæval history. These legends are written in agreeable verse, which, at times, rises to the level of poetry and reminds us of the manner of Browning. To average readers most of the "stories" are new, and as they have been selected with care, each having features of interest which remove it from the commonplace, we opine that the volume will find a good market. The metrical stories number nineteen, the majority being recitals of love and passion, some with dramatic consequences of gloom, but the majority are pleasant in result. Of the first type especially are "The Silver Bell of Stuttgart," "The Romance of the Rothenberg," while to the second class belong "The Ass of Hohen Neufen," "The Boast of Eberhart," "The Besieged Nuns of Kirchhelm," "The King's Wager." We find the pretty story of the faithful wives of Weinsberg neatly done in rhyme in the list, and notice that Mr. Tilton has a ready command of various metres, usually adapting an allegro or penseroso movement to the tone, be it gay or grave, of the story.

THE BODLEY GRANDCHILDREN, and their Journey Through Holland. By Horace E. Scudder, author of the Bodley Books. Small quarto. pp. 192. Price, \$1.50. Boston: Houghton, Mifflin & Co.

This is the first volume of a second series of the Bodley books—the first series having to do with sights and things in American history and life, and telling stories of Europe, as home and abroad appeared thirty years ago; while the second series will treat of matters as they are. The Bodley children of the long time ago have grown up and have children of their own, and the families make a tour in Holland, spending several weeks there. The parents give the children object-lessons, as they travel from point to point, in history, and show the relations between American and Dutch history. As a preliminary before embarking New York is visited, and its early history as New Amsterdam is reviewed. The conversational method is pleasing, and the references to important incidents made in the style that can not but interest the young as completely as any of the fictitious story-books of the day, while the effect is incomparably better in impressing the young mind with many facts of history and geography, which will prove of practical service to them. This method of instructing children is most happy, and we welcome every volume of the Bodley stories. The one under notice is well illustrated with sketches of Holland scenery, noted places, buildings, and of the people.

MABEL'S WORK: A Sequel to "The Voice of the Home." By Mrs. S. M. I. Henry, author of "The Pledge and the Cross," etc. Price, \$1.50. New York: National Temperance Society and Publication House.

The sad close of what might have been a most useful life but for intemperate habits which found their origin in a home of wealth and refinement, was depicted in feeling terms in "The Voice of the Home"; and now we have in this new volume a description of the ministry of the young lady whose life had been closely knit to that of the unfortunate Roy Mason, in a betrothal, which appears to have stimulated her in a course of endeavor to reform the people among whom she lived—her own father and brothers too. She becomes a temperance missionary, and the 450 or more pages of the book are filled with incidents in her career, most of them suggestive of means which may be pursued by the reformers of the day in their great conflict with the arch foe to human peace and happiness. There are suggestions of special value to young people who would help on the cause of truth and purity. The story is an interesting one for the casual reader, but its value consists mainly in the counsel given for temperance work in behalf of the young.

PUBLICATIONS RECEIVED.

COLLEGE CUTS, chosen from the *Columbia Spectator*, 1880, '81, '82. By Benedict Herzog, H. McVicar, and others. Published by White & Stokes, of New York. Price, \$1. To the people who are fond of good jokes, and to college boys particularly; this exceedingly well illustrated book will commend itself. The drawings are generally well done, and convey the point forcibly, in most cases with decided sharpness.

THE MONTHLY WEATHER REVIEW. Current numbers received. The extraordinary meteorology of the past summer and incoming autumn has rendered these reports of more than customary interest. The severe storms in the Middle and Western States receive a large share of attention in the July and August numbers. The tables are well filled with the measures of the thermometer, the precipitation, and wind observations.

THE POPULAR SCIENCE MONTHLY for November contains some matter of interest to the readers of the *PHRENOLOGICAL JOURNAL*; especially do we note the contributions of Dr. Nathan Allen on "The Law of Human Increase," and "Physiognomic Curiosities," by Dr. Oswald. Other topics are, "Sewer Gas," "Life Among the Battas of Sumatra," "Scientific Farming at Rothamstead."

DIALOGUES ON DRINK. By Benjamin Ward Richardson, M.D., LL.D., F.R.S. This is a new volume from an eminent source, written in a style well calculated to obtain general attention. The familiar manner in which the subject of liquor-drinking is presented renders it very different from the average temperance document or story. There are three characters, a judge, his wife, and a physician, who go over the field pretty fully, considering the relations of education and moderation, medicine and custom to alcoholic beverages, viewing the subject on all sides. Price, cloth, 50 cents; paper, 25 cents. National Temperance Society, New York.

VENNOE'S WEATHER ALMANAC, 1883, with the compliments of *The National Tribune* of Washington, D. C., in which the Canadian weather man deals out a series of "forecasts" for next year, undismayed by his misses of 1882. The pamphlet, aside, however, from the prophecies, contains many items of value. Price, 10 cents.

LOVETT'S CATALOGUE of the Trees and Plants for the Autumn of 1882, Nurseries, etc., at Little Silver, N. J.

THE AMERICAN KINDERGARTEN, and Other Papers. A pamphlet in the series of "The American Kindergarten Library," published by the American Kindergarten Society, New York. It sets forth in a brief form the procedure in kindergarten training, the main object of which

as summed up, "is so to educate the children that the evils of our social, religious, and political life shall be avoided, to awaken thought on this subject, and to incite to the utmost effort in this great reform." *The American Kindergarten Magazine*, of which we have received three numbers, is a pleasant publication, having in view the excellent object which has already been defined. The magazine is edited by Emily M. Coe, of New York. Published at \$1 a year.

OLD YARNS KNIT TOGETHER. By Jackson Slocum, of New York. Published by the American News Company. A compilation of many good things which have been published by the daily and weekly papers. Those humors containing most of the elements of hilarious incitement are illustrated, cartoon fashion.

OUR CONTINENT, an illustrated weekly magazine, conducted by the author of "The Fool's Errand," with headquarters at Philadelphia, is well advanced in its second volume. As a weekly, it has taken good rank with the other literary publications which are established in public esteem. The inside we think more attractive than the outside. We don't like the dingy, muddy cover, or the rude design of the title letters.

THE CHRISTIAN UNION, later numbers of which seem to us to be better somehow than this weekly has been—possibly because the topics which it discusses are more familiar to our thought; at any rate, its treatment of current matters is brief and practical, conferring information without weighting the reader with prolix talk. We like the way in which the political doings of the day are handled.

THE MICROSCOPE AND ITS RELATION TO MEDICINE AND PHARMACY is a bi-monthly, with which we must confess ourselves very much pleased. The discussions of instruments and of the results of histological and other work, are important to the physician and microscopist, and interesting to every lover of science. We hope the periodical will be sustained. Prof. Stowell, of Michigan University, is editor, and the subscription but \$1 a year.

THE UNIVERSAL REPUBLIC OF LABOR AND LEARNING, or the United States of Earth, by George Prindle MacGregor, Iowa. An epitome of the author's views concerning what is practicable in the way of social co-operation, and that a refined morality and spiritual sympathy will secure true happiness and prosperity.

SEVENTEENTH ANNUAL REPORT of the National Temperance Society and Publication House, presented by J. N. Stearns, Secretary, and adopted by the Board of Managers, New York, May 9 1882.