THE AMERICAN

PHRENOLOGICAL JOURNAL,

A REPOSITORY OF

Science, Literature, and General Intelligence.

DEVOTED TO

PHRENOLOGY, PHYSIOLOGY, PSYCHOLOGY, EDUCATION, MECHANISM, AGRICULTURE, AND TO ALL THOSE PROGRESSIVE MEASURES WHICH ARE CALCULATED TO REFORM, ELEVATE, AND IMPROVE MANKIND.

Illustrated with numerous Engravings.

VOLS. XXVII.  AND XXVIII.

"I declare myself a hundred times more indebted to Phrenology than to all the Metaphysical works I ever read."—HORACE MANN.

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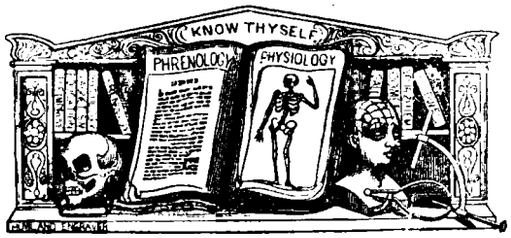
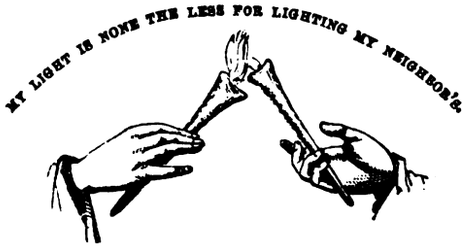
PHRENOLOGY is eminently the system of mental philosophy for the unlearned man, because it is much less abstract than any other. In pursuing the account which it gives of the mind, ordinary people feel, for the first time in their attempts at psychological investigation, that they have ground whereon to rest the soles of their feet. There is a distinct value in Phrenology as an extensively available means of studying mind.



We deem it right to mention that Phrenology appears to us to be true, in as far as it assigns a natural basis to the mind, and that it is entitled to a very respectful attention for the support given to it by a vast amount of careful observation, and the strikingly enlightened and philanthropic aims for which many of its supporters have been remarkable.—JOHN CHAMBERS, *of Chambers' Journal.*



DO UNTO OTHERS AS YE WOULD THAT THEY SHOULD DO UNTO YOU.

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JAMES BOGLE.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You derive the qualities of your mind from your mother, the tone of which is mellow, gentle, and pliable. The vital and mental temperament predominates, which enables you to enjoy life, take the world rather easily, and to manifest a predominance of the sympathetic and affectionate qualities, rather than those which give positiveness and individuality to character. You need more of the muscular temperament to secure a favorable balance of organization, and should strive to increase the muscular and osseous systems, so as to impart to the mind the qualities of strength, tenacity, executiveness, endurance, and sternness. You are too tender, sympathetic, diffident, and impressible. You are subject to rather high states of excitability; but the common tone of your mind is placid and quiet. You have a fair constitution, but can not endure severities or great hardships. You need more out-of-door exercise, and should thus heighten the stamina of your system by more vigorous efforts, instead of depending for excitement upon society, or upon what you may eat or drink.

Your phrenological developments indicate a peculiar character and cast of mind. You are susceptible of very strong love to wife, are capable of intense interest in the welfare of a companion, and willing to make almost any sacrifice for one whom you love. You have a passionate fondness for children, and exhibit a great amount of tenderness of feeling toward them. You are not sufficiently social, cosy, companionable, and disposed to mix up in company. You value your domestic circle, and enjoy the company of friends at home, but are not so much inclined to go out into general society and make new acquaintances. This arises chiefly from the fact that you never introduce yourself, and are constantly afraid that you shall interfere with others.

You have a strong love of home, country, and native place; dislike to change from one place to another; are gratified to have everything settled and fixed in reference to home and place of business; still, you love variety of thought, and your mind passes rather rapidly from one subject to another. You have intensity rather than protractedness of mind, and your judgment is quickly matured upon whatever subject occupies your attention.

The executive powers are scarcely strong enough to give you sufficient force, impetus, and boldness. You need more courage, self-defense, and power of aggression. You would not fight for anything except for your wife and children, if you could possibly avoid it; yet Destructiveness is full in development, which gives you a fair amount of energy when your anger is awakened, or your interest or honor assailed. You enjoy your food, and are very hospitable, and disposed to indulge appetite freely in one way or another.

Your sense of property is only average, and not strong enough to make you selfish, or even to be a great stimulus to industry in business. The want of money is a greater incentive to effort in you than the love of it.

PORTRAIT OF JAMES BOGLE.
Ambrotyped by BRADY.

You are very frank, honest-spoken, open-hearted, and confiding; are too liable to trust others, and to devote yourself to the interests of those with whom you sympathize, without properly protecting yourself or consulting your own interests.

You are sufficiently cautious to avoid difficulties and dangers, and in some things you are well-nigh timid; yet you are not so much under the influence of fear and restraint as you are of those qualities which give deference and respect.

You are decidedly ambitious, sensitive, keenly alive to reproach and praise, are very anxious to secure the good-will of others, and to be favorably known; but you lack pride, self-love, dignity, and that kind of haughtiness of feeling that gives assurance. Diffidence is one of the great drawbacks

of your mind. You should take on more positiveness, independence, and self-respect.

You are firm in your general purposes and plans, and are disposed to persevere in any undertaking where duty involves effort. Your moral faculties show a predominance of Benevolence and Veneration. The former gives you too much kindness and sympathy, and a disposition to feel yourself under obligation to others. There is danger of your becoming morbid in your feelings of sympathy. You are very respectful, quite mindful of superiority, and you are inclined to look up to and recognize objects worthy of respect —in fact, you are religiously disposed, as your mother was before you. You are rather easily impressed with, and governed by, impressions of a sentimental and spiritual nature. You need more hopefulness, are not sufficiently sanguine, buoyant, anticipating, and enterprising. You are afraid to run risks, and ought to cultivate boldness and cheerfulness. Conscientiousness has a full influence in producing the sense of justice and moral obligation, but does not lead to such a fault-finding spirit as results in radicalism.

Your ingenuity takes a planning and inventive direction, giving skill and versatility in devising ways and means to accomplish ends. Ideality being rather large, gives you a sense of perfection, refinement, and delicacy, but not extravagant poetical feeling or a bombastic tendency of mind. You love the sublime, and whatever is imposing in nature—are full of elevated and esthetic ideas. Your power of imitation makes you successful in copying and in conforming to the ways of society. You enjoy fun when others make it, can feel it and appreciate it, but your diffidence often prevents you from producing it.

You have all the perceptive organs comparatively large, excepting Calculation. You are poor in figures—were never fond of arithmetic—but you have a wonderful faculty to observe, are quick to accumulate information, to see things just as they are, and to inform yourself as to the qualities and conditions of things. You have a keen appreciation of forms and outlines, excellent judgment of proportion. You have a good mechanical eye, a correct sense of gravity, and power to carry a steady hand. Your organ of Color is decidedly large, which, combined with the other perceptive faculties, greatly aids you in Art. You are neat, methodical, careful to arrange work and perfect your plan before you commence its execution. You have a superior memory of places, and the relative position of objects, and this, with Constructiveness and Order, enables you to group, combine, and arrange properly your materials for a painting, or your facts in your memory as the basis of well-poised opinions. You can carry in your mind your entire experience, and recall almost your whole history. You are punctual in your engagements, and endeavor to reduce every thing to a system. You have a fine appreciation of music, and a good ear for it; are correct in the use of language, and can talk quite freely and copiously; but, being diffident, you generally prefer to hear others talk rather than to talk yourself. You have fair Causality, and ability to reason from first principles, but are not so profound in argument as you are critical, analogical, and descriptive. You have a plenty of practical common sense, are specially intuitive in your perception of character, motives, and inner mind of those with whom you come in contact. You read the character of others not only by intuition, but also through the laws of sympathy, which enables you to take on their tone of mind. You should strive to be a little more youthful, playful, and entertaining, put yourself forward more in society, be more dignified, more self-reliant, and exercise more tact and management.

You possess much power to be useful to your fellow-men, and a strong desire for the good of the race; and with more boldness, force, and Hope, you would enjoy life better, and be more influential in the world.

BIOGRAPHY.

JAMES BOGLE, one of the most talented and distinguished American artists, is a native of Georgetown, S. C., and is now about forty years of age. His father, an eminent physician, died while our subject was very young, leaving a widow and three children, two sons and a daughter, James being the eldest. After the death of his father, young Bogle, with his mother and family, resided together in several of the Southern States until he was about sixteen years of age, when he entered as a clerk in a book-store, where he remained four years, receiving repeated marks of distinction and favor at the hands of his employer, who was one of the most systematic, orderly, and thorough-going of business men, and was noted for a great love of justice and manly generosity. While in this situation, Mr. Bogle laid the foundation for a sound, practical education, devoting many hours daily to reading the best works on history, the great poets, essayists, and works on art and criticism.

Upon entering his twentieth year, his employer informed him that his services were worth more than he could afford to pay for, and advised him to visit Southern Alabama and establish a business house for himself, generously offering to supply him money and credit to the amount of ten thousand dollars, if necessary. This unexpected liberality made a lasting impression upon the youthful Bogle, as has since frequently been shown in his own acts toward other young men struggling for position. After due consideration, Mr. Bogle visited Mobile and other places with a view to establishing a business house for himself: but finding competition very great, and the premonitory symptoms of the great commercial revulsion of 1837 beginning to appear, he relinquished the idea, and obtained a situation in a general commission house, in the capacity of book-keeper and salesman, where he remained two years, when he was obliged to return home almost helpless from a severe attack of inflammatory rheumatism. While in this pitiable condition, his younger brother, who had been studying with Prof. S. F. B. Morse, came home with his certificate of qualification as a portrait painter. All the members of the family having shown a greater taste for drawing than for any other pursuit, the young painter immediately commenced giving lessons to amuse his invalid brother, and so great was his success, that in a few months James had completely recovered his health and had learned to paint a very good likeness. The brothers now formed a partnership, and started on an itinerating, artistic tour, beginning with Charleston, alternately painting on each other's pictures, working on the principle that two pair of eyes can see more than one pair. In this way they soon established a reputation for taking accurate likenesses, and achieved a complete artistic and financial success.

Soon after, the younger brother visited Europe, and passed two years among the galleries and works of art at the great centers of civilization and refinement, after which he returned home with a high promise of distinction in the walks of his art. But he soon purchased a beautiful island in Chesapeake Bay, where he settled and turned gentleman farmer, having first married a very lovely and accomplished lady. During this time our subject had come northward, stopping at Baltimore, where he made the acquaintance of Miss Riggs, whom he soon after married, and immediately settled in New York, where he established a studio, and has since remained, winning golden opinions by his promptness, geniality, and constantly-increasing skill in his beautiful art.

As an artist Mr. Bogle is distinguished for rare feeling and a fine discrimination of character, his portraits being all wonderfully individualized. He also ranks high as a colorist and draughtsman; but his most remarkable quality lies in his ability to secure his best results in the best possible time—often dashing off a masterly head at one or two sittings. This quality, joined with great business integrity, has made him a favorite with business men and those who have no time to waste on the aberrations of genius. Perhaps no man of his age has painted so many good portraits as Mr. Bogle, and he succeeds almost equally well with women, children, and men for his subjects. He has painted many of our distinguished citizens, and usually is crowded with orders from all parts of the country. Among the notabilities, he has painted a splendid copy of De Witt Clinton, presented by Mr. H. L. Stuart to the Board of Education in this city, which occupies a position behind the President's chair in the meeting-room of the Board, and is, beyond all question, the best picture ever painted of New York's greatest statesman and first President of the Public School Society. He also painted a portrait of Hon. E. C. Benedict, President of the Board of Education at the time of the consolidation of the Public and Ward Schools, of this city, in 1853, to occupy a panel at the left hand of Clinton. Soon after he received an order from Dr. Webster and the faculty of the Free Academy, to paint a companion portrait of Hon. Townsend Harris, the originator of that institution, as he was about to leave the country as Consul-General to Japan, which now hangs at the right hand of Clinton. He also painted a masterly portrait of Dr. David Patterson, the eminent Greek scholar, and the first Principal of the City Normal School for Young Men, which occupies the hall of the City Teachers' Association. All these pictures have received the most marked admiration for their striking resemblances to the originals, as well as for their artistic excellence.

Mr. Bogle's facility in drawing has placed him without a rival in copying the features of a deceased person from daguerreotype copies which are sent to him from all parts of the country.

Mr. Bogle occupies high social rank, and is a

favorite with his artistic brethren, for all of whom he has an encouraging word. He resides a short distance out of the city, in a pleasant home, the result of the labors of his pencil, from which he comes in daily to his studio at Appleton's, on Broadway. At the present time he is on a visit to his Southern friends, in compliance with pressing requests that he should once more try his hand on the field of his earlier successes, having long had numerous orders from Charleston, Washington, and other cities, to paint distinguished persons unable to visit New York. His splendid head of Dr. Mittag, the learned author of the "Philosophy of the Language of Form," which was painted at a single sitting, and is now on exhibition in the Gallery of the Washington Art Association at the national capital, affords an eminent example of the masterly facility and power of this gifted and unpretending artist.

LUXURY AND HARD TIMES.

Our own follies make us miserable. That which we waste, or worse than waste, by hurtful indulgences, would carry us through years of scarcity, seasons of hard times, and cheer with comfort and plenty the years of old age.

In all our large cities the unemployed are demanding bread from the public. They form processions, they stand in groups about our parks and thoroughfares, and it is not uncommon to see fifty men collected, three fourths of whom will be seen each with a cigar in his mouth, and if you should happen to smell the breath of the remainder, you would find it tainted with either tobacco or rum.

We have ventured to suggest to those men who have become hoarse in crying for bread, that every cigar they smoke would buy a small loaf; and on questioning one, who said he smoked six cigars a day, even in these hard times, he confessed that they cost him as much as would be sufficient to furnish bread for his family.

It may not be known to our readers how many millions of dollars are spent annually in a single city like New York, for this one vile indulgence —tobacco. It is not uncommon to hear a great outcry about the amount of taxation for various purposes, and it is often said that these burdens are becoming insufferable; but give us the tobacco that is used in New York, and we will educate every child within its limits, we will pay every clergyman his salary, we will keep all the churches in repair, and build a new one every year, we will furnish the necessary supplies for all our hospitals and alms-houses, and have money left. Every dollar that is thus spent for tobacco is not only a dead drain upon the industry of the people, but is worse than a total loss, since it injures health to an incalculable degree, and not only abridges life, by exhausting the vitality of the adults, and preventing the growth, and health, and development of youth, but it absolutely creates diseases which carry thousands to their graves every year. From the excitement and irritable state of the nervous system, produced by the use of tobacco, we are becoming a race of nervous invalids. Children inheriting this nervous irritability are fretful, precocious, feeble in organization, and stand a poor chance of coming to maturity and being capable of performing the duties of life.

It is hardly necessary to inveigh against the use of ardent spirits, or to make an estimate of the amount of money wasted on this worse than useless article. A great portion of this is consumed by those who are poor, and can illy afford any of their hard earnings for anything but the absolute necessaries of life, and who, when a pinch comes which deprives them of a week's or month's wages, find themselves utterly afloat, and in a state of starvation.

If we had the money which these people have spent within the last six months for liquor, we would furnish them bread for the entire winter. Still, if an effort were made to restrict the sale of liquor, these would be the first to rise, *en masse*, and vote against it; and yet they are the class who demand bread, and threaten to break open warehouses if they are not supplied.

The amount expended for liquor in this country would pay the expenses of educating every child, and as we said relative to tobacco, it would support the gospel and the poor.

We hold that tea and coffee do more harm than good; that they injure health, and often shorten life. The amount expended on these would be amply sufficient for the purposes above stated.

If we had the silks which have been literally worn out by dragging on the sidewalks within the last twelve months, the sum would be sufficient to furnish bread to the starving poor for the next three months. There is nothing to which people cling as they do to their luxuries. Habit fastens upon them, and they are its slaves. Men are willing to toil harder, or even to deprive themselves of the common necessaries of life, to gratify a morbid appetite or an inflated ambition; and we apprehend that if the poor, from this hour, would abstain from all hurtful luxuries and stimulants, such as tobacco, alcoholic liquors, opium, tea, and coffee, and put forth as much exertion as they do at present, or as they might reasonably do if they were to become sober and temperate, it would literally banish poverty from their doors. But they are taught by political demagogues to regard all who would guide them to a better life as their enemies. The temperate and industrious acquire wealth and position, and are obliged to pay the pauper bills for those who give way to the indulgence in appetite, and thereby become poor.

PAPUANS.*

Small tribes of the Papuan race, or, as they are sometimes called, Oriental Negroes, are very widely distributed among the islands of the Indian Archipelago; and New Guinea, the easternmost of the group, is supposed to be exclusively occupied by them. The Papuans have very few characteristics in common with the brown-colored races of the Indian Islands, but their most striking peculiarity consists in their frizzled or woolly hair, which does not spread over the surface of the head, as is usual with the negroes of Africa, but grows in small tufts, each of which keeps separate from the rest; and the hairs, if allowed to grow, twist round each other, and form spiral ringlets. Many of the tribes, more especially the mountaineers who hold intercourse with more civilized races, from whom they can procure cutting instruments, keep the hair closely cropped. The tufts then assume the form of little knobs, about the size of large peas, which give the head a singular but not altogether unpleasing appearance; for the regularity of these little knobs is so great, that the first idea which strikes a stranger is that they have been produced by means of a stamp; and the writer has every reason to believe that the hair of some tribes is naturally short, this knob-like appearance arising without the superfluous hair being cropped. Among the coast tribes of New Guinea, however, the spiral ringlets sometimes grow to the length of a foot, when they are either cut off close to the head, and made into wigs, by inserting the ends into skull-caps formed of matting; or the ringlets are opened out by the hand, and kept spread by the constant use of a sort of comb of bamboo with four or five long prongs. The hair then assumes a capacious, bushy appearance, like Fig. 10, which has caused the people who adopt the latter practice to be called "mop-headed Papuans." Some of the less known tribes plait the ringlets over the crown of the head, where they form a thick ridge.

All these practices seem to be adopted for the one purpose of obviating the inconvenience that must result from the ringlets falling over the face while hunting or fishing, without entailing the necessity of parting altogether with a personal adornment in which they take great pride. The hair of the beard and whiskers, with which the Papuans are usually well supplied, also grows in little tufts similar to those of the head; and the same peculiarity is found in the hair with which the breasts and shoulders of the men are sometimes covered, but here the tufts are much farther apart than on the head or chin. This description of woolly or twisted hair is peculiar to the full-blooded Papuans. A comparatively slight mixture with the brown race removes the peculiarity, at least has done so in all cases that have come under the writer's observation. The hair of people of the mixed race, although thick and curly, covers the surface of the head like that of Europeans. The Malayan term for crisped or woolly hair is "rambut pua-pua." Hence the term "pua-pua," or "papua", (crisped), has come to be applied to the entire race; and certainly it deserves to be retained, as expressing their most striking peculiarity.

The features of the Papuans have a decided negro character: broad noses, thick and prominent lips, receding foreheads and chins, and that turbid color of what should be the *white* of the eye, which is apt to give the countenance a sinister expression. Their natural complexion is almost universally a chocolate color, sometimes closely approaching to black, but certainly some shades lighter than the deep black which is often met with among the negro tribes of Africa.

With regard to stature, a great difference is found to exist between distinct tribes, even in New Guinea, which has led to some confusion in the descriptions given by different travelers, who may each have seen only a single tribe. On the southwest coast of New Guinea, within the space of a hundred miles, are to be found tribes whose general stature is at least equal to that of

* From "Native Races of the Indian Archipelago—Papuans. By George Windsor Earl, author of the 'Eastern Seas.' H. Bailliere, 290 Broadway, N. Y."

the finer races of Europeans, and others whose proportions are so small as almost to entitle them to the appellation of pigmies, while customs and characteristics generally so exactly correspond as to preclude the supposition that these peculiarities can be other than accidental. It is difficult to account for this; but as the stout and stalwart Papuans are met with only among tribes who have maintained their independence, and who at the same time possess many of the agricultural and mechanical arts, while the pigmies are found only among the tribes that have been driven to the mountain fastnesses, or have fallen under the influence of more powerful races, we may conclude that their mode of life has much to do with this difference in point of stature.

The various tribes also differ much in their appearance. The more diminutive Papuans, who chiefly come under the notice of Europeans as slaves in the Moluccan settlements, are unprepossessing enough while in their native state, but when under good masters, the regularity and wholesome nature of their diet, coupled with their apparent utter forgetfulness of home and relatives, produce a roundness in their neat, clean limbs, and a sprightliness of action, which is rarely met with among their more civilized neighbors of the brown race. On the other hand, the larger Papuans are more remarkable for strength than symmetry. They have broad shoulders and deep chests, but a deficiency is generally found about the lower extremities, splay feet and curved shins being at least as common as among the negroes of Africa.

A singular custom of raising the skin in cicatrices, especially on the shoulders, breast, and thighs, prevails very generally among the Papuans. These cicatrices are formed by cutting the skin through with some sharp instrument in longitudinal stripes, and if on the shoulder or breast, white clay, or some other earthy substance, is rubbed into the wound, which causes the flesh below to rise, and the scarifications, when allowed to heal, assume the form of embossed cicatrices, often as large as the finger. The process by which the flesh is raised is perfectly inexplicable to an European, who would be thrown into fever by any one of the wounds which these strange people bear, two or three at a time, without complaining, but certainly not without suffering. The practice of boring the *septum* of the nose has also been generally observed among the wilder Papuans. In the first instance they wear a roll of plantain-leaf in the orifice, which, by its elasticity, enlarges the hole so much as to admit the thigh-bone of a large bird or some other ornament, which is worn extending across the face on all great occasions. The coast tribes of New Guinea, and of the islands lying immediately to the east, have a practice of filing or grinding the front teeth to points; and another singular custom is prevalent with some of the coast tribes of Papuans, that of destroying the color of the hair, which is naturally black, by applications of burnt coral mixed with sea-water, and by preparations of wood-ashes in some instances, which gives the hair a light red or flaxen tinge. As the practice of pointing the front teeth is also common among the natives of the Pagi Islands, on the west coast of Sumatra, and the custom of discoloring the hair prevails among the natives of Timor-laut, Baba, and Sermattan, who are essentially members of the brown race in their general characteristics, some doubts may reasonably be entertained as to whether these are purely Papuan customs.

The Papuans, when placed in circumstances favorable for the development of their powers, are physically superior to the races of Southeastern Asia.

This want of organization renders it extremely unsafe for strangers to visit independent tribes, for although the majority may be peacefully inclined, some individuals among them are nearly certain to be turbulent, and inclined for mischief if not restrained by their companions. The struggles that take place on these occasions have come to be looked upon by their visitors as rather a favorable sign, from their indicating that no treachery is contemplated, which is sometimes the case when the natives are unanimous. The wilder tribes generally avoid all intercourse with strangers, if the party that appears among them is sufficiently great to cause alarm; but if it be small or unarmed, and the Papuans, as is too often the case, have had cause to regard strangers with hostile feelings, they assume a friendly appearance until an opportunity occurs, and then make a sudden and ferocious attack.

But the social characteristic which distinguishes them most from the brown races consists in the inextinguishable hatred they bear toward those who attempt to settle in their territory, and which is sometimes continued as long as a man of the tribe remains at large. This apparently untameable nature, when in an independent state, seems to have been the chief cause which has led to their utter extermination in all those islands of the Indian Archipelago that did not possess mountain fastnesses to which they could retire and lead a life similar to that of the Boschman of South Africa. This ferocity of character disappears, in a great measure, when individuals are removed to other countries, for the Papuan slaves, who are found in considerable numbers among the brown races of the Archipelago, are remarkable for a cheerful and obedient disposition, although they sometimes display an irritability of temper which requires careful management.

The natives of New Guinea on the Outanata River are generally above the middle stature; indeed, many among them must be considered as large-sized men. They are all well made and muscular. Their color is dark brown, over which sometimes lies a blueish gloss (*blaauwachtige gloed*). Their hair is crisp and woolly, and they wear it very cleverly plaited from the forehead over the crown of the head to the occiput. They have small and dark-colored eyes, and long n drooping (*nederhangenden*) noses, the septum of which was almost invariably pierced to carry an ornament consisting of pieces of stick, bone, or hog's tusks. The mouth is large, and provided with lily-white teeth, which are metimes sharpened to points. The lips are tolerably thick. Their features bear a general resemblance to those of Arabians, a peculiarity which they have in common with the Dourga tribe, although they are by no means as wild and repulsive as the latter. The greater portion go entirely naked, but some of them wear a piece of bark, or a strip of a coarse kind of cloth made of the husk of the cocoa-nut, or with a piece of bamboo. They ornament the neck, arms, and waist with hog's teeth, and some wear bracelets and bangles (or leglets) of twisted rattans, also a neck ornament of a sort of net-work of rushes, very cleverly woven.

The women are of the middle stature, and are generally somewhat darker in complexion than the men. We only saw two among them that were good-looking; the remainder were by no means attractive. They carry their children on their backs suspended in a clout or flap made of the leaves or bark of trees. They anoint their bodies with the same odoriferous ointment that has been already mentioned as in use among the males. We found the women to be much more modest than the men, as we did not see one entirely naked, although their entire clothing consisted of a patch of coarse cloth about six inches square, which seemed to us to be woven from the fiber of cocoa-nut husk. On one occasion, when several of the gentlemen were on a visit to the shore, we saw a particularly small child, which appeared to have been recently born, lying in the hot sand with the burning sun shining upon it. This child attracted our attention, and we remained standing before it, on which the woman who sat near, and was probably the mother, dragged it toward her, and sprinkled some sand over its eyes and ears, and then over its entire body, after which she concealed it from our sight by covering it with leaves.

The general disposition of the Outanatas appeared to us to be good-natnred. Abrauw and Makaai assured us that nothing is ever stolen among them, and in the event of such a case occurring, the culprit would be assuredly killed. Indeed, we had not the slightest occasion to complain of dishonesty; on the contrary, they even brought to us articles which had been left on shore from forgetfulness, and although these happened to be of no great value, still it was a proof of their honesty. They asked a large price, however, for the fruit they brought us.

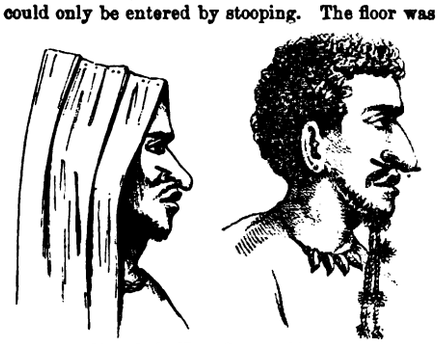
The weapons of the Outanatas consist of bows, arrows, lances, or throwing-spears, and very neatly-carved clubs. The bows and arrows, like those of the Dourga tribe, were made, the first of bamboo or betel-wood about five feet long, with a string of bamboo or twisted rattan, and the arrows of cane or bamboo, with points of betel-wood hardened in the fire. Some of the points were shaped smooth, but others were hacked with barbs, or armed with fish-bones, the claws of cassowary's feet, or with the horns of saw-fishes. They had also a sort of axe, composed of a single stick, to which a large sharp pebble was fixed by a lashing of rattan, and with which, as our native interpreter informed us, they could cut down the largest trees; but we had no opportunity of witnessing their skill.

Their canoes or prahus consist of a single tree hollowed out by means of fire. The largest that we saw was sixty feet, and the smallest thirty-one feet long. ey are very narrow, and both ends are flat and broad above. Many are very handsomely carved, and two of them were ornamented at one end with festoon-work very skillfully per-

formed, and covered with white plaster. They stand up to row, on which account their paddles are very long in the handle, with oval blades somewhat hollowed out.

Fig. 1—New Guinea Male.

The habitation of the Outanatas, was erected on a spit of sand extending into the river, and consisted of a frame of bamboos, covered on the roof and sides with mats made of leaves. From without it appeared to be a number of small houses standing close together, but on entering it was found to be a single building about a hundred feet long, six feet wide, and four and a half to five feet high. It had nineteen doors, which could only be entered by stooping. The floor was



Figs. 2, 3—New Guinea Males.

covered with white sand, and mats were given us to sit down upon. Several families appeared to reside in this building, each of which had its own door, and near to it was the family cooking-place, at which plantains, fish, and turtle-eggs were roasted for food. As there was no escape for the smoke except by these doors, which serve also for windows, we were soon obliged to leave our host, Makaai, who had invited us to enter. We met

Figs. 4, 5—New Guinea Males.

with neither pots nor pans, nor with anything else in the shape of household furniture. Their weapons hung under the roof, or were placed standing against the outside of the house, while their fishing-net was spread over the roof to dry. This house has been erected since the arrival of the Expedition, the work having been entirely performed by the women and girls. Immediately behind was another house, much larger, and erected upon piles, which we were informed belonged to the Ceram traders, who resided there during their annual visit.

The likenesses of the New Guinea males and females are by no means unfavorable to intelligence. Their heads are broad, indicative of

Figs. 6, 7—New Guinea Females.

energy of character, while their foreheads are sufficiently developed to indicate fair intellectual ability. Such a people, with culture, would be capable of an ordinary degree of success in civilized pursuits and habits. We seldom see the heads of nations in hot climates so well developed in Constructiveness, Acquisitiveness, and those faculties which lead to industrial and economic life. There are very strong indications in the phrenology and in the physiognomy of these New Guinea specimens of strong passions, more especially those which pertain to the affections. This is seen particularly in Fig. 4, Fig. 7, and Fig. 8. In Nos. 6 and 7, 3 and 4, the organs of Benevolence, Veneration, Ideality, and Constructiveness do not appear to be wanting. It will be noticed that the front views show great width between the eyes, which indicates an appreciation of the qualities and conditions of things, and gives artistic perception and judgment. No. 5 appears to be a stubborn, proud, and comparatively unsympathetic character, and has the poorest head of any in the series.

Fig. 8—New Guinea Female.

FILIAL AND PARENTAL AFFECTION.

The question is often propounded to us, What organ or organs produce filial affection, or love from children to parents? When children are young, and necessarily look upon parents as their guardians and superiors, doubtless Veneration, which gives a sense of respect and of dependence, is the faculty most in requisition in the production of filial affection; but as the child increases in age, and his dependence upon his parents becomes less, his Adhesiveness, or the faculty which gives fraternal love, is more influential; and as the child becomes a man, and the parent verges onward to second childhood, and requires that protection and guardianship, that fostering care and sympathy, which is necessary to childhood, then Philoprogenitiveness in the son is exercised toward his aged and infirm parent, in conjunction with Veneration, which also respects age and wisdom as well as superiority; so that filial affection, at different periods of the life of one who exercises it, calls into action different degrees of strength in several different faculties. We notice this, that children having large Veneration are more respectful and obedient, and exemplify more of what is called filial affection and respect, than those in whom this organ is small; and this tendency of character is increased in proportion as the child's Self-Esteem is small, and modified in proportion as it is large; because Self-Esteem, large in a child, lessens his sense of dependence, and any increase of his *self*-respect makes his respect for his parents apparently less.

We have also observed, that those persons who have Veneration, Adhesiveness, and Philoprogenitiveness all large, and are, therefore, affectionate and submissive as children, are always, as men and women, more kind to aged people than those in whom these organs are moderately developed. A man who is very fond of his own children, through large Philoprogenitiveness, is much more likely to be fond of his aged parents, who need a similar care and guardianship, than one in whom this organ is small. It may be doubted whether a person can be found who dislikes children, who does not also show indifference toward the aged and infirm. It has been maintained that the organ of Philoprogenitiveness was a group of organs instead of a single one, and that one portion or organ induced the feeling of *filial* love. This was suggested to us by mesmeric experiments, and published as long ago as 1842.

MATRIMONY PHYSIOLOGICALLY CONSIDERED.

Nothing would be more nonsensical than a treatise designed to encourage or discourage marriage. The Shakers and Mormons are mighty in arguments for and against it, and yet the majority of mankind take wives, not by the dozen, as they do in Utah, but only one at a time, which is equally shocking to the broadbrims of the Ann Lee school, who contend that there are people enough in the world already, without encouraging a further multiplication.

Longevity is promoted by appropriate marriage. But most unfortunately for the ends contemplated in that Divine institution, two thirds of such holy connections bring on premature decay. Many, out of patience for a natural death to terminate their misery, hang themselves. Happy marriages bear about the proportion of one to a million, and are usually found in humble life.

Physicians understand what physiological laws are violated to produce these melancholy results. Should a distinguished medical philospher, however, who commands the confidence of society, tell the truth in regard to this matter, he would be mobbed. One of the sources of this immense amount of domestic wretchedness is discoverable in the fact that neither the husband nor wife possess certain qualities each conceives to be essential to happiness. Whether mental or physical, they alone possess the secret, and at last the grave conceals it forever.

Fretful, disobedient, wayward children—those who make their parents infinite trouble, and keep up a perpetual heartache, derive their being from these fountains of matrimonial discord. Phrenology actually teaches the way to domestic felicity, but the doctrine is disregarded, because marriage has become a branch of trade in all well-to-do families. A suitor without a shilling, in the language of calculation, is a poor devil. Character and capacity are nothing in the estimation of daughters who ride in their father's coach; and a lady who is not an unmistakable heiress, can hardly expect an agreeable offer in these calculating times.—*Boston Medical World.*

[Those who have had "*experience*" will judge how true this statement is. But *we do know* that a knowledge of the mental peculiarities of each other has served, in thousands of cases, to enable husbands and wives, not only to live together agreeably, but so to govern and train their children as greatly to modify and improve them. The world may not *heed* this truth, but there it is, as unalterable as any other law of God.]

LIGHT LITERATURE.

PERHAPS there is no other country in the world in which light literature is so much encouraged as it is in this. In New York and Boston alone there are more weekly publications, devoted entirely to productions of this class, than in the whole of the British empire. Yet all of these publications not only live, but enjoy a wider patronage and a more extensive circulation than the best news-journals of either city can boast of, and should be realizing "rapid fortunes" for their proprietors, especially as all the half-fledged literateurs of the day—love-sick young ladies and misanthropical young gentlemen—supply them gratuitously with their lucubrations. What woman or child, capable of reading, is there in this city who is not accustomed to purchase or borrow some of these papers, and devour their contents with eager interest? Yet what are all these publications made up of, or what is there in them, either in the way of matter or of style, that can entitle them to perusal? Little or nothing; love-stories—love-stories as like each other in incident, style, and denouement as if they were all cut out of the same cloth, as well as made after the same fashion; tales of beautiful blondes, with meek blue eyes, and haughty brunettes, with flashing black ones, and lovers who are all heroes, and poets, and extraordinary genuises.

Away with all such trash as this, we say. Publications of this kind never did, and never will, answer any useful purpose whatever. On the other hand, they are absolutely injurious in their tendencies; they serve to give those who are addicted to their perusal false views of life—to unsettle the balance of their whole minds, and make them visionary dreamers instead of earnest doers in the world.

The same remarks will also apply to most of the cheap novels of the day, and to the whole of that "yellow-covered literature" which was of late the rage, though it was the joint product of bile and delirium; and we would scarcely regret it, if all the prose fictions that ever were written were condemned in a lump to the same fate to which the favorite authors of Don Quixote were consigned, for very few of them teach any useful lessons, or contain anything which might not as well go unlearned altogether, or be forgotten as speedily as possible.

Yet there are some books of fiction that we would except from this sweeping judgment. We would like to see the works of Dickens and Scott, and perhaps a few others, preserved from the merited fate of the majority. There are beautiful moral lessons contained in some of these, which will sink deeper into the mind than ever sermon did; strains of poetry that come over the heart like the breathing of sweetest music; heavenly voices crying out to us, ever and anon, appealing to our best sympathies, moving our best impulses, and melting us into those gentle moods in which we walk with angels, as man did before his fall. Lever, too, has his claims for exemption from the general doom. A rollicking and joyous, but always innocent, wit reeks through his pages, and his descriptions of battle-scenes are at once vivid as a painting and faithful as history. We should be very sorry indeed to see poor "Charles O'Malley" a second time in the flames, which almost destroyed him once before.; and we could, too, well lose much of the poetry of the age, before "Arthur O'Leary" and the "Knight of Gwynne." Bulwer, also, has written one or two works which might escape destruction for the polished beauty of their style—say "Rienzi" and "Night and Morning," for instance; but we could see most of his other works, elaborate and fascinating as they are, burning with a brighter flame than ever kindled in their author's brain, without a groan. We have no sympathies with his eloquent highwaymen or his learned assassins—his "Paul Cliffords" and "Eugene Arams"—and consider that genius is never more fruitlessly, as well as more unworthily, employed than when it is endeavoring to gild vice and make crime at tractive—

> "Nor florid prose, nor honeyed lies of rhyme,
> Can blazon evil deeds, or consecrate a crime."

Yet we acknowledge that "a good novel is a good book;" and when real genius is employed in this way, in reforming and improving men, rather than in gratifying their disordered tastes and prurient appetites, then we consider it is doing a good work, and would give it its full meed of praise and honor. This, however, is seldom the case. Yet, at the best, all fiction, whether prose or verse, is but a luxury of the mind, and is unfit for its daily food, and can not support it in health and vigor. We can not live on sweetmeats, and would soon die were we confined to ice-creams and *blanc-manges.*

No father or guardian, then, should ever allow those under his charge to indulge in the habitual reading of "tales," if he has any regard for their intellectual or moral health; for they will corrupt the mind and heart as effectually as improper food will corrupt the health of the body. But if he see fit to allow the reading of fiction at all, he should assure himself that it does not contain anything objectionable in it, before it goes into their hands, and is of the highest stamp of works of this kind. Even in this case, he should remember, that the mind that gets to be wedded to novel-reading or tale-reading soon becomes unfitted for all serious application to necessary and useful studies, and requires the continual stimulus of such exciting matter to fix its attention, just as the depraved palate always needs highly seasoned food to give it an appetite.

NATHANIEL WHEELER.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

YOU possess great physical strength, and are able to endure more labor without injury to your constitution than ninety-nine men in a hundred. You are remarkable for power to recruit and regain your wonted elasticity. Your vital power is equal to any task you may put upon it, if it is not perverted, provided you can have your regular food and sleep. Your muscular system is also uncommonly good, and if called upon to perform physical labor, you can sustain yourself well. Your mental temperament is also strong, which renders you quite susceptible to intellectual influences, and gives clearness, intensity, and individuality to your character and desires.

You should be noted among your friends for the following mental qualities:

You have an unconquerable will—are exceedingly persevering in carrying out your purposes and plans. You are self-possessed and self-relying, self-satisfied and conscious of your own power, so that you have very few misgivings as to whether you are able to sustain yourself or not.

You are remarkable for perceptive talent, your knowledge of things, their qualities, conditions, and uses—for your desire to try experiments, and to test and to become individually acquainted with the result. You accumulate knowledge with uncommon facility, and are more intimately connected, and more interested in the external world than people generally. If your attention were given to science, you would not be satisfied until you had gone over the entire range of demonstrative science and philosophy. Having seen a person or place once, you retain the impression ever afterward. The study of astronomy and geography would be particularly easy for you. Your memory of proportions and mechanical judgment are excellent, also of events, and association of ideas. The more experience you have, the more power you display, but if thrown back upon your reasoning capacity and required to originate and generate new thoughts and theories, you would not sustain yourself as well as in the use of your experience. Your forte in reasoning lies in your power to discriminate, compare, criticise, and notice evils and imperfections in proposition. You can criticise another person's argument better than you can establish a proposition by a course of logical reasoning. You have always had a desire to perfect and render useful your own ideas, and make them understood. You are a real utilitarian, and particularly matter-of-fact. You appreciate the beautiful and the perfect, the stylish and the highly finished, but you value much more that which is useful. As a speaker you are plain, direct, clear, and instructive in your style rather than oratorical and extravagant.

Your sympathies are strong and active, and they center on the improvement and happiness of mankind. Your Veneration is distinctly developed, and modifying in its influence on your char-

acter. You have always manifested a feeling of respect for superiority, age, and whatever you consider as sacred; but you are liberal in your views so far as faith is concerned. You are not suspicious, and are not governed so much by faith as by experience. Your sense of justice is strong. You are ambitious, but you have more pride and independence than vanity and display.

Your social nature centers in the domestic circle. Love to wife, children, and the family circle appears to be a strong element of your nature. You are not particularly interested in society generally, so far as mere social pleasures are concerned; hence you are not much inclined to visit. You love home and place, and are consequently patriotic in disposition. You are able to connect and concentrate your thoughts and feelings in a given direction, and prefer a steady, uniform business. You are comparatively cautious, watchful, and mindful of consequences. You are executive and forcible, but not cunning and artful. This however, has been improved by cultivation.

You have a good degree of economy and general industry, but would prefer to keep your property in a usable condition rather than to hide it away for fear some one would get it.

In speech you are clear, but not particularly copious, unless circumstances are very favorable.

The central organs of the head, running from the root of the nose upward and backward, are large and influential, while the wide organs are less large; hence you are known more for strong points than for those that give finish, polish, wit, genius, originality, and perfectibility. As a man, in society you are known for laying foundations, presenting real truths, and perfecting your thoughts and ideas and plans as you go along, rather than for ability to dazzle the eyes of the wonder-loving and curious.

Your range of knowledge and experience is extensive. You could readily manifest a great variety of talent and equal facility in different departments of business, especially in practical business where you look after men, superintend movements, criticise and organize. As a merchant, you would be distinguished for ability to judge correctly and quickly of the value of stock and property to be bought and consumed. As a business man in other departments, you would be remarkable for taking into account all the circumstances of men and times and expense necessary to make correct calculations in reference to the business. As a mechanic, more particularly, your forte would be in understanding the principles of machinery, in seeing the plan of any operation in your mind before it was brought out in execution. Your talent is peculiarly of that class that would sustain you if thrown upon your own resources—that would lead you to develop your own character, to be governed by your own individual experience, and to rely upon that, without much reference to the opinions and aid of anybody else.

You judge of men, motives, and character with great accuracy, and you seldom mistake in your opinions of others. You have an identity, an individuality, and character of your own. You are not an imitator, but simply act out your own mind in your own way. Few men are more instantaneous and correct than you in their off-hand judgment of men, measures, and things in general.

BIOGRAPHY.

NATHANIEL WHEELER, widely known in connection with the Wheeler & Wilson Sewing-machine, was born Sept. 7th, 1820, at Watertown, Ct. His father was a farmer and carriage manufacturer, noted for his integrity and practical good sense. Nathaniel received the rudiments of education in the district school, employing his leisure upon the farm and in the manufactory until fourteen years of age. At the age of sixteen he took charge of the books and the general management of his father's business for the next five years. On attaining his majority, he purchased the manufacturing business of his father, who retired to his farm.

At the age of twenty-two, having established a reputation for mechanical skill and business ability, Mr. Wheeler married an intelligent lady, since deceased. Four years later he engaged in manufacturing fancy-metallic articles, and disposed of his carriage factory. The new business, under his judicious management, soon increased to $25,000 per annum, employing about twenty-five hands and numerous machines.

In 1849 he formed a copartnership with his business competitors, under the firm of Warren, Wheeler & Woodruff, and organized a large manufactory driven by water-power. Mr. Wheeler was made the general manager of the business, which he thoroughly systematized, introducing the most improved modes of manufacture, and employing the best agents, both of men and machinery.

In 1850 he came to New York, where he saw the original Wilson Sewing-machine, invented by A. B. Wilson, who had sold out his right to E. Lee & Company, then occupying offices in the Sun Building. He arranged with this Company to manufacture five hundred of these machines. Mr. Wilson went with him to his factory in Watertown to superintend the manufacture of the first machines, and set them in operation. The Company proved worthless, and the machines of little practical value. Having gained Mr. Wilson's confidence, who had been cheated out of his first invention, he learned from him that he had the wooden model (still preserved) of another sewing-machine, constructed upon an entirely new principle, in which the defects of the former machine were obviated. Mr. Wheeler examined it, became convinced of its merits, and immediately employed Mr. Wilson to experiment upon and improve it if possible. At this time he superintended, with no assistance, his own business, employing over fifty hands, and worked daily with Mr. Wilson upon the new invention until he had expended $8,000 upon it.

Being a thorough machinist, he united his practical knowledge with Mr. Wilson's inventive genius, pondering the subject day and night during the summer of 1851, and finally succeeded in perfecting a machine, which was patented in the year 1852.

Though the idea of sewing by machinery had been long entertained, and had been the subject of many abortive experiments, it seemed of so great importance to social interests, that it was still zealously pursued. Prior to Mr. Wilson's invention, a machine, sewing with a single thread, had been tried, and is still revived from time to time in some cheap form. But making as it does a loop, chain, or knitting-stitch, which readily ravels, it has never been regarded of any practical value for the general purposes of sewing. The double-thread shuttle-machine was also before the public, but it had not been adapted to family use.

Disappointments in regard to these machines had so much prejudiced the sewing-machine business, that it was difficult to introduce any improved kind. Mr. Wheeler, in 1852, took their first machine for trial to Mr. Winchester, then, as now, an extensive manufacturer of shirts at New Haven, Ct. Although not asked to purchase it, he positively declined to even try it. He had already tried the various kinds that had been brought before the public. His last experience had been with thirty shuttle-machines that he had purchased at a cost of several thousand dollars, and thrown aside as inadaptable to his business. Mr. Wheeler then had a shirt made with the machine, and exhibited it to Mr. Winchester, who was greatly surprised at the excellence of the work, and readily consented to make the desired trial. In the mean time, a machine had been furnished to the Waterbury Knitting Company, the third went to Messrs. H. Griswold & Company, of Hartford, and the fourth to Plainville, Ct., all upon trial. Mr. Wheeler then took two machines to Troy, Rensselaer County, N. Y., the great manufacturing place for shirt-bosoms and collars. He introduced them to the notice of Mr. J. A. Gardner, one of the largest manufacturers there, and returning to Watertown, awaited the result of these trials. In three weeks Mr. Gardner visited Watertown, and manifested his estimate of the invention by purchasing for $3,000 the one undivided half of the right to sell these machines in Rensselaer County alone. After two months' trial, Mr. Winchester paid a large sum for the right of New Haven County, and is at the present time running 160 of these machines in his own factory. Similar rights were purchased by various parties for large sums, but they have been mostly repurchased by the present Company at greatly advanced prices. (It is worthy of remark, that the original machines, thus introduced, are still in use, doing good service in the several manufactories where first placed.)

In a similar manner Mr. Wheeler introduced the machines into New York, Boston, and Philadelphia. When produced to the world it seems to have been as complete as Minerva when she leaped from the head of Jove.

In Jan., 1853, the business increasing, a second-floor front parlor was taken for an office and sales-room, at No. 265 Broadway, New York. Some hundreds of machines had been sold when several enterprising gentlemen succeeded in uniting with Messrs. Wheeler and Wilson, Oct., 1853, and formed the Wheeler & Wilson Manufacturing Co. Mr. Wheeler was made general manager, and afterward chosen President of the Company, which position he has held ever since, his thorough mechanical knowledge, acquaintance with the business, and comprehensive mind admirably qualifying him for it. His subsequent career has been so closely identified with the history of this machine, and the prosperity of this Company, that we shall spare his well-known modesty by

PORTRAIT OF NATHANIEL WHEELER.

Photographed on wood from life by FRICH'S Patent Process, and engraved by BRIGHTLY, WATERS & Co., 90 Fulton Street, New York.

mentioning him individually as seldom as possible. It must be borne in mind, however, that his individuality is by no means ignored by thus merging him nominally in the Company. Although the excellence of this invention has been the life of the Company, it has been so only through his most judicious management.

The increasing business demanding more ample accommodation, the office was removed to the present capacious rooms, 343 Broadway, Jan., 1854. The floor occupied fronts 30 feet on Broadway and extends back 175 feet, with an L opening on Leonard Street.

The manufactory, with frequent enlargements, was continued at Watertown until 1856, when the purchase was effected of the extensive Jerome Clock Factory at Bridgeport, Ct. Here have been erected works occupying a square area of nearly two acres, and driven by immense steam power.

The manufactory is organized upon the system adopted in the U. S. armories for the manufacture of fire-arms, the various parts of the machine being made by machinery. This efficient mode, while requiring the highest mechanical skill on the part of the operators, insures perfection in workmanship and perfect similarity of parts in the various machines.

Each machine upon being finished is tested by three skillful machinists. As it passes through their several hands, should the second or the third trier detect the slightest defect, it is returned to the manufactory, the defect is remedied, and the machine again passes the same ordeal. Being removed to the sales-room and sold, it is again examined, and put in complete running order by a thorough machinist.

The history of the machine has been one of entire success. The Company has never been able, until the present enlarged condition of its works, to supply the demand for family and manufacturing purposes. In Troy alone, and its immediate neighborhood, where two machines were carried five years since on trial, *one thousand* are now used in the shirt and collar manufactories alone. It is not known that a single machine of any other kind is used in this business throughout the country. Thousands are used by seamstresses, dressmakers, tailors, manufacturers of cloaks, mantillas, clothing, hats, caps, corsets, ladies' gaiters, linen and silk goods, umbrellas, parasols, etc., with complete success. Frequently from one to two hundred of them are found in a single manufactory. The qualities which so highly recommend them are elegance of model and finish, simplicity and thoroughness of construction, and consequent durability and freedom from derangement and need of repairs; unexampled ease, rapidity, and quietness of operation; beauty and elegance of stitch alike upon both sides of the fabric sewed; strength and firmness of seam that will not rip nor ravel; economy of thread, and their applicability to a variety of purposes and materials. In these particulars they are without a rival.

Prior to their invention, no attempt had been made to introduce sewing-machines into families, none being adapted to that purpose. Those already before the public had inherent defects which could not be remedied. With the invention of the Wheeler and Wilson machine a new era dawned upon woman, which will not fail to be marked upon the health, virtue, and happiness of future generations. So far has public opinion been formed, that, henceforth, the sewing-machine will be regarded as a necessary adjunct of every well-ordered household.

Beautifully illustrating as it does the principles of mechanics, it is used as an educational instrument, and has been introduced into several of the large public and private schools in and near New York. Sanguine expectations are entertained that the movement will not only acquaint the pupils with machinery, and prepare them for important household duties, but that it inaugurates a sounder system of education than has hitherto prevailed.

Mr. Wheeler still occupies the position of President of the Wheeler and Wilson Manufacturing Company, with increasing confidence. His natural good sense, industry, energy, urbanity, integrity, high sense of honor, combined with his business talent and practical skill, admirably qualify him for his position. The details of this immense organization are familiar to him. Not only the ramifications of the business throughout the country, but the manufacturing is supervised by him. The systematic organization of the vast workshop at Bridgeport has rendered comprehensible to his practical mind the minutest details—the men, the tools, the material, etc. He visits the factory weekly, and spends the remainder of the time at the principal office in New York.

From the marked business success of this man, many useful lessons may be drawn. He illustrates splendidly the workings of our free institutions, and the value of the system of common schools. Nurtured in quiet rural life, with no adventitious circumstances of wealth and birth, he has won a reputation of which princes might well be proud. If *he* is a public benefactor who makes two blades of grass grow where one grew before, what is due to him who has not only multiplied manifold the physical advantages of man, but has introduced an antidote to the ills so graphically described in Hood's "Song of the Shirt?" Well may women invoke blessings upon his head.

To his young countrymen, he is a fine example of what may be effected with the means that are placed within the reach of all. Had he squandered his time, or acquired vicious habits in his youth, they would have brooded over his future prospects like the nightmare. In the light of the subject of this memoir, we call upon all young men to shake off their habits of sloth, and to rise in the strength of the might nature has given them, and, firmly self-reliant, achieve for themselves an honorable position by zealously pursuing a course fraught with usefulness to humanity.

THOMAS W. VALENTINE.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You have a very powerful constitution. There are very few men who have as much vitality. Your lungs are immensely developed. Your digestion is excellent, your frame-work strong, your muscles good and abundant. You ought to enjoy most excellent health, and you have, doubtless, inherited these qualities from a long-lived, substantial, enduring class of ancestors. Your brain is large, and well sustained by your body. You hardly know what hard work is, because you have so much strength with which to do it. Your head measures over twenty-three inches in circumference, and being so well sustained, you can not fail to work easily and efficiently. Your

head never gets tired or exhausted for a want of proper vital support. Your phrenological organization indicates comparative coolness and smoothness of manifestation. You seldom become fretted and irritated. You have a strong emotional nature, and are easily aroused to feel interested in whatever is calculated to please or displease you; still, you can wait or labor with less chafing and fretfulness than most men. You require more than a common share of responsibility to call out the full measure of your strength. You do not use your powder unless you have a ball of pretty large caliber to be thrown; and the more the responsibilities are heaped upon you the more earnest and courageous you become.

You are not a man of pride. You need more of self-esteem, and you find it difficult to keep people at a distance. You are more apt to be cosy, "hail-fellow," and free in mingling with your inferiors than you are to domineer over your equals, and you are inclined to defer too much to your superiors. It is only by the force of your will and the steady strength of your intellect that you are able to cope with men. You assume but little. People seek after you to aid in bearing responsibilities. You did not find out your real capabilities until you were developed by circumstances. You sometimes are surprised at yourself to see how much you can do with so little friction and so little to do with.

Your approbativeness is very strong, which renders you so ambitious to please and to secure the good-will of the world, that you sacrifice too much on the altar of public sentiment. You could govern others better if you had more self-esteem and less approbativeness.

You have naturally a strong intellect. You have good perceptives and large reasoning organs, but your reasonings are practical, and your plans always feasible. You not only plan out what is to be done, but precisely how it is to be accomplished; hence your plans seem very easy, because they carry with them the way and the how, as well as the what, to be done. You have mechanical talent—capacity to contrive, to understand the motions of the "wheel within a wheel," and fair ability to use tools. You can bring order out of chaos, because you can see the complications and carry them through. You do not become disturbed and nonplused by extra care, and you can change from one object or subject to another without delay or inconvenience.

You are a good judge of character, and seldom make a mistake in your first opinions of strangers. You incline, however, to treat the world with kindness, liberality, and good feeling, rather than suspiciously and severely.

You have considerable trust in Providence, and reverence for things sacred and elevated. You are not so obsequious in your manners as many; are more cordial, and free, and democratic than dignified or deferential. You are very persevering, but not specially obstinate. It requires strong opposition to awaken your elements of resistance and give them their full force. You never are captious—opposing for the mere sake of opposition.

You generally mind your own business, and if you are allowed to proceed with it without interruption, you never trouble other people.

PORTRAIT OF THOMAS W. VALENTINE.

Photographed on wood from life by Price's Patent Process, and engraved by Brightly, Waters & Co., 90 Fulton Street, New York.

Your quarrels are always fought on your own territory; they are those which are brought to you from abroad. You have large Combativeness, and great efficiency; could fight if you were pressed into the service, but you never pick a quarrel. You are generally found in the discharge of your duty, and within the pale of your own rights—there you feel a disposition to be master, but you can work as on a par with the lowest subordinate you have. Although people obey you and follow out your plans, yet they do not feel a fear of you personally, nor dread your presence. You acquire the good-will of your coadjutors, and they take hold with you as helpers, not as servants.

You have very strong friendships. You love ardently. Few men love woman as well as you, or are capable of exerting more influence over her. You would succeed well as a teacher of a female seminary, because you have such sympathy for the mind and character of woman, that she will always try to please you.

You love children, and are very strongly attached to home. You like a local habitation. You prefer to own the house, even though it be a plain one.

You are cautious in your general movements, but frank, open-hearted, and plain in speech. You make your enemies with your tongue. You enjoy the good things of the table, and provide well for those who depend on you for food.

You like to make money, but are not much disposed to salt it down. A prudent, saving wife would be a great blessing to you. You can make money better than keep it, and need a help-meet in the line of economy.

You look on the bright side of life—are well qualified to comfort those who are suffering, and buoy up the disheartened. You generally carry a heart full of sunshine wherever you go. Your voice and laughter are electrical on this account.

You are capable of becoming a good scholar in most branches of science and literature. You would succeed well as a teacher—decidedly well as a manager, either in a manufactory, where many persons are to be controlled and employed, or in mercantile business, where pleasing the customer and negotiating trade are required. You would not do as well in the financiering department, strictly speaking, as in the business department.

You are one of a thousand for your directness of speech and action, strength of affection, power of constitution, ability to think and labor with the mind without fretting and fatigue, and for the power to comprehend the practical workings and bearings of truth on mind, and also in the conduct of business arrangements. You would have made a good civil engineer and a very fair public speaker.

You have the intellectual qualities for a lawyer or physician. Your self-esteem is too small. You can not put on as much dignity as your intellect

and energy would enable you to sustain; hence you will always succeed best where you are best known.

BIOGRAPHY.

THOMAS W. VALENTINE, the second son of Gill and Sabra Wood Valentine, was born at Northborough, Mass., Feb. 16th, 1818. His father at that time kept a "country store" in that village, but failing in business, he subsequently removed to the city of Worcester, where, at the age of seventy years, he is yet engaged as a land surveyor and civil engineer, and also holds the office of city auditor.

For fourteen consecutive years he attended the Center School in his native town, thus laying the foundation of a good English education. The schools of that town, under the enlightened supervision of Rev. Dr. Allen, who, for a quarter of a century, officiated as chairman of the school committee, had attained a high rank; and few towns, even in New England, did more for the cause of general education, or afforded better facilities to the young, by means of public libraries, lectures, debating societies, etc. It is owing to this fact, doubtless, that the subject of this notice was so early led to turn his attention to the great work of public education, to which his life has since been devoted.

In 1835 he entered the Worcester Academy (then under the charge of Rev. Dr. Bailey, now President of Franklin College, Indiana), with the design of preparing for college; but after spending a considerable portion of the following three years in that institution, that design was abandoned, in order that he might immediately engage in teaching. His first engagement was with a district school in that part of Lancaster now embraced in the flourishing manufacturing village of Clinton, Mass. He subsequently taught in the schools of his native town for four years, one season in Ashland, and one in the State of Pennsylvania. In 1842 he removed to Albany and took charge of one of the public schools there; which situation he held till 1853, when he resigned to take the superintendence of the Orphan Asylum in that city. In 1855 he resigned this charge and removed to Brooklyn, to assume the principalship of Public School No. 19 (then recently made vacant by the promotion of J. W. Bulkley, Esq., to the office of city superintendent), where he yet remains. In addition to his duties as principal of a school containing over 1,200 pupils, he also has charge of the department of grammar, composition, and rhetoric in the Normal School in that city.

When Mr. Valentine first went to Albany, the public sentiment in that city in relation to education was very different from what is found there now. It might almost be said that there was no school system there at all. The public schools were "farmed out"—that is, the principal of each school collected what money he could by "rate-bills," and at the end of the year drew his share of the public money. He hired as many or as few assistants as he pleased, and paid them *what* he pleased. There was no board of education, nor any other official body to whom the teachers were accountable. Of course, such a state of things was not to be endured by any "live Yankee;" and, accordingly, Mr. Valentine, and one or two other teachers, united with the late Francis Dwight, Esq., in framing a school law for that city, which was passed by the Legislature and went into operation in 1844. During his whole residence there he labored incessantly to bring up the standard of education, urging and insisting that nothing valuable could be accomplished until more money was raised for that object. In these efforts he often incurred the hot displeasure of those who should have been the first to aid him; but he has lived to see the amount of school tax in that city increased from *seven* thousand to *forty-five* thousand dollars. New and elegant school houses have been built, the system greatly improved, and public sentiment entirely revolutionized.

But the one great thing for which Mr. Valentine is most distinguished, is his statesmanlike devotion to the interests of his profession. Enthusiastically fond of his business, and regarding it as lying at the foundation of society and good government, he is untiring in his labors to make it, what it should ever be considered, the first among the learned professions.

To this end he has long been engaged in organizing associations which should draw teachers together, make them better acquainted with each other, and combine their efforts. In 1838 he was mainly instrumental in calling the first convention of teachers ever held in Worcester County, Mass. In March, 1845, he first conceived the idea of holding a State Convention of teachers, with a view of organizing a State Association and establishing a teachers' periodical. That convention met at Syracuse, N. Y., in July, 1845, and organized *the first State Teachers' Association in the United States*, where there are now nearly twenty similar ones; and the *Teachers' Advocate*, started at that time, was the first paper of the kind ever published. More anxious to secure the desired good than to enjoy the honors, Mr. Valentine never allowed himself to be a candidate for any office in this association until 1856, when he was elected its president.

Having succeeded so well in his efforts in this State, Mr. Valentine next turned his attention to a national organization. In May last he opened a correspondence with the presidents of the other State associations on this subject, and a call signed by a majority of these was at once sent out. The meeting was held in Philadelphia in August last, and though not large (twelve States only, and the District of Columbia, being represented), was sufficiently so to warrant success in the undertaking. A permanent organization was effected, and upon a basis that must command itself to all teachers who love their profession, as it embraces those only who are actually engaged in teaching. Of this body, Z. Richards, Esq., of Washington, is President, and Mr. Valentine the First Vice-President. It is now engaged in a good work—that of gathering valuable educational statistics, by constant correspondence with prominent teachers in every State and Territory in the Union.

The educational field, however, is like many other moral enterprises—it requires much perseverance as well as patience to keep it in order. Many projects are started and prosper for a while, but finally fail. The *Teachers' Advocate*, after serving the purpose of a pioneer to twenty periodicals for teachers in this country, was finally united with the *District School Journal*. But in April, 1852, that, too, ceased to exist; so that the State of New York, the first to embark in this enterprise, was finally left without any educational paper. In this emergency Mr. Valentine did what no other man in his profession seemed willing to do. Having full faith in the ability of the teachers of the State to sustain such a periodical, without a dollar of capital, with no knowledge whatever of printing, and no editorial experience, he started the *New York Teacher*, and in one year succeeded in securing a subscription list and an advertising patronage that made it more than self-sustaining. While acting as principal of a large public school, and the chairman of several important committees in the Common Council of Albany, he was, at the same time, editor, publisher, book-keeper, proof-reader, etc., besides carrying on an extensive correspondence with teachers all over the State and country. All this he did without assistance, going through with an amount of physical labor, to say nothing of mental anxiety, that few men could have endured. He did this, however, for two years, and gave it up only when he saw that he could well be spared.

For a teacher, Mr. Valentine has considerable experience in politics—rather too much, in the opinion of some, for one of his profession. In 1848 he was President of the Free Soil Democratic County Convention, and has several times been delegated to County and State Conventions, besides doing some service in the Democratic General Committee. In 1851 he was elected alderman from the Ninth Ward, Albany, which office he held till January, 1854. As chairman of the Committee on Schools and Academies he did good service for the cause of popular education; and as chairman of the Alms-House Committee, took the first step toward establishing the Insane Asylum in that city. He also made the first report in favor of a juvenile house of industry, but the effort to establish one then failed, though a similar one since has proved successful. It is a noticeable coincidence that at the same time he was elected alderman in Albany, his father was elected to the same office in Worcester.

In religion, Mr. Valentine is of the Baptist faith, having joined the church of that order in 1837.

As a teacher, Mr. Valentine may safely be classed as a "progressive." He does not readily seize hold of every innovation, indeed; but he believes that the world moves, and when he sees a real improvement, he adopts it at once. The prominent ideas in his educational creed are, that teachers have heretofore been too much isolated, in many cases hardly knowing or caring who their fellow-laborers were; that, as a consequence, those who should combine together for self-improvement, and who certainly ought to feel a community of interest, are, in too many cases, only warring against each other. He believes that much of the real advancement in the cause of education, and all the improvements in methods of instruction must be made by teachers themselves, and that these ends can only be attained by means of associations, extensive visitations, correspondence, professional periodicals, etc. With the "old fogies" and antediluvian treadmills of a past age he has no sympathy; and he believes that "*live* teachers" are the only kind worth preserving and cultivating. In the advancement of these views, his voice and

pen have always been found ready; and perhaps no mun of his years can be found who has done more to cultivate an *esprit de corps* among teachers, than himself.

As a writer, Mr. Valentine is remarkable for clearness and a terse, sturdy vigor of style peculiarly Anglo-Saxon, and for a manly and fearless directness in grappling with abuses and in the discussion of the great questions connected with popular education. In 1852, he took the gold medal annually awarded by the Young Men's Association in Albany, for the best literary essay.

In performing his duties as the first resident editor of the *New York Teacher*, he entered the field as a strong man armed, and bravely did battle against the musty old giants of routine, ignorance, and selfishness, knocking down the prejudices of teachers and people; and, in fact, taking the lead, regardless of consequences, in urging new and important measures of educational reform.

His influence on the teachers under his instruction in the Brooklyn Normal School, is of the most salutary kind, and the promptness with which he seizes upon valuable practical ideas, and brings them to bear on his class, proves him to be a true educator, and we venture to predict that the name of T. W. Valentine will eventually stand in the foremost rank of the educators of our time.

Since his connection with his present school, Mr. Valentine, with the co-operation of Miss —— Dean, the able and accomplished principal of the Girls' Department, has raised, by means of concerts and exhibitions, between four and five hundred dollars to purchase the fine piano and melodeon with which the school is at present furnished.

One of Wheeler & Wilson's Family Sewing-Machines has just been furnished to the school through the intervention of Mr. H. L. Stuart, of New York, which promises to become a most valuable and popular means of illustration and instruction.

An extensive gymnasium is also about to be added to the other attractions of the school, which already ranks among the best in the city, having greatly improved, in all respects, under Mr. Valentine's judicious management.

OLD PSALM-TUNES.

Blackwood says of old psalm-tunes: "There is to us more of touching pathos, heart-thrilling expression, in some of the old psalm-tunes, feelingly displayed, than in a whole batch of modernism. The strains go home, and the 'foundations of the great deep are broken up;' the great deep of unfathomable feeling, that lies far, far below the surface of the world-hardened heart; and as the unwonted, yet unchecked tear starts in the eye, the softened spirit yields to their influence, and shakes off the load of earthly care, rising purified and spiritualized into a clearer atmosphere. Strange, inexplicable associations brood over the mind, 'like the far-off dreams of paradise,' mingling their chaste melancholy with a musing of a still subdued, though more cheerful character. How many glad hearts, in the olden time, have rejoiced in these songs of praise—how many sorrowful ones sighed out their complaints in those plaintive notes that now, cold in death, are laid to rest around that sacred church, within whose walls they had so often swelled with emotion!"

This feeling of respect for what we are pleased to call old, or, in other words, that which happened to us when we were young, and therefore is intimately blended with those roseate recollections which maintain their freshness and aroma to old age, is perfectly natural, and is not peculiar to any particular generation of men. But when we come to inquire into the real merit of those "old psalm-tunes," the question has more phases than one. For example, a man now eighty years old has his beloved old tunes, such as Sherburne, Mortality, and Ocean; *these* were the first tunes that ever wafted his soul upward and onward beyond the sublunary, and none other will ever have such peculiar power to his ear as those. It is like one's first love, or first experience in anything that is delightful. But his children cherish another set of "old psalm-tunes" as much preferable to anything else, because they are those which they first heard, but the aged father contemptuously calls them "new-fangled modernisms." We remember when Balerma, Olney, Ortonville, and their cotemporaries, were modern to us, and disliked as such when compared with those that were used in our childhood; but our children look back to them as their "good old psalm-tunes"—*old*, because they heard them first, and good for the same reason; and we suppose the generation to come will cling to the tunes that we are now hearing as new and modern, and will regard them with as much reverence, and treasure them with as cordial a love, as our grandparents did Majesty, Ocean, Immortality, and Sherburne, because, like those to the ancients, these modern tunes are the soul-wings that first wafted their spirits toward the higher life.

We admire this reverence for early associations, but can not forget that the reason of our reverence for certain tunes exists more in ourselves than in the music. Everybody who knows anything of the subject is aware that the music, like the mechanism of the present day, is vastly superior in its scientific harmonic combinations to that of a hundred years ago, and that the musical capacity of the people is also improved in an equal degree. The idea, therefore, that modern music is less soul-stirring than the rude effusions of the past, is simply ridiculous.

It was our good fortune in early life to have become familiar with the music which prevailed in the youth-days of our grandfather, and to have since kept pace with the musical progress of the times; and, consequently, we have not alone the favorite tunes which belonged to our own youth, but we have taken on those which, as a child, we heard our venerable grandfather humming at eighty years of age. We have therefore a triple set of "good old psalm-tunes," our own, our father's, and our grandfather's, and having heard and sung them all in our youth, they all seem good to us, but differ in our estimation according to their musical merit. All music that deserves the name is valuable, and becomes immortal in proportion as it awakens the harmonies of the human soul, whether it be the thrilling melody of a century ago, or the chastened and polished harmony of modern times; but it will be revered according as it was intimately blended with our early and happy recollections.

In like manner, we are apt to think that the rustic joys of childhood; the plain cooking of the sainted mother, which had a hungry child's appetite for an umpire; and the hard, sour fruit which we brought home in our hat and devoured with a gourmand's gusto, were respectively superior to all the Epicurean dainties and esthetic refinements of metropolitan life. Blessed be the simple tastes and hallowed recollections of happy childhood!

Age.—But few men die of age. Almost all die of disappointment, passional, mental, or bodily toil, or accident. The passions kill men sometimes, even suddenly. The common expression, "choked with passion," has little exaggeration in it; for even though not suddenly fatal, strong passions shorten life. Strong-bodied men often die young; weak men live longer than the strong, for the strong use their strength, and the weak have none to use. The latter take care of themselves; the former do not. As it is with the body, so it is with the mind and temper. The strong are apt to break, or, like the candle, to run; the weak burn out. The inferior animals, which live, in general, regular and temperate lives, have generally their prescribed term of years. The horse lives 25 years; the ox, 15 or 20; the lion, about 20; the dog, 10 or 12; the rabbit, 8; the guinea-pig, 6 or 7 years. These numbers all bear a similar proportion to the time the animal takes to grow its full size. But man, of all the animals, is the one that seldom comes up to his average. He ought to live 100 years, according to his physiological law, for five times twenty are one hundred; but instead of that, he scarcely reaches, on the average, four times his growing period; the cat six times; and the rabbit even eight times the standard of measurement. The reason is obvious: man is not only the most irregular and the most intemperate, but the most laborious and hard-worked of all animals. He is also the most irritable of all animals; and there is reason to believe, though we can not tell what an animal secretly feels, that, more than any other animal, man cherishes wrath to keep it warm, and consumes himself with the fire of his own secret reflections.

A Fish in a Human Skull.—Two sons of Mr. John H. Iseett, of Greensburg, Pa., were in the habit of setting "night lines" in the Alleghany River, in order to become possessed of the finny tribe. One morning a very mysterious-looking thing was observed from the shore as being attached to one of the lines out some distance. On drawing in the line, a fish was fast on the hook, with its head protruding from the orifice of a human skull, which rests upon the vertebral column, its body being in the skull and too large to allow its escape therefrom. The theory is, that the fish became domiciled in the skull some time since, grew until it became imprisoned therein beyond its power to escape unaided. The skull is sound, and has yet four teeth in it, the remainder having dropped out. Its shape indicates that it possibly belonged to a negro, and was perhaps that of a female.

THRILLING INCIDENT IN THE LIFE OF AN INVENTOR.

ÆOLIAN PIANOS.—A correspondent in the *National Intelligencer* (D. C.) notices the efforts that were made some years ago by O. M. Coleman, the inventor of the Æolian Attachment, to direct attention to it, among the musical circles of London, and concludes with the following anecdote:

"But to bring my letter to a close. After Coleman had obtained his European patents, and his invention had attained the highest point in the estimation of the public, he still found a 'lion in the way.' The celebrated Thalberg, then and yet justly regarded as the first pianist in the world, who was then on the Continent, had not then seen or heard the instrument. Many eminent musicians, and especially the piano manufacturers, stood aloof until Thalberg should give his opinion. Coleman felt that the fate of his invention hung upon the fiat of the dreaded Thalberg. It was—'Wait till Thalberg comes,' and 'If Thalberg says so and so, then,' etc., until the very name of Thalberg became hateful. The great master arrived in London at last, and a day was appointed for his examination of the instrument. A large room was selected, into which were admitted a number of the first musical artists.

Benedict sat down and played in his best style. Thalberg stood at a distance, with his arms folded and back turned. He listened for a time in that position, and then turned his face toward the instrument. He moved softly across the floor until he stood by the side of Benedict, where he again stopped and listened. An occasional nod of the head was all the emotion he betrayed. Suddenly, while Benedict was in the very midst of a splendid sonata, he laid his hand upon his arm, and, with a not very gentle push, said, 'Get off that stool!' Seating himself, he dashed out in his inimitable style, and continued to play for some time without interruption, electrifying Coleman and the other auditors by an entirely new application of the invention. Suddenly he stopped, and turning to Benedict, requested him to get a certain piece of Beethoven's from the library. This was done and Thalberg played it through. Then, striking his instrument with his hand and pointing to the music he said:—'*This* is the very instrument Beethoven had in his mind when he wrote that piece. *It has never been played before!*'

"The next day Coleman sold his patent right for a sum that enabled him to take his place among millionaires."

ROSA BONHEUR.—The production of this distinguished artiste, "THE HORSE FAIR," now on exhibition at Williams & Stevens, 358 Broadway, is worthy of all the praise bestowed on it by the people and the press. One can almost hear the horses breathe, they are so life-like, and they seem so instinct with animation that, when first brought into their presence, one feels like stepping aside to avoid being run over. It is a work of high art, and all who fail to pay it a visit miss a treat rarely offered in this country. We understand that the exhibition will be closed early in the month of January.

Business Notices.

MR. FOWLER IN THE SOUTH.

MR. L. N. FOWLER, of the Firm of FOWLER AND WELLS, New York, expects to make a professional tour to New Orleans, and other Southern Cities, the present winter. The following is a programme of his Course of Lectures on PHRENOLOGY, showing its utility in the INTELLECTUAL, MORAL, AND BODILY DEVELOPMENT OF MAN.

FIRST.—How to Read Character Scientifically—Philosophy and Proofs of Phrenology—The Temperaments, their Combinations and Effects—Public Examinations of Persons Selected by the Audience.

SECOND.—The Application of Phrenology to the Choice of the most Appropriate Occupation or Pursuit in Life; pointing out those avocations to which each person is best adapted. A very useful Lecture.

THIRD.—On the Government, Training, and Education of Children, with advice to the Young on Self-culture and Perfection of Character. Every parent, teacher, and youth should hear this Lecture.

FOURTH.—Location, Analysis, and Combination of the Phrenological Organs, or Powers. Influence of Habit on the Formation and Development of Character. Necessity of "*Knowing Ourselves.*"

FIFTH.—Our Social Relations—Continuance of the Race—To the Unmarried—Who should and who should not Marry—The Right Age—Jealousy, its Causes and Cure—Beauty and Fashion—The Choice of Congenial Companions for Life—Adaptation—Courtship and Marriage. Interesting to both sexes, married and single.

SIXTH.—Intellectual Culture and Improvement—Memory, how to Secure and Retain it—How to become good Thinkers, Writers, and Speakers—The Basis of Success in Business, etc. Very useful to all, and especially to young men and women.

Examinations.—Professional Delineations, with charts and full written descriptions of character, and advice in regard to the most appropriate occupations or pursuits in life; faults, and how to correct them; the management of children, self-improvement, marriage, etc., given daily, in the Lecture Room.

A NEW PREMIUM,

WORTH FIFTY DOLLARS ($50 00).

FOR the encouragement of friends, co-workers, and agents, we have concluded to offer as follows: To the person who may send us the largest list of subscribers for the PHRENOLOGICAL JOURNAL, between the present time and the first of May, 1858, we will give

A HANDSOME CABINET,

embracing *forty* of our best Phrenological specimens, selected from our large collection—the same as those we sell at TWENTY-FIVE DOLLARS; also, the worth of

TWENTY-FIVE DOLLARS IN BOOKS,

which may be selected from our extensive catalogue, making, in all, a premium worth the handsome sum of

FIFTY DOLLARS.

The above shall be promptly awarded to the successful party, soon after the first of next May.

The CABINET will prove a valuable acquisition to any man, and may form the nucleus for a large Town, County, State, or National collection, while a library worth $25 would grace the book-case, and aid to ornament the mind of any reader. Now the question arises, "Who shall be the happy recipient of these trophies?" A little well-directed effort will secure them to some one. Reader, what say *you?* would you like this valuable CABINET, and this very handsome LIBRARY?

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FOR $50, we will send ONE HUNDRED COPIES of the PHRENOLOGICAL JOURNAL one year, to one or one hundred different persons, and $5 in Books published by us, as a PREMIUM to those who get up the club.

For $20, forty copies of the JOURNAL will be sent a year, and $2 in our Books.

For $10, twenty copies of the JOURNAL, and $1 in Books.

For $5, ten copies of the JOURNAL will be sent one year.

For $1, one copy will be sent a year.

For $3, a copy of the PHRENOLOGICAL JOURNAL, a copy of the WATER-CURE JOURNAL, and a copy of LIFE ILLUSTRATED (weekly) will be sent for one year to one address.

Clubs, large and small, may be made up of both Journals, and the premiums will be sent as above. Please address FOWLER AND WELLS, 308 Broadway, New York.

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SUBSCRIBERS, POSTMASTERS, and others, are respectfully solicited to act as AGENTS for this JOURNAL. A liberal commission will be given. See Club Rates.

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CORRESPONDENTS will please be particular to give the name of the Post-Office, County, and State.

GOOD WISHES.—We are thankful for the good wishes so warmly expressed by many friends of the PHRENOLOGICAL JOURNAL Some say they find the JOURNAL a friend and counselor; others a monitor, and some regard it as the expounder of great truths, the laws which govern MIND. Still others value its portraits and biographies of *live men* more than anything else. But all who have been recipients of its regular visits, for months and years, feel a strong interest in its continuance, and in its more extensive circulation.

We are happy to receive both their cheering words of approval and encouragement, and their co-operation in forming clubs, in every county, town, village, and neighborhood. THE PHRENOLOGICAL JOURNAL for 1858 will be made interesting and valuable to every reader.

SKULLS.—A valued friend in Kanzas, A. P. Wilson, writes us that he can procure for our cabinet some Indian skulls, which he kindly offers to send to us for exhibition to the public, and for illustration of Phrenology as applied to the Indians of that region. Will not other friends

in different parts of the world do the same when convenient, and thus earn the gratitude of the present and of future generations for their valuable contributions to science?

PHRENOLOGY IN GALESBURG, ILL.—We are informed by a valued correspondent that efforts were being made to form a Phrenological Society in Galesburg, Ill. We trust the science will be planted there, and a cabinet collected.

To Correspondents.

ERNST, Wheeling, Va.—1st. What should one do to have his phrenological character ascertained if there is no one capable of performing the task in the vicinity?

Answer. He can send us, by mail, a daguerreotype or photograph taken at a three-quarter view, and from this we can write out the character in full. We have an illustrated circular, called MIRROR OF THE MIND, which explains the matter fully, which we forward to all who desire it.

2d. Would it not be interesting to your readers if you would, in your JOURNAL, give heads and deduce their character? *Answer.* This we do every month.

3d. What phrenological character do you consider necessary for an acute and upright lawyer?

Answer. The mental vital temper, to give quickness and intensity to the mental powers; large observing organs, a good memory, large Comparison, Firmness, Self-Esteem, and Conscientiousness. In short, a "good lawyer" requires a first-rate head and temperament, for their profession covers the entire range of human duty and human action. For a full elucidation, see the work entitled "Fowler on Memory," pages 19 and 20.

J. P. W.—Duff's "Book Keeping" is as good as any. Price $1 50.

B. L. C., Minnesota.—Pick up as much education as you can, and engage in trade or the law.

J. F.—Is the use of wind musical instruments beneficial or injurious to the lungs?

Answer. We think their use is beneficial to those who have pretty good lungs to start with, provided they blow temperately. Many persons with weak lungs bring on bleeding by excessive blowing. Vocal music we think a better way to develop the lungs.

Literary Notices.

THE ILLUSTRATED FAMILY GYMNASIUM, containing the most improved methods of applying Gymnastic, Calisthenic, Kinesipathic, and Vocal Exercises to the Development of the Bodily Organs, the Invigoration of their Functions, the Preservation of Health, and the Cure of Diseases and Deformities; with numerous illustrations. By R. T. Trall, M.D. Fowler & Wells, publishers, 308 Broadway, New York. 1857.

What a title-page! and yet it describes but what the author has earnestly attempted, and we think has ably accomplished, viz., to furnish an ample range of illustrations for the attainment, by the cheapest and simplest means, within every one's reach, of freedom from deformity and the maintenance of health, strength, agility, beauty, and long life.

We have no more to say of the book. Of its object we would speak in terms to be heard from New Brunswick to Mexico, if our voice was strong enough to be heard so far. Americans! you are missing it. By spitting life away in chewing, or smoking yourselves to skeletons, or snuffing spoiled tobacco and hurtful aromatics; by absorbing poisoned liquors, instead of stickling for good, or drink none; by a restless, fidgeting ambition to be suddenly rich; by your love of votes and a reckless hurry to be shabby politicians, instead of being honest business men; above all, by disqualifying yourselves by these and other vices in early life for being the parents of sound, healthy offspring, you are sinning at a rate that none but the thoughtful and far-seeing can realize, against the health of posterity and the future greatness and happiness of our country.

This is a heavy charge, but too many of us deserve it. We are not as conservative of health as we ought to be, and we are far less observant of the influence of our own doings, of our virtues and our vices, upon the destinies of our race, than becomes an intelligent people. That "the iniquities of the fathers are visited upon the children," *physically*, is too evident to doubt. It is written in the Bible; but we need not go to the Bible to learn it. It is extant, patent, wide open everywhere—is seen wherever the human race is seen. Every man and woman, whose conjugal life is not yet achieved, ought to see it, feel it, and abstain from foolish and hurtful indulgences, from higher considerations than any that affects the welfare of any one being. Young man, let alone that tobacco; throw away your cigar; flee from adulterated liquors—and you can hardly get any other these days—as if all the evil spirits in the universe were after you. The groggery will spoil you, and the greatest fear is that it will not spoil you soon enough to prevent your leaving a spoiled image of your spoiled self behind you!

The physical in our being, whether relating to our own health or the untold evils of a half-spoiled parentage on posterity, or the training of children with the first and ever-constant care to make them hale, sound men and women, is too much neglected. Encourage in your boys manly exercises. Work them—yes, work them. If you are rich as Crœsus, no matter. Give them something, occasionally at least, in the way of employment, that they may have the high enjoyment of feeling that they are useful, helping somebody, doing good. It is the best feeling any mortal ever enjoyed. Why should rich men's sons be deprived of it? And then your daughters—are they up in the early morning? do the garden-walks feel their nimble feet? do the roses blush less beautiful by the comparison of lips nd cheeks tinted by morning zephyrs? are they helping their mother, when that is needful? are they learning to make hoe-cake and hasty-pudding, supawn, mush, whatever you call it? yes, and pound-cake, breakfast-cake, pies for dinner, poor-man's cake, rich-man's cake, and all the rest? and more, are they learning the luxury of doing good? When you lay out and adorn your grounds, are the wife and daughters out, exercising an exquisite, womanly taste, counting on the effect of that tree you are setting, when full grown; seeing how this winding path sorts with that straight fence, and reckoning where luscious fruits may combine beauty with utility? Or if their hands, a little softer perhaps than yours, should seize the proper implement and round off an unseemly prominence, what harm would be done? And where is the old side-saddle that your daughter's grandmother used to ride on? have the rats eaten it, and have you got no other?

But perhaps we say too much. We would not be always talking in this strain if it were not a matter of prime importance. The fact is, we want that some of the old American blood should survive all the onslaughts of foreigners. But it never will, unless we cherish good habits and educate our children to be hale, stout, physically able men and women. And will this spoil them intellectually? Will it hurt them as ladies and gentlemen? Will it dwarf them morally? Reader, you know better. It does not take a frail, helpless thing to make a lady. It doesn't take a weak, shamble-legged thing to make a gentleman. And surely it does not require an imbecile in body to make a giant in mind. A sound body is the substratum of all intellectual greatness, not a hindrance, but a help to all that is intellectually and morally great and good.—*From the Plow, Loom, and Anvil.*

LIFE AND TIMES OF AARON BURR, Lieut. Colonel in the Army of the Revolution, United States Senator, Vice-President of the United States, etc., by J. Parton, author of the Life of Horace Greeley New York. Mason Brothers. 12mo, 700 pp. $1 75.

We can do no more, in our present issue, than announce the publication of this volume. As a phrenological study, the work appeals to our readers, as the author has inserted in his closing chapter a statement of Burr's phrenological character from the pen of Mr. L. N. Fowler. To persons who are curious in American History, the new biography possesses intense interest—its pages being flooded with striking and frequent anecdotes, derived from living persons, and never before published. Despite the hard times, the book is having a run. In our next we may take occasion to speak further respecting it.

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4. INHABITIVENESS.—Love of home; desire to live permanently in one place; adapted to the necessity of a home. Abuse: Prejudice against other countries. Deficiency: Continual roaming.

A. UNION FOR LIFE.—Connubial love; desire to pair; to unite for life; and to remain constantly with the loved one. Abuse: Excessive tendency of attachment. Deficiency: Wandering of the connubial affection.

5. CONTINUITY.—Ability to chain the thoughts and feelings, and dwell continually on one subject until it is completed. Abuse: Prolixity; tediously dwelling on a subject. Deficiency: Excessive fondness for variety; "too many irons in the fire."

SELFISH PROPENSITIES.

E. VITATIVENESS.—Love of life: youthful vigor even in advanced age. Abuse: Extreme tenacity to life; fear of death. Deficiency: Recklessness, and unnecessary exposure of life.

6. COMBATIVENESS.—Self-defense, resistance; the energetic go-ahead disposition. Abuse: A quick, fiery, excitable, fault-finding, contentious disposition. Deficiency: Cowardice.

7. DESTRUCTIVENESS.—Executiveness; propelling power; the exterminating feeling. Abuse: The malicious retaliating, revengeful disposition. Deficiency: Tameness; inefficiency.

8. ALIMENTIVENESS. — Appetite; desire for nutrition; enjoyment of food and drink. Abuse: Gluttony; gormandizing; drunkenness. Deficiency: Want of appetite; abstemiousness.

9. ACQUISITIVENESS.—Economy; disposition to save and accumulate property. Abuse: Avarice; theft, extreme selfishness. Deficiency: Prodigality; inability to appreciate the true value of property; lavishness and wastefulness.

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15. CONSCIENTIOUSNESS.—Justice; integrity; sense of duty and of moral obligation. Abuse: Scrupulousness; self-condemnation; remorse; unjust censure. Deficiency: No penitence for sin, or compunction for having done wrong.

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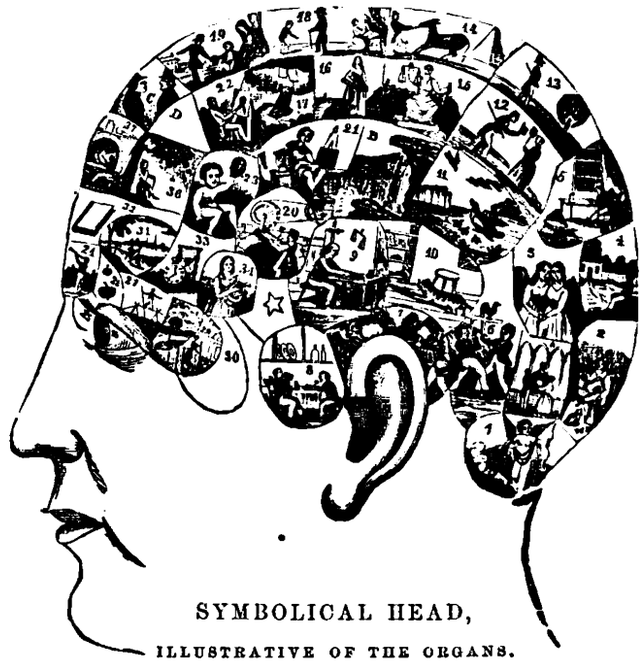
SEMI-INTELLECTUAL SENTIMENTS.

20. CONSTRUCTIVENESS.—Mechanical ingenuity; ability to use tools; construct and invent. Abuse: A loss of time and money in trying to invent perpetual motion. Deficiency: Inability to use tools or understand machinery; lack of skill.



SYMBOLICAL HEAD,

ILLUSTRATIVE OF THE ORGANS.

21. IDEALITY.—Love of the perfect and beautiful; refinement; ecstasy; poetry. Abuse: A disgust even for the common duties of life. Deficiency: Roughness; want of taste or refinement.

B. SUBLIMITY.—Fondness of the grand and magnificent; the wild and romantic in nature, as Niagara Falls; mountain scenery. Abuse: Extravagant representations; fondness for tragedies. Deficiency: Views the terrific without pleasure or emotion.

22. IMITATION.—Power of imitating; copying; working after a pattern. Abuse: Mimicry; servile imitation. Deficiency: Inability to conform to the manners and customs of society.

23. MIRTHFULNESS.—Wit; fun; playfulness; ability to joke, and enjoy a hearty laugh. Abuse: Ridicule and sport of the infirmities and misfortunes of others. Deficiency: Gravity; indifference to all amusements.

INTELLECTUAL ORGANS.

OBSERVING AND KNOWING FACULTIES.

24. INDIVIDUALITY.—Ability to acquire knowledge by observation, and desire to see all things. Abuse: An insatiable desire to know all about other people's business; extreme inquisitiveness. Deficiency: A want of practical knowledge, and indisposition to notice external objects.

25. FORM.—Memory of the shapes, forms, faces; the configuration of all things; it enables us to readily notice resemblances; when fully developed, we seldom forget countenances. Deficiency: A poor memory of faces, shapes, etc.; not a good artist.

26. SIZE.—Ability to judge of size, length, breadth, height, depth, distance, and weight of bodies by their size; of measuring angles, etc. Deficiency: Unable to judge between small and large.

27. WEIGHT.—Gravity; ability to balance one's self, required by a marksman, horseman, or dancer; also, the ability to "carry a steady hand," and judge of perpendiculars. Abuse: Excessive desire to climb trees, or go aloft unnecessarily. Deficiency: Inability to keep one's balance; liability to stumble.

28. COLOR.—Judgment of the different shades, hues, and tints, in paintings; the rainbow, and all things possessing color, will be objects of interest. Abuse: Extravagantly fond of colors; a desire to dress with many colors. Deficiency: Inability to distinguish or appreciate colors, or their harmony.

29. ORDER.—Method; system; arrangement; neatness, and convenience. Abuse: More nice than wise; spends too much time in fixing; greatly annoyed by disorder; old maidish. Deficiency: Slovenliness; carelessness about the arrangement of books, tools, papers, etc.; seldom knows where to find anything.

30. CALCULATION.—Ability to reckon figures in the head; mental arithmetic; to add, subtract, divide, multiply; cast accounts and reckon figures. Abuse: A disposition to count everything. Deficiency: Inability to understand numeral relations.

31. LOCALITY.—Recollection of places; the geographical faculty; desire to travel and see the world. Abuse: A roving, unsettled disposition. Deficiency: Inability to remember places; liability to get lost.

32. EVENTUALITY.—Memory of events; love of history, anecdotes, facts, items of all sorts; a kind of walking newspaper. Abuse: Constant story-telling, to the neglect of duties.

33. TIME.—Recollection of the lapse of time; day and date; ability to keep the time in music and dancing, and the step in walking; to be able to carry the time of day in the head. Abuse: Drumming with the feet and fingers. Deficiency: Inability to remember the time when things transpired; a poor memory of dates.

34. TUNE.—Love of music, and perception of harmony; giving a desire to compose music. Abuse: A continual singing, humming, or whistling, regardless of propriety. Deficiency: Inability to comprehend the charms of music.

35. LANGUAGE.—Ability to express our ideas verbally, and to use such words as will best express our meaning; memory of words. Abuse: Redundancy of words. Deficiency: Extreme hesitation in selecting appropriate language.

REFLECTIVE OR REASONING INTELLECT.

36. CAUSALITY.—Ability to reason and comprehend first principles; the why-and-wherefore faculty; originality. Abuse: Too much theory without bringing the mind to a practical bearing; such a mind may become a philosopher, but is not practical.

37. COMPARISON.—Inductive reasoning; ability to classify and apply analogy to the discernment of principles; to generalize, compare, discriminate, illustrate; to draw correct inferences, etc. Abuse: Excessive criticism. Deficiency: To be unable to perceive the relation of one thing or subject to another.

C. HUMAN NATURE.—Discernment of human character; perception of the motives of strangers at the first interview. Abuse: Unjust suspicion; a disposition to treat all strangers as rogues. Deficiency: Misplaces confidence; is easily deceived.

D. AGREEABLENESS.—Blandness and persuasiveness of manners, expression, and address; pleasantness; insinuation; the faculty of saying even disagreeable things pleasantly. Abuse: Affection. Deficiency: Inability to make one's self agreeable.

TEMPERAMENT.

A knowledge of the temperaments is essential to all who would understand and apply Phrenology. We recognize three, as follows:

I. THE VITAL TEMPERAMENT, or the nourishing apparatus, embracing those internal organs contained within the trunk, which manufacture vitality, create and sustain animal life, and re-supply those energies, expended by every action of the brain, nerves, or muscles. This temperament is analogous to the Sanguine and Lymphatic temperaments.

II. THE MOTIVE APPARATUS, or the bones, muscles, tendons, etc., which gives physical strength, or bodily motion, and constitutes the frame-work of the body. This is analogous to the bilious temperament.

III. THE MENTAL APPARATUS, or nervous temperament, embracing the brain and nervous system, the exercise of which produces mind, thought, feeling, sensation, etc. (For a full description of these temperaments, and their effects on mind and character, see "Phrenology Proved, Illustrated, and Applied.")

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Contents.

JAMES RUSSELL LOWELL.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

THE following remarks were made by one of our examiners upon the ambrotype of Mr. Lowell without knowing who was the original of the picture. We think the remarks very just.

This man has a very high degree of nervous development, with the finest quality of the vital and mental temperaments—is constitutionally sentimental, poetical, enthusiastic, and disposed to devote himself to those thoughts and emotions that arise from development in the coronal portions of the brain. He is remarkable for the faculties that give ambition, politeness, affability, desire for public notoriety, and to gain as much reputation and distinction as it is possible for him to secure. He has great *will*-power, determination of mind, and is capable of putting forth great efforts to secure his ends.

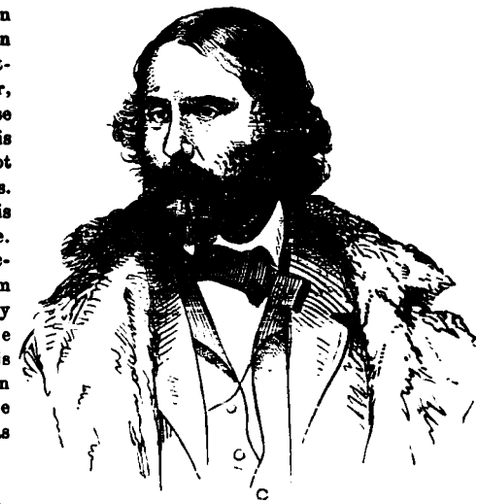
He is cautious, solicitous, and quite watchful in respect to the effects of his habits and actions on his health and character.

He has a very well balanced intellect, and is particularly descriptive, analogical, and capable of giving faithful accounts of whatever he thinks, sees, or does. He has a superior memory of what he reads or hears, of his travels and experiences, and would excel in literature, and especially in composition. He is well qualified to entertain others, either in an oral or written style—is witty, brilliant, imaginative, versatile in manner, and pliable in disposition. He has a good sense of order, neatness, system, and punctuality—is persuasive in manner, and well qualified to adapt himself to the state and tone of mind of others. He is not so practical, literal, and real, as he is ideal, sentimental, esthetical, and descriptive. His moral organs are large, and these, in conjunction with such an exalted temperament, give him very high-toned moral sentiments; philanthropy and the love of justice being conspicuous. He doubtless derives the spirit of his mind from his mother, and that she was a woman of uncommon refinement and delicacy of feeling. The outline of the head and expression of the face, as well as his phrenological developments, indicate it.

BIOGRAPHY.

Mr. Lowell's history, so far as the public can, at present, claim a right to be made acquainted with it, is simply that of his works. Its principal epochs are marked by the publication of new books and new editions. Aside from what these reveal, all that we have been able to glean concerning him may be compressed into a single paragraph.

James Russell Lowell is the son of an eminent Congregational clergyman of Massachusetts, and was born at Elmwood, the country seat of his family, in Cambridge, on the twenty-second day of February, 1819. His maternal grandfather was Judge James Russell, of Charlestown, after whom he was named. He was educated in his native town, graduated at Harvard University in 1838, and afterward studied law and was admitted to the bar. His literary predilections, however, were too decided to permit the dedication of his powers to Coke and Blackstone, and his legal career was a brief and undistinguished one. As an episode in his business life, he commenced in 1843, in company with his friend Robert Carter, the publication of *The Pioneer*, a literary and critical magazine, of which only three numbers were ever issued. It was of too fine a cast for



PORTRAIT OF JAMES R. LOWELL.

popular appreciation, and proved, pecuniarily, a failure. In 1854 he delivered a course of lectures before the Lowell Institute, Boston, on English Poetry. They were spoken of at the time as acute and brilliant productions, full of sound criticism and enlivened by wit and fancy. Early in 1855 he was appointed to succeed Mr. Longfellow in the professorship of Belles Lettres in Harvard University, with the privilege, of which he gladly availed himself, of passing a year in Europe before entering upon his duties. He is now actively engaged in the labors of his honorable and responsible position. Mr. Lowell was married in 1844 to Maria White, of Watertown, a lady of fine literary talent and great worth. She died in 1853.

Mr. Lowell's first publication was a class poem recited at Cambridge. This, though rather a crude production, gave promise of better things. His first collection of poems was entitled, "A Year of Life," and was published in 1841. Some of the poems in this volume are marked by great sensibility, delicacy, and tenderness, and teem with proofs of poetic genius. They are valuable,

however, rather for what they promise, than for any actual high accomplishment. It was only on the publication of a second collection of far superior merit, in 1841, that he took his true place among the poets of America. This collection contains "A Legend of Brittany," "Prometheus," and many other well-known and popular poems. They evince a rapid advance in art and a profound study of passion, and are written in a vigorous as well as an elegant and polished style. The leading poem embodies such a story as would have engaged the heart of Shelley or Keats. And yet it is the old tale, told and retold a thousand times by the poets and romancers of every age—the old tragedy enacted and re-enacted, alas! in every land and in every generation—the tale of love and trusting innocence on the one side, and perfidy, betrayal, and crime on the other; but it is here told with new touches of tender pathos, and new points of application in its sad lessons. The poet's description of his heroine, Margaret, whose face

Gave back the sunshine with an added glow,

is exceedingly fine throughout. We can quote only a single stanza:

None looked upon her but he straightway thought
Of all the greenest depths of country cheer,
And into each one's heart was freshly brought
What was to him the sweetest time of year.
So was her every look and motion fraught
With out-of-door delights and forest lere,
Not the first violet on a woodland lea
Seemed a more visible gift of spring than she.

The proud, bad man whom she loved and trusted but to be betrayed and ruined, is described as

A twilight nature, braided light and gloom,
A youth half smiling by an open tomb.

"Prometheus" is one of the finest poems in this volume, and illustrates, very happily, one of the most prominent characteristics of Lowell's poetry—its *humanness*—its philanthropic tendencies—its sympathy with progress and with every struggle for freedom from tyranny and oppression. He is not one of those niggard souls who deem

That poesy is but to jingle words
To string sweet sorrows for apologies,
To hide the barrenness of unfurnished hearts.

The poet, according to his reading of the Muse's commission,

Is ordained to higher things;
He must reflect his race's struggling heart,
And shape the crude conceptions of his age.

He adds:

They tell us that our land was made for song,
With its huge rivers and sky-piercing peaks,
Its sea-like lakes and mighty cataracts,
Its forests vast and hoar, and prairies wide,
And mounds that tell of wondrous tribes extinct;
But poesy springs not from rocks and woods;
Her womb and cradle is the human heart,
And she can find a nobler theme for song
In the most loathsome man that blasts the sight,
Than in the broad expanse of sea and shore
Between the frozen deserts of the poles.
All nations have their message from on high,
Each the Messiah of some central thought
For the fulfillment and delight of man;
One has to teach that labor is divine;
Another Freedom, and another Mind;
And all that *God is open-eyed and just,*
The happy center and calm heart of all.

In this faith Mr. Lowell draws from the old poetic fable of Prometheus lessons which the tyrants of our age may well heed with fear and trembling, and words of hope which will impart, wherever they are heard, new strength and courage to the hearts of the oppressed.

In 1845 Mr. Lowell published a series of essays, critical and esthetic, entitled, "Conversations on Some of the Old Poets," evincing careful study and much critical acumen.

This work was followed in 1848 by another collection of poems, embracing "The Present Crisis," "Anti-Texas," and other pieces, indicating his interest in the philanthropic movements of the day. About the same time appeared "The Vision of Sir Launfal," founded on a legend of the San Greal, and "A Fable for Critics." The latter is a witty production, in doggerel rhyme, in which he deals pretty freely with the American *literati*, and takes his revenge on his reviewers *à la* Byron. With some puerilities, this poem contains a good deal of keen and felicitous satire.

Mr. Lowell's last published volume is "The Bigelow Papers," a work written in the Yankee dialect, and full of pungent satire, directed against war, etc. Since the publication of this work he has spent considerable time in Europe, writing, meanwhile, for the *North American Review*, *Putnam's Monthly*, and other periodicals. He is now a regular contributor to *The Atlantic Monthly*.

Mr. Lowell is not deficient in vigor, either of thought or of style, but his power is of that subtile order which is not less effective because noiseless in its manifestations. His weapon is not the battle-axe, wielded with such a zest by his compatriot, the Quaker poet, Whittier, but a keen-cleaving Damascus blade, whose strokes, though fatal, leave scarce a mark. He is polished and courtly, but staunch and true to his brother man, however rude, or ignorant, or low. He is loyal to what he believes to be truth, hopeful of the future, and has faith in God and in man. He is young still, and his best works are probably yet to be written.

In reading his poems, pencil in hand, we have marked numerous passages for their beauty of thought or imagery, or their expressiveness of grand truths. We will close this brief sketch by transcribing a few of them, taken at random. The *italics* are ours:

TRUE POWER.

True Power was never born of brutish strength,
Nor sweet Truth suckled at the shaggy dugs
Of that old she-wolf. Are they thunderbolts
That quell the darkness for a space, so strong
As the *prevailing patience* of meek Light,
Who with the *invincible tenderness* of peace
Wins it to be a portion of herself?

GOOD ALONE FRUITFUL.

Evil springs up and flowers, and bears no seed,
And feeds the green earth with its swift decay,
Leaving it richer for the growth of truth;
But Good, once put in action or in thought,
Like a strong oak, doth from its boughs shed down
The ripe germs of a forest.

THE CURSE.

It is my curse! sweet memories fall
From me like snow—and only all
Of that one night, *like evil worms, crawl*
My doomed heart over, Rosaline!

THE HERITAGE.

Oh, poor man's son! scorn not thy state,
There is worse weariness than thine,
In merely being rich and great;
Toil only gives the soul to shine
And makes rest fragrant and benign;
A heritage, it seems to me,
Worth being poor to hold in fee.

LEWES ON PHRENOLOGY.*

SECOND ARTICLE.

HAVING briefly stated Gall's historical position, as given by Lewes, and supported by an examination of his teachings, let us consider Lewes' objections to Gall's system, and the tendency of its teachings.

In 1802 M. Charles Villiers published a letter directed to Baron Cuvier, on Dr. Gall's "new theory of the Nervous System," accompanied by a plate, marked by Gall himself, of the twenty-four original faculties of the mind, as discovered by Gall. Among this number were four afterward discarded altogether, viz., Vital Force, Susceptibility, Penetration, and Generosity, independent of benevolence. "Not only are these four astonishing organs marked by Gall as representing original faculties, but the twenty organs which were afterward retained by him are *differently* localized;" so that, according to M. Lelut, from whom I borrow these facts, "of those twenty organs there is scarcely one which occupies the place Gall finally assigned to it." "Phrenologists," adds Lewes, "should give prominence to this fact"—and phrenologists have and will do so, until it ceases to be dragged to the light.

Gall possessed all the merits and all the demerits of a discoverer. Of his merits, enough has been said; of his demerits, we will now speak of one as calculated to throw light upon this subject. Gall was not a close, minute observer. His reflectives preponderated over his perceptives. He was satisfied to discover the location of an organ, but seldom, if ever, determined its *exact* location and the relation it sustained to other organs. As a consequence, all of his original charts are imperfect, in that they assign too great or too small a space to an organ, and fail to give its exact relations. Hence, after he became associated with Spurzheim (who possessed a better balanced and more highly cultivated mind), a change became apparent in their charts. The relative size of organs was changed, new organs were discovered, a new nomenclature adopted, and greater precision evidenced in their combined labor. There was, consequently, an apparent *change* of location of the original organs, but it was *apparent* only, not *real*. Gall's Locality was small; Spurzheim's was large. Hence Gall rarely located an organ with precision, generally including portions of neighboring organs within the lines of a single organ, especially if that organ was large and one usually active in the great majority of men. Gall's command of language was, furthermore, defective. He had a variety of names for one organ. Not unfrequently named an organ from the abuse of its faculty, and had not, till after his association with Spurzheim, a clear idea of the absolute usefulness and natural goodness of every faculty of the mind. Let us illustrate these points.

The organ now known as Individuality he called "Sense of Things, Memory of Facts, Educability, *Susceptibility*, Perfectibility, Curiosity, Docility, Disposition to perfect the action of the organs."

Secretiveness he named, "Organ of Cunning, of

* The Biographical History of Philosophy, from its Origin in Greece down to the Present Day. By George Henry Lewes. Library Edition. New York: D. Appleton & Co. 1857.

Finesse, of Management, Instinct to Conceal, Spirit of Intrigue, Dissimulation, Lying, Duplicity, Astuteness, *Penetration*."

Benevolence he named, "Moral Sense, Goodness, Mildness, Benevolence, Compassion, Sensibility, Conscience, Sentiment of Just and Unjust."

The organ now called Destructiveness he imagined to be the exact antithesis of Benevolence, and named it, "Carnivorous Instinct, Cruelty, Barbarity, Sanguinary Disposition, Propensity to Murder, Instinct of Destruction, Insensibility."

Is it at all wonderful that Gall should be misunderstood and misrepresented when he was so careless in locating his discovered organs, and so loose and confused in his nomenclature? The wonder rather is, that he made so many proselytes and so many friends.

That Gall should have rejected any supposed discovery of his own, even though supported by the accumulated facts and evidence of twenty years of industrious labor, is a mystery to Lewes, but is none to us. He labored for the discovery of the truth, and of the truth alone, and the instant a valid objection was urged against any part of his labors he was the first to give it a careful, conscientious examination, to weigh and rightfully estimate it, and if his decision was against himself he was the first to announce it. Hence it follows that many opponents of his system, ignorant of, or unable to comprehend, this peculiarity of Gall, have adduced such objections as the above to the prejudice of the man and of his system. Rightly understood, they redound to his glory. He was not infallible, and knew it; if he made a mistake, he rectified it; if he erred, he acknowledged it. He wished to send his labor down to posterity so complete that posterity would have no other labor to perform but to perfect it.

Lewes assigns to Phrenology two aspects—1st. It is a system of psychology. 2d. It is the art of reading character. In other words, Phrenology may be divided into two subdivisions: 1st. Phrenology, the Science, consisting in an exposition of the structure and functions of the brain and nervous system, an analysis of the mental faculties, and an exposition of the doctrine of the temperaments. 2d. Cranioscopy, the Art, consisting of the practical application of the principles of the science to the reading of human character. This practicability of the science, which is its chief glory, is in the estimation of Lewes, its greatest fault. It is against this he aims his heaviest blows—with what force let us investigate.

The observation of certain empirical facts has led to the generalization. "Size, other things being equal, is a measurement of power." Lewes says that the "other things"-- education, temperament, organic power, etc.—are *never* equal. This is an assertion, not an argument; but admitting it to be an argument of great validity, what then? Does it disprove the very intimate relation obtaining between organic size and fundamental power? No. A large brain, a large bone, a large muscle is comparatively stronger than a small brain, a small bone, and a small muscle, but in the measurement we compare brain with brain, bone with bone, and muscle with muscle. This fact may be verified, as it was discovered, by observation. But observation shows us yet another fact: the intimate structure of bones, of brains, and of muscles vary; some are loose, porous, flabby, and coarse, while others are compact, firm, hard, and refined in texture. What follows? Why, of two brains, for instance, of equal size, one soft, flabby, and coarse, the other firm, hard, and fine in texture, the latter will possess the greater power of innervation. Have we any means of determining these various qualities of an organ so screened from observation as the brain? Most assuredly. As is the texture of one portion of the organism, so is the texture of all. If the hair is coarse and harsh, the skin rough and inflexible, the muscles will be found coarse and loose in texture, the nerves will partake of the general characteristics of the hair, the skin, and the muscles, and the brain, the corner-stone of the whole structure, will partake of these same varied peculiarities, and why? because the brain and nervous system really constitute the man proper, and all other portions of the system are but the outgrowths of this inner system, and partake of its nature as they partake of its life. But more on this interesting subject in our next article.

TEMPERAMENTS.

This is a great subject, though it is a very difficult one to elucidate, except by specimens from nature or illustrations from art. Very little has been said by writers on the subject which is calculated to give full information to the public who are uneducated in physiology. To do adequate justice to the subject would require, perhaps, a hundred engravings nicely colored, with elaborate descriptions to match; still, enough may be understood merely by form and texture, properly represented by busts or engravings, to give a good general idea to the ordinary student, so that by observation he might become well versed in the doctrine of temperaments.

It is much easier to determine the size of organs than to determine their quality. Almost anybody can measure a stick of timber, and ascertain its form, size, its cubic contents, its weight, etc., but it requires time and experience to know, by looking at wood, all the qualities which distinguish the various kinds, as carpenters, cabinet-makers, and others can do who deal in timber, and become so intimate with the subject that a single glance enables them to detect oak from chestnut, as well as the half dozen different kinds of oak. When it is remembered that no power of description or ability to instruct can qualify a person, not versed in the subject, to go forth a good judge of every kind and quality of timber without experience, it will not excite wonder that the same difficulty should obtain in regard to the physiological conditions of the human system called temperament.

A correspondent inquires whether there are four temperaments, namely, the Sanguine, Nervous, Bilious, and Lymphatic, or whether there are but three, namely, the Vital (including the Sanguine and Lymphatic), the Mental (or Nervous), and the Motive (or Bilious).

Mr. Combe and other authors have recognized four temperaments, the Lymphatic being one of them. Some years since Messrs. Fowlers suggested that the Lymphatic or nourishing temperament (embracing the digestive and lymphatic systems) was given for the purpose of manufacturing vitality, and belonged to the vital system as much as the lungs, heart, etc.; consequently they combined (in their description of temperament) all the vital organs, including the heart, lungs, liver, and the digestive organs, and applied to this combination of organic conditions the name of Vital temperament. We believe that neither the Lymphatic nor the old-fashioned Sanguineous temperament can be found in a pure state. As no one can live without the lungs and heart, they must have something of the Sanguine temperament. As stomach, liver, and the abdominal organs generally, are necessary to human existence, and as they are organs constituting the Lymphatic temperament, therefore these must always exist, and, as we have said, since the functions of these organs are as important as breathing and circulation, and are intimately connected with vitality and life, we regard their combination into one temperament as purely philosophical. We are aware, however, that some persons have a much larger development of the thoracic or upper region of the body than others, and that some have a larger development of the abdominal region than comports with a good balance. Some, like the grayhound, are very large in the shoulders and small in the abdomen. Others are large in the abdomen and comparatively small in the thoracic region. The way we indicate in our charts the qualities arising from this diversity of development, is by marking the activity and excitability of the constitution. This may not perfectly reach a solution of the question, but at present it is the best method in use.

The difficulty attending such temperaments is not in understanding them, but in describing them, so that other people, not well versed in the subject, shall understand them.

The Vital temperament may be made to vary, by habit, very essentially. In infancy the abdominal organs, which constitute the Lymphatic temperament, are generally larger than the organs constituting the mere Sanguine temperament, which are located in the upper part of the trunk; but as adult life approaches, the shoulders broaden, the chest becomes deep, and the stomach and its accessories relatively less developed; but if a person leads an active life, and maintains his health, the abdomen commences to increase in size at about thirty-five, especially when the Vital temperament is in a full degree of development in the constitution. Thus we see men becoming a little stout about the waist at from thirty-five to forty-five, and quite plump, and sometimes inclining to corpulency, at sixty, when the chest begins to flatten and the shoulders to become less broad than in the heyday and vigor of manhood, so that the second childhood or old age is accompanied by a similar form of body to that which exists in childhood.

The best temperament, however, and the one most calculated to give vigor and health of body, joined with clearness and force of mind, is the one in which the best balance is found between all the temperaments, viz., the Nervous or Mental, the Motive or Bilious, and what we call the Vital temperament, which embraces the Sanguine and Lymphatic. But we suppose that the Motive and Vital temperaments are best adapted to longevity, while the Mental and Vital temperaments in combination are the best adapted to sedentary pursuits; but no man should follow any sedentary occupation which requires him to be constanly sitting. If he can not mingle with it any department which shall give him bodily labor, he should take

time, and secure the means for a sufficient amount of physical exercise.

We are aware that sedentary occupations, especially needlework and many others, furnish such limited compensation that those who are doomed to follow them must work incessantly to maintain life. This is all wrong. Whatever business requires sedentary occupation, and a consequent diminution of vigor and health, should be more amply rewarded, so that a person can afford to take time enough to exercise for physical health and development.

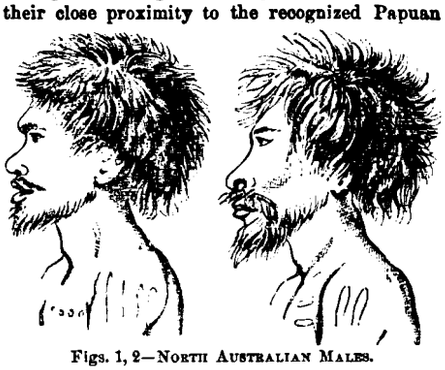
When everybody understands physiology, these sedentary occupations will be so far abandoned by all who have but little strength for more robust occupations, and be followed by those who are cripples and unable to do anything but light and sedentary work, and thereby the subject will regulate itself. But while there is such a want of physiological knowledge in the community, it can hardly be expected that people will do otherwise than did the needle-grinders of England when a man invented a method by which all the steel dust could be withdrawn so as not to float in the atmosphere, and be breathed in upon the lungs, and men could live perhaps twenty years and grind needles, instead of dying as they did on an average of five years; but these men foolishly thought that it would derange their wages if the occupation was made more healthful; hence the mob which threatened to tear down the mill in which the improvement had been introduced. When men learn to value health and longevity, and the legitimate happiness which should flow from it, above mere wages or the accumulation of property, such scenes and sentiments will be done away with.

NORTH AUSTRALIANS.*

[THE North Australian or Croker Island people are very singular in appearance. In the first place, there is a lack of vitality, with scrawny bodies, small necks, contracted chest, hang-dog faces, and so far as they exhibit any spirit at all, it appears to be that of impatience and ill-nature. No. 3 has a decent forehead and much more reflective power than seems to be manifested by any other one of that class; and it is said of him that he was more sensible than the rest, and distinguished for his power to understand and speak the English language. No. 6 is the daughter of No. 2, and the resemblance of the head and face is very striking. What a spiteful expression of countenance No. 1 bears!

These specimens of humanity appear to be not cross and ferocious particularly, but weak and low. The observing and perceptive organs appear to be well developed in all these specimens; but with the exception of No. 8, there appears to be a great deficiency of reflection and strength of thought, and the organs which give the higher sentiments of reverence, benevolence, and ideality are very deficient.]

The aboriginal inhabitants of Tasmania or Van Diemen's Land, a small remnant of whom still exists on the great island of Bass's Strait, are Papuans in their general characteristics; indeed, their habits and appearance very closely correspond with those of the Andaman islanders; but in the neighboring continent of Australia the prevailing character of the hair is straight, or only slightly waved, and often fine and silky, even among the aborigines of Cape York, who from their close proximity to the recognized Papuan



Figs. 1, 2—NORTH AUSTRALIAN MALES.

tribes which inhabit the islands of Torres Strait, might reasonably be expected to bear some affinity to them in this particular. *Frizzled* hair is, however, very common among several of the aboriginal Australian tribes, more especially those of the north and northeast coasts, and from the rough appearance of their uncombed locks, when cut short, travelers have on several occasions been led to suppose that their hair resembled the wool of negroes, until undeceived by a close inspection. But the peculiar tufted hair of the Papuan has never, so far as the writer's own experience goes, yet been detected among the aborigines of the continent of Australia.

The manners and customs of the native inhabitants of a newly-explored country present an interesting subject of inquiry; and by placing on record, at the earliest period of our acquaintance with them, the distinctive features of the different tribes of which they are composed, many peculiarities interesting to the researches of the geographer and the ethnologist may be preserved which the progress of civilization and the consequent increase of intercourse between them would tend to obliterate. Several of our earlier travelers in Australia appear to have felt the importance of this subject, and have paid due attention to it. With the tribes, however, of the northern coast,

Figs. 3, 4—NORTH AUSTRALIAN MALES.

of whom I propose to speak, we have, till lately, been less familiar than with others; and these possess a peculiar interest from the circumstance of the country they inhabit being in the close vicinity of the islands of the Indian Archipelago. These islands, again—that is to say, the groups mere immediately adjacent to Port Essington—are occupied by a portion of the human family concerning which very little was known previous to our occupation of the north coast when the measures that became necessary for establishing the security of commercial relations in that quarter, brought us into communication with tribes with which we had previously been unacquainted. At Port Essington, indeed, we were completely surrounded by singular and interesting communities. A circle drawn around the settlement at a distance of five hundred miles would inclose an almost equal number of distinct tribes, varying in complexion from the sooty black of the negro to the freckled yellow of the Polynesian mountaineer, and differing in social condition as much as in personal appearance.

Fig. 5—NORTH AUSTRALIAN FEMALE.

The superior organization that exists in a colonial establishment composed entirely of individuals in the employ of government, is highly favorable to the maintenance of friendly relations with the aboriginal tribes; and it is probably owing to this circumstance that our occupation

Figs. 6, 7—NORTH AUSTRALIAN FEMALES.

of the Cobourg Peninsula has been unattended with those collisions which so often occur when civilized men are brought into close communication with savages. Parties of warriors, headed by their chiefs, occasionally came from the remote interior to pay us a flying visit, and nearly every Macassar prahu that arrived from the Gulf

Figs. 8, 9—NORTH AUSTRALIAN FEMALES.

of Carpentaria brought two or three individuals from one or other of the tribes that are distributed along the intermediate coast. Indeed, about the month of April, when the prahus congregate at Port Essington, the population of the settlement became of a very motley character, for then Australians of perhaps a dozen different tribes might

* From "NATIVE RACES of the Indian Archipelago—PAPUANS. By George Windsor Earl, author of the 'Eastern Seas.' H. Bailliere, 290 Broadway, N. Y."

be seen mixed up with natives of Celebes and Sumbawa, Badjus of the coast of Borneo, Timorians, and Javanese, with an occasional sprinkling of New Guinea negroes; and very singular groups they formed, busied, as they generally were, amid fires and smoke, curing and packing the trepang, or sea-slug, which they had collected from the shoals of the harbor. I propose here giving a general sketch of the tribes inhabiting the Australian coast, from the Cobourg Peninsula, toward the east, confining myself chiefly to points more immediately connected with geographical science, namely, the distribution of the various tribes, the points upon which they may happen to differ from other Australian tribes with which we are already acquainted, and the social peculiarities that may afford traces of a connection with other races.

In the first place, I should state that certain general characteristics are observable among all the tribes of this part of the continent with which we became acquainted Their skins are invariably embossed with raised cicatrices. The septum of the nose is generally pierced, that is to say among the men, for the custom does not appear to extend to the other sex. Clothing is disregarded, except by way of ornament, and in lieu of this they display a great tendency to adorn their persons with streaks of white, red, or yellow pigment. These customs, indeed, appear to pervade not only all the Australian tribes, but also the negro communities of New Guinea, and of those islands of the Indian Archipelago in which remnants of this race still exist. But these northern Australians, at least the tribes with which we are most familiar, have certain customs which are not general among the aborigines of this continent. For instance, their mode of burying the dead is singular. The body is deposited in a sort of cradle formed by a number of poles, arranged within the crutches of two forked posts stuck upright in the ground. It is enveloped in many folds of the paper-like bark of the tea-tree, and is left there until the skeleton only remains, which is then deposited either in a general receptacle for the relics of the dead, or, if death should have occurred at so great a distance from this spot as to render removal inconvenient, it is placed upright within the hollow trunk of a decayed tree. We also discovered a distinction of caste, or, rather, the remains of such a distinction, for the natives themselves appear to have forgotten its origin and purport. These castes are three in number, and are termed, respectively, "Manjar-ojalli," "Manjar-wuli," and "Mambulgit." The former is supposed to have sprung from fire, the term "ojalli" having this signification. The "Manjar-wuli," as the term implies, had their origin in the land. The signification of the term "Mambulgit" is exceedingly obscure. The natives themselves state that it implies "makers of nets." The "Manjar-ojalli" is certainly the superior caste, for among those tribes in which chieftainship exists, the principal families are invariably of this caste, and are in the habit of alluding to the circumstance with considerable pride. With regard to the two remaining castes, I never could discover exactly which was the superior; indeed, the statements of the natives themselves are so contradictory upon this point, that it never has been, and, perhaps, never will be cleared up. This point is interesting, from the circumstance of a very similar distinction of caste being found to exist among the Polynesian tribes of the neighboring islands, who also adopt a similar mode of disposing of their dead. The natives of the Cobourg Peninsula have also certain superstitions respecting the "waringin," or banyan-tree, which are common to the Indian islanders. Beyond this, their superstitions appear to resemble those which pervade the greater portion of the Australian tribes—a belief in the existence of evil spirits, of *kurlocks* or demons, and of ghosts—against the whole of which fire affords protection. The spirits of the dead are also recognized in the strangers, whether European or Indian, who visit their country.

Although, as I have before stated, these northern Australians possess many of the general characteristics of the tribes of the south, still some striking peculiarities were found to exist, which contributed to excite a considerable degree of curiosity and attention, more especially as they also served to distinguish one tribe from another, even in some cases where their territories were immediately adjacent. During our earlier intercourse, when from inability to converse with the natives we could learn little respecting them beyond what absolutely met our eyes, we supposed that these peculiarities were merely accidental; but subsequently, when our means of acquiring information became extended, and bodies of individuals from remote tribes occasionally resided among us, we perceived that many natives, who had attracted notice from being somewhat different in personal appearance from the people among whom they resided, were, in reality, mere visitors from distant tribes.

The people of the Croker Island tribe are generally small in stature, ill-formed, and their countenances are forbidding and disagreeable. The hair is generally coarse and bushy. The beards and whiskers of the men are thick and curly, while the entire body is often covered with short crisp hair, which about the breast and shoulders is sometimes so thick as to conceal the skin. The eyes are small, and what should be the white has a dull, muddy appearance. Their aspect, altogether, is more forbidding than that of the Australian aborigines generally. Nor are their dispositions of the most amiable description. They did not amalgamate with us so readily as the others, but this probably was in a great degree owing to the influence of the chiefs, who evidently regarded us with considerable jealousy, as being likely to supersede the influence they possessed among their people. The occasional visits of their chiefs to the settlement were invariably attended by a series of petty thefts, undertaken, not by the chiefs themselves, but at their instigation. Mimaloo, one of their principal chiefs, who was known at Raffles Bay by the name of "One-eye," was particularly obnoxious in this respect, and latterly he was forbidden to enter the settlement. This man was one of the most perfect savages I ever remember to have met. His gestures, when offended, were frantic in the extreme, and resembled those of a wild beast rather than of a human being. His henchman and bosom friend, Loka, was characterized by a gloomy ferocity even more distasteful than the fitful fury of his savage chief. This man was lately entrapped and killed by the Macassars, at a port on the north coast, for having, during the previous year, treacherously murdered one of their number by throwing a spear at him when his back was turned. As far as we ourselves were concerned, this tribe proved to be harmless; but this was evidently the result of fear rather than of affection. I here allude more particularly to the chiefs; for the people, when left to themselves, conducted themselves well, and treated the parties from the settlement that occasionally visited Croker Island with a considerable degree of hospitality.

I have observed that upon the northern coasts of Australia the population upon a certain tract of country, is great or small in proportion to the quantity of *vegetable* food it produces. However abundant animal food may be, a toilsome search for edible roots gives almost constant occupation to a portion of every tribe. Women and children labor for hours together, with no other implement than a pointed stick, in following up the creeping stem of the wild yam through the earth until the root is arrived at, often at a depth of six or eight feet below the surface. A certain proportion of vegetable food appears, indeed, to be absolutely necessary to their existence, and they willingly forego the use of animal food if this more grateful diet can be obtained in sufficient abundance. Boiled rice, without any condiment, they will accept as their sole food for days together, and scarcely seem to wish for change.

ETIQUETTE BETWEEN THE SEXES.

A CERTAIN comportment or style of manners is due between each human being and every other, by virtue merely of their common humanity. And this treatment becomes proper when all the human faculties which appertain to our fellow-men are properly exercised toward them, but improper when these faculties are either *not* exercised, or when their action becomes *perverted*.

But there is a *special* manner due between the old and young, parents and children, friends and neighbors, ladies and gentlemen, to be superadded to that due between human beings merely. Thus the treatment proper enough from one boy to another would be quite improper from a boy to a man. And men are bound to treat boys differently from what they would men; and yet I doubt whether seniors generally treat juniors just as they should. It is thought that all proprieties are due *from boys to men*; yet there is a treatment quite as proper due from men to boys.

So there is a *special* treatment due between males and females, by virtue of their sex. Not that this treatment clashes with that due from one human being to another, but that it is *superadded* thereto. A man owes a certain treatment to every other man he may meet anywhere in the relations of life; but every man owes a different treatment to every woman; and the same treatment which would be proper enough offered by one man to another, if offered to a woman, would be both rude in itself, and derogatory to him who offered it.

So there is a still more special treatment due between husbands and wives. And true conjugal etiquette involves the very highest style of human manners, along with some very important superadditions; and perfect manners herein is the highest cast of manners or accomplishment in which human beings can array themselves.

Then what characterizes the special treatment due between the sexes in general, and the married in particular? And the latter phase of this question is the more important, because on it mainly depends the happiness or unhappiness of the married state. Concord or discord in married life depends far less on the mutual fitness or unfitness of the parties—on their adaptation to each other, or the want of it—than on the *way they behave* toward each other. A man *owes* a given treatment to his wife, and she to him; and when either fails to behave properly toward the other, involuntarily the other feels the wrong and recoils from and dislikes both it and its author. And animosities spring up, and widen into hatred, and thereby spoil the lives of both, which a right conjugal etiquette would have forestalled and prevented. Yet neither knows either *what* or *why*. This *what and why* it is the object of this article to point out.

Then, what is the *base* of all right etiquette between the sexes, and the married?

Right *feelings*. All treatment of man to man, man to woman, woman to man, and husbands to wives, and wives to husbands, is but the *natural language* of their *feelings*. Hence the quintessence of good manners consists not at all in one having been to the dancing school, or traveled in other lands, or studied books or good manners; nor even in having mingled in polite society, but *solely* in his having *right human sentiments* toward all mankind in general, and the special feelings due to the particular person addressed. A boor, though all his life in select circles, or even abroad at court, is a boor for all that; but he who *feels* right will *behave* right. Nor is any rudeness as rude as that which ensconces itself behind fashionable usages. Put the lion's skin on the ass, and the ears will stick out for all; and if he tries to roar he can only bray. Hence, to cultivate kindness, begin with the *interior*. The *outworkings* will then be right. "First make the *tree* good, then shall the fruit be good also."

And this expresses the very condition requisite for a right treatment between the sexes. The treatment of man to woman is but expressive of the kindly regard in which he holds her. If a man feels toward a woman as he does toward a man, he will treat her only on the plane of their common humanity. But something *more* is due. He must treat her on the platform of their common humanity, to be sure, but he must *superadd* thereto the treatment due from the masculine to the feminine.

Then how is the true, high, perfect man to *feel* toward woman by virtue of his sex and hers? How should all men *feel* toward all women?

Look at that boy and girl! They are naturally, in the parlor or play-ground, drawn toward each other; and he treats her never rudely or roughly, but blandly and tenderly, and the older he grows the more so. If he scuffles with her, it is not the scuffle of a rough boy with his equal, but with a delicate, tender object—and he *gives*, not takes, advantages. If he snow-balls with her, he tries to *miss*, not hit; or if he hits, it is only softly, just to show what he could do if he tried. If he rubs her face with snow, he takes good care to rub it just as lightly as possible, but lets her rub as hard as she pleases. If they slide down hill together, he draws the sled up the hill again; or, if there is no hill, he puts her on the sled while he draws her, not she him. I speak not of those rude boys who have no mother, but of those *properly* behaved. And as they grow older their manners become more and more considerate, kindly, bland, winning, and pleasant.

Why? Because they are *sexed*. The sexes were ordained to love each other. In phrenological language, Amativeness comes in to prompt and modify right manners between the sexes, but not between those of the same sex. And all this difference depends on and grows out of this faculty. Nor is it possible for any man to treat any woman properly except by virtue of this element. But for it, he must of necessity treat her as a human being merely, not as a female; and the more amativeness is awakened properly toward her, the more gentlemanly does he treat her. Hence, the larger this organ in a man, if rightly exercised, the better will be his style of manners toward the female sex in general, and those he more especially admires in particular; but the weaker this sentiment the less he cares for, admires, and loves females, and the less attention he shows them. They are, in his eyes, simply human beings, and his treatment corresponds.

But suppose Amativeness is large and *perverted*. He now behaves far more improperly than if it were simply *weak*. Then he treated them merely with neglect—now, offensively. His errors were then those of omission merely—now, of positive commission. Let this element become sensualized in him, and he involuntarily looks upon and feels toward them as sensual beings, or as if they were as base as himself; and this will work itself out in action. His very look and act will proclaim his thoughts and feelings. And if woman has a *quick* sense, she will be able to read him. Indeed, without really knowing why, or even the fact, she will involuntarily recoil from him. He is bad, feels wrongly, tells her so by the natural language of Amativeness; and she, if pure, revolts from and evades him—at least, barely tolerates, and keeps her distance; but if she is bad, they involuntarily interpret each other correctly. By this means those youth who have done violence to their nature involuntarily proclaim their own errors to those whose practiced eye or ear can see or read.

And when this faculty takes on its reversed action, as it often does, it renders the sexual manners more odious than anything else can render them. Show me a woman-hater, and I will show you a boor. Show me a man who considers the female sex as faithless and devilish, and I will show you a faithless devil, and one all of whose looks and actions toward the other sex are perfectly devilish.

So show me a woman who has come to regard all men as impure, and I will show you a woman herself impure; and whose every act and comportment toward men is in correspondence. Nor can any woman be a lady without having at her very heart's core a high appreciation of masculine character. She may wear whatever of silks and satins and jewelry she pleases, but her true characteristics will stand out in all her actions and behavior toward men; and men will involuntarily recoil from her. She is unsexed, and therefore unladylike. That wife who said she hated all mankind in general, and her own husband in particular, felt and said so because her own womanly nature had departed from her, and instead she had become worse than a neuter gender—a real virago. And there are not a few such poor pitiable objects. If they even try to counterfeit the agreeable, and say pleasant things just to be admired, it is a palpable counterfeit. No, woman, if you would *be* ladylike, you must *feel* a high regard for man, as a sex, and the individual man with whom you are in converse.

Men, have you not observed an infinite difference between the attractions of this woman as compared with that? This draws, that repels. This has something so sweet, pleasant, lovely, charming, fascinating in voice, manners, looks, expressions of countenance, in general and in detail, while that is unsatisfactory, unpleasant, uncongenial, more defiant, at least repellant than inviting, and harsh or sharp, a soured countenance, and other like signs, in both *what* she says and *how* she says it; and as you talk laboredly on—I say laboredly, because, to talk with such is hard work indeed—this fling, that muffled sarcasm, and the other criticism, if not implied scandal, escapes her lips. She sees only the bad in men, because herself in the objective mood—for we always judge others by ourselves. Nor is there a surer sign that one is faulty than fault-finding. Our mental glasses take their coloring from our own states of mind, so that *others seem to us just what we ourselves are*. This is equally true of both sexes, but has been already virtually applied to men.

Nor do these different states of Amativeness thus differently affect the manners toward the opposite sex merely, but toward everybody and thing. The fact is, the real influence of this faculty on character, down to its minutest shadings, feelings, and manners, has not been explained by any writer, or even suspected by anybody.

Then in what consists the highest style of manners toward the opposite sex? How *should* man feel toward woman, and woman toward man, in order to render their mutual manners *perfect*?

First, man should regard woman by virtue of her sex, what she really is by nature, as pure, good, angelic—the highest order of terrestrial perfection; and also as a very delicate, susceptible being, and treat her accordingly. He may treat men roughly if he likes—may bang them about as he would rough boxes or pig-iron, though they that bang must expect to be banged—"they that *use* the sword must expect to perish by the sword"—but when he comes to treat woman, it must be with that extreme tenderness which betokens her sensitiveness and fine-grained susceptibilities. She feels everything—pleasure, pain, mental, physical—far more keenly, because far more highly organized than man. And she should be treated in accordance with *her* nature, not his. If danger threatens, he must protect *her*, though he exposes himself. Thus the noble Capt. Herndon, of the ill-fated Central America—eternal honors on his

name! let woman rear, and worship at, his monument—first saves the *women and children*, though he thereby perils his own life. And those gallant tars who worked heroically till the women and children were all saved, deserve woman's highest thank-offerings. Mrs. Herndon had a model husband; he *felt* right toward woman, and hence *acted* thus nobly.

A woman enters the crowded room or omnibus. Up spring several men to offer her—though perhaps of plebeian class and manners—a seat, each anxious to be the martyr on the altar of her comfort. Even the gray-headed old man yields his seat to even a young woman. Is not such a sight beautiful—an oasis on the barren desert of humanity. And wherever, and as far as you behold these gallant attentions of gentlemen to ladies, you find proportionate refinement and human elevation. But that society or person in which it is wanting is semi-barbarous and sensual.

Nor does woman realize how much she is indebted to this gallant sentiment. By virtue of it, she may travel from Maine to California, and be everywhere treated as a queen—seated and served first at table, and preferred everywhere in everything. The true gentleman is always and everywhere studying out and providing for the comfort of ladies. Indeed, the special meaning of the term *gentleman* refers not at all to man's demeanor toward man, but wholly to his manners toward woman. And the express definition of the word *lady* refers solely to her who treats men as women should treat them—and true women are infinitely more ladylike in the company of gentlemen than ladies. It takes gentlemen to make ladies, and ladies to make gentlemen. And hence a sharp eye can soon see, in the style of any man casually met, whether he has associated much with ladies, for this refines and polishes, softens off his idiosyncrasies, develops his virtues, and improves his manners and heart. Nor is that young woman who has been brought up and educated among her own sex only, at all fit for society. Hence, female seminaries turn out anything but ladies, and colleges anything but gentlemen. The sexes should be educated *together*, in order to render them genteel, well behaved, well beloved.

But how should ladies *receive* these attentions from gentlemen? Ought they not to pay for them? Shall any being sacrifice on the altar of another's happiness without receiving *some* equivalent? Never. Then how shall ladies *repay* these gallant attentions to their comfort? By a pretty *acknowledgment*. The least they can do is to *thank* him, and the *true* lady always will—and the more cordially the more a lady she is. And this more than repays him; and in the uprising of his soul, incited by that sweet smile, he is put upon the *qui vive* for other opportunities to promote the comfort of other ladies, that he may bless and be smiled upon again.

But she who does *not* thus thank, will not long be the recipient of gallant attentions from any one. If the want of politeness ended with those who thus deserve to be neglected, it would be only that which they deserve; but it tends to produce general rudeness from all gentlemen toward ladies. How long will a man show politeness if it meets a rude reception? Women must reciprocate politeness, if they would receive it from men.

ROBERT PRICE.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

Your brain is too large for your body; for while you weigh but about one hundred and thirty pounds, your head measures twenty-three inches in circumference, which requires for its full support a body weighing not less than one hundred and seventy pounds. You will need to be guarded in your habits and modes of life, in order that your body may be sufficiently vigorous to sustain the brain even tolerably. You should guard against all articles of food and all habits of stimulation such as smoking, and drinking coffee and alcoholic liquors, because these have a tendency to produce in the brain an undue degree of excitability, and thereby exhaust the vital energy through the bra more than is for the health of the body.

You need physical exercise, with a view to increase the size of the lungs and the muscles of the chest. When you pass the youthful age, and come to be thirty-five, you will find yourself running down rapidly, because your brain will absorb so much vitality; but if you now build up the body so that it may be able to sustain the brain, you can then go on with your thinking and mental labor without special detriment to your health.

You have an excitable temperament, not an irritable disposition, but you are very susceptible to external influences.

Your feelings are keen and deep, and you are easily swerved by your sympathies and affections. You do for others that which you can not afford to do. You are strong in social attachment—fond of society, but seek chiefly personal and special friends rather than general popularity.

You are capable of loving woman; of being attached to home and home associations, and of loving children, and are quite domestic in your disposition.

You are not wanting in force of character, but you have hardly enough of Self-Esteem to give you a disposition to take a high and prominent place among men. You are more apt to keep on the back-ground, and let others make the noise, while you pursue the quiet, even tenor of your way.

Your Destructiveness is large enough to give you a high temper, when aroused, but you have hardly Combativeness enough to give you decided courage. You sometimes allow your rights to be invaded without promptly resisting until the proper time has passed.

You should cultivate Self-Esteem and pride of character; should assume responsibilities, and endeavor to hold up your head among men. You have considerable perseverance—are more disposed to plod along in a quiet way than to make a bold, independent dash.

You would hardly do for a Western pioneer; you are better adapted to a civilized state, where everything is done according to rule.

You have large Cautiousness, and rather large Secretiveness. You are capable of keeping your own counsel—of guarding your own secrets and those of your friends.

You have large Acquisitiveness—are anxious to acquire, to possess, and to make money. You are not capable, however, of driving a hard bargain. You have not Self-Esteem and Combativeness enough for this. You are apt to underrate your abilities and the value of your own services; hence you find it difficult to charge a high price, and still more difficult to make people pay it. Your head is very broad at the temples, in the region of Constructiveness and Ideality. You possess a high order of mechanical ingenuity—are capable of understanding processes readily—are fond of making experiments—desire to make discoveries and inventions, and are not satisfied with the old beaten track. You are liable to spend too much time and money in experimenting, though an occasional lucky hit often rewards a man for a lifetime of labor.

You have a well-balanced intellect. You have a good judgment of form, size, and local position; an excellent memory of what you see and experience; have talent for drawing, and would have made a good artist in marble or with a pencil. You are fond of music—are capable, also, of succeeding well in the natural sciences. Your Language is about average. You are sociable, but not a great talker. You use language that is familiar and easy to be understood, but your range of words is not very extensive. You think more than you talk.

You enjoy mirth in a high degree, but your mirth is not of a coarse, base, vulgar kind.

Your moral sentiments are highly developed, but you are chiefly distinguished for the organs of perceptive intellect, and those which give ingenuity, mechanical talent, power of invention, economy, prudence, and social affection.

You need more pride and dignity, more determination, rather more veneration and religious enthusiasm, and more Combativeness to give you assurance and positive courage.

If you had been favored with early advantages, you could have taken a high position as a scholar and thinker, for your mi id naturally seeks improvement, and that which tends to moral elevation.

BIOGRAPHY.

Robert Price, destined to become widely known as the first discoverer of a practical and effective method of preparing engravers' blocks so as to use the ambrotype or photographic process in the place of hand-drawing, was born at Liverpool, England, on the 28th of February, 1836. His father died when he was very young, leaving his mother with a daughter and a son unprovided for.

Mrs. Price and her children continued to reside in Liverpool after the death of her husband, supporting herself as a dressmaker—her children working with her until Robert, the youngest, was nine years of age, when he hired out to a coal dealer to haul small loads of coal on a hand-truck to poor families, who were unable to buy in larger quantities than fifty pounds, that being a standard load—such as Robert used to haul. He remained in this business eighteen months, receiving sixty-two cents per week, lodging at home, and working sixteen hours a day, which was extended on Saturdays to eighteen hours, often being so overworked that he fell asleep on his coals in the street.

On leaving this business, he went home and assisted his mother, who soon after took rooms over

PORTRAIT OF ROBERT PRICE.
Inventor of PRICE's Patent Process of Photographing on Wood.

the bake-house of a Mr. Scott, for whom Robert soon commenced work in the bakery for his board, where he remained several years, being treated more as a slave than as a free boy in a Christian land. While here his mother died of the cholera, and was buried without his knowledge, her last words being, "Take care of my poor Robert."

Some two years after this Mr. Scott came to the United States, and Robert accompanied him.

Young Price's first experience in this country was on a farm at Bridgeport, Conn., near the residence of P. T. Barnum, where he remained about six months, working for Mr. Scott's sister, who treated him with greater brutality than her brother had done, keeping him employed in such a way that his hands became frozen, and he looked back to his twenty hours' daily drudgery in the bakery as a good time in comparison.

Mr. Scott removed to Worcester, Mass., taking Robert with him, where he commenced the baking business.

Up to this period no attention had been paid to his education, he scarcely knowing how to read. He now, however, began to attend the Sunday-school connected with the First Baptist Church, and commenced reading the newspapers, often taking part of the brief period allowed him for sleep to sell papers, in order to raise the means to pay for his own papers, as Mr. Scott never gave him anything except his board and very cheap clothing, often taking the pennies earned from the sale of papers for his own use.

While selling papers one morning, a gentleman, by the name of Adams, met him, and told him he wanted to get a boy to work in a daguerrean gallery, to whom he would give $3 a week. Robert immediately offered to take the place, and was accepted—thus forever bidding adieu to Mr. Scott and the baking business. His new employer, who had a partner by the name of Claflin, immediately had a large sign painted, setting forth the terms upon which pictures could be taken, etc., at Adams & Claflin's Gallery, which was duly mounted on Robert's shoulders, and he was sent to perambulate the streets as an advertising machine—this being his first experience as a daguerrean artist. While carrying this sign he was in the habit of taking his Testament with him, and learning his Sabbath-school lesson. In his rounds he occasionally stopped to rest on the steps of the residence of Mr. Bradley, the well-known car-builder, on Front Street, where he would study his lesson. On one occasion, while thus engaged, a pail of water was thrown over him, drenching him, his sign, and his book. A gentleman chancing to witness this ungracious act, and noticing the quiet manner in which it was received by the poor boy, came to him, and expressed his sympathy and regret at his misfortune, and made inquiries about his condition. This gentleman, W. Mecorney, proved to be a Sunday-school superintendent, who wrote out the story and had it published in the Sunday-school paper, besides holding up our hero as a model of forbearance and perseverance in learning his lessons. This brought Robert considerably into notice, and made him friends, especially in the Sunday-school children. He remained in this gallery about four years, where he was noted for making experiments, and a close attention to business and study. On leaving this gallery he went with Mr. Hathaway, in the same business, where he remained a short time, and then hired to Mr. Maxham for a year, at the close of which period he hired one of his rooms with apparatus, where he commenced and perfected his experiments in daguerreotyping on wood, which had been suggested to him some time before as being a proper field for experiment by Mr. Livermore, bookseller, and Mr. A. Prentiss engraved the first picture. After continuing his experiments for many months he overcame all practical difficulties, and achieved a complete success where success had been decided to be impossible, and placed his name, at the early age of twenty-two, among the discoverers and benefactors of the age. A patent was granted at Washington, which bears date May 5th, 1857. This patent is now owned one third by Mr. Price, one third by Mr. C. J. B. Waters, and one third by Mr. J. H. Knight. The French and English patents have been granted, and are the property of Mr. Price, who proposes to dispose of them on reasonable terms whenever such shall be offered.

The following, from the *Scientific American*, will set forth the value and importance of Mr. Price's discovery.

"PHOTOGRAPHS FOR WOOD ENGRAVING.—All wood engravings have hitherto been first drawn by hand on wooden blocks for the engraver, who cuts them for common letter-press printing. This art involves great skill, and a peculiar natural taste on the part of the artist, and requires considerable time to execute the most simple figures. When photography was first discovered in England, its application to the production of pictures on wooden blocks was very early suggested and essayed, as stated on page 96 of our present volume; but although some blocks had been thus prepared and used in printing, the attempts to render the application truly useful failed of entire success. The reason of this, we have been informed, was owing to the defective processes pursued to produce such pictures on the blocks. By one method they (the blocks) were first prepared with a solution of common salt, then they were dipped into a bath of nitrate of silver to render them sensitive. This process injured the color and fiber of the wood, rendering it very brittle and unfit for printing more than a very few copies. Another method consisted in protecting the surface of the wood from the action of the nitrate of silver by a coating of albumen, rendered sensitive afterward by the nitrate; but it was found that engravers could not cut clear lines, and consequently could not execute good engravings on such prepared surfaces. To obviate these evils, and to produce good photographic pictures on wooden blocks, was the object of the invention for which a patent was granted to R. Price, of Worcester, Mass., as noticed by us on page 390 of our last volume. He has never set up the claim of being the first person who applied photography to wood for engraving purposes, but that his process is the best yet discovered, and that good engravings on wood can be executed from it.

"We will describe his process, so that there can be no mistake hereafter, either as to what it is, or its originality. It simply 'consists of preparing the wooden blocks first of all with a thin solution of asphaltum or bitumen, ether, and lampblack, rubbed into the pores of the wood.' This ethereal solution of asphalt is put on the surface of the block with a rag, brush, or sponge, and then some fine lampblack is also rubbed in dry; the surface of the block is afterward polished on a cushion, when it acquires a smooth, jet black, glossy appearance. After this, it is treated by the common photographic process; namely, coated with collodion rendered sensitive by nitrate of silver, then put into the camera, the picture taken, then fixed and dried in the usual manner. The whole of this process—preparing the block and taking the picture—does not occupy more than ten minutes of time, as we had an opportunity of witnessing personally, a few days since, at the establishment of Messrs. Brightly, Waters & Co., No. 90 Fulton Street, this city. Wooden blocks, prepared as described, appear to be well adapted for engravings, several of which we examined in different stages. Those finished were clear in the outline, and the perspective was very correct."

In addition to his experiments on wood, Mr Price experimented on stone, steel, copper, and other substances used for engraving, and found his process to work very perfectly on all, and these substances are included in his patent, which consists of the method by which the preparation is applied to the surface on which the object is to be photographed and engraved.

After procuring his patent, Mr. Price sold one third of the same to Mr. C. J. B. Waters, an energetic and thorough-going business man, whom he selected to act as sole agent for the introduction of the discovery into practical use, and for the sale of the patent. In June, 1857, Mr. Waters succeeded in selling one half of Mr. Price's remaining interest to Mr. J. H. Knight, still retaining the uncontrolled agency of the patent, immediately after which he came to New York, being recommended to Mr. H. L. Stuart to aid him in introducing the process to the engravers and publishers. Mr. Wm. Howland engraved the first picture in New York taken by this process, and continues to use it successfully. Several other engravers have tried the process with various degrees of success. A portrait of Mr. Peter Cooper, by this process, is in preparation for this Journal. Mr. Waters decided to organize an engraving establishment, and to demonstrate, under his own eye, the value of the process, as there seemed to be a settled determination to resist its introduction on the part of many engravers and their attendant draughtsmen. Mr. Frank Leslie gave several orders, and expressed himself favorably of its merits. The heads of several distinguished persons, also several very delicate and complicated machines, were prepared and engraved with the most complete success, notwithstanding which Mr. Waters found it almost impossible to introduce his process on remunerative terms, and he finally induced Mr. J. H. Brightly to join him in organizing a photographing and engraving establishment, under the title of Brightly, Waters & Co. This establishment went into operation on the 1st of November, 1857, at No. 90 Fulton Street.

PORTRAIT OF JOSEPH H. BRIGHTLY
Photographed on Wood from life by PRICE'S Patent Process.

JOSEPH H. BRIGHTLY.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You have a very fine-grained and powerful organization, and uncommon powers of endurance.

You are excitable, nervous, and very distinct in your mental manifestations. All your physical qualities and movements are of the prompt, positive, and precise character. You would excel in most of the gymnastic feats. You can govern your motions and throw more of power into them than most men. You would excel in sword exercise, in horsemanship, in dancing, or in any of the games that require the projecting of weights, as quoits, ten-pins, or billiards. You find it necessary to be on the move. You can not remain in a quiet, sedentary position for a great length of time. You like to work off your nervous force and muscular energy through active occupations, and you would highly enjoy rural sports, as hunting on horseback, or in sailing a boat, playing at cricket, or sparring and fencing.

You need as much sleep as you can get; you incline to take too little. Your life is so intense, your feelings so keen and earnest, that you exhaust the vital magnetism rapidly. You take nothing coolly and quietly. Your life is hearty, industrious, efficient, restless, and positive. Your Firmness and Self-Esteem are large. You have the power of governing and controlling. It is not natural for you to submit, but on the contrary, you are adapted to direct, to occupy a position of authority, and to exert influence over others. You would have made an excellent military officer, so far as the exercises, and evolutions, and discipline, and government of men are concerned. You have the power of arrangement and organization of control and discipline; are prompt and accurate in your own motives, and would inspire in others the same qualities, or, at least, train them up to it. You seldom engage in anything in which you do not make your mark upon it, if you do not carry it through triumphantly. You value reputation, but you value honor more highly. It does but little good to praise you, unless you have a consciousness that you deserve it, and then you demand it as a right rather than desire it as flattery.

Your sense of justice is strong, but you are sometimes rash, impulsive, and impetuous in your manifestations, and do wrong without intending it. You are not as guarded, and watchful, and mindful of consequences as many, but when a question of right, and duty, and honor is fairly before your mind, you stand up to the mark without flinching, even though it is at your cost.

You have the love of triumph, not the desire for praise; the disposition to maintain the respectability and honor of your family, and such a sense of independence that you would not accept a favor from anybody unless you were conscious of being able to reciprocate it—unless you were so utterly destitute that you were obliged to accept it as a last resort.

Your Hope leads you to look for the far-off "good time coming," but not to the present. You do not lean upon luck, but upon good calculation and earnest effort. You expect to work out your own pecuniary salvation by sagacity and industry. You are not inclined to believe things strange and wonderful—are not very spiritual in your turn of mind, nor remarkably hopeful, but you have any quantity of fortitude, and will, and courage; hence for success you rely upon your own efforts first, and never ask for help until you must. You are capable of bearing up under more opposition

than most men, and as long as you are untouched in health, you feel equal to meet whatever difficulties arise in your pathway.

Your social feelings are strong, particularly your love of woman. If you are congenially married, your family is the center of the universe to you, and you would do and suffer more that your wife might have the comforts and conveniences of life to make her happy than most men. You love home cordially, and are anxious to have one of your own, and would rejoice to be, in one place at least, "monarch of all you survey."

You are a very frank, open-hearted man. You speak as you think, and act as you feel. You find it difficult to restrain the prompt and undisguised outworkings of your disposition, and it is only by experience that you have learned to be reserved.

You value property for its uses—can hardly be called an economical man, except so far as your judgment suggests a necessity for it; and if you had a sufficiency for all the exigencies of life, you would not struggle to lay by a surplus, but would exhibit industry perhaps as much as at present to work out unsolved problems, or to benefit and bless the poor. You can make money better than you can save it. You want to be independent above all things else; for this you wish to be rich, if for anything.

You have a clear intellect, with a predominance of the perceptive organs and Comparison. Your mind is sharp, analytical, very positive, and inclined to make nice distinctions. You are well qualified to be a chemist, in which the most acute analysis is required.

Your Language is only average. You are more accurate than wordy—more correct than copious in speech.

You have a good memory of your experiences—have a correct eye for proportions, figure, or magnitude. You are mathematical, fond of arrangement, and find it necessary to work by rule. You feel confused and dissatisfied unless you can have a certainty, as a base line by which to work. You are very fond of demonstration. You have Constructiveness and Ideality fully developed, which give you a love of mechanism and art, and fondness for the perfect; but your skill and facility of execution depend very much upon your large perceptive organs, the sharpness and activity of your Comparison, the intensity of your temperament, and the clearness and force of your mind. You would have become a good mathematical-instrument maker, a good civil engineer, a surveyor, and a most excellent machinist.

Your sense of the Deity, of things sacred and venerable, is comparatively strong; hence you worship with a spirit of devoutness toward the great Creator and Source of all goodness and power, but you find it difficult to accept of the forms of faith and the ceremonies and customs of religious communities. You are more religious, really, than your acquaintances would be likely to give you credit for being.

You are very spirited in resistance, and when you feel that your honor or your rights are invaded, you repel assaults with such vehemence and pride that you may get the reputation of being quarrelsome, when in point of fact you would avoid difficulties whenever you could do it without a feeling of dishonor. Your Secretiveness is so small, and your Firmness and Self-Esteem so sharp in conjunction with such promptness of resistance—such courage and positiveness, that you show out all the aggressive spirit that you have, and hence you get credit for possessing all that you have, and more than the average of men.

You should be known for cordial affection, for great determination and will, for pride, dignity, and self-reliance; for energy and executiveness, for clearness and force of intellect, for ingenuity, taste, discrimination, and the power to finish and perfect whatever you do. These qualities make you a marked man in your sphere, and give you more than a common degree of influence among your acquaintances.

BIOGRAPHY.

J. H. BRIGHTLY, the subject of our present sketch, was born on the ninth of June, 1818, in the County of Suffolk, near Yarmouth, England. His paternal grandfather, Charles Brightly, was the inventor of the first practical method of stereotyping, which he first brought into use in his own printing and publishing house with much success. He also wrote a treatise on the subject, entitled, "Stereotyping, as practiced by Charles Brightly," copies of which may be found in some of our city libraries and, we presume, among the rarer collections of some of the leading publishing houses.

After completing his invention, he established a large printing and publishing house at Bungay, Suffolk County, England, where he first introduced the plan of issuing works in numbers, which has since become so common in this country. To publishers, it may be interesting to know that the late Hammond Wallace, the first person established in New York as a stereotyper, and Lawrence Johnson, now the largest and most noted stereotyper in Philadelphia, who introduced stereotyping in that city, were both apprentices of Charles Brightly, at Bungay, in England. Henry A. Brightly, the father of our subject, was an only son, and learned all of his father's methods of doing business.

Being endowed with his father's talents, he invented the first machine for shaving the backs of stereotype plates, which had previously been done by hand, a very laborious process.

Soon after making this invention, Mr. H. A. Brightly commenced taking lessons in engraving from Mr. William Edwards, a celebrated portrait engraver on steel and copper, after which he devoted considerable time to the various styles of engraving, rather as an amusement than a profession. He was also very fond of field sports and had a great taste for natural history. Mr. Brightly married a daughter of Joseph Hooper, of Marblehead, Mass. (the mother of our subject), one of the wealthiest citizens of the province of Massachusetts at the time of the commencement of the American Revolution, when he returned to England.

In the spring of 1830 Mr. Brightly, with his wife and family of ten children, came to the United States, landing in New York on the 15th of April of that year, and finally located in Philadelphia.

At that time there were but very few wood engravers in that city, and the art was held in low esteem generally. Mr. Brightly started an engraving establishment in that city, and our subject, at the age of fourteen years, commenced taking lessons from his father in wood engraving, in which he showed remarkable taste and aptitude. Young Brightly's first attempt at engraving was made in copying some of the animals for Mrs. Trimmer's Natural History. In 1840, having attained a fair degree of skill in his delicate art, Mr. Brightly was engaged to engrave on Mitchell's National Map of the United States, and in this department he won a high reputation for the accuracy of his work.

He remained in Philadelphia until 1850, when he came to New York to work on Barnum's *Illustrated News*, in the engraving department, then under the charge of Mr. Frank Leslie, where he remained until the *News* was discontinued, after which he went to Boston and engraved the finest heads that appeared in Ballou's *Pictorial*. In 1856 he returned to New York, and took charge, as foreman, in Mr. Leslie's engraving office connected with Leslie's *Illustrated Newspaper*, where he remained until he went into business on his own account, in December, 1856, in which he continued until the organization of the photographing and engraving establishment of Brightly, Waters & Co., in November, 1857.

Mr. Brightly is one of the most intelligent and skillful wood engravers in all its details, and is also a good business man, as has been shown in his practical appreciation of one of the most revolutionary discoveries in his art ever made—when all of his fellow-craftsmen were crying out, "Our craft is in danger," or stood aloof, refusing to test the merits of the alleged discovery.

To Mr. Brightly is due the honor of demonstrating beyond a doubt the entire practicability of using Price's photographic process on wood, stone, copper, etc., for engraving purposes, thus leading the way to completely revolutionize the tedious system of hand-drawing. By the new method nine tenths of the labor is saved, and a greater accuracy and perfection of detail is secured. The new process is especially adapted for illustrations in natural history, physiology, dentistry, portraits, delicate and complicated designs, ships, architectural designs, landscapes, etc., and by it the largest sketches and objects may be correctly reduced and daguerreotyped on the wood, ready for the engraver's use, almost at a moment's notice. The remarkable illustrations for Dr. Sims' Annual Oration before the Academy of Medicine, representing his discoveries in the treatment of the diseases of women, were produced by Price's process, and engraved by Mr. Brightly with the most complete success.

Mr. Brightly is considered among the first portrait engravers in America, and has had the courage and magnanimity to embark his fortunes in the new process, and has succeeded in obtaining, by means of it, likenesses which, for fidelity of resemblance and perfection of detail and finish, have never been surpassed. And this he has done when many others have stood aloof from the new invention.

He is very athletic and enduring in physique, though lean and wiry; is remarkably fond of field sports, and speaks with enthusiasm of the sports of the old baronial days. He traces his pedigree to a pure Norman stock, and in his organization exhibits that fineness, elasticity, sprightliness, and excitability peculiar to the Norman, while the Saxon element does not appear.

INTELLECTUAL OR REASONING FACULTIES.

DISTINCTION BETWEEN THE METAPHYSICAL AND THE LOWER OR SENSUAL REASONING POWERS.

It is now more than two thousand years since the philosopher-poet Simonides completed the national lamentation for the Greeks who had fallen at Marathon, Platæa, and Thermopylæ, and sat down to the investigation of the most intricate of all philosophical problems. The subject was beyond his depth. Often, when the poet was on the point of discovering the truth, and thought it just within his grasp, "it slipped from him or resolved itself into meanings which destroyed each other," and on the fortieth day of his meditation he abandoned the subject in despair. From that time to the present the human intellect has never been entirely satisfied with the extent of its own powers. *Knowledge* and *wisdom* have generally been confounded; and even now the distinction between the metaphysical or *higher reasoning power*, and that which reasons on the facts furnished by the *evidence of the senses*, is not generally recognized. It is believed that the separate existence and action of these two powers of the mind admit of demonstration whenever the opportunity shall be found for presenting the necessary array of facts and illustrations. The importance of the subject will at least justify the bringing forward of a few of them here.

It has been believed by the wisest philosophers of all ages that the human mind possessed a higher reasoning power than that which was employed in reasoning on the *material* objects around them. It was observed by the earliest students of the human nature that some men who could reason acutely on all questions which could be presented to the senses, could never comprehend any thing of higher abstract truth; and a distinction was made between *physical*, or sensuous, material subjects, and those which were *metaphysical*, that is, *beyond* or *above* the physical. It was this higher reasoning power which was known as *pure reason*. It was this high power of the soul which the Greeks deified under the name of Minerva or the Goddess of Wisdom. She was the impersonation of that highest intuitive faculty which *perceives* truth before it has time to demonstrate it through the slow processes of the external senses. Instead of having grown up during successive years through the ordinary stages of life, she is represented as having sprang forth from the brain of Jupiter, armed with the far-reaching spear of victory and the far-seeing eye of immortal wisdom.

The ancients distinguished between the *higher* reason and the *lower* reason, which is called, by many authors, *Judgment* or *Understanding*. Plato, Seneca, and Aristotle made this distinction; and, in modern times, Leighton, Harrington, Lord Bacon, Kant, Coleridge, and all other philosophers, except such as are imbued with the materialism of Locke, have confined the understanding to the office of reasoning on the objects of the external world, and called it "the faculty of judging according to sense." Animals, say these authors, have the power of *understanding*, as applied to the things of time and sense, but they have no perception of the subjects of metaphysical or spiritual contemplation, which are the proper objects of *pure reason*.

These conclusions had been reached by the philosophers before the influence of the form and size of the brain on the powers and capacities of the soul were suspected. When, through the happy exercise of this same higher reasoning power, Gall received the first intuitions of a deeper truth than men had yet acknowledged, he saw that his conjecture of the connection between the powers of the mind and the form and size of the temple in which it dwelt could only be proved true by actual observation. In an age of materialism metaphysical truth could only be demonstrated by physical facts collected by patient research and untiring industry. Dr. Gall labored more than forty years in examining heads, collecting skulls, and dissecting brains; and with the aid of his chivalrous pupil, Spurzheim, he fought the battle of true science and the best interests of humanity with all the divines, philosophers, and physicians of Europe. Their merits were generally acknowledged on earth after they had both passed to a world where the wise and the good are truly appreciated.

When the science of Phrenology had fairly gained a respectful hearing in the United States, conservative philosophers were startled by the announcement that the exploded theory of Mesmer was again perplexing the minds of their brethren in Europe. It was said that the failure of the pupil of Mesmer to demonstrate the truth of the new science to the French commissioners in 1784 was not a complete failure; that the Report of those Commissioners, headed by Dr. Franklin, though it drove Mesmer from Paris, was not entirely satisfactory to the commissioners themselves; that one of their number had seen enough to convince him that there was truth in the theory, though it was imperfectly understood; that some of them had been subsequently convinced of their error; that one hundred noblemen, of whom Lafayette was one, had each paid a hundred guineas to learn what was known of the art; that the Marquis De Puysegur had retired alone to his estates and continued his experiments; his discovery of the wonderful faculty of somnambulism, and the results of the forty years' experience of Deleuze, were already before the world.

The revelations of the revivers of Mesmerism were coldly received by the scientific men of the nineteenth century. The leaders of public opinion were already committed against it. As the professor of philosophy at Padua refused to look at the satellites of Jupiter through Galileo's telescope, for the simple reason that *he was afraid he would see them*, the opposers of Phrenology, Mesmerism, and other kindred sciences refused to see any experimental proofs of their truth, and they contented themselves with denouncing the advocates of all new theories as impostors or visionary fanatics.

But the voice of old-school philosophers had lost its power over the minds of men. There were inquisitive seekers after truth in every civilized country who disregarded the authority of the learned and the prejudices of the ignorant; and at the same time that Dr. Elliotson was soliciting a fair hearing on the subject before the Royal Medical and Chirurgical Society of London, the new doctrines were undergoing the test of experiment in every kingdom of Europe as well as in the back-woods of America.

In the winter of 1842 the present writer possessed the amplest opportunities for testing the powers and properties of Animal Magnetism, and directed special attention to the following objects of research:

1. Its powers as a remedy in the treatment of disease.

2. Its application in the discovery of the pathology of intricate cases.

3. Its utility in demonstrating more clearly the nature of the different faculties of the mind and the phrenological functions of the individual organs of the brain. Confining my attention now to the subject with which this article commenced, I introduce here the results of one or two experiments which the further observations of fifteen years have amply verified.

Phreno-Magnetic Experiment.—A feeble and delicate young lady, aged fifteen, who had then recently suffered from congestive fever, was found to be sufficiently impressible to magnetic influence to admit of relief from the pain of an approaching ague chill without feeling any other perceptible effect from it. Wishing to gratify some of her friends who were present, and who knew her to be entirely ignorant of Phrenology, I agreed to make an experiment upon a single faculty of the mind, but proposed to conduct it in a manner entirely different from any they had seen. I knew that the common experiments of exciting the different organs in persons highly magnetized produced results which partook too much of the operator's own mind to be satisfactory, and I took an opportunity, when this young lady was entirely free from any magnetic influence, to excite into action a part of the brain which I did not then believe to be fully understood.

I commenced by gently exciting the upper half of each of the organs of Causality on each side of the middle of the forehead. In answer to questions, she said her mind was influenced in some way, but she was at first afraid to say what the real effect was. After two minutes more, she said, "It makes me try to tell the *reason why*," or "the *cause* of something. I don't know what it is, but my mind is trying to tell the cause of it."

In answer to further questions, she said, "You are magnetizing the part of my brain that *thinks*. The influence spreads slightly in the skin, but it goes chiefly into the brain, and makes me think about the cause of things." When questioned about the accuracy of her statements, she would only answer, "Yes, I know it, I feel it, I am sure of it. It enables me to think better than I could before; I could study out the cause of *anything* if I would try." On trying to explain the philosophy of magnetism, she said there was something more wanting—she needed some other help—we must do something more—she would tell when all was right.

Now, continuing to direct the influence gently and steadily through the first and third fingers of the right hand to the same points (the upper part of Causality), I directed a third current by the

middle finger to the central point, usually marked as the upper part of COMPARISON. Our subject at once expressed surprise at the effect. She said she could "not tell what to call that organ," but it was just "the right one" for our present purpose. "It shows the difference between things that I think about," said the girl, who was now delighted with her improved reasoning powers. "Now," said she, "I can tell you the *cause* of things."

She was directed to go on and explain the cause of the change in her mental powers which she now experienced. She declined doing it till she had studied out the *cause* of my inquisitiveness on this subject. After an explanation of my motives, which amused the persons present, she proceeded to explain the *modus operandi* of my proceeding, and its influence on her mind. I must omit much that was said, for want of room, but will give some of the principal points in her own simple language. Addressing me, she said: "This much I see plainly: you *will* to send that influence into my brain; you do this by a strong *determination* to make it go there, just as you fix your mind to a strong *resolution* to *accomplish* something. The influence you send is a fine fluid, not like heat, nor that which makes lightning; it is finer, and don't hurt. You don't send it through the *blood-vessels* of the arm. I have read something about the *nerves;* it goes through them, I am certain of that. It comes down from your brain—*that is where the will is*—and you make it come slow or fast. I can not see just now the reason why you should have this influence, except that it is just given to you. It is not the same as strength; I know *that* I am not mistaken about this." In conclusion, the subject thus gave her perceptions on the way in which the magnetic fluid is acquired from the air.

"I see this much: you breathe, and if you don't breathe, you die. If you did not breathe, you would not have this power." She was asked if I might not derive it from the food with which it could be carried into the blood, and then to the brain. She answered, "I told you before that it don't flow in the blood-vessels, but in the nerves. It only goes in the blood as it is mixed in the air. You must get it from the lungs to the brain in some other way. It can go up the nerves from the lungs to the brain, and the brain can be directed by your *will* to send it down your arm, and out at your fingers; when it gets there, I can understand it perfectly."

A further explanation of the true office of the organs under examination was desired, and the following questions were asked and answered. I copy the notes taken at the time.

Question.—Do you know what organ of the brain lies next below the one I am now pointing to? Do you know what faculty of the mind belongs to it? What do the phrenologists call it?

Answer.—Oh, I don't know one word about Phrenology.

Q.—But can you tell what this part of the brain is for? what does it do?

A.—I know now, but I never thought of that before.

The influence was now withdrawn from the higher organs (or the upper half of Causality), and directed to the lower half of Causality, the order of Comparison not being interfered with. For the first minute the young lady seemed unconscious of any effect being produced, except that she had *lost my assistance* in the organs above. After two or three minutes more she said, "This is a *reasoning* power, also, but there is some difference between these organs and those above them."

Q.—And what is the difference?

A.—The upper reasoning power is all about *thoughts*, and this is about such things as I can see. There is the same thing wanting that was at first with the upper organs. You must do the same thing to assist these organs that you did to assist the others.

A magnetic current was now directed to the lower half of the organ of Comparison, the organs of Causality being stimulated as before.

Q.—Does that have any effect on you?

A.—That does the very same thing that the middle organ does above—it *compares*. I could not think of that word before, but that is just it. It *tells the difference*.

Q.—What kind of differences does it tell? what does it compare?

A.—It compares such things as I can see; the organ above this compares thoughts, or such things as I think about.

Q.—Does it compare all things that you see or hear of? does it compare persons and things that look like each other or differ from each other?

A.—Yes, it compares the appearances of persons, and *their actions*, too. Now I see how it is. These three organs below do the thinking about common things, and they go together in it. They can't reason rightly without the middle one. The organ on each side traces out the causes of things; the middle one balances and *compares*. The three upper organs reason out thoughts and things that we can't see, and this is the highest kind of reason; and here, as below, the middle one balances and compares: by its help I can see when it is wrong. Now I know this must be true. I feel it all so plain.

Q.—Do you believe you have more reasoning power than you ever had before?

A.—Yes, I know I have; I am certain of it.

Q.—Did you ever know that you had these two sets of reasoning organs before this experiment?

A.—No, never. I never knew how it was that we could reason. I have seen books on Phrenology, but I never read any of them.

Here this experiment terminated. The subject was resumed at another time, and the following questions were asked and answered:

Q.—What do you now say is the effect of magnetizing this upper part of your forehead?

A.—It increases the thinking power. The upper and lower reasoning powers are distinct.

Q.—Have you read any books of natural philosophy or chemistry?

A.—I have read some of both.

Q.—Have you tried to study out the *causes* of things as they are explained by those sciences?

A.—I have tried to understand such things some, but not very much.

Q.—Do you know what organs are in operation when you try to tell the causes of things in chemistry or natural philosophy?

A.—I do; that with the lower reasoning organs.

Q.—Do you know what those organs are called in Phrenology?

A.—No; I never learned.

Q.—Are you certain that you know what organs of your brain are in action when you try to tell the cause of the steam coming out of the tea-kettle?

A.—Yes, I know; the lower reasoning organs do this.

Q.—Do you more often employ these organs than the upper ones?

A.—I do when I am doing anything, or observing things that are passing around me.

Q.—Which organs plan and arrange your work and tell when it is done right?

A.—These lower organs do this. They reason about the causes of all that happens around me, or all that I can get evidence of.

Q.—Can you tell, then, when you do exercise the upper reasoning powers?

A.—I don't know how to express it, but they act in all reasonings of things that can't be seen. They reason about thoughts, and the middle one compares them.

Q.—When various thoughts come up in the mind, and we don't know which is best, which organ chooses between them?

A.—I think the middle organ above.

Q.—When I reason about the movements of your brain when you think, and I imagine the movement of the brain as if I could see it, what organs in my brain are in action?

A.—The lower reasoning powers do all that.

Q.—When I look into your mind and try to understand its operations without regard to the appearance of your brain, which organs are employed?

A.—Then the upper reasoning organs act; the middle one compares the thoughts.

Q.—Have you read anything of the philosophy of the mind?

A.—No, I never read any of it. There is such a thing; I never studied it.

Q.—If you were engaged in studying it, and reasoning out the philosophy of the mind, which organs do you think would assist you?

A.—In all the higher part of it I would employ the higher reasoning organs. The middle organ above would compare the different thoughts.

Q.—Are you entirely certain that you understand these two sets or reasoning powers?

A.—I am certain that what I have said must be true, for I never thought of the subject before, and now it seems so very plain to me.

All other experiments made with the object of discovering the true functions of the organs of Causality and Comparison have confirmed the views above given. It is not proposed to claim that these results have not been reached by others, for it will be seen that this distinction between the two sets of reasoning powers can easily be reconciled with the view usually held by phrenologists. My object is rather to show that they confirm the general truth of the science, and prove that there are more ways than one of arriving at the true theory of the human mind. It is no longer necessary to argue the truth of Mesmerism, for the strongest skeptics have now occupied the ground which we had reached fifteen years ago, and are strongly intrenching them-

selves there to avoid being swept away by a grander heresy which is now rapidly bearing before it all the old landmarks of philosophy.

The importance of a correct knowledge of the reasoning powers and their thorough cultivation is sufficient to justify the space we have devoted to them. The man of intellect claims the attention of the world, and acknowledges that for all his acuteness he is dependent on the good development and due education of these organs, with others which a long course of training has taught to act in concert with them. Even the organ of HUMAN NATURE, which seems to occupy a still more elevated position at the helm of the intellect, perhaps, always acts in concert with the higher reasoning faculties, as we generally find these kindred organs almost equally developed in heads in which either is prominent. I do not, however, hesitate to concede to the organ of Human Nature an independent office, and I heartily assent to the principles and facts presented in an able article in the PHRENOLOGICAL JOURNAL for August, 1857, in which the powers and influence of that organ are clearly set forth. But we do not understand *its* importance when we say that no man's greatness depends on the power of a *single organ*, and the most acute minds are dependent on the combined action of various faculties to carry out their brightest inspirations. The successful politician, who relies more on tact than on talent, owes much of his success in always "striking when the iron is hot," and "hitting the right nail on the head," to the habitual exercise of the higher Causality and Comparison which perpetually devise and compare new expedients for operating on the thoughts, opinions, and feelings of men. Every man who possesses these organs, with that of Human Nature, in high perfection, reads the minds of all with whom he comes in contact, understands them, and makes himself understood. He anticipates the consequences of each measure he proposes, predicts the objections that will be raised, and meets them with arguments which he foresees will be effectual before his auditors have had time to shape them into words. Such a man was Pericles, as he was seen and described by a poet of Athens:

"Now in a maze of thought he ruminates
On strange expedients; while his head, depressed
With its own weight, sinks on his knees; and now
From the vast caverns of his brain burst forth
Storms and fierce thunder."

Such are the men who in every age of the world advance, by unseen steps, to the high places of worldly honor; such is the genius who "grasps, as if by intuition, all the stores of human knowledge, and leaves dull learning toiling in the rear."

The orator who is thus endowed is able, not only to please, but to *stir men's blood*. He can always say, not merely things that are beautiful and surprising, but the very thing that is *appropriate*. As a lawyer, he always manages to draw from each witness the apparently insignificant word which he foresees will turn the scale in his client's favor; he can read the mind of each juror, and touch the sensitive nerve in the heart of each man; he can elude the vigilance and ward off each home-thrust of the opposing counsel; and, in summing up his case, can present an array of evidence, authorities, and technical subtleties, the bearing and result of which can only be seen by the judge who possesses the same high powers of mind, the same strongly organized and well-balanced brain, enlightened by the most extensive legal acquirements and experience. Thus, at the same moment that the intuitions of the organ of *Human Nature* prompt its lightest touch upon that *sympathetic nerve* that pervades all human hearts, and proves that

"One touch of Nature makes the whole world kin,"

the higher reasoning powers lay the long train, and weave the complicated web of causes and effects by which the inspirations of genius are to be inevitably accomplished.

Literary Notices.

NEW AMERICAN CYCLOPEDIA: A Popular Dictionary of General Knowledge. Edited by George Ripley and Charles A. Dana. Vol. 1, A. to Araguay. New York: D. Appleton & Co. London: 16 Little Britain. 1858.

The first volume of the work bearing the above title is a large two-column octavo, executed in the best style of the enterprising publishers. The talent engaged in the composition and editing of the work is manifest in every page, and we hazard nothing in saying that if the volume before us is a fair specimen of those which are to follow, the "New American Cyclopedia" will at once take the first rank with literary men. The authors have not set themselves up as umpires on disputed questions of ethics, but appear to have given all subjects, thus far treated, in the spirit of the best-informed and most candid writers. We congratulate the public on the appearance of this work, for we certainly have long needed it.

In writing up the biographical department of this JOURNAL, we have frequent occasion to refer to a biographical encyclopedia, and to us, therefore, a correct work of this kind is of the first importance. A short time since we desired to make a sketch of the late Emperor Nicholas, and referred to a celebrated cyclopedia by a distinguished author who bears the honorary titles of D.D., LL.D., and this work graciously stated that he was born on the 7th of July, that he married in July, 1817, that his eldest son Alexander was born in 1818. Now in the name of all the biographical cyclopedias at once, what sort of biography is it to state in reference to two such personages as the late and present emperors of Russia, that Nicholas was born on the 7th of *July*, without stating the year; that he was married in July, 1817, without stating the day of the month; and that Alexander—the present emperor—was born in 1818, without stating either day or month. We judge there was no design in this last omission; but so far as this book, in Turkey morocco, is concerned, we have no clew to the *year* of the birth of Nicholas, or the month and day of the month on which Alexander was born. Anxious still to find out, we turned to another late and popular work, and found, not when Nicholas was born, nor when he was married, but that he was married in the 21st year of his age; and by referring back to the first work, which says he was married in 1817, we inferred that he must have been born, not on the 7th of *some* July merely, but on or about the year 1797. Now is not this mode of book-making shamefully careless? and if such omissions occur relative to such men as Nicholas and Alexander, while one is ruling Russia, and the other is not three years dead, what may not be expected relative to less prominent characters? We are happy to say that the "New American Cyclopedia" tells us that Alexander was born *April* 29, 1818, and we expect, when it reaches the letter N, that the date of the birth of Nicholas will be given.

Will the reader wonder that we hail a new work which, so far as we can judge from what has appeared, gives promise to avoid the chief errors of its predecessors, and furnish to the literary world what it has so long needed, a full and reliable Encyclopedia of History, Biography, and Science.

We have spoken of but a single point which displays the superiority of the new Cyclopedia over others, but shall hereafter, as future volumes of the work appear, treat of other subjects of comparison.

TO SUBSCRIBERS.

THE crisis is past. As we expected, the JOURNAL is sustained by its friends in spite of the hard times. Our new volume, opening with 1858, is received with a cordiality which gives cheering hope of abundant success. Subscriptions come rolling in with every mail beyond our most sanguine expectations. It would seem that the people, checked in their career of business, had fallen back upon self-improvement, and seek the PHRENOLOGICAL JOURNAL as a means to guide them to a new and higher mode of life. Our agents and beloved co-workers will please accept our best thanks for the past, and permit us to expect an earnest and persistent continuance of their generous efforts to spread among the people the man-reforming truths which this JOURNAL is sent forth to promote.

Words of cheer from every quarter encourage us to labor and to hope for a larger subscription than ever before. Here is a stray waif from over the water:

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THE WAY TO DO IT.—A reader of the JOURNALS and LIFE, in Delaware County, Ohio, writes us, "I mounted my horse and rode two days in obtaining subscribers, and now add six to the list on my own account—two for myself and four to be sent to friends in Illinois, according to their addresses given."

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MEMORIAL.—Mr. Dan A. Comstock, of Millville, Mass., who for many years has been our agent for the JOURNALS in that place and vicinity, departed this life Dec. 21st. His niece, Frances A. Dodge, writes us, Jan. 8d, that her uncle, on his dying bed, requested her to try to get up a club for the JOURNALS for the coming year. She has fulfilled his request by assuming his work, and sends us the club accordingly. When it must fall, may the mantle of each worthy co-worker descend on a like worthy successor.

SPECIAL NOTICES.

SUBSCRIBERS, POSTMASTERS, and others, are respectfully solicited to act as AGENTS for this JOURNAL. A liberal commission will be given. See Club Rates.

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ADVERTISEMENTS intended for this Journal, to secure insertion, should be sent to the Publishers on or before the 10th of the month previous to that in which they are to appear. Announcements for the next number should be sent in at once.

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THE COPARTNERSHIP HERETOFORE existing between the undersigned under the firm of FOWLER AND WELLS & CO. is this day dissolved by mutual consent.

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MR. FOWLER'S LECTURES ON PHRENOLOGY.

[The following notice and resolutions have been sent us for publication.]

On Thursday evening last, at the close of Mr. Fowler's seventh lecture, a motion was made by J. D. Brown, that a committee be appointed for the purpose of drafting resolutions expressive of the regard in which the audience held Mr. Fowler and the subject of his lectures, when the following gentlemen were selected: J. D. Brown, Rev. J. W. Bailey, A. Hanna, O. O. Shumway, and J. Parker. On Saturday evening, at the close of the last lecture, the following were submitted and unanimously adopted:

Whereas, The citizens of Fulton and vicinity have listened with pleasure and deepening interest to a course of lectures on Phrenology by Mr. L. N. Fowler, of the firm of Fowler and Wells, New York, in which he has demonstrated to our minds, not only the truth of Phrenology, but its bearings upon all of the relations of life, and its utility as applied to the cultivation of the various powers of mind morally, physiologically, and intellectually. Therefore,

Resolved, That from the universe of truth and wisdom, and the progressive tendencies of mankind, the bounds of knowledge should never be circumscribed, but instead should be enlarged as fast as the progressive nature of mind requires amplitude of action; and that there are no channels equaling Phrenology in facilities for acquainting man with himself and his brother man.

Resolved, That we hail in Phrenology the elements of a brighter era, in which the harmonious cultivation of the mental powers shall be considered paramount to all other objects, and that we would accordingly urge the necessity of its introduction into our schools, academies, etc., to be recognized and taught, even as a basis of elementary education.

Resolved, That Phrenology clearly points out the nature of man as its basis; and is accompanied by natural evidences demonstrative of its truth and practical utility; that it fully recognizes the doctrines of human accountability and responsibility; that it is of the greatest practical moment to all who would develop in themselves harmonious characters; and that, instead of its leading to infidelity, as many persons who are ignorant of it seem to suppose, it fully recognizes the spiritual relations of man to his Maker, and the immortality of his soul.

Resolved, That we recognize in the moral bearings of Phrenology a harbinger of good to the race, and therefore commend it to the candid and truthful investigation of all lovers of humanity.

Resolved, That Mr. Fowler's lectures commend themselves to our reason by the clearest evidence; that we will endeavor to co-operate with him in the dissemination of truths so fraught with promise for the regeneration of the family of man; and that we hope (Providence permitting) to meet with him again under similar circumstances at some future day.

Resolved, That the foregoing preamble and resolutions be published in the American Phrenological Journal, *Fulton Patriot*, and *Oswego County Gazette*.

J. D. BROWN, Chairman of Committee.

Fulton, *December 18th*, 1857.

In addition to the above, Mr. Stocks moved the following resolution, which was unanimously adopted:

Resolved, That this committee, with power to add to their number, be requested to act as a permanent committee to aid in the spread of information on Phrenological subjects in this village; and to correspond, as occasion may require, with Fowler and Wells for the promotion of that object.

Caught at Last.—Gillett, who has so long and falsely professed to be our agent, and whom many times in the last ten years we have denounced as a swindler and lecherous vagabond, is now in jail in Worcester County, Mass., on a charge of bigamy.

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Death from a Leech-bite—Extraordinary Case.—A somewhat singular case has been brought under the notice of the coroner for West Middlesex, London, in which a child lost its life through excessive hemorrhage resulting from a leech-bite. The deceased, Samuel Innes Press, had been affected with a severe attack of bronchitis, when it was thought necessary for the child's safety to apply leeches to the vicinity of the irritation; and the consequence was, that one of the leech-bites bled so profusely that the poor little creature shortly after expired from the shock to the system occasioned by the great loss of blood.

M. D. H.—Prof. Morris' Philosophical Grammar is out of print. He is revising the work, and it is expected he will bring out a new edition in good time. When it shall be issued, we will announce the fact and the price.

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PHRENOLOGICAL CHARACTER.

EUGENE SUE, whose reputation as an author was achieved and maintained by his principal works, the "Mysteries of Paris" and "The Wandering Jew," is an interesting subject for phrenological investigation. His daguerreotype likeness, from which our engraving is made, shows several remarkable peculiarities. The most casual observer will notice the great width of the head from ear to ear, and the great predominance in size of the lower part, drawing a line across over the eyes and so around the head, over that portion which lies above this line.

All the organs of the animal propensities were large, and having very large Language and an enormous development of the observing or perceptive organs, he was enabled to describe with more vigor and clearness the subjects which were adapted to his organization and tone of mind than almost any other writer; but it would be utterly impossible for such a head as his to comprehend or depict the qualities of a high and holy character, such as may be found in the writings of Scott, Dickens, Mary Howitt, and others whose moral development is conspicuous.

The base of this head, as a whole, is large, while the middle is moderate and the top small. The temperament was strong and vigorous, combining toughness and iron endurance; and when his imagination and his passions were aroused, he was able to endure hard mental labor for days together without scarcely any repose. Such an organization is not affected so readily or injuriously by stimulants as one like Cowper, Joseph C. Neal, Poe, or Fanny Forrester.

That Eugene Sue should have been popular with the middle and lower classes of Paris will not be a matter of wonder when it is considered that his strong intellectual powers were those which pertain mainly to physical things, and gave him such a masterly power of description that he was enabled to bring material things to the comprehension of his readers more vividly than almost any other writer. How wide between the eyes, indicative of large Form! What a heavy arching of the brow, and how wide the head from side to side through this region! all indicative of immense perceptive organs; hence his vivid conception of material things, and his remarkable power of description! His Language was large enough to furnish the requisite facility of expression, and his Ideality, instead of being exalted to act with the moral sentiments to give a pure and elevated imagination, acted chiefly with the lower or animal faculties, and was also low down in the head, so that his beauty of style always had a material basis.

He could descant eloquently on the luscious charms of form, and on the fascinating graces of motion—the splendor of color, the beauties of arrangement and decoration; in short, everything having physical characteristics he was master of.

Should a person, having high moral and religious susceptibilities, read his works, he would instantly perceive a lack of almost everything belonging to a high and holy life, and that there are strings in the mental harp which it was not in his power to reach, and from which, consequently, he could never call forth their tones.

He had immense Destructiveness and Combativeness; hence the bitter sarcasm and the dramatic power with which he imbued his characters. Persons reading his works get excitement and culture of their lower faculties, but they can hardly hope to become better by any excitement of their higher faculties; hence his works are sought by those whose lower faculties prevail, and who, of all others, are least qualified to resist their deleterious influence on their minds and feelings.

PORTRAIT OF EUGENE SUE.

His immense dramatic power consisted in his ability to combine more characters and keep them all at work, in his stories, and to infuse into them almost superhuman energy, malevolence or meanness, or whatever trait he wished to endow them with, except those that were refined, and high, and noble; and hence it is that the reader's mind is enchanted and kept at the work until it is completed. This power was imparted to him through his great Constructiveness, imagination, and immense perceptives.

When the mental developments of authors are understood, and their works compared with and judged by this standard, the public will know better than at present what books are calculated to elevate and what to depress the character of the reader. No phrenologist, certainly, seeing such a head as this, would ever ask for one of his works to put into the hands of a pure-minded youth; and it may be doubted whether a man of ripe judgment and mature experience could come

in contact with such a vigorous, practical intellect, under the dominion of such passions as find expression in his books, without serious perversion. Yet his works have a kind of fierce fascination, and one can hardly lay them aside until they are finished. But this is owing almost wholly to his unsurpassed power of description. We venture to assert that no man, with an average development of the moral sentiments, ever felt himself elevated, refined, or improved on rising from the perusal of one of Eugene Sue's books.

BIOGRAPHY.

EUGENE SUE ought to be well understood by everybody who has read, or who may propose to read, one of his works, because when a book is drawn forth from the inner nature of the man himself not less really than the web of the spider is from its body, no man should read until he has a general idea of the man an introduction to whose acquaintance is to be made by the book. Thousands have gnashed their teeth in rage or wept over the fierce accounts of suffering depicted by Sue, who, had they known his character, would have saved their time, and have avoided the feverish sympathy awakened by his morbid pictures of the passions.

The *Tribune*, in announcing the death of Eugene Sue, said of him:

He was not a man to be followed to his last home with earnest funeral commendation. His character lacked that force of principle essential to unity of purpose and a consistent career. Professing an ardent love of humanity, he was the most self-indulgent of mortals. His vehement diatribes against the selfishness and luxury of the age date from an abode which reflected the splendors of Sardanapalus. Devoted to the cause of the people, his habits were those of a voluptuary and an aristocrat. He was the son of a celebrated surgeon who won distinction in the army of Napoleon during the Russian campaign. He was born in Paris, December 10, 1804, and at his baptism the Empress Josephine and the Prince Eugene Beauharnais officiated as sponsors. Having completed his preparatory education, he followed the example of his father and entered the army as surgeon, in which capacity he served in Spain in 1822, and was present at the storming of Cadiz and the capture of Trocardero and Tarina. The next year he entered into the naval service, and made several voyages to the West Indies. In 1827 he went to Greece, and was present at the battle of Navarino. He then withdrew from the service and devoted himself for a time to the study of painting, especially marine pieces. His first novel, written at the solicitations of his friends, to embody his experience of travel in a book, was called "Kernoch the Pirate." It met with moderate success, and encouraged him to make further experiments with his pen. "Atar Gull" appeared in 1831, and the "Salamander" in 1832. He then turned his hand to history, and wrote an account of the French navy under Louis XIV., which was published in five volumes in 1835 and 1837. After an interval of about six years, during which he wrote several popular fictions, his famous "Mysteries of Paris" was issued from the press, and at once gave him a high rank among French novelists. The "Wandering Jew," which was published in 1845, produced a profound impression, was widely read, and translated in several languages. This was followed by other works in the same vein, with decided socialistic tendencies. In consequence, he was elected by the *Democratic Socialist* party in 1851 to the National Assembly, where he did not much distinguish himself. For his part in the affair of December, 1851, he was banished from the country, and resided for some in Italy. His death took place *on the 3d of August, at the age of fifty-two years and eight months.*

From the *Herald's* account of him, we extract the following pungent paragraphs:

Young Eugene was brought up to his father's business; but having as a youth a hankering after adventure and foreign travel, his father obtained for him a commission as assistant surgeon on board a French frigate, in which he made several voyages, acquiring much of the local knowledge which he has since displayed in his novels.

At his father's death young Sue came into his fortune, and resigned his post in the navy to spend it. Facilities for spending money being very great at Paris, he contrived to run through the whole in a marvelously short space of time, and found himself at about thirty a ruined gentleman, with some knowledge of medicine, a slight taste for letters, and uncommon aptitudes for expending money and enjoying life.

He tried, it seems, to practice medicine at Paris; but, as was to be expected, the experiment was unsuccessful. He had neither the habits nor the reputation necessary to obtain clients. After a brief essay, he then resorted to his pen for a means of subsistence, and became connected, in a subordinate capacity, with one or more of the myriads of journals which Paris produces.

The "Mysteries of Paris" was an enormous success among the poorer classes of France; was rapidly translated into every language in Europe. It was followed by the "Wandering Jew," which was quite as successful, and made the author warm friends among the *rouge* and anti-church party.

This was the summit of Sue's fame and success as an author.

Of late years, he fancied that he was a politician, and got himself elected to the National Assembly. He acted with the Montagne, and professed radical socialism. But he was a comparatively insignificant speaker and politician; and the only honor he ever earned was a decree of exile from the Emperor. His socialism, indeed, though dangerous in a place like Paris, was so impracticable as to be harmless enough elsewhere, or, in the long run, even there.

As an author and a novelist, Sue occupies the very opposite ground to that which is taken by the great English novelists of the day, Dickens and Thackery. His delight is in depicting horrible scenes of vice, corruption, and crime. His men are monsters, his women impossible *lusus naturæ*, his principles unsafe and frequently immoral. Though there is an effort in his books to make virtue triumph in the end, it is so labored, virtue is so slow and stupid, and vice so delightful and attractive, that no person of average taste could hesitate for a moment between the two. He taught, in fact, elaborately, the esthetics of vice, in its various shapes; and commingling with this a political and social code of ethics which could not but be radically destructive to any country which adopted it, he made himself, in all probability, the most pernicious French writer of the present day. No modern romancist—not even excepting Paul de Kock—has done so much harm to the operative classes in France as Eugene Sue.

In this country his books were never very successful; and now they sell no more than they deserve. His death is not likely to revive their interest.

QUALITY OF STRUCTURE.

PERHAPS the most formidable objection to Phrenology, and the one most difficult to meet in a satisfactory manner is, that large, well-shaped heads are not always certain indications of corresponding greatness of talent, and that moderate-sized heads frequently manifest, on the contrary, more ability than some of *larger* size. It is admitted that such is the fact, but the reasons why this is so, it is the object of this article to explain.

There is one great, leading popular error in reference to Phrenology, indulged even by many of its *friends*, notwithstanding the long-continued efforts of its teachers to remove it. It is that the practitioner, in his readings of character, takes into consideration only the *size* and *shape* of the head. This is a great mistake, and leads to more hostility to the science, perhaps, than all other objections combined. If the objection were founded in truth, it would, indeed, be wholly unanswerable. But this is mere *street* Phrenology, and has done incalculable mischief to the cause of truth. And I am by no means certain that some phrenologists themselves have not unintentionally contributed to this false impression. They do not dwell with sufficient emphasis upon the importance of *quality of structure.*

It is everywhere matter of observation that large heads, with organs handsomely arranged and distributed, are found upon the shoulders of weak-minded men, and that heads of moderate size are as frequently found upon the shoulders of persons of a fair degree of practical ability. Such cases are instanced by skeptics and opposers as triumphant refutations of the claims of this science to truth, taking it as granted that *size* and *shape* are *all* and the *only* considerations that guide the phrenologist, whereas, in such cases, a more important item than either is left entirely out of the account—to wit, *quality of structure.*

And here the experienced practical phrenologist has an almost infinite advantage over the mere superficial observer. Size and shape almost everybody, with a *little* experience, can judge of with tolerable accuracy. But to judge properly of *quality* of organization, by far the most important and significant sign of character, requires long years of the most patient and critical observation. In *this* business, the phrenologist himself, through a long professional life, is constantly making advances. And it is *fundamental* to correct judgment of character. *Quality*, quite as much as *quantity*, and even much *more*, is an element of capacity in everything with which the human mind is acquainted in the physical universe. This proposition will be admitted by every man who knows *any* thing. But how few can judge with anything like critical accuracy of the quality of the human organization.

Perhaps the reader carries a watch in his pocket not over an inch and a half in diameter, nor over three quarters of an inch in thickness, that keeps as good time as the town-clock, larger than ten thousand such watches. The watch is an exhibition of the very perfection of *delicacy* in mechanical skill, while the clock is coarse, clumsy, and ponderous, made to run in spite of wind and rain and storm and dust, and takes the full strength of a man to wind it up. A green basswood walking-stick may be as large as a rod of iron, but not of a twentieth part its strength.

There is almost as much difference between the *quality of structure*, of one human being and another, as between the little delicate watch and the ponderous machinery of a huge town-clock, or between the finest silk or satin and the coarsest hemp or pea straw.

In idiotic retreats we often find *large* and even fair *shaped* heads, but never united with a fine, delicate, compact, intellectual organization.

This quality of organization, more than any other, is *the* great consideration not to be overlooked or misapprehended, in pronouncing upon character. And here, I repeat, the inexperienced, superficial observer is *wholly* at fault. He is utterly *incapable* of the requisite discrimination, and hence pronounces erroneous judgment. Nor can he be *taught* in a day, a week, a month, or even a year. The lawyer, the clergyman, and even the *physician*, is slow to comprehend it. All may admit the *importance* of quality, and even fancy that *they* can detect it. But they can not, without much more experience than one in thousands have had. The more I lecture, and practice Phrenology, the more I learn the importance of these discriminations, and the more I find myself capable of making them.

The cabinetmaker, the jeweler, the merchant, and even the blacksmith, can well understand this principle of *quality* with reference to *his* wares, and well he knows it takes years of patient observation to become competent to criticise with certainty. *Quantity* is comparatively easily ascertained, but *quality* much more difficult. Yet in reference to the human organization, how many thousands give hasty decisions adverse to the pretensions of Phrenology, judging simply from size and shape of the organs!

The little child, or even the man of mature age, may be deceived with regard to the genuineness of what appears to his eye to be a piece of gold or silver coin, or a true bank-note—may take a counterfeit—but not so the teller or cashier of the bank. He readily discriminates the *quality* in each individual case. And the more experience he has, the less likely he is to be imposed upon. It requires a degree of skill quite beyond that of the mere tyro in money matters to detect the fraud. The spurious coin or bank-note may appear to the eye of the superficial observer to be precisely like the genuine, laid by its side, and the critic's eye only detects the difference. So there may be twin brothers, born of the same mother, rocked in the same cradle, sheltered by the same roof, kneeling at the same altar, taught by the same teachers, surrounded by the same scenery, with heads precisely the same *size* and *shape*, yet one may be a wise man and the other a fool. "And here is a grand failure," the opposer of Phrenology would say. But not so after all. The wise man has *perfection*, and the fool *imperfection*, of structure. A great ship or steamer, even a *model* as to *size* and *shape*, may be most unseaworthy, while a small one, on the other hand, may triumphantly outride the winds and the storm.

The tailor detects faults in cloths, where the blacksmith would fail—the blacksmith in a horseshoe, where the tailor would fail; the jeweler sees faults or merits in a watch, where the cabinetmaker would fail, and the cabinetmaker in a sofa or set of chairs, where the jeweler would fail; the dealer in horses sees faults in a horse, where the dealer in butter and cheese would fail, and the dealer in butter and cheese in his articles, where the horse-jockey would fail. So that the phrenologist instantly detects qualities of organization which would entirely escape the attention of the cunning and skillful in other pursuits. And again I say that *quality* much more than *quantity* enstamps value and capacity upon everything with which the human mind is acquainted.

It is not the purpose of this article to point out the specific physiological conditions that respectively give weakness or strength, activity, vivacity, sluggishness or indolence, brightness or dulness, to body or mind, but to suggest to the reader the *importance* of their consideration.

In the borough of Erie, Pa., I once examined the head of a young man of eighteen, that measured twenty-three inches around it horizontally, and over which the organs were most beautifully, I had almost said *classically*, distributed; he had not spoken a word when I unhesitatingly pronounced him incapable of taking care of himself. The verdict was indorsed by several who were present, and knew him well. But, asked one man present, a physician, "What fault can you find with the size and shape of that head?" The answer was, "*None whatever*." "Your examination is faultless," said he, "but where is the fault in the subject?" Said I, "His organization is coarse as a brush heap!" Had this consideration been overlooked, I would almost have pronounced him a modern Demosthenes or Cicero.

Recently, in company with a lawyer, two clergymen, and a physician, I visited an idiotic asylum. In that institution there were several inmates whose heads, for size and shape, would not suffer in comparison with those of the professional gentlemen present, or with the overseers who governed them. Yet these idiots could not count their thumbs and fingers! It was difficult (though I succeeded somewhat) to make my professional attendants understand what my eye instantly detected—the glaring *physiological* imperfections—the *qualities* of organization. Some of them had heads altogether too large for their vital organs; others, chests too small for the digestive organs; and others still, overgrown with an encumbrance of fat, the floodwood of the system. But generally there was a stupidity of organization that seemed to almost identify them as belonging to the *vegetable* kingdom! The overseers are undertaking to improve their *minds*, without first endeavoring to improve the conditions of the *physical* system! When *will* our pseudo-philosophers learn that the conditions of the *physical* system determine the capacity of man's intellectual and moral nature? When *will* they learn the needful lesson that, to doctor the immortal mind properly, they *must* reach it in this life, through the mortal *body?* When this proposition is fully comprehended in all its length and breadth, in all its overwhelming importance, a foundation will be laid that will revolutionize the treatment of the idiot and the maniac.

THE PHRENOLOGY OF NATIONS.

SECOND SERIES—NO. 1.

1. It can never be sufficiently regretted that the first man—the Adam of human kind, or of each species of men, if there be many—did not leave the lineaments of his face and form traced in some imperishable monument of rock; or, if he did do so, that some subsequent catastrophe has swept the monument and its history from the reach of his successors. Lives are spent now in investigating and controverting upon a fact which, had we but a few touches from the first of our kind authenticated, would cover the nations with a flood of light, put in our hands the key to history, and enable us to speculate with more force and probability concerning man's destiny on the earth.

If the races of men are *species* of men, there is no end to the consequences of the principle. Some one species must be expected finally to predominate; duties *within* a species must be of different kind and force from duties between unlike species. There are impassable lines of distinction, immutable degrees of capability; perhaps here souls, and there none; and so on. If man is everywhere one; if the umbilical cords of ages of offspring connect all, of whatever color or clime, back in direct lines to a single parent stock, making all individuals and tribes but so many leaves, branches, and offshoots from the one trunk that stood, first of all, preparatory to the putting forth of the great banyan tree of nations, then the consequences, the capacities, the laws and duties are wholly different, and so clear that we need not stop to indicate them.

Scores and thousands, among the learned as well as the unlearned, are fully convinced of the truth of *diversity* of men. Quite as many, among those equally erudite or equally unlettered, are as fully convinced of the truth of the *unity* of men. Here is a direct, palpable, and most momentous issue. Could the first man, or the first men, but have foreseen the interest that *we* in the year of grace 1858 feel in the facts touching his or their being, would they not have striven to relieve our anxiety? But thick clouds, impenetrable to the eye of research, and but too feebly lighted by reason, hang over the pristine ages of man.

2. That no positive monuments remain of those early ages does not, we think, militate against our view, that humanity began with being human, not bestial, nor vegetable. The arts of intercourse and self-preservation must have first forced themselves upon the mind, and the law of death had to be learned before the necessity of monuments could suggest itself. But all rude peoples have their monumental history; although, it is true, they must also first have learned what monuments will prove most durable, and how to make impressions upon such materials. And since no object for a revelation of such knowledge suggests itself, we

must suppose it to have been learned by trial and experience—a work that would require at least some generations. Thus, however much we may regret the oblivion in which our first parents allowed themselves to be hopelessly buried, we at least learn why they must have done so; and we must submit accordingly. But even if the first of our kind had left us mementoes of themselves, the physical convulsions of six or sixty thousand years would probably have effaced them.

Of such convulsions, particularly of a wide-spread and devouring flood, all ancient and rude peoples seem to preserve traditionary recollection. We shall see presently what fancy and reason, the only lights left us, can do toward *restoring* the primeval or Adamic human type.

3. But before turning to this, what are we to expect to find? A patriarch, say one class of reasoners, the father of the humanity that girdles a whole planet; a prototype, from whose physical and mental features all human forms now existing are derivable and actually derived.

On the opposite hand, Buffon tells us man is made up of *six varieties*, Kant says *four*, Hunter *seven*, Blumenbach *five*; but Desmoulins says of *sixteen* SPECIES, and Jacquinot of *three species*—the Caucasian, Mongolian, and Negro—a division in which Nott and Gliddon apparently coincide; while Morton classes humanity in *twenty-two families*, and Luke Burke in *sixty-three races*, *twenty-eight* of which are intellectual, and *thirty-five* physical types or tribes. Nott and Gliddon tell us, moreover, that ethnology was no new science before the time of Moses; in proof of which, they delineate four types of men taken from Egyptian monuments of that early day. They think, too, that the dissimilarity of races augments, instead of disappearing, as we ascend the stream of time toward its source, and that types, originally distinct, are all the while becoming amalgamated. Not very consistent does this view seem with physiology or ordinary experience; but of it we have spoken on a previous occasion.

If, as we go up the stream of time, man is to be found growing more diverse, why did not the Egyptian sculptors delineate *more* than four human types? And what monuments, dating even before the Pyramids, give the proof required of this augmenting diversity? Our authors give none; and we suspect they penned this conclusion in a moment of enthusiasm. At least, it is a pity, as we struggle up the steep rapids of time, and peer eagerly into the fogs of forgetfulness, we can not know beforehand whether in our search we are, with Jacquinot, to look for *three first pairs*; or with Desmoulins, for *sixteen*; or whether, with Burke, we have not taken upon us the task of restoring to the grasp of the senses and of science not less than *sixty-three Adams*, and as many *Eves*, the numerous, unlike, and unassimilable originators of as many diverse souls, capacities, and destinies; yet somehow, strangely, all wrapped up in a not very various, and by no means unamalgamable corporeal frame-work.

4. What has fancy, or, we should rather say, the ideal and creative element in mind, done toward solving for us this problem? Great and true poets have seldom or never given to man an origin from diverse and distinct stocks. There is in the notion something wholly averse to the spirit and tendencies of true poetry, which are always toward brotherhood, and in their essence quite allied to revelation. The testimony of musical creativeness we can not so much rely on, because the grandest musical composition is wholly a product of Christian ages and peoples; but it is evident that such creations have their sympathy and vitality wholly in the atmosphere of the ennobling belief in human unity. They celebrate and inspire no other view of our nature. Mythology—the mythic, traditionary, tale-loving credulity of childhood and of simple ages of the world, for mythology is nothing more than this—enlisting Sculpture and Painting in her service, gives but a single account of this question; the archæologists, with the sculptors and poets, unite in celebrating one father and mother of mankind—one fountain—one stream—one common ocean the final receptacle; and this, according to those authorities, sums up the history of the race. If science wholly discards such testimony, drawn from the higher intuitions of the mind, and in its moments of most unselfish action, science may yet have to learn that she does so because she is as yet *too literally Baconian*, too circumspectly narrow, too much tied to the revelations of the eyes, to be in the highest and best sense acceptable and true.

5. But if we ask for what the arts, guided by creative fancy, have done to restore to us the lost idea of the first man, we shall be somewhat disappointed with the result. Michael Angelo's and Raphael's ancients are too much like the men with whom the great painters daily talked and dined; and the features of most of their *Adams* and *Eves* could readily be matched by faces that one meets—and Anglo-American faces, too—in his daily walks.

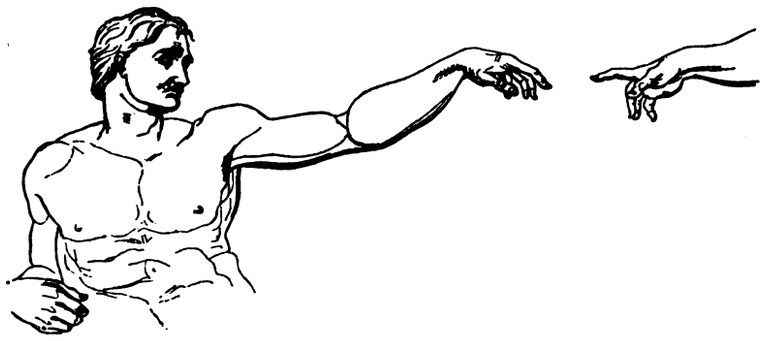


FIG. 1.—ADAM, FROM ANGELO'S PICTURE OF THE CREATION.

Michael Angelo's picture, the Creation, is a remarkable conception, but we can not think it betrays remarkable study of man, of antiquity, or of nature. This picture, a part of which is shown in fig. 1, represents Adam as just created, as one may infer from the fact that he is nude, reclining languidly on a knoll-side, and holding out his hand toward the extended finger of the chief figure in a group hovering near the earth; The latter personage, having features of which those of the new-created man are a reproduction, though accompanied in him with the beard, and the grave and collected expression that shows maturity, while the new-made man has only an infancy of being, this personage, we say, is evidently the Creator. The artist has departed from the literal description of his subject. The position of the hands, and the expectant look of the reclining form, show that the idea of "breathing into his nostrils the breath of life," has been dispensed with. Adam is shown as possessing physical life; and the approximation of the Creator's hand to his, inevitably suggests the idea of a communication of the soul or spirit by a kind of electrical discharge or transfer—an action which, it is well known, first induces a recipient and attrahent state in the body approached by the charged or electric substance, and then imparts of its own force to the mass thus prepared for its reception.

The conception, then, is strking and admirable; but not so the truth to nature. This Adam of Angelo's has not a primitive head. It is not the head of an Asiatic or Mongolian; it shows no promise of features of the Jewish, Tartar, or Hindoo races. It is very far removed from those of the Assyrian or Egyptian, or other early nations allied to these. If the fall of man—that is, the declension and degradation of tribes and peoples has been a fact following some time after the introduction of man upon the earth; if man was made at the first in God's image, and hence endowed with a high rather than a low organization, as we have been led to believe, then so far this representation is very well. But it bestows too much. It has given to the first man classic features and expression, making him a compound of the Roman and the Greek in their days of cultivation.

6. Now, however excellent may have been the physical and corporeal organization of the first of human kind, it is evident that he had no culture, no acquired knowledge or mental activity; that he was in no respect *developed*. But we pronounce the head, given by Angelo above, a developed head. There is a prominence of perceptive power, and a fair exhibition of reflective, that are beyond the reach of the infancy of an individual, and hence of the infancy of a race. Granted that the head of Adam should not show the *besotted savage*, because such a one is the fruit of a fatal but real culture; nor the *brute*, because that is in conflict with our idea of the essential human nature; nor the *idiot*, because that would falsify the wonderful intelligence that has grown with the lapse of ages in his progeny; yet it is entirely fair and necessary to conclude that it should exhibit *only the due capacity* for education, for intelligence, for virtue, and not *the results* of experience, thought, and labor. This head is not very high in the anterior coronal region. Its radical fault is too great depth or projection forward of the ear, and too much forehead in proportion to the face for the *infant of a race*, whose development, after it has received from the gift of creation its capabilities, comes only by action and efforts. Let it not be objected that man was created in the di-

vine image; had this been absolutely true, man must have been but a second deity, and the possessor, from the first, of omniscience and perfection.

7. We have quite as great fault to find with Michael Angelo's portraiture of our first parents after the expulsion from Paradise. See fig. 2, in

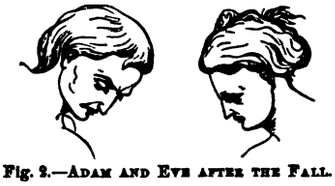
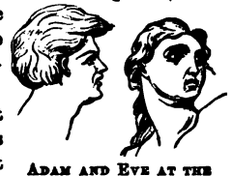


Fig. 2.—Adam and Eve after the Fall.

which the heads of these two figures are shown. The posture due to shame and grief at the loss they have incurred is very favorable for showing the anterior and coronal developments. The features and heads are both distinctly Grecian; or, rather, the substance of them was probably suggested by Italian heads among the painter's own acquaintance, while the manner of them was polished and refined by his study of Grecian models. They are such heads as one might expect to find among the learned and polite circles of a modern city; but not the simple, untutored, inexperienced expressions which those two sole faces, as the history has it, outside the gates of Paradise, alone in the world, and with all knowledge yet to be acquired from the first, should have shown. The facial angle in this male head is larger than the average of even cultivated nations of the present day, and quite approaches that of the Greek ideals. There is vastly too much reflective depth, breadth, and sharpness. Such a brain would ill befit the world's Adam. So much reflective power conferred where there were no amassed stores of knowledge to act upon, would but idly gnaw upon itself, and tend to weakness or insanity. In the female head, we do not find the same marked development of reasoning power; in fact, the forehead would be very well, did we not notice its depth in front of the ear, and the consequently large facial angle.

Fig. 3.



Adam and Eve at the Tree.

8. The same artist has, however, given us another view of the first pair, which in some points atones for the errors we have pointed out. In the order of time, the picture from which the heads shown in fig. 3 are taken, precedes that last given. Here Adam and Eve are at the tree, listening to the tempter. The features of both are indicative of immaturity; of capacity rather than its evolution; of a readiness of observation, without depth or comprehensiveness of reasoning; of a simple credulity, untaught by experience; of the germs, rather than the realization or the fruits of knowledge and wisdom; of physical, predominating over mental activity; in fine, of the infantile manhood and womanhood of our kind. To the heads of Adam given by Raphael, however, similar objections to those we have brought against the first two here shown must be raised. They are too mature—too like the men among whom the artist moved, and those of whom he read in history and studied in art.

9. Much has been said of the wonderful power of the oryctologist, by which, from a single fossil bone, *he restores* the whole animal to which it formerly belonged, and that not anatomically only, but in its habits and mode of life, its preferences and pursuits. So far as this power is actually possessed, it is truly wonderful; but the more candid among zoologists are beginning to admit that the fact has been strained a point or two; that it is a truth, slightly exaggerated. A given single bone, dug up among a mass of shells, may be that of a reptile or of a fish; and until some of its congeners be found, the profoundest anatomist may be puzzled with it. Were it not that the traces left of the mentality of the first man are—almost like the single joint from the skeleton of the reptile—too slender a basis for deduction, we might hope that some analytical mind, starting, not as the painters have done from pure fancy, but from historical records, might yet *restore* to us the intellectual anatomy, the facial expression and cranial development of the father and mother of all living.

Fig 4.

Hairless Adam.

But if we attempt to reproduce the human origin by tracing back, step by step, its succeeding phases, the work and the uncertainty would prove endless; and if we go to the Hebrew Bible, or to the Bibles of all nations, the biographical traces—the facts of personality—are extremely scanty and imperfect. Of the psychical activity of the first man, we learn little more by perusing the Hebrew Scriptures, than that he at first tilled a garden, and afterward the fields; that he gave names to the animal creation; that he wedded, and became the father of sons and daughters; and that he received and disobeyed an injunction on which his highest welfare and the perfection of his development and happiness were made contingent. We think the head shown in fig. 3 agrees very well with such a history. There are the large back-head and full base of brain, giving impulses that would, for a moment's gratification, imperil the well-being of a lifetime and of a race. There is the towering Veneration, which, whether normally or not, is but too liable to disappear with a people's infancy—with its age of myths and unquestioning faith. The features show all the childish eagerness of a state of simplicity, animal activity, and desire, as yet untored by the sobering lessons of experience. We are prepared to admit that in this head the painter has almost fulfilled the demands of a scientific accuracy, and restored to us lineaments which may be received as having been those of the first man; yet we are not sure but the analysis may hereafter be more satisfactorily made.

Take the outlines which this head would have if divested of the hair, fig. 4, and we shall find that, compared with the neck and trunk to which it belongs, it is decidedly *small;* that it is low, save in the region of Veneration; that it is retreating; that it is heavy in the base, and tolerably so in the perceptive region; that it is deficient in the region of the Reflective, Ideal, Humane, and Self-appreciating faculties, and probably, also, in the regions of Approbativeness and Caution. Yet it could be much more deficient in these elements, and still remain essentially human; and indeed, still impassably separated from the ape, the orang, or any other brute. Compare this head, however, although it is only an imagined one, and most probably accidental, with modern heads, and especially those of nations advanced in the arts. Such a comparison, made in view of the principles and views now explained, and showing the differences of cranial organization which time may be believed to have wrought, will be at the least instructive.

In our next we shall speak of some of the earliest actual delineations of human heads, as found upon Egyptian and other monuments of great antiquity, in order, if possible, to ascertain to what extent these differed from each other, and from crania of the present time.

CONJUGAL ETIQUETTE.

A preceding article on this subject showed what treatment was due between men and women by virtue of their sex. This is designed to show the *special* treatment due between husbands and wives. There is as much a right conjugal style of manners as general; and as right general manners win the kindly regards of our fellow-men, and both make us happy in them, and them in us, so a right conjugal etiquette perpetually re-enkindles that love sentiment, of which it is but the natural expression; but as wrong behavior toward others repels them, and engenders hatred, so wrong conjugal behavior naturally engenders disgust and alienation, if not downright hatred. In fact, we are disposed to ascribe no small part of the discord and heart-burnings, dissatisfactions and positive hatred of the married, and no small part of their infidelities even, to wrong etiquette. There is as much a right and a wrong in conjugal manners as in agriculture or mathematics. And they work out right or wrong *results* as much in the one as the other, and these conjugal results are far the most eventful and serious. Life itself is hardly a more serious matter, for all of life's pleasures hang suspended thereon. Let a husband's deportment toward his wife be right, and it will win insensibly but effectually on her affections, and render each more and still more happy in the other; but let it be wrong, and it will, little by little, cool down the most ardent love, and generate, instead, more and still more disgust and hatred. And we solemnly declare it as our deliberate opinion, that nine tenths of all conjugal disaffections are caused, not as the parties too generally suppose, by their mutual *unfitness* for each other, but by their wrong *treatment* of each other. They unconsciously alienate where they might just as well *conciliate*. We say unconsciously, for neither *mean* wrong, or know exactly *what* they do that is thus wrong. Still, its outworkings are just as fatal as if they knew and intended the wrong. Thus, if our food is embittered, whether or not we know what embitters it, or even that it *is* embittered, its taste is just as bitter for all. So, if it is flavored with anything delicious, we enjoy the flavor just as much as if we knew *what it was* that we relished. A wife *feels* anything, right or wrong, in her treatment by her husband, and unconsciously likes or dislikes it, just as much as if she knew in what the right or wrong consisted.

Then, what *is* right and what wrong in conjugal treatment? The general base of the treatment due between the sexes is the special base of the particular treatment due between husbands and wives. The general relations of the male and female to each other are exactly similar to those of the particular husband and wife. Indeed, the sexes, as a whole, bear the same relations toward each other as those borne by the individual husband and wife; and all this discussion about woman's sphere, rights, etc., are to be debated and decided on the platform of those of the perfect wife. A husband should treat his wife exactly as the most genteel man should treat the most genteel woman—only *more* so. Let the most thoroughbred gentlemen meet, on railroad, or steamboat, or in the polished circle, a beautiful and perfect sample of feminine loveliness, and suppose, as they met, a high appreciation of the merits of each other should spring up between them, what would be their mutual comportment toward each other? As far as she is the true female, she is pure, good, refined, moral, affectionate, and lovely. All these and all her other excellences he would involuntarily perceive and admire. He would *exaggerate* them, for it is natural for the sexes to *magnify* each other's excellences. He would naturally admire her as almost angelic, and this admiration would speak out in living accents in all his deportment. He would naturally regard her as a most sensitive, susceptible being, which every true woman is by virtue of her sex, and therefore treat her with a corresponding tenderness, as if he must on no account wound her fine susceptibilities. Benevolence forbids that one human being should give pain to another, except where a necessity exists. It further requires that we do all we well can to render them happy. This being due from one human being to another, how much more from a gentleman to a lady! All little attentions to her comfort he would proffer, and in so kind a manner that, instead of making her feel indebted to him, she would feel that it was *he* that was obliged for the *privilege* of doing. Still, she would receive them thankfully, and very pleasantly. Suppose, further, that a state of *love* should spring up between them. This love would enhance both his appreciation and admiration of her virtues and charms, and of course intensify and multiply his gallant attentions to her. She would become his idol, and his deportment to her would correspond. Not only would he not say or do anything to wound her susceptibilities, but he would do all in his power to render her happy. Whatever excellence his magnifying vision could descry in her, he would fully appreciate and freely compliment. It is just as natural for man to compliment woman as to breathe. And she loves to *be* complimented as much as he to compliment, and will do all she can to *deserve* it.

But suppose he saw anything he could not approve, he would not *re*prove. *Blame* is not a natural expression between the sexes. If our beloved has a fault, the loving one throws the mantle of *charity* over it, and tries to hide it from all other eyes—more so as to husbands and wives. If a loved husband drinks, even, a loving wife does not proclaim his vice, but excuses and apologizes for it. So of a fond husband as to the faults of his wife. Nor will either tease, or half ridicule, or laugh at the other before others. Show me the conjugal pair either of whom makes fun, ever so lightly, of any foibles of the other, and I will show you an imperfect union—a flaw in their love.

This precludes all scolding. No two can love, yet scold. Yes, there may be some scolding along with some affection—a linsey-woolsey mongrel—but "*perfect* love casteth out" scolding. The two are antipodes, and the more either exists the more it supplants the other. Nor would either express Combativeness toward the other, or resistance, or resentment, or any form of severity. But as pure, simple, ever-active *love* is the great base of all their relations, so it is the natural language of all their deportment to each other.

Man is naturally more *refined* in his manners when among men than when alone, more yet when in the company of ladies, much more so in that of his loved wife. No gentleman is ever coarse or vulgar in the company of ladies, much less the fond husband in that of his wife, nor she in his. And yet too often husbands take these liberties as if *privileged* to do so. Nor can anything as thoroughly disgust a husband as a slatternly dress or coarse expression in a wife. And this principle applies with double force to the dormitory.

A good deal of discussion has transpired as to whether it is proper for husbands and wives to manifest their love for each other before others—say in traveling, in company, etc. The majority oppose it on the ground that it discovers a sickish sentimentalism, while others even aver that it is a sure index of "curtain lectures."

The highest conjugal tenderness ought to *exist* between them, and be *expressed* in a proper manner at all times and in all places. Is it not proper for the husband to *feel* the utmost tenderness and fondness for his wife—to consider her as a precious treasure, and the idol of his heart? Then may he not *act out* this feeling?

I once saw this in an old man—and it takes an old man to wait on a woman in *perfect* style. On preparing to start for a ride, he first turned the horse so as to give his wife the best possible opportunity to get into the carriage. Having helped her in, he went all around, and tucked in the buffalo robes, as if he would close every *little* crevice where the cold air could gain access; and after doing all he could to secure her comfort, and in that tender, considerate manner, as if she were his choice jewel, he seated himself and drove off. His whole demeanor was tender and loving in the extreme. Was not this to be admired as the *true* conjugal treatment? And yet his *grandchildren* were half grown. A wife ought to be a husband's pet, and the idol of his heart, and his manners should correspond. He should esteem her as if she were almost an angel—as the partner of his joys and sorrows, the mother of his loved children, as lovely and beloved.

Those just married usually manifest frankly and freely a great deal of this cast of manners. Why? Because they *feel* it. This style of manners is the natural expression or language of that love. But their *love should increase* with years. Then should not the natural language of love increase with it? The husband should be as much more gallant to his wife than the ordinary gentleman to the lady, as he ought to love the most.

And how shall she *receive* his love proffers? Cordially, thankfully, lovingly. And any attention from him should bring back a smile of love from her. If a lady should thank a gentleman for his attentions to her comfort, much more a wife her husband. Let an anecdote make this point:

At Buffalo, at the first table there—the American—a man from Boston, just married, was connecting his wedding tour with business, and with doting fondness seated his wife at table, asked what she would have, saw to it that the servants waited on her with alacrity, and was just as attentive as needs be. But she *received* these love proffers with a rather cold, unrespondent air. No sweet smiles, no "Thank you," or acknowledgments, but a passive indifference.

I met them a few months afterward. He had *discontinued* his attentions. She did not *pay* for them in the coin of increased affection. That chilled his love, and dropped off these love proffers. And doubtless to-day she is sighing in secret over her husband's discontinuance of these attentions, and censuring him for being so different now from what he was then, throwing all the blame on *her*. And are there no *other* wives in a like mournful mood from a like cause? If a wife wants to be loved, she must *make herself lovely*. She must *keep up* the fires of her husband's love by those thousand little love-signs a doting heart will keep constantly devising.

We have shown what a husband's manner should be toward his wife. What should that of a wife be toward her husband? First, *confiding*, as if she knew all and could do all, and was worthy of her unlimited confidence. Secondly, that of dependence, as if "leaning on the arm of her beloved," and safe in his protection. Not persistent or obstinate, but yielding; not reproachful, but wooing. To throw out her coquettish charms to other men, but *not* to him, is in direct violation of the true conjugal sentiment, and therefore manners. So for him to be ever so gallant to other ladies, and neglectful of his wife in company, is the height of ill-mannerly rudeness. It tells a dark tale of either neglect or alienation. Nor is anything as terribly cutting to a wife's feelings as this. It will kill the love of any woman. To be brisk, gay, lively, spruce, talkative, and complimentary to other ladies in company, and mum and tame when with the wife, is utterly unconjugal in point of etiquette, because it proclaims indifference. But no matter how much decorous gallantry a husband shows toward other ladies, *provided* he manifests *still more* to his wife. So wives may be as fascinating as they please toward gentlemen—may smile ever so sweetly and all that, if they are only *still more* smiling and charming toward their husbands.

If society allowed and encouraged a greater latitude in the expression of conjugal love, there would be less infidelity and more conjugality—for the suppression of love deadens its flow.

Having thus given the *principles* which should govern the manners of husbands and wives toward each other, we leave every individual husband and wife to devise and carry out the *details* for themselves. The simple point, the one governing condition, is to *feel* a deep, devoted love sentiment, and express that sentiment properly. Yet there never can be a right treatment unless love prompts it. Let a wife dislike her husband, and her entire cast of manners toward him will be abominable.

Neither he nor she may be able to specify exactly wherein, yet it will be perfectly hateful. Her minutest look and act will be repellant and unladylike.

So no man's behavior toward his wife can be genteel any farther than he *loves* her. Conjugal etiquette departs with conjugal love. And that husband who dislikes his wife, does not and can not treat her with even common civility and politeness. He has no idea how hateful his every look and manner is toward her. He may try to be polite, but will make a fool of it. He will likely forget to introduce his wife, and if he attempts, will do it awkwardly, as if ashamed of her. If he tries to put on the lion's skin, he will be sure to leave long *ears* sticking out. Then *get in love*, ye who want to be civil; and when love exists, cultivate the more of it, ye who would improve your conjugal deportment.

Reader, just put these doctrines in *practice* for a single year. They will *revolutionize* the matrimonial relations of all who do, and always for the *better*.

JAMES L. ORR.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

James L. Orr, the present Speaker of the House of Representatives in the United States Congress, was born on the 12th of May, 1822, at Craytonville, Anderson District, South Carolina. His paternal ancestors emigrated from Ireland early in the eighteenth century, and settled in Pennsylvania. His maternal ancestors came over from Ireland in 1786. His father, Christopher Orr, engaged successfully in mercantile pursuits, and thoroughly educated his children, consisting of three sons and two daughters.*

At an early age the subject of this sketch was placed at a country school, and afterward transferred to an academy at Anderson, where he commenced the study of the Latin and Greek languages, assisting his father in the mean time in his mercantile operations.

In his eighteenth year he entered the University of Virginia to complete his studies, and prepare himself for the practice of the law. During the first year of his collegiate course his application to study was so great that he soon became proficient in mental and moral philosophy, political economy, logic, rhetoric, belles-lettres, medical jurisprudence, and also in the elements of international and constitutional law. During the rest of his collegiate course his time was devoted exclusively to the study of law, Coke upon Littleton being his favorite book; and Colonel Orr has often declared that his knowledge of English common law was obtained from this profound jurist. In 1841 he devoted himself to the study of history and general literature, and in 1842 entered the law office of Judge Whitner, then solicitor of the Western Circuit, and was admitted to the bar in May, 1843, then but twenty-one years of age. Early success marked his career as a lawyer, and during the first year of his practice he established and edited the *Anderson Gazette*.

Mr. Orr freely intermingled with the people of his district, and made himself personally acquainted with most of its citizens. His correct deportment, winning manners, and affable address made him a general favorite, and secured him an unbounded popularity. In 1844, when only twenty-two years of age, he was elected a member of the Legislature of South Carolina, having received a higher vote than any man in the State, and that, too, in a district which had cast a Whig vote in 1840. He made a most arduous and active canvass, discussing the leading issues which existed at that time between the Whig and Democratic parties. This contest established his reputation as an effective popular speaker, and at the next election he was again returned to the Legislature without serious opposition.

His career in the Legislature was distinguished by sound sense, a discriminating judgment, and an honesty of purpose. During his first term in the Legislature he made his celebrated speech in opposition to what was known as the Bluffton Movement, which was designed to commit South Carolina again to a nullification of the tariff of 1842. This speech gave Mr. Orr a high rank as a debater, and made him one of the leading members of the body. He was an earnest and energetic advocate of giving the election of presidential electors to the people of South Carolina, and delivered an able and powerful speech in favor of the change. The bill was carried in the House, where population is represented, and defeated in the Senate, where unequal territorial area alone secures representation. He thus, at the outset of his career, in spite of usage and deep-rooted prejudices, became the unflinching advocate of popular rights.

He advocated also a liberal and enlarged system of internal improvements through the aid of the State, and a general reform of the free-school policy.

Mr. Orr became a candidate for Congress in 1848, and was opposed by a gentleman of undoubted talent, of great reputation as a lawyer, and of considerable experience in political affairs, having been for many years a member of both Houses of the State Legislature. Both candidates were Democrats, and the contest turned on personal popularity alone. The contest was one of more than ordinary interest and activity, and rival candidates used every honorable exertion to triumph. Mr. Orr was elected by 700 majority.

From that period to the present time Mr. Orr has been re-elected to Congress without opposition, and has enjoyed in an eminent degree the esteem and confidence of his constituents.

He took his seat at the opening of the Thirty-first Congress, and found himself surrounded by an array of talent equal to any which has ever graced the halls of our national Legislature. The Senate then contained Calhoun, Clay, Webster, Cass, Douglass, Rusk, Benton, and others of high renown. In the House were Winthrop, Toombs, Stephens, McDowell, Bayly, Kaufman, and other gentlemen of distinguished ability. Mr. Orr, with becoming modesty, troubled the House but seldom during this Congress, his principal speech being upon the agitation of the slavery question and its dangerous tendency, if continued, against the perpetuity of the national union.

Mr. Orr opposed the series of congressional measures known as the "Compromise Measures," and on his return home in March, 1851, found a formidable party organized in favor of South Carolina seceding *alone* from the Union. A constitutional convention had been called by the Legislature, and delegates thereto elected, a large majority of whom were pledged to vote in favor of secession. Mr. Orr originally advised against the call for the convention, contending that if a wrong had been done the South, the whole South, and not South Carolina alone, should redress it. He boldly proclaimed his opposition to the secession policy, although his own congressional district had elected a secession delegation to the convention. He warned his people earnestly and eloquently against the disastrous policy they proposed to adopt. He admitted the *right* of the State to secede from the Union, believing it to be the highest attribute of sovereignty, and the only effectual shield of State rights against the despotism of consolidation. The secessionists were defeated by 8,000 majority against them in the State. Very few public men have evinced more true courage and determination than did Mr. Orr in this contest. Had his political career here closed, the glory of this triumph would have gilded his name in American history, and challenged the admiration of every true lover of the Union.

During the Thirty-first Congress, Mr. Orr was a member of the Committee on Public Land, and as such advocated and established the policy which has since been steadily followed, of granting public lands in aid of the construction of railroads.

At the second session of the Thirty-second Congress, Mr. Orr was for the first time called upon to preside as chairman of the Committee of the Whole on the State of the Union, and surprised the House by his familiarity with parliamentary rules, by the promptness and correctness of his decisions on points of order, and by the good order he maintained. After that he was frequently called to the chair when the House went into committee.

On the assembling of the Thirty-third Congress, Mr. Orr was appointed Chairman of the Committee on Indian Affairs, in which position he did much toward reforming the Indian policy of the country. He aimed to domesticate the red men by granting to each head of a family a quarter section of land, making the same inalienable and exempt from sale under execution. He advocated the payment of Indian annuities in agricultural instruments and other articles for their comfort in lieu of money, and a total abrogation of their tribal organization. In a bill reported by Mr. Orr, and which became a law, this policy was applied to the Chippewa Indians in Minnesota and Wisconsin, and the experiment is working admirably.

When the tide of "Know Nothingism" was sweeping over the country, Mr. Orr was among the first who ventured to stem the torrent and stay its course. By invitation, he visited Philadelphia on the 4th July, 1854, in company with Senator Douglass and others, and addressed the assembled masses in "Independence Square." His speech was listened to by delighted thousands; and when he opened his batteries upon this new organization, he excited the highest enthusiasm. He delivered other able and influen-

* We are indebted to the *National Democratic Review*, from which we have drawn most of the following biography.

HON. JAMES L. ORR, SPEAKER OF HOUSE OF REPRESENTATIVES.
Photographed on Wood from a Photograph, by BRIGHTLY, WATERS & Co., New York.

tial speeches on the same subject in various sections of the Union.

Mr. Orr co-operated cordially with the friends of the Kansas-Nebraska Bill in securing the success of that measure, establishing thereby, as he believed, the great principle of "Non-intervention by Congress" in the legislation of the territories.

During the protracted contest for Speaker of the House of Representatives, for the Thirty-fourth Congress, which resulted in the election of Mr. Banks, Mr. Orr was put forward as the Democratic leader, after Colonel Richardson had withdrawn, and received the vote of his party during many ballotings. During the two sessions of this Congress Mr. Orr took an active part in all important legislation, and was called to preside very frequently over the Committee of the Whole House on the State of the Union. So ample was the satisfaction given by him as a presiding officer, that at the close of the last session of Congress he was indicated by every one as likely to succeed to the Speakership. The same tone was exhibited by the newspaper press of the whole country. No one questioned the fact, that James L. Orr would be the Speaker of the Thirty-fourth Congress, to which he had already been re-elected, should he live to take his seat. The only name brought forward as a candidate in serious opposition to Mr. Orr was that of Mr. John S. Phelps, of Missouri.

We have very briefly glanced at Mr. Orr's political career. The congressional debates, since he became a member of the National Legislature, furnish the completest portraiture of his character as a statesman. He is a ready and fluent debater, and always speaks directly to the question before the House. In principle he is a strict constructionist of the Constitution, in theory and practice a States' rights man, and withal a rigid economist. His votes exhibit his independence in doing what he conceives to be right—his opponents do honor to the purity of his private character.

Mr. Orr enjoys a high professional reputation as a lawyer, and devotes much of his time, during the recesses of Congress, to the active duties of his profession. Notwithstanding the heavy and almost unceasing pressure upon his time, in his political and professional duties, he has delivered many addresses before the various literary and other societies of the country. He delivered the Anniversary Oration at Erskine College in 1846; in 1851 an oration at Mercer University of Georgia; and in 1855 the Anniversary Oration at Furman University of South Carolina, on the Advantages of the University System of Education. He likewise delivered the inaugural address at the opening of the new hall of the South Carolina Institute of Charleston. In speaking of this address the *National Intelligencer* of Washington says: "It confirms the good opinion we had formed of his sound judgment, and frank, independent course in Congress."

Mr. Orr is stout and athletic, exhibiting the vigor of matured manhood combined with striking personal appearance. Kind and courteous, his intercourse with his fellow-men will always increase the number of his friends.

As a presiding officer he has few superiors. Ever the friend of right, he never hesitates in determined opposition to wrong. Guided by *principle*, he is always consistent. True to the Constitution, he is never false to his constituents.

PHRENOLOGICAL CHARACTER.

MR. ORR has a predominance of the vital temperament, which is indicated by the largeness of his chest, the fullness of his face, the plumpness of his muscles, and his general stoutness of build and breadth of organization. This gives health, warmth, enthusiasm, power of endurance, and those qualities of body which sustain the brain, and thereby give to the mind zeal, cordiality, and earnestness of action. He has a fair amount of the motive or bilious temperament, which gives toughness, power, and hardihood; and he has enough of the mental temperament to give clearness of mind and a studious disposition. He bears the marks of sound health and a strong constitution, and of having inherited these excellent qualities from a long-lived ancestry.

By observing the form of his head it will be seen that he is largely developed over the eyes. This is the region of the perceptive intellect, and in this case indicates unusual practical talent, readiness of mind, and ability to gather information, and to take clear, scientific, practical, and business views of life. The middle portion of his forehead is also large, which shows an excellent memory of details, particulars, similar cases, historical reminiscences, and whatever has transpired in his own experience. He carries in his mind more of the knowledge which he has gained by reading and experience, and can bring it to bear on the point in question with more readiness and force, than ninety-nine men in a hundred who are in public life. The upper part of his forehead is only about full, showing less of the abstract and profound, philosophical and speculative; hence he is less inclined to indulge his mind in problematical premises and theoretical speculations and to argue on abstract questions, than he is to take general views, and to regard subjects in their practical aspects. He possesses the qualities for a historian, and these talents avail him as a lawyer and politician, and give him that ready business capacity for which, in Congress, he is so distinguished. As Speaker of the House, he requires to remember all the phases and points of parliamentary law; to hold in continual readiness the usages and customs of a deliberative body, and also to be able to see all the windings and complications which, in the process of legislation, arise from various questions and motions which come before the House. This form of forehead is also seen in Henry Clay, John Quincy Adams, Silas Wright, and others who have been distinguished for their practical talent, command of details, and power to use all their knowledge on the spur of the moment, and to the best advantage.

Had Mr. Orr devoted himself to science, instead of to law and legislation, he would have distinguished himself as an investigator, a teacher, and demonstrator. He has a fine development of the organ of Language, as seen in the fullness

and prominence of the eye. This gives him great readiness of speech, while his intellectual faculties are so developed as to enable him to arrange all his ideas and to clothe his facts and prepare them for fitting expression. His temperament gives him the requisite emotion for an orator. The top-head, especially through the region of Benevolence and Veneration, rises high, giving him considerable religious sentiment, kindness of character, and politeness of disposition.

He has large Firmness—a strong will, great desire to finish what he begins, and a disposition to drive through difficulties. The more opposition he meets the more it seems to fortify his mind to grapple with it. More especially if he feels confident that his course is right, and that time will sanction it.

His side-head is fully developed, showing fair mechanical talent, desire for property, power to be reserved and restrain his feelings, prudence, circumspection, energy, courage, and efficiency.

He has strong social affections—finds it very easy to make friends, and to show himself bland, cordial, and affectionate, not only toward men, but toward children and woman. In his own social circle, where he feels that he is not watched by critical eyes, his manners are very open, frank, and undisguised.

He has large Self-Esteem; but his veneration and friendship modify its actions and soften its natural austerity. He is rarely repulsive or domineering, still he is dignified—has a just sense of his own character, and is determined to command respect. His Approbativeness being large, induces a pretty active regard for public approval and a desire to stand high in the estimation of all, more especially those whose character and experience give value to their opinions. He will do and suffer much to maintain his honor. He is laborious, consecutive, and thorough—is anxious to understand and to know the bearings and uses of everything. Very little escapes his attention anywhere, and this sharp observation is pre-eminently evinced wherever he has care and authority. He systematizes his thoughts and actions; arranges his ideas and all his business in such a way as to do a vast amount of labor with but very little friction. We seldom meet with a head in which is combined so much strength and self-poised energy—so much steadiness of purpose and practical judgment, with so much enthusiasm and frankness. He rarely loses his mental balance from extra heat of passion and emotion, and never becomes tame, or prosy, or uninteresting in his style of speaking. He is pre-eminently a valuable public man on account of his knowledge, his industry, and his practical talent.

PORTRAIT OF FRANK LESLIE.

FRANK LESLIE.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

This is a marked organization, having some very strong and some weak points. His physiology gives great susceptibility, an unusual amount of vital power, abundance and warmth of arterial blood, ardor of mind and love of excitement, connected with so much of the mental temperament as to give intensity and clearness, as well as quickness of mental action. The muscular system is fairly developed, but not so strong as to be a leading condition of the body; hence he should be characterized more for brilliancy and display of mind than for great physical stamina. He has such an amount of vitality as sustains him most admirably in his efforts.

His brain is of rather large size, giving him comprehensiveness of mind, and ability to grasp the whole subject and master it without much difficulty.

His phrenological developments indicate capacity to enjoy himself in a variety of ways, or to suit himself to great changes of circumstances or business. One decided feature of character is that of enthusiasm, whole-souledness, great ardor and earnestness of mind, and a kind of spirituality or sentimentalism that enables him to magnify his thoughts, embellish his ideas, and to take such liberal views of subjects as to anticipate future results, and feel the full force of the whole at once. He is very intuitive—knows all he does know at a glance—will grasp a new business in which he has no experience, and proceed in it with about the same clearness and rapidity as in one to which he is already accustomed. He reads character and motives intuitively. He has a strong reasoning mind—is original, inventive, critical, analytical, and descriptive. He has ability to organize business, to calculate, estimate, and make up a general plan of action, and, with culture or practice would be good in figures or mathematics His perceptive organs generally are full, and have

a fair yet not a controlling influence. His command of language is rather good; his memory of business transactions, of association of ideas, is clear and retentive, but his chief strength of memory relates to principles and the general substance of a subject. He enjoys mirth and excitement, has good powers of imitation, is particularly fond of the sublime, grand, and imposing in Nature, and is well qualified to appreciate subjects that are on a large scale.

Another feature of his character is ingenuity, contrivance, dexterity, skill, versatility, and power to devise ways and means. This faculty, in conjunction with his temperament and tone of mind, gives great range of action and fine artistic taste. He has rather an excess of Benevolence, giving unusual sympathy, generous-heartedness, and the disposition to "live and let live."

All the moral organs appear to be favorably developed, and if exercised according to their natural strength they would give him a high tone of morality, and general consistency of purpose and conduct. He loves to contemplate subjects disconnected from the physical—is decidedly hopeful, sanguine, and fond of experimenting.

He has a very great degree of perseverance and determination of mind after he has once settled upon any purpose or plan, but is not so quick to decide what to do, as he is sure to carry out his purposes when formed.

He is lacking in dignity and self-love, pride, haughtiness, and capacity to command and control others by the exercise of authority, but is ambitious, very mindful of reputation and success, and can not bear to be outdone. He is very familiar and affable, and has great personal influence over his friends when in their company. He also has caution, forethought, and general apprehensiveness as to the result of undertakings, yet hopeful of success. He is frank, open-hearted, candid, liberal in his feelings, and more truly natural in his life than men usually are.

He values money only as a means to gratify his wants and accomplish his ends. He is apt to consult his wishes and the wants of his friends at the expense of his purse. He is not well adapted to the financiering department of business, because he does not love money well enough to confine his mind to the dull drudgery of financiering.

He has a good appetite, relishes his food highly, and enjoys it whether it is plain or otherwise.

He is not combative, contentious, or given to litigation, but his executiveness, force, spirit, and resistance to aggression shows heroism if he or his friends are assailed.

His social affections center on woman. He may be judicious in the manifestation of his love, but he is ardent and passionate, and if he were an idle man he would be too much inclined to concentrate his mind on woman. He may love his own children, but has not much patience with children generally. He is not very much attached to persons promiscuously, but selects his friends, and is devoted to them.

He is adapted to change and a versatile life, and can carry more details and cares in his mind than most persons can.

He derives the tone of his mind from his mother, and with his temperament he is more susceptible, enthusiastic, imaginative, sympathetic, genial, sentimental, original, ingenious, neat, tasteful, cautious, loving, and luxurious than he is rigid, courageous, patient, dignified or bold, proud or positive, in his character.

BIOGRAPHY.

There is, probably, no name more widely known throughout the United States than that of the subject of our present sketch. Wherever periodical literature finds its way, the name of Frank Leslie is as familiar as "household words." This wide-spread celebrity has been achieved by unflagging industry and unfaltering perseverance in the endeavor to supply the popular wants, and in doing so to aim at popularizing art by placing it in a cheap form before all classes of the people. Frank Leslie's specialty is illustrated publications. This specialty is the natural result of his early predilections, of his later studies, and of his maturer consideration.

When a mere child he evinced a decided passion for cutting and carving wood in grotesque and curious designs, and engravings seemed to possess more attractions for him than they did for children in general. The smallest accidental circumstances in early life frequently decide our whole course in the future, and so it was in the case of Frank Leslie. It so happened that on his way to school he had always to pass and repass silversmith's shop, and he was unconsciously, but irresistibly, attracted to gaze into the window where the men were engaged in engraving letters and designs upon various articles of silver and gold. Many an hour that should have been devoted to the school-room was thus spent, and judging by after-results they were not unprofitably spent, for in those hours the impulses which were to become stronger and stronger until they formed the life-object, were first warmed into being. Nothing connected with the subject escaped his observation. He marked the tools that were used and the manner of using them, and he did not rest until he had obtained sufficient of the graver's instruments to commence operations on his own account. This was accomplished at the cost of many youthful enjoyments, for it was only by hoarding his pocket-money that he at last acquired the treasures he so longed for. His first essays were rough, of course, but they displayed a genius for the art, and his strides and advances were rapid and decided. He had to work out all the difficulties himself, but every evening's labor gave him increased freedom of manipulation, and at last he achieved a cut of a well-known public building, with the execution of which he felt satisfied. He showed it to some of his school-mates, and at length the master of the school saw it. It so happened that the master had been born within sight of the building in question, and was familiar with every part of it. He pronounced the engraving accurate and excellent, and predicted high eminence for the young artist, and gave him warm encouragement, advice, and assistance. From that moment young Leslie adopted wood-engraving as a profession, and after the usual struggles attendant upon the first steps in life, he achieved a reputation and a position which enabled him, when scarcely twenty years of age, to start an engraving establishment of his own. Frank Leslie, at this period of his life, was not only one of the first engravers of the time, but he was a far-seeing man of business, and felt a lively conviction that in America there was a wide field for the engraver's art, which could be profitably worked and cultivated, and determined to undertake the speculation as soon as the time was ripe and the circumstances favorable.

No man possesses a more thorough and practical knowledge of engraving than Frank Leslie. He has been connected with most of the illustrated papers in the country, commencing with *Gleason's Pictorial*. When Barnum started his illustrated paper in connection with the Beaches, Leslie was treated with to superintend the engraving department.

Mr. Barnum had such entire confidence in the ability of Frank Leslie, in his particular department, that he offered to add $20,000 to the $20,000 already invested in the paper, if the sole charge was given into Mr. Leslie's hands. The offer was not accepted, and the failure of the paper is a matter of history.

To Frank Leslie we are indebted for the present perfection to which the method is brought of printing from wood-cuts upon a cylinder press. The usual method was to pile layer upon layer of paper until the requisite thickness and hardness was obtained, which was literally working in the dark; the new system introduced a hard material at once for overlays, obviating the usual great waste both of time and paper. The old method was slow and inadequate, and he alone comprehended the new system; and all those who are now remarkable for excellence in printing from wood-cuts by the new system have learned the art in his employ.

After the failure of *Barnum's Illustrated Paper*, Frank Leslie commenced publishing on his own account. The first work he issued was *Frank Leslie's Gazette of Fashion*, and it was conceded on all sides that no similar journal in the world could compete with it in the variety and suitableness of its matter, and the exquisite execution and *recherche* style of its engravings. Shortly afterward he published the *New York Journal*, which he bought when its circulation was at a very low ebb, and putting the life of his enterprise into it, speedily raised its circulation to a profitable point. Then came *Frank Leslie's Illustrated Newspaper*, which is now in the third year of its existence, and is an example of that ability and industry of which we have spoken, in the engravings with which it abounds and in the rapidity with which the events of to-day are illustrated in its pages to-morrow.

The latest publication of Frank Leslie is his great *Family Magazine*, with which he has incorporated the *Gazette of Fashion*. The new *Family Magazine* has met with a success more rapid and remarkable than any of his preceding works, and has attained a circulation in a few months for which other magazines have toiled for years.

There can not be a doubt but that wood-engraving has received a wonderful impulse from the personal exertions and enterprise of Frank Leslie, and that it owes much to his skill and judgment. He was the first publisher in America, or, perhaps, in the world, that maintained a full engraving establishment for his own publications alone; and yet so large and so constant is the demand created

by his various illustrated publications upon his engraving corps, that he is compelled almost daily to call in outside assistance.

In addition to these several publications, Frank Leslie has issued an illustrated newspaper in the German language, which on the first number attained a paying circulation, and has gone on increasing with remarkable rapidity. It supplied a want among our German citizens, and their patronage has been earnest and liberal.

The aggregate circulation of his several publications can not be less than one hundred and fifty thousand weekly. To supply the paper for this numerous edition exhausts the entire resources of one mill, and employs, in editorial labor, draughtsmen, engravers, compositors, printers, and clerks, some hundred and fifty souls, to say nothing of those who derive a living through his works as agents or salesmen.

Mr. Leslie's business may be truly called gigantic, and the ability which enables him to oversee and conduct the whole proves him to be a remarkable man. Where men of large capital, prestige, and power have signally failed, he with no other capital than practical knowledge, business tact, and fearless enterprise, has as signally succeeded. He is a self-made man; he has given a good account of the gifts with which he was endowed, and he can climb on; the ladder will not fall from beneath his feet, for he builded it himself; it is strong and well made, and it rests upon a foundation that will not fail him.

SECRET OF SUCCESS IN BUSINESS.

A NEIGHBOR of ours, who has been in a prosperous business for over twenty years, and has accumulated a handsome fortune, remarked to us recently, in front of his show-window, where he had arranged his goods in most attractive style: "I take as much pains to make my place attractive now as I did the first month after I commenced business; and though I do not care a straw for the receipts of this or any other day, and could retire from business without inconvenience, still, I feel as if I must do as good a business as possible, and I am as anxious to please my customers as when I was not worth a hundred dollars."

Our neighbor is known far and near as one of the most successful of business-men in the city. He has the best of everything in his line; he is courteous in his manners, liberal and just in his dealings, hence he has a right to his share of patronage; but his ambition and sense of obligation to serve and please the public is doubtless the great secret of his success. He is not above his business, but attends to it promptly, complacently, courteously, and earnestly; and though he could live without the custom of either agreeable or disagreeable people, by doing half a business or no business at all, still he never fails to bow, and smile, and utter a pleasant remark, and "Thank you, sir," when you pay for what you have bought; and you leave his premises with pleasant sensations, and always expect on returning to be greeted with a smile of welcome. Nor do you ever find in this place an apparent greediness after great bargains. You ask for what you wish, are not urged to buy, and one price only is named. If you happen to have smooth shillings or badly worn quarters, they are taken without any words or sour looks, and when you give good money you always get as good change as the money which you give. If you pay gold they return you gold, if possible, and in all their transactions you never see a disposition to take the advantage either in giving you worse goods than you buy, or charging more for goods than you contract to pay, either in fact or indirectly, by taking advantage of you in making change. He is honest, kind, and obliging. People have an idea that such a man deserves success; they feel complacent in transacting business with him, and he has only to be attentive, polite, and just, and his success is certain. Let young men remember that it is not good policy to be too independent, too proud, stiff, sharp in their replies, or sharp in their bargains, if they would succeed in business. Do not employ Self-Esteem, Firmness, and Combativeness in such a manner that they shall overshadow Benevolence, Veneration, Conscientiousness, Adhesiveness, and Approbativeness.

If you cheat a man a penny, or stick for it too closely even when it is really due, it may be at your cost to the tune of a thousand dollars. If you give an unkind reply, it may cost you a customer and the patronage of all his friends; indeed, a single inadvertency, or discourtesy, or meanness, or perhaps even justice, if you clamor for it too sternly in little matters, may ruin your prospects and break up your business, for

"A pebble in the streamlet scant
Hath turned the course of many a river;
A dew-drop on the baby plant
Hath warped the giant oak forever."

PHONOGRAPHY.

THE New York *Day Book*, speaking of the "Manual of Phonography" and the science of reporting in general, remarks:

The advantages of short-hand writing are too well understood to expatiate upon. It is an indispensable element to-day, in a complete education, and, as a writer justly expresses, "as a science, draws out the powers of the mind, exciting invention, improving ingenuity, maturing the judgment, and endowing the memory with the superior advantages of precision, vigilance, and perseverance."

The facility it affords to the acquisition of learning, renders it an indispensable branch in the education of youth, and an accomplishment in mature age, which may not only be a source of intellectual pleasure but of pecuniary profit. The best work out upon this science is that of Benjamin Pitman; plain, easily comprehended, and progressive in character; taking the student along with a rapidity equal to his comprehension of the art, and yet not so hurriedly as to leave any principle of tone or character unexplained or misunderstood. The self-teaching applicant, who sits down quietly and alone to master the singular Greek-like scrolls, angles, and curves, will be surprised at the discovery of the *natural principle* upon which the idea was founded by the author of this science; and the ease with which he gets at the root of it will stimulate him to that further degree of investigation which will, in a short time, render him an adept in this very useful branch of education. For speech reporting, this science is peculiarly advantageous. No other system of writing can be made to give a *verbatim* report of a fluent speaker; the most rapid orator may see his ideas, in all the beautiful imagery in which they were presented to an admiring crowd, again put forth through the columns of a newspaper, unmarred, and perfect as in the original.

It is not to be supposed that such a valuable agent to the intelligent mind, and particularly to the man of literary occupation, will be neglected, and we know of no better work on the subject than the one alluded to.

EDUCATION.

ON this subject much has been written, yet it is still imperfectly understood, and we shall continue to receive new light upon it as long as discoveries are made in the science of human nature. Every accession to physiological or phrenological science, every observation or discovery, which tends to enlighten man on his relations to nature, does its part toward promoting a true system of education. There is no science or art that has yet arrived at perfection, and the subject under consideration certainly forms no exception to the general rule.

The ideas that many people entertain in regard to education are narrow in the extreme. They seem to think that if children go through with a routine of schooling, and acquire sufficient knowledge to enable them to transact the ordinary business of life, their education is completed.

How often do we hear young people talk of having finished their education! In this they are probably mistaken. Education has been called the work of a life, and this appears reasonable if we suppose that life to be extended beyond our present state of existence, and to continue throughout eternity. Man should be educated as a whole, physically, intellectually, and morally; should be made acquainted with the great truth, that every violation of natural law is accompanied by a penalty from which there is no escape.

People surely would not be so ready to do wrong if they could be convinced that every wrong act they commit injures them more, infinitely more, than all the paltry gain which can ever accrue to

them from such conduct. If this fact could be thoroughly impressed upon the minds of people generally, it would undoubtedly do much in the cause of reform. Physical education should receive more attention than it does at present. Health is admitted by all to be among the most valuable of earthly possessions. Then why not adopt the necessary means to secure this important result? The practice of keeping small children shut up in a schoolhouse during the long summer days, for the purpose of getting them out of their parents' way, is very reprehensible, and should be speedily abolished. How much better it would be to give them an opportunity to ramble through fields and woods, and thus, while gaining healthful exercise, become familiar with the works of nature! Indeed, there is no volume that can be studied with greater profit, either by old or young, than the book of nature. The fresh, green foliage and delicate blossoms of spring, the highly colored flowers of summer, the variegated hues of an autumnal forest, and the ripening fruits; in short, all the works of nature combine to teach a series of lessons paramount in importance, and possessing an intellectual interest equal to their practical utility.

All nature bears the impress of truth, and its study has a tendency to elevate and refine the mind and promote virtue and morality. By closely observing nature we are enabled to trace many analogies which lead to the discovery of new truths and throw much light on the grand mystery of human existence and destiny, which is, in fact, a part of nature's beautiful system. The system of nature consists of numerous parts, which depend upon each other and combine to form a whole. Of course, then, the more extended our knowledge of these parts, the clearer will be our conception of the whole, and the more elevated will be our standard as intellectual beings.

But in the study of nature, as in every other study, great care should be taken to investigate and discover, if possible, the why and wherefore of every phenomenon and operation, and thus perform a most important part in the work of education, by improving and developing the reasoning faculties. There is one among the numerous branches of natural science that should not be neglected, and that is the science of human nature, usually divided into the two distinct branches of Phrenology and Physiology. To improve ourselves, either physically or mentally, it is necessary to understand something of our own organizations. A knowledge of ourselves is also of great use as a means of preserving health. But it is unnecessary to dwell longer upon this subject, as its intrinsic importance must be obvious to all. J. D. M.

"PARADISE LOST."—When this great production appeared, in 1667, the celebrated Waller wrote of it: "The old, blind schoolmaster, John Milton, hath published a tedious poem on the fall of man; if its length be not considered a merit, it has no other."

Thomas Ellwood, an intelligent and learned Quaker, who was honored by the intimate friendship of Milton, used to read to him various authors in the learned languages, and thus contributed as well to his own improvement as to solace the dark hours of the poet when he had lost his sight.

PHRENOLOGY IN DELAWARE CO., N. Y.

IT gives us pleasure to call attention to our friend H. B. Gibbons, and to commend him as a good, practical phrenologist. He resides at Franklin, Delaware County, N. Y., and spends his time in lecturing, chiefly in this State. Communities desiring a course of lectures from one who is a correct examiner, can address him at Franklin, N. Y. We have received the following resolutions, which we cheerfully insert, as we know he well deserves them.—[EDS. PHREN. JOURNAL.]

Whereas we have listened, with much pleasure and profit, to a course of nine lectures upon the science of Phrenology and its practical utility, given at the M. E. Church in this place, by H. B. Gibbons, of Franklin, in this county, therefore

Resolved, That we recognize in Mr. Gibbons a teacher of Phrenology of the first order, able to elucidate the principles of the science, and instruct the candid and inquiring mind, and one well calculated to restore Phrenology to confidence where it has suffered from the ignorance of pretenders.

Resolved, That Mr. Gibbons has given the most positive proof that Phrenology is true, and a science of great practical benefit to mankind, in training and educating the mind; and he has also, in a clear and able manner, vindicated it from the imputation of any tendency to materialism, fatalism, or any other *ism* not in harmony with the nature of man, and with the spirit and letter of revelation.

Resolved, That we cheerfully recommend him as a gentleman well qualified to give satisfaction as a teacher and lecturer—able to impart much useful knowledge to persons of every age and condition.

Resolved, That we consider the general diffusion of Phrenology and Physiology as conducive to the happiness and prosperity of community, making us acquainted with the laws of health, and of inestimable value in training and educating the mind.

Resolved, That a copy of these resolutions be forwarded to the *Franklin Visitor* and PHRENOLOGICAL JOURNAL for publication.

JOHN HASTINGS,
JOHN CALHOUN, M.D., } Committee.
J. ZULL,

BRUSHLAND, DELAWARE CO., N. Y., *Feb.* 1, 1858.

POWER OF A BUSHEL OF COALS.—It is well known to modern engineers that there is virtue in a bushel of coals, properly consumed, to raise seventy millions of pounds weight a foot high. This is actually the average effect of an engine at this moment working at Huel Town, in Cornwall. Let us pause a moment, and consider what this is equivalent to in matters of practice. The ascent of Mount Blanc from the valley of Chamouni is considered, and that with justice, as the most toilsome feat that a strong man can execute in two days. The combustion of two pounds of coals would place him on the summit. The Menai Bridge, one of the most stupendous works of art that has been raised by man in modern ages, consists of a mass of iron, not less than four millions of pounds in weight, suspended a medium height of about 120 feet above the level of the sea. The combustion of seven bushels of coals would suffice to raise it to the place where it hangs. The great pyramid of Egypt is composed of granite. It is 700 feet in the side of its base, and 500 in perpendicular height, and stands on eleven acres of ground. Its weight is therefore 12,700 millions of pounds, at a medium height of 125 feet; consequently it would be raised by the effort of about 630 chaldrons of coal—a quantity consumed in some founderies in a week. The annual consumption of coals in London is estimated at 1,500,000 chaldrons. The effect of this quantity would suffice to raise a cubical block of marble, 2,200 feet in the side, through a space equal to its own height, or to pile one such mountain upon another. The Monte Nuovo, near Pozzuoli (which was erupted in a single night by volcanic fire), might have been raised by such an effort from a depth of 40,000 feet, or about eight miles.

To Correspondents.

QUERIST.—What causes men to be excited or to quake, when speaking before an audience?

ANS.—There are many causes for this. Large Cautiousness and Approbativeness, and small Self-Esteem and Combativeness, with a very susceptible temperament, are the chief causes; but conscious want of preparation for speaking is often the cause. 2d. The tone or quality of the organization is improved by proper exercise and habits, or depressed by bad habits.

L. B.—You can send a club of ten subscribers made up of one or both JOURNALS, and you can add names for LIFE at the best club rates. See Prospectus.

REWARD OF LABOR

There is a reward for human endeavor far surpassing that which is measured by price. He who tries to enlighten and bless his fellow-men, and they respond in a manner expressive of elevation, improvement, and gratitude, has a reward far superior and more enduring than any of a financial character. We could fill pages of thankful and affectionate responses to the teachings of the Journal. Such friendly words cheer and encourage us, and such efforts as are made by many friends to extend the circulation of the Journal awaken in us the deepest gratitude. Friends, we thank you for your efforts—not for ourselves merely, but mainly for the advancement of the cause of human improvement. The hard times have not hindered our valued self-appointed co-workers from getting up clubs, and since we have reduced the number of subscriptions from twenty down to ten, these little clubs are flowing in like a thousand rills from the hill-sides, and promise much for the dissemination of the glorious truths of our man-reforming science. We give a few specimens of what the people and the papers say:

Rev. B. W., of Ohio, writes: "Hard times or no hard times, I can not do without the Journal. Here is the only dollar I have had for three months, and when I shall see another I do not know; but having bread for the body, I must have food for the mind, even though I have no cash for the pocket, so here is the lonesome dollar for my old friend the Journal."

F. J., of Illinois, writes: "I have read the Phrenological Journal for ten years, and have no idea of doing without it, for through its teachings I have been led to abandon the use of tobacco and alcoholic liquors, and to see my character in such a light as to reform my habits and improve my disposition in many respects. Fearing the hard times might shorten your subscription list, I have spent a few evenings among my neighbors, and the following club of fifteen names is the result. If every old subscriber would take a little spare time, your list might be swelled enormously. God bless you for what you have done for me, and may many others in like manner be benefited!"

From our friends of the press we are receiving the most kindly notices, a few of which we append:

The Phrenological Journal is to the American reformer what the thunderbolts of Jupiter were to Vulcan. It is the great armory, in fact, from which many of the leading ideas of our age are drawn. What does the cause of truth not owe to it? Its step has been firm yet noiseless. No great excitements have marked the pathway of its course; and yet it has done more to dethrone superstition, conserve public morals, and promote enlarged and liberal ideas in the minds of men, than any other one journal we know of. To be had on subscription at this office.—*Atlantic (Mass.) Messenger.*

The Water-Cure and Phrenological Journals for November have been received from their enterprising publishers, Fowler and Wells. Both of these monthlies are full of useful and entertaining matter—such matter as is of practical, every-day importance. In point of genuine utility, no publications coming from New York can compare with those of Fowler and Wells. Everything we receive from them is perused by us with more than ordinary care.—*Nashua (N. H.) Oasis.*

We consider the Phrenological and Water-Cure Journals and Life Illustrated as the choicest family papers in the United States. No three journals in the country contain so much and so valuable reading matter for the family as we find in these model papers. If any of our readers want their money's worth, send to 308 Broadway, New York, and obtain these journals.—*Southern Medical Reformer.*

It has puzzled our brain not a little, as we have contemplated the quality of the paper, mechanical execution, the fine engravings, and the amount of carefully prepared reading matter in the Journals and *Life Illustrated*, to know how the publishers *could* afford them at so low a price. It is a puzzle to us still.—*Binghamton Standard.*

FOR 1858.

This Journal is devoted to the science of human nature. It aims to teach man his powers, duties, and relations; how to make the most of himself, and thus secure the highest mental and physical well-being.

Practical Phrenology, or how to read character, Self-Improvement, Home Education, Government, Selection of Pursuits, Choice of Apprentices, Clerks, Partners in Business, and Companions for Life will be clearly set forth. Biography, with Portraits, Natural History of Man, Mechanism, Agriculture, and Architecture, with Engravings, will make the Journal an interesting and valuable family guide and companion to all readers.

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The Water-Cure Journal for 1858.

Devoted to Physiology, Hydropathy, and the Laws of Life and Health—with Engravings illustrating the Human System—A Guide to Health and Longevity.

Good Health is our Great Want.—We can obtain it only by a knowledge of the Laws of Life and the Causes of Disease. All subjects connected with Diet, Exercise, Bathing, Cleanliness, Ventilation, Dwellings, Clothing, Occupation, etc., are clearly presented in the Water-Cure Journal. Hydropathy is fully explained and applied to all known diseases. The Water-Cure is not equaled by any other mode of treatment in those complaints peculiar to Women. Particular directions are given for the treatment of ordinary cases at home, so that all may apply it. Believing Health to be the basis of all happiness, we rely on the friends of good Health to place a copy of The Water-Cure Journal in every family in the United States. Single Copy, $1 a year; Ten Copies, $5; Twenty Copies, $10.

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Life Illustrated will be sent to new subscribers *three months*, in clubs for *twenty-five cents each*, that it may be *tried*, and its *merits* fully understood.

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Friends—Co-workers—Voluntary Agents, in every neighborhood, are invited to engage in the good work of extending the circulation of these unique and valuable periodicals. A little well-directed effort, just now, during the long winter evenings, will double our list of readers, and thus scatter invaluable blessings among thousands. May we not hear from you?

Announcement.

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We have the pleasure of announcing a new series of **Hand-Books for Home-Improvement**, by the author of "How to Talk," "How to Behave," etc.

The forthcoming volumes will be devoted to a popular exposition of the more important branches of Rural Economy and Rural Art; thus promoting public taste, enhancing domestic comfort, and diminishing the expenses and increasing the profits of Rural Life and Industry.

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ADVERTISEMENTS intended for this Journal, to secure insertion, should be sent to the Publishers on or before the 10th of the month previous to that in which they are to appear. Announcements for the next number should be sent in at once.

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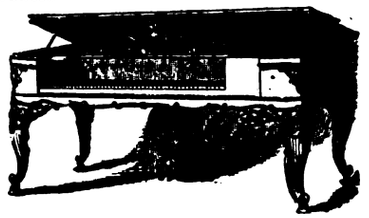

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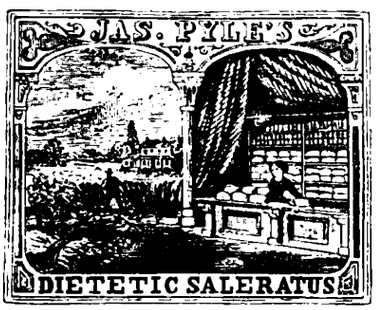

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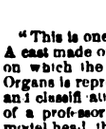

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Extract from a letter written by a gentleman owning a plantation near New Orleans. "Your two Weed's Patent Sewing Machines have been in almost constant use since I bought them, and with the best of practical results. In less than three weeks the two operators on them finished a complete suit of clothes for each of my two hundred and ten plantation hands, and I find the time saved in using them one season has more than paid their cost.

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We wish all who needs a Machine to examine these as they are the simplest and best for Family use, Plantation, or any other use where a stitch is required. Price of Weed's Patent Sewing Machine $100 and $130.

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ORGAN OF SUBLIMITY.

WE have received a communication for the JOURNAL with the above title, but nearly every thought in it, every form of expression, and every illustration savors more of Ideality than of the organ on which the article is professedly based. Ideality recognizes beauty, delicacy, refinement, perfection. Sublimity, on the contrary, is adapted to the vast, the majestic, the infinite. The rough craggy mountain; the frowning cliff, dreary, hard, cold, and terrific; the yawning chasm, floods of fire from the volcano; the blazing storm-cloud and awful thunder crash—these things are the food of Sublimity. Ideality is enraptured with the soft and gentle beauties exhibited in every nameless grace of form, outline, harmony, or hue in flowers, lawns, groves, the rippling stream or flashing lake, and is the soul of taste and refinement.

The following passage occurs in the article referred to, and, as it will be seen, Ideality had much more to do with its conception than Sublimity.

I sat on a lofty eminence in a distant clime; the sea, calm and tranquil, lay like a mirror at my feet. I had on that evening enjoyed, for the first time, the beauty of an Italian sunset. Grandly, I may say gorgeously, beautiful as was the scene, it was but as naught compared with the beauty, the sublimity of the same landscape; its harsher, bolder outlines being softened, as it were, by the silvery rays of the full orbed "queen of night," just rising out of the bosom of the mighty deep. As I gazed, lost in admiration at the deep blue empyrean, decked with myriads of sparkling jewels, and looked o'er the sea, dotted with those harbingers of peace and plenty—the ships of commerce—as my eye wandered o'er the beautiful country which lay at my feet, an electric thrill of joy pervaded my frame as I drank in with delight the wild, the almost unearthly beauty of the scene.

The following stanzas, from a poem by Lura A. Boies, entitled "The Blind Bard of England," evince the faculty of Ideality in a high degree, and we insert them here as a fine illustration of the organ in question.

When we unlatch the gate of dreams,
And step within the mystic land,
A floating halo round us streams,
And shadowy shapes, an airy band,
Go wandering through the spirit's aisles,
And gleams of light, and sudden smiles,
Too radiant for the waking gaze,
Flash through the dim and dreamy haze.
We sleep, we dream, another world
Unfolds unto the wond'ring mind;
Our eyes are shut, we can not see,
Yet who shall say that we are blind?

Milton! a deeper, darker seal
Shut out from thee the holy light.
To thee the sun and stars were vailed,
To thee the moon was as the night—
The music of the morning bells
Was b utthe solemn vesper chime,
Nor summer's green, nor autumn's gold,
Came with the rolling rounds of time.
The tinted clouds, the stars, the flowers,
The gorgeous earth, the bending skies,
The glory of this world of ours,
Were shadow'd from thy sightless eyes.

No ray of sunshine, pure and blest,
On thy benighted vision stole—
Yet shall we say that darkness swayed,
Its sable scepter o'er thy soul?
Were the black clouds of rayless night,
Pavilion of the God-like mind,
That soared above the stars of Heaven!
Thou Bard of England, wert thou blind?
Nay, Milton only shut his eyes,
And looked away to Paradise,
Just as when sleep, the holy thing,
Vails from our eyes the sunny gleams,
Folds o'er the heart its loving wing,
We look into the land of dreams.

HOW IT FEELS TO BE HANGED.

AN acquaintance of Lord Bacon who meant to hang himself only partially, was cut down at the last extremity, having nearly paid for his curiosity with his life. He declared that he felt no pain, and his only sensation was of fire before his eyes, which changed first to black and then to sky blue. These colors are even a source of pleasure. A Captain Montagnac, who was hanged in France during the religious wars, and rescued from the gibbet at the intervention of Viscount Terrenne, complained that, having lost all pain in an instant, he had been taken from a light of which the charm defied description. Another criminal who escaped by the breaking of the cord, said that after a second of suffering, a fire appeared, across it the most beautiful avenue of trees. Henry IV., of France, sent his physician to question him, and when mention was made of a pardon the man answered coolly that it was not worth the asking. Instances fill pages in every book of medical jurisprudence. All agree that the uneasiness is quite momentary, that a pleasurable feeling immediately succeeds, that colors of various hues start up before the sight, and that these having been gazed on for a trivial space, the rest is oblivion. The mind, averted from the reality of the situation, is engaged in scenes the most remote from that which fills the eyes of the spectator—the vile rabble, the hideous gallows, and the struggling form that swings in the wind.

[The above relative to the beautiful colors, fires before the eyes, and a dreamy, delicious sensation on the part of those who are in the act of being hanged, is very easily explained. The tightening of the rope causes the blood to press upon the brain, and hence the nerves of vision and of feeling are first not disagreeably affected, and finally their action is wholly suspended. Intoxication with alcoholic liquors, and especially the use of ether or chloroform, produce similar sensations. Drowning is said not to be a painful process, and for the same reason, it produces a kind of delicious stupor of the brain.—*Eds. Ph. Jour.*]

INSANITY OF DOGS.—On the 157th page, Vol. I., of Kane's Arctic Explorations, this entry occurs:

Jan. 25th. The mouse-colored dogs, the leaders of my Newfoundland team, have, for the last fortnight, been nursed like babies. No one can tell how anxiously I watch them. They are kept below, tended, fed, cleaned, caressed, and *doctored*, to the infinite discomfort of all hands. To-day I give up the last hope of saving them. Their disease is as clearly mental as in the case of any human being. The more material functions of the poor brutes go on without interruption: they eat voraciously, retain their strength, and sleep well. But all the indications beyond this go to prove that the original epilepsy, which was the first manifestation of brain disease among them, has been followed by a true lunacy. They bark frenziedly at nothing, and walk in straight and curved lines with an anxious and unwearying perseverance.

They fawn on you without seeming to appreciate the notice you give them in return; pushing their heads against your person, or oscillating with a strange pantomime of fear. Their most intelligent actions seem automatic; sometimes they claw you, as if trying to burrow into your sealskins; sometimes they remain for hours in moody silence, and then start off howling, as if pursued, and run up and down for hours.

So it was with poor Flora, our wise dog. She was seized with the endemic spasms, and after a few wild, violent paroxysms, lapsed into a lethargic condition, eating voraciously, but gaining no strength. This passing off, the same crazy wildness took possession of her, and she died of brain disease, *arachnoidal effusion*, in about six weeks. Generally they perish with symptoms resembling lock-jaw in less than thirty-six hours after the first attack.

Nine splendid Newfoundland, and thirty-five Esquimaux, thus died in six months, leaving but six alive, and those unfit for service in the sledge. The following September a favorite dog was seized with the same malady. In his delirium the poor creature plunged into the water and drowned himself, like a sailor, with the horrors.

ENGLISH *vs.* AMERICAN GIRLS.—The English girl spends more than one half of her waking hours in physical amusements, which tend to develop and invigorate and ripen the bodily powers. She rides, walks, drives, rows upon the water, runs, dances, plays, sings, jumps the rope, throws the ball, hurls the quoit, draws the bow, keeps up the shuttlecock—and all this without having it forever pressed on her mind that she is thereby wasting her time. She does this every day until it becomes a habit which she will follow up through life. Her frame, as natural consequence, is larger, her muscular system better developed, her nervous system in better subordination, her strength more enduring, and the whole tone of her mind healthier.

She may not know as much at the age of seventeen as does the American girl—as a general thing, she does not; but the growth of her intellect has been stimulated by no hot-house culture, and though maturity comes later, it will proportionally last longer. Eight hours each day of mental application for girls between ten and nineteen years, or ten hours each day, as is sometimes required at school, with two hours for meals, one for religious duties, the remainder for physical exercise, are enough to break down the strongest constitution.—*English paper.*

HAD HIS OWN WAY.—Franklin Holden, a good-looking merchant of Penn Yan (N. Y.), has been sentenced, at Albany, to five years in the State Prison for forgery. The *Argus* says that just as the court was about to adjourn for the term, Holden made his appearance, and peremptorily demanded trial, assuming the air of an injured individual. But that he came forward in a manner so bold, his trial would not have taken place; and it is more than probable that he would have escaped prosecution forever on this charge. But he insisted on being tried; he would not allow so base a charge to overshadow his "fair fame" any longer. He was gratified, and found guilty, and sentenced to the State Prison for five years.

[This case is analogous to one which was reported to have occurred in Texas a few years since. A woman and her son were convicted of manslaughter under a charge of murder, and sentenced to the Penitentiary for a term of twenty years. Anxious to secure the mitigation of the punishment, they and their friends used strenuous efforts to procure a new trial. It was reluctantly granted, when the jury rendered a verdict, not of manslaughter as before, but of murder, and they were sentenced to be hung.

"Let well enough alone," is a good motto.]

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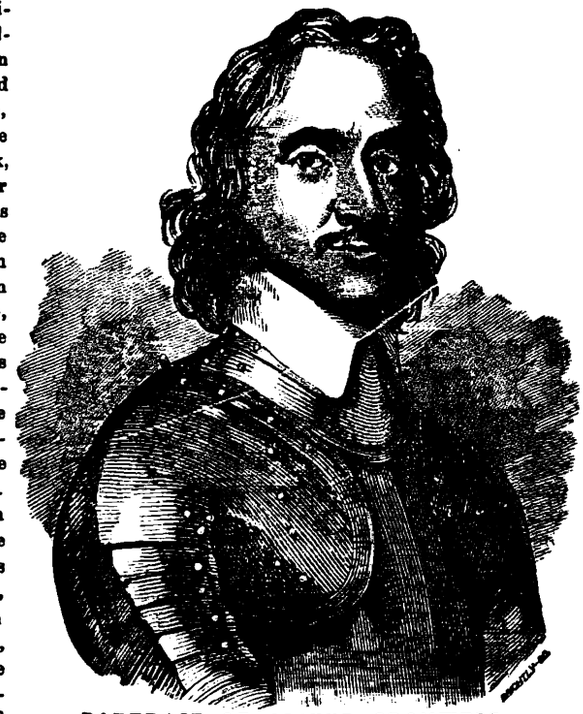
PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

In organization, Oliver Cromwell was a most remarkable man, his temperaments being a combination of susceptibility and power, imparting a depth and strength of emotion which is rarely found surpassed in persons of the keenest sensitiveness and susceptibility. He had also the elements of hardihood, strength, and iron endurance. His chest was capacious, his frame muscular, his face bony and heavy, and his brain very large. Though his brain was largely developed in the base, imparting courage, efficiency, and power, in conjunction with strong perceptive intellect and great social feeling, it was also high and expanded in the front and top, indicating high moral and religious feeling, a masterly intellect, and great dignity, determination, and grasp of character. He had the fortitude of a soldier, and the pride, dignity, and aspiration requisite to fire him to great deeds. He had a sufficient amount of Cautiousness to guard himself against stratagem, and to provide for his own safety, and to plan for the success of his cause.

His Benevolence and his love of home, joined to large Conscientiousness, made him a true patriot. That he possessed the enthusiasm necessary to a general and leader, there can be no doubt; and when we look at the expansion of his head in the region of Hope, Veneration, Spirituality, and Ideality, we see the foundation of his famous remark, "Trust in God, and keep your powder dry." This shows his strong religious emotion, and the tendency to imbue his followers with the same spirit, in conjunction with the self-trust which large Firmness, Combativeness, Hope, and Destructiveness give. While he felt strong enough to conquer his enemies by his own power, he nevertheless recognized the Governor of the Universe as his supporter and protector, and as being disposed to aid those who trust in Him, and are in the right.



PORTRAIT OF OLIVER CROMWELL

His Language appears to have been strongly marked, and his perceptive intellect specially prominent. His Order and Calculation were large, together with Constructiveness, which gave him a mechanical, methodical, and mathematical mind, so that he could engineer large affairs, yet comprehend all the combinations and minute details incident to them. He had the qualities necessary for a scholar and reasoner, and also the requisite faculties for the merchant, the business man, or the engineer; but as a leader and governor of men, with power to sway them in harmony with his will, his equal has seldom been seen.

Such an intellectual lobe of brain has been rare in the world's history. Such warmth of feeling, joined to such strength of constitution, energy of character, will, and scope of mind, would make a great man in any age or country. It is rarely the case that such an organization shows perfect harmony in all respects; and those who strike such heavy blows as he did, make sad work if they strike wrong; but all their well-directed efforts tell for good on ages, and immortalize their author. Cromwell doubtless had faults of character, and made some mistakes, but the sum of his developments, as well as the scope of his actions, show that his motives were good, and that he aimed for the improvement and happiness of mankind.

BIOGRAPHICAL SKETCH.

BY R. M. JOHNSON.

The history of the struggle which resulted in the wresting of a scepter from the hands of Charles I., and substituting a scaffold in exchange for a throne, constitute the most important and interesting portion of English annals. The cause of this momentous strife between the parliament

and the king; the character of each of the great parties; and the personages engaged in this august drama; as well as the political and religious principles to be gained by victory or lost by defeat; and its ending in the overthrow of Charles, and the transfer of the government from the hands of a corrupt monarch, and placing it under the control of the parliament, and that noble defender of human liberty—Oliver Cromwell—all combine to render that fearful controversy paramount in its interest to those who have shaken off the shackles of bondage, and are now enjoying the blessings of freedom.

The principles involved in this struggle, between the king and his subjects; between bigotry and the rights of conscience and independence of thought, were those on which hang the happiness of every people, and without which the existence of free government and pure religion is a thing altogether ideal, and never to be realized. For the defense and supremacy of these principles, and for the overthrow of a capricious, unworthy, and corrupt monarch, a constellation of minds was summoned forth, such as England has seldom beheld. For this cause were combined the piety of Owen and Baxter, and the impetuosity of a Blake; the consummate learning of Selden, and the unwavering courage of Fairfax; the overpowering energy of Cromwell, the wisdom of Coke, and the inflexible patriotism of Hampden; while the poetic genius of a Milton was arrayed on the side of the parliament, and enabled him to write in defense of human liberty, the law, and the constitution in a style seemingly inspired.

Although the actors in this great drama were a nation, and the scene an empire, yet a few of the most leading spirits have been culled from the conglomerate mass, and have been made to suffer from the mutilating hand of envy, or been elevated by false eulogy to a position greatly superior to that occupied by any of the merely social benefactors of mankind. But there is one individual, aside from the rest, who has had the misfortune to be "pre-eminently calumniated." "On the head of Oliver Cromwell," says Gaden, "the vials of wrath have all been emptied, and at his fame the shafts of defamation been leveled." Historians have hurled their scathing anathemas against his character, actuated by vindictive prejudice, they have [illegible] his life as the perfection of all that [illegible] and unjust, and his death as the necessary result and fit end of such a life.

That party writers should decry his name and disparage his character is not to be wondered at; and that those he defeated, and by his influence banished from high offices of state, should, in turn, become his friends, is not to be expected. When great party leaders are defeated by their opponents they are slow to forgive the injustice which they happen to discover in the conduct of the successful candidates. This is as we should expect, from the failings of human nature.

The character of Oliver Cromwell is discoverable to us from one source only. Like that of many distinguished men, it has but one key by which it can be unlocked; and that key is furnished us by his speeches and his actions. These constitute the pure essence of the man, and by these alone can we form a true estimate of his character. But since his life was, in a great degree, modified by the revolution, in order to view him aright it will be necessary to make a brief survey of the causes of this memorable contest.

Previous to the time of Cromwell the throne had been occupied by mere monsters in the form of men. True it is that *Queen Bess*, as her people lovingly styled her, was more mild toward her subjects; but her successor, James I., was as destitute of all the qualities that give to man his true dignity and greatness as any monarch then reigning in Europe. He was tyrannical to those who were independent enough to assert their rights, and yet so great a coward that he did not dare confirm his usurpation. He was pedantic, impolitic, and faithless. While he believed himself the possessor of all the qualities which Heaven could bestow to fit him for a ruler, he was considered in the eyes of his subjects, what he has been styled by a historian, "the meanest prince that ever sat on a British throne."

It was from the hands of such a sovereign that Charles I. received the scepter. James had paved the way, by discountenancing the laws, and by his tyrannic rule, for a rebellion of his subjects; and by his death only was he saved from gathering the fruits of his own folly. We would suppose that Charles, having witnessed the growing discontent of the nation, instead of following in the footsteps of his predecessor, would have chosen a different policy and ruled with a milder hand. But such was not the case. If possible, he wielded his power with more tyranny than James had done. His actions were characterized by the same aggressions, and his promises made worthless by the same perfidy.

Were we to follow up his history we might show that he levied taxes in the very teeth of the law; that he created and displaced the judges until the laws were made to speak the very language of injustice and oppression; that he leveled the artillery of the church against the Puritans until they were forced to rebel or were driven into exile; that he dissolved parliament after parliament because they would not render their decisions in accordance with his whimsical notions; and that he so often proved recreant to his word, that it passed into a byword and a song. This is the character of the history of that semblance of a king—the tool of his corrupt ministry—and it was against such insufferable oppression and such an iron rule that Cromwell, at his country's call, unsheathed his word.

For thus resisting the tyranny of his sovereign he has been styled a traitor. If he did not reflect the popular will, then he certainly was a traitor; but if we can show that he was sustained by the people, then in fighting against his king, Cromwell was a true patriot.

That the parliament was the people's stronghold, the defense of the law, and the bulwark of the constitution, perhaps will not be denied; and that Cromwell fought on the side of the parliament can not be gainsayed. Then, we say, the only point to be determined is, was the parliament right in rebelling against the king?

The object of government is to secure the peace, happiness, and prosperity of the governed; and when it fails to do this it is but a farce. If we do not uphold this rebellion of the parliament, how can we justify our own national struggle, in which the events that gave it birth were but as the "grievances of children" in comparison with the aggressions of Charles I. In speaking of these aggressions, Godwin says that "Charles trampled upon the liberties and outraged the consciences of his subjects." If the arraying of one's self upon the side of justice, the law, and the constitution is a traitorous act, then we admit at once that our hero—Oliver Cromwell—was a traitor.

But we may be told that it was mainly through the influence of Cromwell that Charles was beheaded. In reply to this we say that the assertion has never been proved, but is merely one of those gratuitous charges which historians, by libeling his character, have endeavored to cast a stigma upon his future memory. Again, the opinion may be advanced that the death of Charles was not necessary to the security and peace of the nation.

This we deny. Had he been imprisoned, some one of the contending factions might have restored to him his scepter; and had he been exiled from the land, he might have returned. In either case, war with its manifold horrors would have visited the nation, and the representatives of religious equality and the lovers of liberty would have received no quarter. What, then, must be done? Charles had been arrested as a "tyrant and a traitor to the liberties of England," and the penalty of the law was death. Hence, to relieve the nation of one of the most corrupt and inhuman rulers that ever tyrannized over a people, there was no alternative but the axe and block, and Charles was made acquainted with their power.

The reins of government then passed into the hands of Cromwell; and for this assumption, or rather reception of them, he has been called a usurper. Now, in discussing this point, we must regard the influences of the age and the condition and prospects of the English nation. We must not judge of Cromwell by our own times, but consider what *was* his duty, or what would have been *our* policy, had we lived in that age.

England was not prepared to break asunder the shackles of a monarchy and establish a free government. Her people knew not the meaning of liberty; the age was not ripe for a democracy. Cromwell saw this. It was evident that a master hand should govern the helm and guide the ship of state lest it be wrecked upon the shoals and sandbars of the contending factions. A statesman was needed at the head of the government; Cromwell was at hand; and the "*woolly seat*" bade him welcome. And although "England curses his name and hates his memory," yet she is indebted to him more than to any other ruler for the elements of greatness which raise her above the other powers of Europe. Under his government England grew in power and cultivated the arts; trade flourished; and peace, with her golden robe and horn of plenty, was once more restored to the nation.

But in the humbler walks of life Cromwell was no less praiseworthy. He is said to have been an affectionate and dutiful son; an amiable and worthy husband, and a faithful, prudent, and generous father. He discountenanced all vice, rewarded integrity and virtue, and encouraged learning. He was charitable to the poor, and the shield of oppressed Protestantism throughout Europe. He patronized the talented; encouraged universities; endowed a college at Durham, and educated the youth. Hume says "he possessed dignity without ostentation, and his general be-

havior was such as might befit the greatest monarch.

However, to claim that the conduct of Cromwell was without error, or that his life might not have been better, would but be denying that he was a man. But we may claim for him "purity of intention and vast susceptibilities," and this we think is no more than justice requires. And in the words of Dryden we conclude this brief survey of the character of our hero—Oliver Cromwell—than whom there is no other man who figures more conspicuously in English history. Says Dryden—

> His ashes in a peaceful urn shall rest,
> His name a great example stands to show
> How strangely high endeavors may be blest,
> Where *piety* and valor justly go.

THE PHRENOLOGY OF NATIONS.

SECOND SERIES—NO. II.

10. Going back to the earliest times, do we find *one* type of head, or *more than one?* If more than one, is this a conclusive argument in favor of the plurality of human species? Was the pristine head large, or small? high, or low? frontally, advancing, or retreating? These are some of the questions that meet us as we attempt to gain a clear conception of the phrenology of man in the early periods of his existence on our planet.

It will be proper to admit, in the outset, that until certain great questions in *chronology* are settled, the most we can hope to attain to will be but an approximation to the truth. Apparent evidences accumulate, which go to show that the duration of the human race upon the earth has far exceeded the period assigned by certain chronologists, namely, 5,862 years. In fact, nations disagree as widely in their chronologies as in their religions, or in their civil and social polity. If it be ever established that the earth was inhabited for thousands of years previous to the date assigned by Archbishop Usher to its origin, then, certainly, the admission of such fact will weigh nothing against *truth*; it will only serve to show us that, with the known fallibility of human understanding, we have been in error—that we have been reading truth, but comprehending it amiss.

According to the Septuagint computation, the creation of man occurred 5,586 years before the advent of Christ, making the age of the race, if we reckon 1,858 years since the beginning of the present year, 7,444 years. The Hebrew text, as understood by many, makes the time antecedent to the present era 157 years greater than that allowed by Usher, the computation of the latter being 4,004 years; and modern Jewish computations vary between 5,555 and 3,616 years, the last 388 years less than the Usherian reckoning. Clemens Alexandrinus, a Christian writer, A.D. 194, makes the period from the creation of man to the birth of Christ 5,624 years; while Scaliger allows only 3,950. Usher, Lloyd, and Calmet are highest among the authorities who *have given currency* to the received chronology of the Bible; and translators, States, and churches (of certain sects) have *adopted* this computation. But why not another, as well? The result thus adopted is but the *opinion*—the *careful judgment*—of one or three men. There is nothing in the absolute date of creation essential to the authenticity or credibility of the Scriptures, to correctness of Christian doctrine, or to the theory of human salvation. It is merely idle, then, to attempt to tie down the belief of ethnologists or of mankind to the judgment of Usher, or of any number of biblical scholars. And we have already seen that it is far more likely ages would lapse into oblivion before men would begin to have either records or monuments.

The priests of Sais declared to Solon their possession of records of an antecedent nationality and civilization in Greece stretching back 8,000 years. But the priests of Sais have gone, and with them the possible treasures of history.

> "Vinere fortes ante Agamemnona
> Multi, sed omnes illacrymabiles
> Urgentur ignotique longa
> Nocte, carent quia vate sacro."

Hindoostan, already then inhabited by a dark race, is claimed to have been invaded by a fair, Persian stock, B.C. 3101. Lepsius dates the age of Menes, the first Egyptian king, at B.C. 3893, or 5,751 years antecedent to the present time. Dr. Prichard thinks the human race may have existed for "*chiliads of years.*" The traditions of the Chinese, the internal evidence furnished by the antiquities of the East, of Peru and Mexico, and of mounds in Scotland, in various parts of North America, and elsewhere, and the tombs, relics, monuments, and inscriptions of the ancient Egyptian cities, point to a very high antiquity of the race. Then let us consider also the probability of what the Saitic priests intimated to Solon, that frequent destructions of man, at least of his monuments, had occurred by successive fire and flood. We are forced, reluctantly, to the conclusion that the pristine head—the primeval phrenology of man—is for the present beyond our reach. The future may bring forward new light on this subject, or so sift and balance the probabilities touching it, as to give us surer ground of opinion. At present, all that we can do is to go to the earliest monuments and skulls, which are tolerably authentic, and ascertain *what man was when he began to leave records of himself*, or at a period so comparatively recent that natural laws have as yet left those records, and perhaps the remains of their authors.

11. The figures of the most ancient human heads known to exist at the present time, *first*, in drawings, and *secondly*, in mummied or accidentally preserved skulls, which we shall hope to present, are mostly taken from that treasury of ancient anthropology—whatever we may say of its doctrines—the "Types of Mankind" of Messrs. Nott, Gliddon, and others. These authors certainly bring forward a strong array of names, high in archæology as well as in general scientific research in favor of the antiquity and the authenticity of the human crania and physiognomies which they have collected. On this point they quote from Baron Alexander von Humboldt the following pointed language:

"The valley of the Nile, which has occupied so distinguished a place in the history of man, yet preserves authentic portraits of kings as far back as the commencement of the fourth dynasty of Manetho. This dynasty, which embraces the constructors of the great pyramids of Ghiza, Chefreu, Cheops, Choufou, and Menkara, *commences more than three thousand four hundred years before Christ*, and twenty-four centuries before the invasion of Peloponnesus by the Heraclides." —*Cosmos, Vol. II.*

This view, sustained by Lepsius and a host of archæologists besides, assigns to even the fourth dynasty of Egyptian kings a period that considerably antedates the "Deluge," and hence necessitates the acceptance of that convulsion as partial instead of general in its extent; although by far the greater probability is that partial or wide-spread deluges, at different periods, have occurred over a large part of the earth's surface.

12. Indeed, in well-authenticated monuments, and in records of early antiquity, Egypt stands by far the first among the countries of the earth. Permanence, patriotism, and pride aptly express this curious feature in the Egyptian national mind; and at the same time these qualities give us the key to the wonderful character of durability stamped in the works of this people, a character which, recognizing its foundation in nature, the "corroding tooth of time" has approved, by so long holding its works inviolate. The Egyptians were evidently a singularly permanent people. Their arms often subdued surrounding nations; but their rulers seldom if ever maintained the empire beyond its original limits about the Nile. They intermixed, after many centuries, with Mongolian and Indo-European or Japetic races, but they neither merged in these, nor yielded more than briefly to their inroads, until at length they were successively mastered by the overwhelming Roman and Saracenic powers. They never lost their nationality of character, although in later periods it underwent a gradual revolution, due to the force of the foreign elements intermixed. They, as fully as any other nation, not excepting Chinese, Jews, Greeks, nor Romans, nor even the English nor Anglo-Americans of to-day, were persuaded of the superior centrality and excellence of their own country, its people, institutions, and all that pertained to it. They had the *instinct of history*, as Professor Lieber would term it, large; and this instinct was not satisfied to be patriotic, but must secure personal remembrance at the same time. In a word, in the Egyptian phrenology, it is evident that love of home and country, love of persistency, or, as we may style it, *aversion to change*, self-love, the instinct of tyranny (dignity, led by base impulses, and unenlightened), and the perceptive capacities of events and forms were enormously developed. This conclusion will, we think, be sustained by an examination of the Egyptian heads which follow.

13. The earliest now authenticated group of human heads is probably that found in a series of painted sculptures on the tomb of Prince Merhet, at Gizeh. Merhet, a copy of whose head appears in fig. 5, was priest of Shufu or Cheops, the builder of the "Great Pyramids," and he is conjectured to have been a son, or at least a relative, of that monarch. This tomb has been transported to Berlin, and built into the Royal Museum. From the inscriptions on the tomb, indicating the

relation which Merhet bore to Cheops, he must have lived during the reign of that monarch; and if so, then in the fourth dynasty of Manetho's Chronicles, 3,400 years before the Christian era, or more than 5,200 years before the present time! If we accept this date, we are carried at one step back to the time of Jared, the grandfather of Methuselah, only 600 years after the date of the creation, as usually received and still 300 years before the death of Adam!

Comment on this remarkable fact is unnecessary. The chronologists are sadly at variance, and we must leave them to wage their own controversies. Meanwhile, until it is disproved, we see no reason for disputing the antiquity thus claimed for the head of Merhet. But if we admit this, what follows? If the Egyptian nation had numbers and leisure sufficient to build the Great Pyramid, this could hardly have been during the lifetime of the world's Adam. If the arts of sculpture and painting were already invented and carried to such perfection as to produce an accurate human portrait, and to paint it, as was probably done, with the deep-red hue which it, as well as all early Egyptian heads, presents, then it is in the highest degree wonderful that the portrait of the world's *first parent*, provided he were then living, has not also been transmitted to us. Mesopotamia was not far from Egypt; and would not the fame of the father of men have called artists among the civilized savages of the Nile, over so moderate a distance, when the *twentieth dilution* of a great man will attract a photographer with his camera as far at the present day? Either, then, in this Egypt, there had been centuries or thousands of years before this an indigenous Adam—a head of a distinct species, the Egyptian—and this view Messrs. Nott and Gliddon in their works sustain; or else the single first pair—the Adam and Eve of all humanity—must have existed ages before the time of the pyramids, and ages before the date assigned to their advent by the received chronology. In previous articles we have shown why we can not adopt the former view. We are for ourselves, therefore, compelled to do what the teachings of geology also demand of us, namely, to enlarge the horizon of humanity, and set back the curtain falling on the morning of time to a date indefinitely anteceding that of the chronology of certain fallible—however faithful—scholars. For, at this early period in Egyptian history, we find not only sculpture, and painting with almost imperishable pigments, but also the use of reed-pens, inks, the papyrus, and a very complete set of hieroglyphics; together with, of course, the very considerable mechanical knowledge and apparatus requisite to the building of the pyramids and the construction and decoration of elaborate temples and tombs.

We quote again from the same authors as before, a paragraph extracted by them from the Rev. John Kenrick's "Ancient Egypt under the Pharaohs." Speaking of the transition from the uncertainty of the earlier history of the country to the monuments remaining to us of the fourth dynasty, he says: "We may congratulate ourselves that we have at length reached the period of undoubted contemporaneous monuments in Egyptian history. The pyramids and the sepulchers near them still remain to assure us that we are not walking in a land of shadows, but among a *powerful and populous nation, far advanced in the arts of life;* and as a people can only progressively attain such a station, the light of historic certainty is reflected back from this era upon the ages which precede it." The writer proceeds to speak of this period as being, at the lowest computation, "five centuries after MENES," the founder of the Egyptian nation; and he considers the hieroglyphic writing and the general condition of the country to have been at this period essentially the same that they were thence onward to the end of the rule of the Pharaohs.

It is proper to add that the more commonly received chronology places Menes at 2,188 years B.C., while they date the origin of hieroglyphics, sculpture, painting, and the pyramids at about 2,100 B.C. This view has been objected to by many among the most learned and faithful scholars, not solely because it conflicts with the records of Egyptian chroniclers, but because it does not allow time enough for the succession in a usually peaceful State of the individual rulers and dynasties claimed for this country; and again, because it does not properly provide for those vast advances of the people in the arts, which completed so many and so prodigious monuments long before the time of the earliest Grecian historians.

14. So much was necessary in the outset, in order that we might know to what extent reliance is to be placed on the antiquity and genuineness of the human memorials about to be presented. Upon the question of their authenticity, the value of these representations depends. They may be the work of hands many centuries later; if so, much of the interest now attaching to them is lost. But when we consider the reverence and fidelity with which the Egyptians preserved everything sacred to religion or consecrated to the perpetuity of national or family history; the known fact that all these vast works were completed in a day of which the earliest Grecian philosophers and historians make no pretensions to knowledge; the internal evidence of hieroglyphic inscriptions; the circumstances of care and scholarly pride with which modern researches have been conducted in places which the apathy of the degenerate Egyptians of the present day had left wholly to be the field of foreign curious or scientific exploration, we can no longer doubt the very high, if not perfect authenticity of these records, nor the truthfulness, in the main, of the dates assigned to them.

15. The accompanying head, fig. 5, is a very remarkable one, for many reasons. If it were only that it is probably one of the group of oldest human heads in existence, that fact alone would make it well worthy of study. But when this study is bestowed upon it, we are mainly struck with its wonderful development, the intelligence and good sense expressed in the features, and the full, advancing forehead, large reasoning and fair moral brain which accompany them. The expression of the face is in a high degree indicative of cultivation—of a life in a very good degree fine, generous, and active, and by no means coarse, sensual, or savage. The face is not inordinately large, nor does the lower jaw show anything of that protruding, prognathous character, into which, with its lack of the higher and predominace of the lower man, it is a well-established fact that certain classes of European peasantry are degenerating even at the present day. The perceptive faculties are evidently good

Fig. 5.—PRINCE MERHET.

and active. There is a suggestion of room enough for the mirthful, ideal, and perfective group. The head-dress, unfortunately, throws doubt on the strength of particular craniological indications, as it does on most heads of this nation; but we can not imagine its purpose or its effect to be to disguise or change the form of the head; and hence the relative size of groups of organs can still be made out. Benevolence is large; Veneration full, but not sharply brought out; Firmness and Self-Esteem full. The shape of head suggests no lack of the self-protective group above and behind the ear. But one of the most marked features is the massiveness of the region of the conservative, patriotic, gregarious, and domestic instincts. When we look at this head, we do not wonder that the Egyptian ruler and priest tasked mind and body, and levied on the resources and the muscle of a realm, to an extent that no other nation, cotemporaneous or following, has approached, in order to preserve their SELFHOOD, their existence and exploits, from oblivion. We cease to wonder that this nation has done in stone what the Latin poet did in verse, erecting for themselves and their mighty men "monuments more durable than brass." Let us note the friendship, the reverence, the intense self-instinct, and the preservative tendencies revealed in a head like that of Merhet, and in many others that may yet be given, and then cease to wonder that *embalming was invented by Egyptians, and by them only of all nations;* or that at an extremely early day hieroglyphic writing, sculpture, and architecture came to such perfection among them; or that pyramids, tombs, obelisks, and sphinxes are peculiarly the gift to mankind of a country which, the early historians declared, was itself "the gift of the Nile." After all, the man himself is the true *antecedent* and *key* to all his works. It is the phrenology, and the spiritual type which organizes and fixes that phrenology, that determines beforehand the history, the activity, and achievements of a nation or of a man. And so Egyptians excelled in the arts of which we have spoken, simply because the preponderating brain-force lay in those regions; because the "ruling passion" which, in Frenchmen, gives us the wonderful gastronomic achievements of a Soyer and the "*Mecanique Celeste*" of a Laplace, and which in Americans gives us

the reaper of a McCormick and the telegraph of a Morse, in the patient, plodding, self-centering Egyptian gives us the "storied urn and animated bust" that, for centuries, rescues a proud hero or an honored friend from the mold and dust of forgetfulness. It is not wholly discreditable to the Egyptian that he studied *tombs* where we study reapers and telegraphs. And yet his activity must appear to us to have been wonderfully perverted and misplaced, in so far as he consumed the life of generations of the native peasantry, or of captives, in heaping together those huge and unnecessary monumental piles, the pyramids.

16. Messrs. Nott and Gliddon depict (in fig. 152 of the work before quoted) a head of the same type—the genuine Nilotic, as they consider it—taken from a tomb and a dynasty dating 1,700 years later than those of the above. They do this to show the permanency of the type; and this is indeed well shown, but rather in the face than in the phrenology. True, in the latter head the massive *upper and middle back-head*—the true Egyptian characteristic—fully remains; and the face has the same special outline and expression. The perceptive range is quite as good; but it is particularly remarkable that the whole forehead is much less advanced in front of the ear, that the reasoning organs are less sharp and full, that Benevolence is greatly depressed, and Veneration still more so, and that, relatively to the face, the whole head is smaller. Let it not be supposed that these characters are over-estimated, or that an inspection of other heads will show that they are not general. They are chiefly remarkable because the fact is quite the reverse. If we shall be able, as we hope to do, hereafter to present other Egyptian heads, of periods from 1,000 to 2,000 years later, it will be seen that there is a distinct and marked falling off in the average intellectual development of later periods; that on the average the forehead retreats and loses depth; that the crania are smaller; and the faces, especially the noses and jaws, larger.

17. But in order, again, to show that the head of Merhet is not an exception to those of his time, we present, in fig. 6, the outline of the head of a *peasant* carved on the wall of a tomb built dur-

Fig. 6.—Head of a Peasant 3,000 Years B.C.

ing the reign of monarchs living 3,000 years B.C. This is from the tomb of Spetkhemka. In this, although the face is, as might be expected, more heavy and coarse, the same general characters of phrenology as those observed in the head of Merhet remain. The forehead has depth, and a fair height and sharpness, and the moral brain is good. The projection of the back-head is not in all equally great.

Of three other heads, not those of servants, found sculptured in the same tomb with that of Merhet, the first and third bear a closer resemblance to the Egyptians of later times; but the second quite sustains the indications afforded by that of the prince himself relative to the high intellectual and moral development of this nation at this extremely early period. Altogether, these sculptures seem to afford unexpected testimony in favor of the idea of the oscillation of nations and types of man, in that the average of the earlier heads furnishes a different and really more complete and elevated standard of man than those of ten or twenty centuries later.

BLACKWOOD AND PHRENOLOGY.

WAS NAPOLEON'S HEAD SMALL?

In *Blackwood's Magazine* for December there is an article entitled "Phrenology in France," in which the writer reviews the recent "Medical Essays" of M. Louis Peisse. The arguments employed by the reviewer, and the quotations he makes from M. Peisse, appeared to us, on their first perusal, as having so little legitimate bearing on the truth of Phrenology that for three months we decided to pay no attention to the subject. But to those whose attention has not been often called to such futile objections, and who consequently have not given the matter, in all its bearings, their consideration, the objections may not seem without weight. Several of our exchanges having noticed the article in *Blackwood*, and some of them appearing puzzled by some of its statements, we have concluded to devote a portion of the present number to the consideration of the cases mentioned.

Like most of the objections raised to Phrenology, the experiments are either unfair, or there is a begging of the question in the argument, joined to a joyous and greedy acceptance of everything which seems to throw doubt, not so much on the truth, as on the *practical availability* of the science. For example, M. Peisse introduces the case of Mangiamele, the Sicilian shepherd boy who manifested great powers of calculation, not having been taught arithmetic, yet, says our reviewer, "M. Peisse shows a depression at that particular spot where the organ of Number (Calculation) is placed, instead of an eminence."

As we have not a cast of this head, we can not, of course, apply our remarks to the absolute developments of the boy, but, for the present, must content ourselves with some general statements. If it be true that this boy had eminence at the location of Number, this does not prove that the organ of Number is not, in fact, located there, but simply that it has not, in this case, shown itself by an *eminence*. It is possible for a large organ of the brain to be surrounded by several of only moderate development, and the large organ thus have room for lateral expansion and crowding of the neighboring organs, without showing itself by an eminence; and although in some instances such developments might prevent the phrenologist from detecting the full strength of the existing faculty, it by no means disturbs the doctrine of an organ in the brain for each mental faculty, nor of the truthfulness of the phrenological location of these organs. Suppose a single organ or class of organs to become preternaturally active, and a neighboring class, or, indeed, all other parts of the brain, to fall into comparative inactivity, it is very clear that the unexercised portion would become smaller, and the exercised part larger, and this part might occupy the room vacated by the retirement of the unused and diminished portion, and no eminence be necessarily visible in the region recently brought into activity. The heart might become larger, and the lungs smaller, with no eminence on the chest over the heart or depression over the lungs. The liver might be enlarged, and the other organs of the abdomen smaller, and give no outward sign. Partial displacement of organs does not necessarily destroy functions; and this is evinced in hunchbacks and in flathead Indians.

Many persons suppose that every large organ must have a "bump" or "eminence" in order to afford a phrenological index of large development, and such persons finding an even head, suppose that none of the organs can be large; when, in fact, the head being large, every organ may be large, and the head not bear a single "eminence." When it is understood that phrenologists claim that the *medulla oblongata* is the focus, or radiating point, of cerebral development, and that organs are large or small in proportion to the distance from that point, this doctrine of the necessity of a special eminence or depression in order to a large or small organ, so much harped upon by the anti-phrenological critics, at once tumbles to the ground. There is not a special eminence on the hind wheel of a wagon nor a depression of any kind on the rim of the forward wheel, although one may be a third larger than the other in every part.

We have known several eminent arithmeticians, and one pre-eminent one, whose organ of Number was spread out and pushed upward and backward upon the region of the temple, apparently crowding the other organs partly out of their natural position; and this has been peculiarly true where the person was precocious, and exercised the faculty much more than any of its neighbors. The location of Number, at the base of the brain, close to the outer angle of the eyebrow, is such that if the organ is much more developed than those of Order, Color, Size, Weight, Form, and Individuality, which organs, when large, tend to give width to the lower and front portions of the brain, and consequently to lengthen the brow, the tendency of the greater development of Number would be to push itself backward and upward. But if the organs above-named were fully or largely developed so as to expand the base of the skull sufficiently to give ample room for Number, it would be able to occupy its normal location, provided, however, that the organs of Constructiveness and Tune should not be very small, thereby inviting Number to fall back from its natural position and rise into their partially unoccupied territory.

Physicians often find malformations and partial displacements of the parts or organs of the physical structure, but we never heard sensible people repudiating the truth of general anatomy and denying the normal location of parts, or ignoring the function of displaced parts on this account. But our cast-iron critics of Phrenology, without the practical experience necessary to make any of these allowances, take the plaster bust which phrenologists have mapped out, and endeavor to reduce every head to a rigid conformity to it,

without any allowance for national or constitutional or accidental variations.

Every practitioner of Phrenology knows that the heads of the different nations vary in a remarkable degree. The African, for example, living in a hot climate where but little work, economy, ingenuity, and energy are necessary to procure a living, has a head flattened at the sides and much elongated backward, showing the organs of Constructiveness, Acquisitiveness, Secretiveness, Destructiveness, and Combativeness to be comparatively small; while the social organs are large. This development is in harmony with his character. The German, on the contrary, has a round head, quite unlike that of the African, and differs with him in character quite as much as in the form of his head. He is ingenious, economical, cautious, and industrious. The practical phrenologist recognizes these national peculiarities, while the unphrenological critic would condemn the whole subject, because the plaster head does not furnish a solution of all peculiarities of development. It is evident that a single organ in the side head of the African might be larger than usual and not stand out in an "eminence," because there is so much waste room there that a single organ can extend itself laterally, and is not obliged to made a hill in the valley to obtain room sufficient to gain the requisite size to do its work. But let all the organs be equally developed, and each will maintain its place and make an outward development according to its size.

One method of proving the location of the phrenological organs is by means of injuries. Multitudes of well-authenticated cases of local injury are on record, from which the function of a particular portion of the brain has been proved beyond a doubt.

We claim that M. Peisse has not made out his case against the fundamental truth of Phrenology. We have no doubt the boy Mangiamele had a large organ of Number, or Calculation, and that from some of the causes which we have stated, it did not appear to him large. Some medical writers attempt to disprove Phrenology because they find what they are pleased to call exceptions, or instances which their limited knowledge of the science does not enable them to explain; and because, also, they say Phrenology is not an *exact* science like mathematics. Of all men, those of the medical profession should be the very last to urge such objections; for theirs is a *Science*, above all others, which must make allowance for disturbing causes, malformations, and abnormal actions continually. Scarcely two persons are so near alike in temperament, habit, and condition that precisely the same symptoms will appear with a given kind and degree of disease, or any two in a million who, with similar symptoms, will require the same treatment; still they call their profession a science, and they have the effrontery to assert that nothing deserves the name of science (especially Phrenology), unless it can, in all cases, demonstrate its claims to a mathematical exactness; and magazine writers have not the requisite information or fairness to prevent them from servilely following in their train, and becoming the echo of such spleen and stupidity.

We come now to the remarks on the cast of the head of Napoleon, and these are so palpably erroneous that we can not permit them to pass unrefuted. We quote from the review:

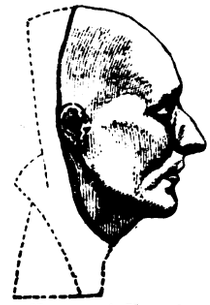
Let us, with M. Peisse, examine the case presented by Napoleon. A few hours after his death, a cast of Napoleon's face, and the anterior half of the skull, was taken by Dr. Antomarchi. It is not often that the actual skull (a cast of the head) is thus offered to our inspection. In Napoleon's cast it is greatly to be regretted that we have only half the skull (head). That half comprises, indeed, the greater number of the phrenological organs, and all those of the higher faculties, but it is a pity that we have no trace of the others But what says the cast? The head is decidedly a small one. It is, however, extremely well proportioned. Its circumference being 20 inches 10 lines (French measurement), its dimension is by no means remarkable. M. Peisse has not explained how he arrived at this precise measurement in the absence of the back part of the skull; but, from the specific size given, we presume he had some positive data.

This is a most extraordinary statement. How very easy of belief is this writer in *Blackwood*, first telling us that only half the head was taken, and then adding that since M. Peisse gives the *specific* size, he "*presumes* he had some *positive* data." How did he get it, pray? In his eagerness to disprove Phrenology has he the audacity to guess at half of a head of such a man as Napoleon, all the other busts and portraits of whom he pronounces incorrect, and give us *precise* measurements to the twelfth of an inch? He appears to have done so, yet *Blackwood* accepts this loose evidence against the science on bare presumption, and that the most fallacious, as we shall show.

Now we have a word to say about this cast and those measurements. The "French measurement" given in M. Peisse's essays, as quoted in *Blackwood*, it is proper to remark, does not correspond with the English and American inch. The French inch is composed of 12 lines, and is equal to $1\frac{1}{13}$ inch English. So that 20 inches 10 lines French, which is given for the half-guessed-at size of Napoleon's cast, is equal to $22\frac{1}{10}$ inches English. If this were the true measurement it utterly refutes M. Peisse's idea of a "decidedly *small head*." Twenty-two English inches in circumference is not only not small, but it is considerably above the average. The writer of this has measured, professionally, and recorded more than a hundred thousand heads, and any one curious to examine these records with the ages of the persons, their sex and occupation, can have the privilege at ten minutes' notice. We are prepared, therefore, to assert, and to prove, *positively*, without "*presuming*," that, by M. Peisse's own showing, Napoleon's head was of full size at least. But this is not all. We have in our collection this same cast of the head of Napoleon, taken "a few hours after his death, by Dr. Antomarchi," and we will now proceed to give some measurements which any friend or foe to Phrenology may verify at his leisure, upon the cast itself, in our cabinet.

This cast, fortunately, covers something more than half of the head. It goes back of the ears, and shows their outline and their opening distinctly. The opening of the ear is the central point of development, and from this phrenologists predicate their measurements.

That the reader may see how this wonderful cast looks, we give an engraving of it, which was photographed on wood by the new daguerreotype process, directly from the cast itself. If this does not show a long and massive anterior lobe of brain, then our constant study and measurement of heads for a quarter of a century has been of no avail.



NAPOLEON'S HEAD.*

From one opening of the ear in this cast to the other, over Individuality, it measures 14¼ inches; over Causality 14¾ inches; over the top, at Veneration, 15¼.

Now any man who calls these measurements small, knows less of the size of heads than one should do who attempts to write or speak on the subject. By filling the back-head so as to make it appear of the right shape for a well-balanced head, the measurement is 23½ inches, and this, doubtless, was less than the real size of his head. The intellectual region, at all events, was large, as any one may ascertain by measuring the foreheads of eminent persons having large heads, as we will now show by some corresponding measurements. Let it be borne in mind that our cabinet collection is composed chiefly of real skulls and CASTS, not models or imaginary heads. To these we appeal, and proudly abide the result.

Names of heads examined.	Size from ear to ear over Individuality.	From ear to ear over Firmness.	Size around the head.
Lord Wellington.....	13¾	Back of cast broken	—
Lord Eldon.....	13	14¼	23½
Wm. Pitt.....	13	Front only taken	—
Wm. Cobbett, M.P.....	13¼	15	23½
Rev. Dr. Chalmers.....	14¼	Front only taken	—
Henry Clay.....	13¼	14¼	23¼
John Quincy Adams.....	13	15	23½
Rev. Mr. Landis.....	13½	—	24
Canova.....	13½	Front only taken	—
Thomas H. Benton.....	13½	15	23
Cast of Burns' skull, allowing 1 inch for scalp	12½ / 13½	14 / 15	22½ / 23½
Average about.....	13½	15	23½
Napoleon's cast.....	14¼	15½ Estimated from cast.	23½

Having thus shown the size of head and of the anterior development of some of the most eminent cotemporaries of Napoleon, and finding no head in the entire list measuring as much as his from ear to ear around the lower part of the forehead, except the single one of that intellectual giant Rev. Dr. Chalmers, and since the average measurement of the eleven cases given is 13½ inches, and that of Napoleon is 14¼ inches, and since the average circumference of all the full heads is 23½ inches, it becomes a proper inquiry how large would Napoleon's head have been, taking as a basis the comparative size of his head forward of the ears. The question is simply this. If the heads of those men we have given average 13½ inches from ear to ear, around the forehead, and 23½ inches in circumference, how many inches in

* The shaded line just behind the ear shows the original cast by Dr. Antomarchi; the dotted outline of the pedestal and back shows what has been added to balance and strengthen the cast and make it stand up.

This cast, taken after death, shows the emaciated face of the great Napoleon, with its sunken eye, fallen cheek, open mouth, and deathly expression.

circumference should Napoleon's head be, the forehead of which measures 14¼ inches? The solution of this plain problem gives 25 inches as the circumference. We do not claim that Napoleon's head was really 25 inches in circumference, because we believe his frontal or intellectual development was relatively larger than his social or back-head group of organs as compared with heads generally. Napoleon was not a large man, but nearly every one of the persons whose casts we have measured above, was large, and not a few of them were very large in body. The Rev. Mr. Landis, the circumference of whose head, by a careful measurement, from life, shows 13½ and 24¾ inches, weighs to-day 245 lbs. Napoleon's weight at twenty-three was only 120 lbs., and he was known as "the little corporal," though later in life he became fat, and his weight was greatly increased. But Napoleon, as all confess, had a remarkably dense and fine-grained organization, and his intensity of thought and tenacity of endurance were almost without parallel; all showing that the quality of his constitution, the brain included, was far superior to that of most men.

In the table before us, we have introduced a galaxy of eminent and pre-eminent persons, the superior quality of whose organizations none will dispute, and we find Napoleon, whose head M. Peisse, backed by *Blackwood*, attempts to palm off upon the world as "decidedly small," standing forth the peer of Chalmers, and the superior of all the rest, in the intellectual development of his brain. The "Iron Duke," who contested with him the field of Waterloo, has a forehead 13¾ inches, half an inch less than that of Napoleon, which measured 14¼. Lord Eldon, "Lord High Chancellor of England," and a man of distinguished ability, had 13 inches; Wm. Pitt, Earl of Chatham, the orator and statesman, had 13; William Cobbett, distinguished as a British statesman, had 13¼; Canova, the sculptor, 13½; Robert Burns, a cast of whose *naked skull* shows 12½ in forehead, and 22½ circumference; by adding an inch for scalp, we have 13½, and 23½, which were doubtless very near the true dimensions. Then we have the gallant orator and statesman, Henry Clay, with 13¼; ex-President Adams, "the old man eloquent," the scholar and statesman of whom any age and country might be proud, with 13, and 22½ inches; Col. Benton, for thirty years in the United States Senate, now at seventy-five years of age condensing the debates of Congress, and turning out able volumes one after another, has 13½.

Every one of these heads is above the usual size, and most of them belong to the largest class; yet every one of them is smaller in the forehead than Napoleon's. We find, however, in the review before us, this remarkable passage: "Out of every ten skulls, half of them would present a circumference 20 to 21 inches," French measurement, that is to say, as large as Napoleon's, which M. Peisse makes to be $22\frac{1}{10}$ inches, English measurement. The statement that one half the heads are $22\frac{1}{10}$ inches in circumference is by no means true, and among the people of France it is *signally* untrue. The review remarks that "Dr. Imbert published a reply to M. Peisse's article, but appears to have directed his attacks entirely to different questions, leaving that of size untouched."

The question of size is now, at least, before the reader, and we have shown conclusively that the investigation vindicates Napoleon and the science of Phrenology most triumphantly. We shall not trouble the reader with a reply to M. Peisse's cavils about average and small organs in Napoleon's forehead. He having so signally failed of being correct in his statements of the real or relative size of the cast, all he says of the particular parts is not worthy of confidence or attention.

We have, however, a most excellent witness to introduce, whose testimony, relative to the size of the living Napoleon's head, we regard as a clincher. This witness is no less a personage than Col. Lehmanowski, just now deceased, aged 88, who entered the military school soon after Bonaparte, was with him in all his wars, fought over one hundred battles under him, that of Waterloo included, was a confidential adviser with the Emperor, and always near his person. We made the acquaintance of Col. L. some twenty years ago, and in 1843 he spent half his time in our office for weeks together, and, as everybody knows, he was lecturing through this country on the character and habits of Napoleon and Josephine. In regard to the size of his head Col. L. told us that by mistake he once put on Napoleon's hat, and that it was entirely too large for him; and the Colonel's head, we know by actual and critical measurement to be 23½ inches. Napoleon's head, therefore, must have reached nearly or quite 24 inches where the hat fitted to it. This fact was communicated to us by Col. Lehmanowski himself in 1843, and published by us in the *Phrenological Almanac* for 1846, before any question had been raised relative to the large size of Napoleon's head. We have now demonstrated, by the cast, the large size of his forehead, and by comparing this with that of other heads known to be large, we have shown that the back-head of Napoleon must have been large also; and by the positive testimony of his old bosom friend, we have proved the fact that his whole head was more than 23½ inches. What more can friends desire? What more can critics demand?

HENRY C. CAREY.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

Henry C. Carey, whose recent "Letters to the President of the United States," on the subject of Political Economy, have attracted so widely the attention of statesmen and other thinkers, was born in Philadelphia, in Dec., 1793. His father, Matthew Carey, whose name is an ornament to his country's history, was also a writer on Political Economy, and, in this field of inquiry, attained considerable eminence, though his strength lay not so much in new ideas as in carrying out and elucidating the views of other men. Henry, on the contrary, is an originator, and nearly the first writer who has thrown any new light on this abstruse science since the commencement of the present century. His father, being a practical man, taught his children to take practical views of everything; and this he could do himself with great ease on account of the mathematical structure and tendencies of his mind.

At an early age Henry was employed in his father's bookstore, then one of the largest in the country, and here he was thoroughly taught and carefully trained in all the *minutiæ* of the business. The first law of that establishment was method, and the second was the harmony and co-operation of every department toward one great end. Here he grew up thoughtful, methodical, and diligent. It was, perhaps, the best school in which to develop and strengthen the great traits of his mind, for it brought him continually in contact with the practical operations of life, and led him to those habits of observation and comparison which are so remarkably manifest in all the products of his pen.

In 1814, when twenty-one years of age, he left his father's bookstore, and, after seven years of study and travel, he became a partner in the business in 1821, long and well known as the house of "Carey, Lea, and Carey," and "Carey and Lea." During the seven or eight years which he was a member of this house he found opportunity to store his mind with much statistical and general information which has been of great use to him in the investigations he had already resolved to make in the great framework of trade, commerce, and society. During this period he was married to Miss Leslie, sister of Leslie the painter, and spent a year abroad, studying the institutions of Europe and the civilization of the countries which he visited.

Mr. Carey published, in 1836, his first book, which was entitled "An Essay on the Rates of Wages." This was, however, greatly enlarged, and, in 1840, published in three volumes, under the titles of "Principles of Political Economy." These works required an extensive and patient examination of the various systems of law and of labor prevailing in civilized society, and, accordingly, every proposition of Mr. Carey's works will be found fortified and illustrated with a host of facts which he has gathered from every corner of the world, and every department of human labor.

Mr. Carey's work entitled "Past and Present" was published in 1848, and the field surveyed in this book is broader than that of any work of our time, for it embraces in its discussions every interest of man. The ideas are new and bold, and whether true or not, they are original. It is the first time that any system of Political Economy has been offered to the world based on a great law of nature. This work attracted much attention both at home and in Europe, and it was translated and published in several languages. He also published "Harmony of Interests," in which he treats of the reciprocity of trade; and two works on the currency—the larger of which treats of the "credit system of France, England, and the United States."

A most difficult and thankless task has been undertaken by Mr. Carey, the very first step of which is, as a matter of course, a quarrel with the cupidity of our people. The only acceptable conditions of trade to the great majority of those who are engaged in it, are sudden and large returns, and when the true political economist treats of the great ultimates of life; of the duties, laws, and high responsibilities of trade and commerce, he can hardly expect to catch the ear of men who listen only to the clink of the almighty dollar. The recent letters of Mr. Carey to the President will do much to enlighten our countrymen on the subjects to which they are devoted, and will, doubtless, add no little to the author's reputation. If they shall have the effect to call his published

PORTRAIT OF HENRY C. CAREY.

works into notice, and cause them to be widely read, the public will be benefited in a sounder, safer, and more honorable and useful system of industry, trade, and commerce. To the "Illustrated American Biography" we are indebted for the most of the foregoing facts.

PHRENOLOGICAL CHARACTER.

The organization of Henry C. Carey is distinguished for those fine and susceptible qualities which minister to elevated sentiments, taste, polish, and scholarship. There is nothing coarse, gross, and severe indicated by the quality of his organization. The brain is large, indicating a predominance of the mental temperament; and the classic delicacy of his features shows a fineness of texture highly favorable to the manifestation of mind, refinement of character, and elevation of moral feelings. His face evinces almost feminine delicacy, while its breadth and masculine outline, joined to his large and expanded forehead, indicate a high order of manliness, as well as strength and dignity of mind. The vital temperament is also fully represented, showing a good support for the bodily constitution and the brain. His is a thoughtful, scholarly organization, inclined much to investigations and classification of facts, as will be seen by the large developments across the brows, and especially by great fullness through the center of the forehead. Eventuality, Locality, Time, and Order appear largely developed, while Form, Size, Language, and Calculation are equally conspicuous. Few persons have as much power to collect and retain knowledge as he. His organs of reasoning intellect show, also, much originality and power to understand fundamental laws and remote consequences.

He has large Ideality and Spirituality, the faculties which, joined to such an intellect and temperament, give a tendency to anticipate the future, to look into the mysteries, and to expand the mind into untrodden regions of thought.

The moral organs appear to be strongly developed; while his prudence is conspicuously manifested. His head is rather wide and full at the sides, showing large Cautiousness, Ideality, and Constructiveness, with full Acquisitiveness and Secretiveness; and the organs which give propelling power are quite strong.

His social affections, especially his love for children, and his interest in the rising and future generations, are very strong. He enjoys female society, but his affections are delicate, and his manners agreeable to cultivated ladies. He has, also, large Benevolence, rendering his mind philanthropic in respect not only to friends and acquaintances, but to the human race; and this is evinced, in a great degree, in his former self-sacrifices in writing and publishing books calculated less to benefit the author and publisher than to be of ultimate value to mankind.

He is a man having a high sense of honor; is keenly susceptible to the good opinion of his acquaintances, and of society generally, and is winning, but comparatively modest in manner. If he had been trained in a different way, and his fortune cast among soldiers, explorers, and pioneers, he would have shown great breadth and vigor of mind in planning enterprises and driving them through to successful termination. He would have made a most excellent planning engineer or commanding general, from the fact that he has such an accurate knowledge of details, and such a comprehensive intellect as could see into the future and anticipate all the combinations and workings of principles, and all circumstances incident to practical details. He has pre-eminently the head of the statesman or scholar or the man of business. He would have excelled as a financier or banker, as a merchant or manufacturer, as a lawyer and public speaker, in medical science, or in the exact sciences. It is seldom that we find a temperament and brain so harmoniously developed, and so many of the qualities requisite to profound thought, clearness of mind, and elevation of sentiment.

FREEMAN HUNT.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

[THE following character was dictated from the head of Mr. Hunt ten years ago, while he was totally unknown to the examiner.]

The head of this gentleman is unusually large, being twenty-three and a half inches in circumference—an inch more than is usual for his size of body. His temperaments are favorably balanced and strongly marked with a predominance of the vital. He has every indication of a strong constitution and a well-fortified body and mind, with a full degree of mental and physical activity, and a strong amount of propelling executive power. Taking all these favorable qualifications into consideration, with no important impediment or antagonizing influences, we infer that he has a mind of more than common power and scope of action. His phrenological developments are strongly marked, yet none are small, giving him more of a positive than a negative character, which, together with his large brain and favorable temperament, indicate a strong, sound, comprehensive, and available mind. His balance of power is most favorable to the accomplishment of important results. His social feelings are all strong and active. He is friendly, warm-hearted, fond of children, and well qualified to enjoy domestic life. These elements of his nature, modified by his moral feelings and guided by his intellect, make him much interested in the welfare, happiness, and improvement of the social condition of mankind, the proper education of children, and elevation of woman. He is capable of strong attachments to home, and dislikes change of residence. Variety to him is the spice of life, yet Firmness is too large to allow him to be unstable or fickle-minded, but he may at times be impatient and restless.

He has large Combativeness, Destructiveness, and Appetite, giving him the animal instinct of self-defense, power of resistance, energy, and executiveness of character, with a full capacity to supply all the wants of the body. Acquisitiveness and Secretiveness are not large. Their influence in character is not extensive. He has a good combination of organs to acquire property, but less of the talent to lay up; he regards it as a means rather than as an end of enjoyment; is candid, frank, open-hearted, and truthful, in a pre-eminent degree; is no hypocrite, yet has a full degree of caution and forethought. This quality, joined with his intellect, makes him shrewd, and gives worldly wisdom; yet his caution is none too active to regulate the excited influences of Combativeness and Destructiveness. Appro-

bativeness is full, Self-Esteem large, and Firmness very large—giving him a fair amount of affability and ambition, a high degree of independence, sense of liberty, love of influence, self-reliance, power of will, ability and disposition to assume responsibilities, perseverance and firmness of purpose, joined with a self-determining and directing mind. He relies upon his own resources, acts from choice and will, rather than from impulse, is generally prudent, and can control his conduct and actions better than most persons. He is not easily discouraged, but carries a steady and firm hand. He adheres rigidly to what he thinks is right, and does not compromise principle or truth for the sake of popularity, wealth, or friendship. He has moral courage, and more than common presence of mind, arising from large Conscientiousness, Firmness, Combativeness, and Destructiveness, with strong reasoning powers. His hopes are fair, but not deceiving—takes life pretty much as it comes.

On religious subjects, his reason guides his feelings. He takes liberal views of things, and is prepared to admit whatever harmonizes with his reason or perception—is more sincere than enthusiastic. His religious views would be the more likely to be the result of his own investigations than the majority of men, because he has a higher degree of reason and self-reliance than veneration for others. He might be regarded by some as skeptical, because he dare think for himself and differ from others. Politically speaking, his love of country does not arise from desire of office, or for loaves and fishes; but his philanthropy extends to the whole human family, securing to every human being all his natural rights, and the privilege to make the most of his capacities and labors. He has the working kind of benevolence—is always ready to render service with his own hands. His sympathies are also strong, and his feelings easily moved by objects of distress. It is difficult for him to resist solicitations made to his sympathies. He has a strong desire to be constantly employed to improve, advance, and perfect himself over others—his labors over theirs. He has full Constructiveness, Ideality, Sublimity, and Imitation, and, if cultivated, their influence would be distinctly manifested, yet not controlling. He has a good degree of ingenuity and practical talent. He has imagination and sense of perfection, but more judgment and reason. His ways and manners are peculiar to himself. He has a very active sense of the witty, and enjoys a good joke much. His propensity to joke is almost a besetting sin.

His intellectual faculties are uncommonly marked and distinctly developed. He has both the philosophizing and scientific cast of mind, but he should be distinguished for his practical, knowing, scientific, available talents. His perceptive faculties are all large, or full, excepting Language and Time, and actively developed, giving him an uncommon ability to acquire knowledge, collect information, facts, and statistics. He is both general and minute in observations, and receives earliest impressions of external objects by sight, and has an uncommonly accurate perception of the quality, relation, and affinity of things. He has a very active sense of arrangement, system, method, order, neatness, and harmonious style; every thing must not only be in its place, but properly adapted to other things and associations. He has a nice sense of proportions and the fitness of things; also the location, relative position, and geographical appearance of things. He readily understands the relation and adaptation of numbers, and with common practice might excel in mathematics. His memory of all important phenomena is good. He is not fluent or copious in speech—can write much better. He not only knows how to collect facts, but has a superior talent to classify and apply them. His superior reason gives him judgment as to their value, and Order and Comparison put them in their right places. He has strong powers of analysis and illustration; is youthful and agreeable in his manners; readily makes friends, and has a strong intuitive perception of motives, character, truth, and final results. He is a great lover and admirer of the simplest truths of nature, and delights to study nature and her language.

THE LATE FREEMAN HUNT, OF "THE MERCHANT'S MAGAZINE."

BIOGRAPHY.

This self-made man, who, through his popular magazine, was known in every part of the world, died at his residence in Brooklyn, on the evening of March 2d. From the *Phrenological Journal* of 1848 we collate the following sketch:

He was born at Quincy, Massachusetts, on the 21st March, 1804 He was one of those who attached no great importance to ancestors, only as far as their virtues may be inherited. On his mother's side were the Turners and Stetsons, who left England in 1630, and settled at Scituate, near Plymouth, Mass. His father, Nathan Hunt, was a shipmaster, and died when Freeman was only three years of age. The latter chose the printing business, as being the best adapted to the acquisition of knowledge that his circumstances and those of his mother would permit. During his minority he had a good deal of up-hill work to perform, and experienced not a little of the rough-and-tumble of the world. But his motto has always been, "Hope on, hope ever," and he attained enough of this world's goods to make him and his comfortable.

"Our grave subject," says the New York *Mirror*, some years since, "is a cross between an author and a merchant; he has not the carelessness of the one, nor the primness of the other, but a mixture of the two. He is the proprietor and editor of that unique periodical, the *Merchant's Magazine*. Like Yankee boys in general, he picked up the rudiments of an English education at a country school, and was apprenticed to a Boston printer at the age of fourteen. A printer's trade, a common education, and a brave heart have formed the sole capital of many a great man in the republic Freeman Hunt, like Benjamin Franklin, and many a true man besides, with these simple elements, has achieved a position in the world, and kept his honor untarnished. No sooner was he out of his time than he began to think of

establishing himself in the world; and instead of squatting upon the soil which another man cleared, with the true energy of a Yankee he looked about him for a spot which no man had yet improved—a no man's land, that he could claim for his own by right of prior discovery. At that time there was not one of these now numerous publications called ladies' magazines; and with a true insight into the wants of the reading public, he projected a periodical similar to the *Lady's Book*, which we believe he called the *Ladies' Magazine*. Mrs Sarah J. Hale was just attracting notice by her first novel, and Mr. Hunt purchased the use of her name as editress. The magazine succeeded, but did not satisfy the ambition of the proprietor. He sold out, and began the republication of the *Penny Magazine*, which reached a sale of 5,000 numbers in a year after its commencement. This work he soon abandoned, and the Bewick Company being got up by an association of authors, artists, printers, and bookbinders, whose object was the publication of their own works, he took charge of it. Mr. Hunt was the managing director, and displayed wonderful talents at financiering; for, as the association had nothing but talents and genius, it required no ordinary degree of skill to exchange their products for grosser materials, without which they could do nothing.

"While in the management of this company, he projected the *American Magazine of Useful and Entertaining Knowledge*, and conducted its editorial department while he remained with the company, which was dissolved soon after he left it He then got up two volumes of 'American Anecdotes,' which were highly successful, and have formed a magazine of wealth for succeeding bookmakers; then, the *American Pulpit*, an Episcopalian periodical In 1831, he removed to New York, and established a weekly newspaper called *The Traveler*. In 1834, he published a 'Comprehensive Atlas,' which was very successful. Afterward he wrote letters to some of the Boston papers and published a popular work called 'Letters about the Hudson,' which passed through three editions. His next enterprise was the *Merchant's Magazine*, a work entirely original in its plan, and which was successful from its start. By his tact, good management, and industry he has built up a work on a plan which is so obviously right now, that people wonder it was never done before.

"The success of Mr. Hunt is a remarkable instance of what may be accomplished by patient perseverance and honorable conduct; and his example should serve to stimulate the exertions of the thousands of young men who are daily launched upon the world to seek their fortunes, with no other capital than their strong arms and honest hearts We believe that Mr. Hunt has never taken an active part in partisan politics; he has, however, been a firm and consistent advocate of free trade since the commencement of his magazine, and is one of the few sound writers on political economy which this country has produced."

Mr Willis has made him the subject of comment. He says: "Hunt has been glorified in the Hong-Kong *Gazette*—is regularly complimented by the English mercantile authorities—has every bank in the world for an eager subscriber, every consul, every ship-owner, and navigator—is filed away as authority in every library, and thought of in half of the countries of the world as early as No. 3 in their enumeration of distinguished Americans.

"The *Merchant's Magazine*, though a prodigy of perseverance and industry is not an accidental development of Hunt's energies. He has always been singularly sagacious and original in devising new works and good ones. He was the founder of the first *Ladies' Magazine*; he started the *American Magazine of Useful and Entertaining Knowledge*; compiled the best known collection of American Anecdotes; and is an indefatigable writer—the author, among other things, of 'Letters About the Hudson,' and a series of 'Anecdotes and Sketches Illustrative of Female Character.'

"Hunt was a play-fellow of ours," says Mr. Willis, "in round-jacket days, and we have always looked at him with a reminiscent interest. His luminous, eager eyes, as he goes along the street, eagerly bent on his errand, would impress any observer with an idea of his genius and determination, and we think it quite time his earnest head was in the engraver's hand, and his daily passing by a mark for the DIGITO MONSTRARI. Few more worthy or more valuable citizens are among us."

He was about five feet eight inches in height, well proportioned; complexion light florid; forehead capacious; chin massive and projecting, indicative of that energy which is, in fact, the chief point of his character; hair light brown, very fine, of a web-like texture, worn long, and floating about his face; eyes of wonderful brilliancy and intensity of expression; the whole countenance beaming with sensibility and intelligence.

Mr. Hunt was thrice married. His first wife lived but ten months after marriage. Four children were born of the second marriage, three of whom are deceased—the eldest, John Frederick S Hunt, about a year since. A daughter of fifteen years is the only one of the four living. His third wife, who survives him, is the daughter of the Hon. Wm. Parmenter, of East Cambridge, Mass. A son is the only issue of his third marriage.

HOPE.

[From the German of Schiller.]

BY ELLA FARMAN.

How much the man doth speak and dream
About the coming Better Times;
Toward a goal that golden seems
He looks, he hastens, and he climbs.
The world grows old and groweth young again,
But still he hopes a Better Time will reign.

Hope leads him all his life, forsooth;
She flutters round the gleeful boy;
Her magic light allures the youth;
With Age she will not buried be.
If in the grave man ends his weary race,
Hope doth remove him from that resting-place.

She is no wheedling, vain Conceit,
Begot in brains of fools forlorn;
Within the heart she loudly cries,
To something better we are born.
And that which inner voices do foretell,
Doth not deceive the soul that trusts so well.

THE BIBLE AS A SCHOOL-BOOK.

J. C. H., Ohio.—Is the Bible, including the New Testament, the best reading-book for learners at school?

Answer.—As you desire a special answer to this question, with our reasons, we give them with all frankness. There are, doubtless, books prepared for the purpose, better adapted to teach the young the art of reading with grace and ease, than is the Bible when it is taken by course. Moreover, there is properly a reverence for the Bible which induces many youths to adopt (on account of that feeling in themselves, and influenced by hearing their parents read it under the same feeling) a kind of monotone, which is fatal to a good style of reading. This, too, is heard in the pulpit as well as at the fireside. We seldom hear persons read the Scriptures as well as they read other books. Much of the Old Testament is purely historical and chronological, and not so interesting to children as to inspire them with that animation necessary for the best effects in the matter of teaching them to read. But out of the Old and New Testaments, selections could easily be made, sufficient to constitute a large reading-book, which for clearness of diction, energy of expression, loftiness of style, purity of moral sentiment, dignity of argument, felicity of illustration, pungency of reproof, power, and pathos, would stand without a rival.

What is more thrilling and pathetic than the story of Joseph? what more tender than the writings of John, or the Sermon on the Mount? what clearer logic than that of Paul? what higher lesson of duty than the history of the "Good Samaritan," or that of the widow's two mites?" Where can be found such "rapt seraphic fire" as gleams from the poetry of David and Isaiah. For patience and fortitude, for courage and heroism, for integrity and disinterestedness, for joy and moral majesty, the characters of the Bible may be put forth and safely challenge any single age to show us their peer or parallel.

We think teachers, parents, and ministers should guard against a droning monotony in the reading of the Bible, and teach children to read it with spirit, and in accordance with its meaning; and then, no better reading lessons can be found than those so amply abounding in the Bible; besides, no one should be considered educated for any position without an extended acquaintance with this book. There is not a duty or an aspiration, a sympathy, a hope or a fear, a folly, a meanness or a sin, that is not portrayed in a style that can not easily be forgotten. We think, therefore, that it can be used with profit as a school reading-book, though others should also be used. Once a day the Bible should be used, without sectarian leaning or partisan commentary; once a day good newspapers or magazines; again, selections from history and poetry; books on behavior, correspondence, business, and in short on all the leading ideas and incidents with which the young need to be familiar, as they come to engage in active, practical life.

We remember the reading-books in vogue when we were learning to read. They consisted of selections from the best English and American writers—Addison, Blair, Johnson, Webster, and others. These essays and orations were on pro-

found and abstract subjects, better adapted for comprehension by ripe scholars, "grave and reverend seniors," than by children. They fired quite above our heads, and it was not till years after that we understood them. In the main, books for learners should be simple in style, for if they are deep, majestic, and heavy, the pupil never becomes interested, and of course fails to become an easy and spirited reader. If the Bible be used, judicious selections should be made, and this is true of any work in the language not specially designed and properly adapted to class-reading in schools.

VENERATION AND ITS ADAPTATION

There appears to be a difference of opinion among men, and even among phrenologists, upon the true function of the faculty of Veneration; and also a great want of knowledge among mankind generally, respecting their *practical duties*, as inferred from the natural endowment of the faculty and its adaptation to the institutions of nature.

But most phrenologists, I think, agree that Veneration adapts mankind to the Deity, and prompts the belief and conviction in the mind of the existence of an overruling Power; yet I have seen those who deny this position, and claim that through the intellect alone we are enabled to obtain evidences of the existence of a Supreme Being; and that there is no race of people on earth that believe in a God from the spontaneous promptings of the feelings, but that all races who entertain this belief, that have not sufficient intellectual capacity to produce said impressions by observation or reflection, have received them from the more learned. But this I hold to be an unfounded assertion—one that would require many well-authenticated facts to substantiate it, and, I think, is not confirmed by the teachings of history, for we have no reliable evidence that the many heathen tribes that enjoy the belief in an overruling Power, ever learned it from any enlightened race.

The American Indians afford an excellent example of the doctrine under consideration, with their strong feelings of reverence for the "Great Spirit," as they term it—an idea which it is evident they were never taught, but which is the result of a large endowment of the organ of Veneration, prompting this belief; for they are a race governed, probably, as much by the impulses of their nature, independent of education by means of revelation or otherwise, as any other in the world. And the fact that the organ of Veneration is almost universally large in the Indian head, affords abundant proof of the position that the faculty of Veneration produces, spontaneously, in the mind the belief in a God.

The infidel is almost invariably found wanting in the development of this organ, while the ardent believer and zealous worshiper of God will be found to possess a large organ. Why this coincidence between the head and character of these different individuals, the Indian included, if there is no truth in the position? If, then, this doctrine of man's adaption to the Deity be conceded, which I think it must be, the practical deductions or conclusions drawn therefrom become matter of no little importance; or, in other words, the true function of Veneration in a practical sense, involving man's duties to the Supreme Being, is a matter well worthy of calm consideration.

Is the observing of the forms and ceremonies of religion, which is yet a prevalent custom in this Christian land, the legitimate manifestation of the organ in question? I judge not. For while I recognize the duty and obligation of man to the Deity as practical, as are all his duties to his fellow-men and himself, I can see nothing in the nature of the mind sanctioning such manifestations as the exclusive functions of Veneration, and consequently but little good, *comparatively*, resulting therefrom.

But Phrenology teaches that there is a perfect adaptation of mankind to surrounding nature, or that every faculty of the mind is adapted to some object or principle in the universe, as a means of its gratification and exercise.

For instance, the Perceptive faculties of the intellect adapt man to all the individual objects of the physical world; together with their form, size, color, number, etc.; Benevolence, to the miseries and sufferings of humanity, prompting a desire for their relief; Spirituality, to the "spirit-world," prompting a belief in an existence hereafter, and the reality of the unseen; and Hope adapts man to the future, giving anticipations of "a good time coming," and joined with Spirituality gives a firm confidence and reliance, that enjoyment and blessings will flow from the observance of the principles or laws of nature, whether they are moral or physical, and that happiness will invariably result from doing good; while Veneration adapts man to the Deity, but in its practical sense, to His method of governing the universe of mind and matter, which is through the unchangeable laws of nature. This, then, I claim to be the practical function of the faculty of Veneration, the observance of the laws that govern our constitutions. For when we view the broad expanse of nature, in all her varied and beautiful departments, including the mental, moral, and physical, we perceive that all are governed by general, unchangeable, and perfect laws, and that man is adapted to at least a portion of them; that the present and future health and happiness of all mankind depend upon their observance and obedience to them; and that the sufferings and miseries of the world, whether mental or physical, in the form of disease or otherwise, are the legitimate consequences of the violation or non-observance of them; it is sufficient evidence to my mind, that Veneration should be exercised in revering and obeying these natural laws as the institutions of God, or the means employed by Him to manifest his power and goodness to man, and to govern the world. Thus we have an illustration of the practical office of the organ under consideration, far superior to that of revering the creeds and doctrines of man, and especially those originated in the days of ignorance, when compared with the present. Man, therefore, can not, in my opinion, manifest a pure and enlightened reverence to God, unless he have at all times a due regard for the laws that govern his being, without exclusiveness, that is, with equal respect and obedience to the physical and organic as to the moral laws.

But the objector to this doctrine may claim that the Intellectual faculties adapt man to the laws of nature, which I admit so far as the learning of them is concerned, which is equally true with reference to the principle of justice, but extends no farther; if it did, the man who was the most intelligent would, of necessity, be the most just, upright, and honest, which is not the case; for it is a well-known fact that many do wrong when they know the right; but it requires the feeling given by the faculty of Conscientiousness, to prompt men to do the right after they have learned it. This principle is also true when applied to Benevolence, for the knowledge of distress and suffering in another is not sufficient of itself to produce a desire for the application of a remedy to relieve the distress, but the feeling of sympathy and kindness is necessary for the alleviation of misery, which Benevolence produces. So also with the laws of nature; a knowledge of them, and man's dependence upon them, is not a sufficient security for mankind's observance of them, but requires some feeling to prompt a respect and devotion for them, which I attribute to Veneration.

Knowledge is well known to be insufficient of itself to keep mankind in the path of duty; neither is a devotional spirit a sure guide to the correct fulfillment of man's religious duties, ungoverned, and undirected by an enlightened intellect—one enlightened upon the constitution of man, and the principle by which God governs the world. But this kind of knowledge, I regret to say, is too seldom acquired by those who devote a great portion of their time, *professedly*, in obeying the requirements of the Deity; yes, and even those too who are devoting their lives in teaching mankind their various duties to God, not only disregard a great portion of the laws of their being, but the consequences of which they are suffering from day to day, as the effects of ignorance, and which has given rise to the heathenish idea, that the Christian is characterized by sorrows and afflictions almost unendurable, and that the path of righteousness is beset with thorns and brambles, which render it almost impassable, and, at the same time, dwell on the pleasures of sin, all of which are obstacles to the advancement of mankind; but also oppose the efforts of those who have the elevation and progression of the race in view, by teaching the laws of God, and the duty of mankind to obey them. In this practical view of the organ of Veneration we infer that the observance of the laws of our natures ought to be considered a religious duty.

It also forms a foundation for a reform that will tend to withdraw many bigoted minds from their erroneous ideas of worship, and turn their attention to science, as well as other means of learning the government of God, for science is as truly Divine as any other of the institutions of the Creator.

Then mankind will be impressed with the conviction that all the laws of nature are equally worthy of respect, the laws of our physical constitution included, for to obey them is found to be not only important for physical welfare, but absolutely necessary to secure the proper condition requisite for enjoying the blessings naturally resulting from obedience to the moral laws of our nature. For, without health, no man can be expected to do his duty in a moral or religious point of view. For it is a well-ascertained fact that physiological errors are among the greatest causes of vice and immorality in the world, and are great

obstacles to the moral and religious advancement of the race.

From these views of Veneration and its adaptation, we conclude that no man can manifest a pure and enlightened reverence to God who recognizes a superiority of one law over another, or shows a disregard for any of them. N. K.

Athens, Pa.

[Comments.—Man needs a higher feeling than a mere *admiration of the works of nature.* We do not object to this emotion as connected with the action of Veneration and a well developed and highly cultured intellect; for no man can perceive in the works of nature which are fitted to inspire admiration of the Divine Architect, so much reason for admiration as the true philosopher; but still, there is a higher emotion than an admiration of God through his works. Does a child respect his father merely for his strength or his skill? When age creeps upon him, and his strength is weakened and his skill blunted, does he love his father the less? Veneration leads to the adoration and *love* of God for his power and wisdom, as seen in his works of creation not only, but quite as signally for his holiness, his goodness, and fatherly regard for His children.

The natural expression of Veneration is "My Father and my God." The "Lord's Prayer" is a most significant explanation of the nature and office of the faculty. What does that prayer import? Let us see:

"Our Father" (filial recognition) "who art in in heaven" (*i. e.*, whose presence or habitation is purity), "hallowed be thy name" (or reverenced, adored, honored); "thy kingdom come, thy will be done on earth as it is in heaven" (reverent submission to the government and will of God); "give us day by day our daily bread" (filial trust and confidence), "and forgive our trespasses as we forgive those who trespass against us" (a recognition of the justice and mercy of God. Here, however, Conscientiousness and Benevolence speak, but Veneration leads us to God as the source of pardon and peace), "and lead us not into temptation, but deliver us from evil" (trust in His wisdom, power, and purity), "for thine is the kingdom, the power, and glory forever. Amen." (Here is Veneration for the Sovereign Authority, and adoration for the holiness and submission to the will of God.) This, truly, is more like the love and reverence of a son for a wise, powerful, and benevolent father than like the admiration of a person for some wise and powerful architect. Worship, therefore, is the office of Veneration, and this worship involves reverence, adoration, trust, and love.—Eds. Phren. Journal.]

"ECONOMY

BY REFORMER.

I have been a reader of your valuable publications for several years, and profited much by the "go-a-headativeness" and good advice contained in each of your journals, especially *Life* and the *Water-Cure Journal.* I am not in the habit of using my pen or ideas in writing articles for publication, so I rather reluctantly submit this to your perusal. If, in your opinion, it will be of any service to any class of your readers, you will use it as you choose. If it may have the shadow of an effect that many of your articles have had for me, it will more than pay me for the examination of my memorandum-book for the figures.

It seems very interesting to meet with a statement of facts and figures that are applicable, at least in part, to one's own case; and having noticed several articles of the kind in *Life*, I venture, among others, to lay before you some of my own experience in as few words as I can.

Without troubling you with a detailed account of my expenditures in going to housekeeping, I will at once proceed to a statement of my expenses for one year before I subscribed for your journals.

Rent of a small tenement, but in a pleasant and healthy location, $100; fuel, $12; flour, $16 81; corn and rye meal, $4 87; butter, $19; cheese, $3 40; sugar, $26 40; molasses, $4 80; lard, $12; tea, $4 87; coffee, $5 60; spices, $1 62; meat, consisting of beef, pork, fowls, fish, oysters, etc., $92 50; vegetables, $9 40; milk, $17 50; fruit, $23; cigars, $30; medicine and doctors' bill, $22 16; sundry other articles and expenses, $25 86, and my clothing about finished the rest of my income, which was about $525. After perusing the *Water-Cure Journal* for several months, I began to examine my own case, and became convinced that I was pursuing the wrong course, and resolved to adopt your system of diet and living as near as I could, by leaving off the use of so much fine flour for wheat *meal*, with also that of other grains, using less butter, sugar, and molasses, and no cheese, lard, tea, coffee, meat, spices, cigars, etc., but instead, more fruit, vegetables, etc., which has resulted in the improved health of myself and wife, and my expenses, as compared with the year above, as follows: Rent, $100; fuel, $15 75; wheat flour, $3 60; wheat meal, $19 80; corn and rye meal, $7 50; butter, $3 60; sugar, $4 75; molasses, $1 50; vegetables, $29; milk, $11 37; fruit, $37; one year's subscription for Life Illustrated, *Phrenological* and *Water-Cure Journals*, "Hydropathic Encyclopedia," and other books. $9 50; clothing, $93; sundry other articles and expenses, but which do not include any salt, saleratus, and such articles as in the first year, $47 60, which amounts in all to $383 97, so that with the same income as the first year, I would have saved about $141; but my income has been a little more this year, amounting to about $624, so that the year ending December 31st, 1857, left me with $200 in the Savings Bank, and about $40 in my pocket; owing no man a cent, my wife pleased at our success with the experiment, and what I value more than all, we have had no occasion to use any *medicine*, or employ any doctor, and, as I said before, our general health very much improved.

I am now fully satisfied, from my own observation and experience, that there are few young men but who can save enough in a few years, from their useless expenses, extravagant and unhealthful mode of living, and by making the best use of their time, to own a little home of their own, as in case of "Harry and Kitty Clover." It is true, we took pleasure in having our table well supplied with meats, cakes, etc., but did not for once imagine where our head and stomach aches proceeded from; and now we take pleasure in knowing that what we eat is *food* in reality, and that one of the greatest preventives of disease is to *guard well our appetites*. We have had to bear the taunts and jeers of our friends and acquaintances, but we think we can do it much better than they can bear the effects of bad food and over-indulgence of their depraved appetites.—

Providence, R. I., 1858. [*Life Illustrated.*

THE ASS IN THE LION'S SKIN.

Once upon a time an ambitious ass, desiring to enjoy the power and influence of the lion, procured a lion's skin and put it upon himself as well as he could, by doubling down his ears, and endeavoring to assume a nobleness of aspect. But the moment he attempted to roar, with a view to command the respect of the other animals, his voice betrayed him, and his master, who happened to witness his effort, drubbed him soundly for his hypocrisy and stupidity.

We are reminded of the above, by information that one Dr. W. Chichester, of New Haven, formerly of Cleveland, O., is lecturing in New England on Phrenology (having begun since the first of this year), and advertising his lectures and his business as by Fowler and Chichester. We are also informed that Chichester visited Springfield, Mass., in January, and on returning to New Haven informed his friends that he had seen Mr. Fowler in Springfield, and that he had consented to the use of his name by Chichester. Accordingly his handbills were posted all over New Haven, in the name of Fowler and Chichester.

We desire simply to say, that Mr. Fowler was not in Springfield in the month of January, but was in Mobile, Alabama, lecturing—that Mr. Fowler has never given Chichester liberty to use his name in any way whatever. Once again we warn everybody, that no one has any right to use our name in any such way. We have no lecturing agents, or agents for examining heads. Every man must stand on his own merits. What is done in our office or in our own lecture-rooms only do we indorse. "Fie on all (hypocrites) say we."

SECRETIVENESS.

Many people are too frank, and disclose many things detrimental to their interests. They can not be trusted with a *secret*, and they are the easiest prey for knaves of all classes. They exhibit their money before strangers, tell their plans, and answer all questions without reserve. Such persons should cultivate the organ of Secretiveness—bridle their tongues, and *think* before they *speak*. To show the advantage of *silence*, I will relate an anecdote of real life. Many years since a trader in Vermont lost some money. He kept his own counsel, and told no one of the event. Soon after a young man of the place went to the West. In a few years he returned. His first words on entering the store were: "Well, have you found who stole your money?" "Yes," was the answer; "I have just now found the man." That young man was tried, convicted, and sentenced to prison for the theft.

Wm. Garfield.

SHORT-HAND WRITING.

INVENTIONS are generally esteemed according to their power to minister to the physical wants of man, or to create wealth rapidly, while such as are calculated to embellish life merely, or to promote moral and intellectual growth, are too apt to be held in light estimation by the great mass of mankind.

Among the great inventions of this prolific century, few, if any, are calculated to do more for the race than that of Phonography, or the art of writing by sound. This consists in having a single sign for each sound of the language. Our common alphabet has twenty-six letters, and the language over forty sounds; so we must use one letter for more than one sound, or a combination of letters to represent a single sound. The letter O, for instance, is made to represent ten sounds. This is not only ridiculous, but very inconvenient. We have no doubt that there is more study devoted to learning to read and spell in the United States, than is bestowed upon all other branches put together. After all this study, how few there are who read well and spell correctly! And no wonder. Take, for example, the round-about use of the letters *ough*. In *though* they have the power merely of *o*. There are but two sounds to the word, one represented by the letters *th*, the other by *o*. In *tough*, these letters have the sound of *uf*, but in *cough* they have another sound, in *plough* another, and in *through* still another. The barrenness of the common alphabet is evinced by the fact, that we can not correctly represent the sounds of the words above quoted, without doing violence to the natural or elementary sounds of the letters. For instance, *uf* does not represent the sound of *ough* in the word *tough*, because the true sound of the letter *u*, as in *blue*, is not found in the word *tough* or in *uf*. What is called the short sound of *u*, as in *uf*, should have a distinct character to represent it. We want, also, a character for the sound *aw*, as heard in the word cough; and also a single character for *ow*, as heard in the word plough. It may be said that the letters *ow* do it. This we deny. What sound of *o* is there in cow, or plow, or now? In *no* we have it, but we never hear the true sound of *o* in *not*, *got*, *pot*, *cot*, *dot*, *lot*; but if we sound the *o* as the child is taught to do in learning his alphabet, these words would become note, gote, pote, cote, dote, lote. The letter o, as we have said, has ten sounds as it is used in the English language, when in fact it has but one. Then why use more?

In the system of Phonography we have a sign for each sound, and when these are learned by the pupil, he can read any word and pronounce it correctly. The sound represented by *th* is written by a curved line, thus (, and the sound represented by *ough* by a dash, thus —. Now to write the word *though* by phonography, we have only to bring these two characters together, thus, (-

For printing this simple and philosophical mode of representing the language, it requires an alphabet with forty-four letters, one for each of the simple and compound sounds, and when the pupil has learned these letters, he can read and pronounce any word he sees, and spell correctly any word he hears. This would save to the pupil some years of hard study, to be devoted to the sciences.

The chief advantage of Phonography is, that it enables a person to write as fast as the orator speaks, and thus secure a *verbatim* copy of the speech, and to read it without mistake, or the necessity of referring to the memory to aid in making it out. This is necessary in the old arbitrary modes of stenographic writing. It is a common practice for reporters to take the notes and have an amanuensis to copy them, who does not hear what is said, and of course depends entirely on the reporter's phonographic manuscript.

We may boast of our telegraph, which certainly is a great invention for the TRANSMISSION of thought, but the burning words of the orator must be arrested by phonography before the telegraph can transmit them for the edification of the world. The speech, if accurately REPORTED, could be sent by the "slow coach," so that the world would ultimately get it; but without such report neither mail nor telegraph could bear the glowing words abroad. *Verbatim* reports of speeches and lectures of the day and evening are now expected in our next morning's papers; and perhaps the majority of readers who clamor for the freshest news and the latest speech, are hardly aware that they owe quite as much to the art of phonographic reporting as to telegraphic communication.

We see no reason why girls, who are under the necessity of earning a living, can not become short-hand writers and copyists. It certainly would be quite as easy as teaching or needle-work, and would, doubtless, be more remunerative.

Lawyers, conveyancers, authors, clergymen, and others, would save time by dictating to a reporter, and thus avoid that most severe drudgery of "composition" at the snail's pace, at which only the long-hand writing can be done. With a reporter, the author can deliver his thoughts rapidly and warmly, and thus compose in one hour more than he could in a whole day by the ordinary mode, and thus have the major part of his time for reading, reflection, healthful recreation and exercise; or if he wishes to push ahead, he can do as much in one month by the aid of Phonography, as he could otherwise in twelve. Why not, therefore, have female amanuenses, who are quite as well adapted to such a position as men, and fully as capable of acquiring the prerequisites of grammar and rapid penmanship?

We know of one girl in this city who qualified herself in about six months for a position as a reporter, and now fills a place which had required a man at a salary of seven hundred dollars a year. This is certainly better than making shirts, vests, and pants at starvation prices, as many are compelled to do, or do worse; or than drifting down the lazy current of poverty-stricken *ladyhood*, while the jaded and over-worked father strives against poverty to maintain his family comfortably, and remunerative avocations are denied to his daughters, and who, perhaps, would be willing to help him and themselves if any possible avenue were opened to them. We say to girls, study phonography, and become reporters if necessary, or study it as an accomplishment, and use it as a means of recording your thoughts, and, we doubt not, it will be of quite as much consequence to you as any other equal expenditure of time and effort.

It is not absolutely necessary that the student have an oral teacher, though this is desirable. Two dollars will buy the books necessary for self-education in this useful art, and they may be ordered from the office of this JOURNAL.

CRŒSUS AND DIOGENES.

THE story of Aladdin and his wonderful lamp is known to many more than have heard of the philosopher and his wonderful spectacles. Those who knew him longest never knew him without them, and it was even said that he was born with them on; and it was urged that there was nothing more absurd in the supposition than that his brother should have been born with a silver spoon in his mouth. He set a very high value on his spectacles; and not without reason, for he had only to put them on, and whatever he possessed was vastly increased in size. Though he had not a tithe of his brother's wealth, and lived in a little cottage on the banks of an insignificant stream, barely deep enough to float a canoe, yet when he put on his wonderful spectacles, his cottage became a castle, his canoe a ship, and the stream a magnificent river flowing toward the ocean; and he could go on voyages of wonderful interest, among scenes of the utmost grandeur and magnificence; the banks of the stream, removed to a great distance apart, assumed the appearance of precipitous mountain-sides, and the shrubs growing on them became forests of towering pines and wide-spreading oaks. But if he laid his spectacles aside, everything regained its original littleness. Nor was it upon natural objects alone that the wonderful spectacles had their transforming power; a little handful of money became by their means a vast treasure. So long as the spectacles remained on the philosopher's nose, his possessions remained undiminished, and he appeared to himself master of wealth far surpassing that of his brother, whose fortune it had not been to possess a pair of wonderful spectacles, but who, by various arts and methods known to the worldly wise, and by uniform good fortune, had attained to great riches. He had received the name of Crœsus, while his brother, not altogether inaptly, was called Diogenes.

One day it chanced that they met after a long separation; for the wide difference in their characters had produced a corresponding separation in their walks of life, so that they were as little likely to meet as a meteor and its brother aerolite. Crœsus reproached his brother with his idle and thriftless habits, and boasted of his own great wealth as the result of his industry and enterprise. Diogenes, who had his spectacles on, asserted the superior magnitude and grandeur of his possessions, and pointed to his ship, his castle, his estates, and his heaps of corn, in support of his assertion. "Fool that thou art," replied Crœsus, "dost thou not know that the moment thou shalt take off thy spectacles, thou wilt fall back into beggary?" But Diogenes replied, "Thy wealth, Crœsus, is scarcely more solid than mine, since without warning, and in less time than is necessary in taking off my spectacles, thou mayest be removed from thy wealth. Thy wealth as well as mine is but an ap-

pearance. Thou, too, art indebted to spectacles for a belief in the reality of thy wealth."

Was there not truth in the assertion of Diogenes? Let us, then, seek wealth which is not imaginary, and from which we can not be removed. That wealth is truth. Truth is the most indestructible of all things; it is the same in all times and places, in Sirius and in Saturn, in the remotest past and in the remotest future.

To Correspondents.

STUDENT OF PHRENOLOGY.—Your organs, according to your chart sent us, indicate capacity for the position you mention. We would advise you to graduate at any rate. If you would become well versed in Phrenology, you will find the following works essential, viz.: The Bust, "Fowler's Phrenology," "Education Complete," "Self-Instructor," "Combe's Lectures," "Constitution of Man," "Combe's Physiology," and a cast of the brain. Price of the whole sent by express, $7 75.

H. K. D.—We use a metallic mold for busts, which costs about $50. If you can make the busts, you could make a plaster mold yourself. The labels we could furnish for two cents a bust. We know of no work in the German language in this country on Natural Philosophy. Wells' work in English is good, and sells at $1.

We prefer to reply to your other questions by letter.

S. B.—1. Is salt a necessary article of diet? We think not absolutely necessary?

2. Is sugar both healthy and necessary? It is healthy, but not positively necessary. If eaten in too great quantity it produces derangement of health.

3. Does impure water become better with boiling? That depends altogether on what it is that renders the water impure. If it be any volatile substance that can be expelled by heat or carried away by evaporation, boiling will tend to render the water more pure, but if it be anything like sugar, salt, or other mineral which is precipitated, boiling will not make it more pure.

4. Is saleratus very injurious? Yes, if very much is used. This class of questions, however, must hereafter be addressed to the *Water-Cure Journal*.

J. H.—Is any person who has good natural talents, capable of acquiring a good knowledge of mathematics?

ANSWER. "Good natural talents" are supposed to comprise a fully developed and harmoniously balanced intellect, and of course including all the organs on which a knowledge of mathematics depends. Good logical power alone does not qualify one for general mathematics—nor does strong perceptive power alone endow one with this talent.

Literary Notices.

BIOGRAPHY OF ELISHA KENT KANE. By William Elder. Childs and Peterson, Philadelphia, 1858.

Those who know the racy style of Dr. William Elder, his keen and philosophical insight of character, his happy power of description, and his long and intimate personal relations with Dr. Kane and his family, need not be told that this biography is one the perusal of which nobody can afford to forego.

Biographies in general are stately, prim, distant, formal, and superlatively laudatory, but in perusing this of Dr. Kane, we seem to come into the very sanctuary of his life. We are with him in round jacket trundling the hoop, or flying the kite; in mischief, in restless activity, in study, and in wild and fanciful adventures, we are his companions; we ramble with him in the torrid zone, or venture with him beyond the steps of other men in the frozen north; and with him we retire to his death-bed in Havana, and in all the changes of his brilliant career he has our sympathy and admiration, and a tear as an offering at his tomb. Dr. Elder has done his work well, and the publishers have handsomely illustrated the book with a portrait of the subject, with a picture of his home; one of the place in Havana where he died; a sketch of his body lying in state in Independence Hall, Philadelphia, and of his tomb at Laurel Hill. We may give some extracts in future, but the book should be read consecutively to be appreciated.

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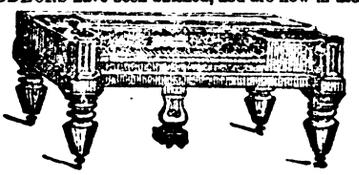

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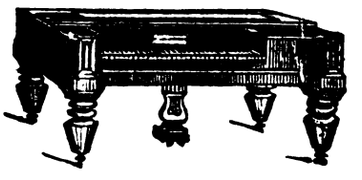

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Extra Curled Parsley,
Improved Parsnip,
Cherry Pepper,
Long Cayenne do.,
Large Squash Pepper,
Sweet Spanish do.,
Sweet Mountain do. (for Mangoes),
Large Cheese Pumpkin,
Mammoth do.,
Long Scarlet Radish,
Scarlet Turnip do.,
White do. do.,
Yellow do. do.,
Chinese Winter do.,
Black Fall do.,
Victoria Rhubarb,
Linnæus do.,
Salsify,
Scorzonera,
Round Spinach,
New Flanders do.,
Prickly do.,
Early White Bush Squash,
Summer Crook Neck do.,
Lima Cocoanut do.,
Boston Marrow do.,
Winter Crook Neck do.,
Large Red Tomato,
Large Red Smooth do.,
Large Yellow do.,
Red Cherry do.,
Yellow Cherry do.,
Pear Shaped do.,
Yellow Plum do.,
Early White Dutch Turnip,
White Globe do.,
White Norfolk do.,
Yellow Stone do.,
Yellow Aberdeen do.,
New Yellow Finland do.,
Improved Ruta Baga,
Sage,
Summer Savory,
Winter do.,
Sweet Marjoram,
Thyme,
Lemon Balm,
Coriander,
Fennel,
Lavender,
Rosemary,
Hyssop,
Pennyroyal,
Catnip,
Elecampane.

The following are too bulky to be sent by mail, but may be ordered by express at the following prices, in New York. Address FOWLER AND WELLS, as below:

	Cents.		Cents.
Early Mazagan Beans, per qt.,	20	Champion of Eng'nd Peas, per quart,	40
Sword Long Pod do.,	" 20	Queen of Dwarf do.,	" 50
Broad Windsor do.,	" 20	British Queen do.,	" 50
Early Rob Roy Dwf.	" 25	Hair's New Dwf. Mammoth	" 75
Early China Dwf.	" 25	Stanley Marrow do.,	" 75
Early Mohawk	" 25	Knight's New Tall Mammoth Marrow,	$1 00
Early Half Moon	" 25	Dwf. G'den Marrowfat,	" 20
Early Nonpareil	" 25	Dwf. Blue Imperial,	" 20
Early Black Tampico	" 25	Bishop's Long Podded,	" 40
Early Marrowfat (White)	" 20	Conn. Field Pumpkin,	" 25
Early Zebra Dwf.	" 25	Spring Vetches or Tares,	" 25
Horticultural Pole	" 40	Osage Orange	" 75
Red Pole Cranberry	" 40	Yellow Locust, per lb.,	1 00
Extra Early	" 00	Honey do., "	1 00
Daniel O'Rourke	" 00	Apple Seed, "	50
Ext' Early Cedo Nulli Peas,	" 40	Pear do., "	6 00
Extra Early Canada do.,	" 40	Strawberry Seed, 12 sorts separate, per paper,	25
Ex'a E'ly Prince Albert do.,	" 25	Currant Seed,	25
Early Warwick do.,	" 25		
Early Charlton do.,	" 20		
Early Washington do.,	" 20		

For the South, California, and Oregon these seeds should be ordered at once, for Spring planting. In Florida, Louisiana, Texas, Alabama, Georgia, and Mississippi the people will soon plant their gardens. We hope all will be ready in good time, for a good garden furnishes half the food for many a family.

FLOWER SEEDS.—PREPAID BY MAIL.—We have obtained from the best sources, in Europe and America, a choice selection of the best varieties of FLOWER SEEDS yet produced. They are carefully assorted and put up, with strong wrappers in DOLLAR PACKAGES, to go by MAIL, postpaid.

PACKAGE NO. 1.—SIXTEEN KINDS.

Dianthus Cœrulea,
Ipomœa Burridgii,
Phlox Drummondii,
Mixed Portulaca,
Mignonette,
African Hibiscus,
Calliopsis elegans picta,
White Cypress Vine,
Annual China Pink,
Scarlet Cacalia,
Centaurea Americana,
Fine Dwarf China Aster,
Mixed Globe Amaranthus,
Mixed Candytuft,
Fine Dwarf Lupins,
Mixed Petunia.

PACKAGE NO. 2.—FOURTEEN KINDS.

Phlox Queen Victoria,
Centranthus Macrosiphon,
New Carnation striped Portulaca,
Gaura Lindheimeri,
Centaurea Depressa,
New large flowering Mignonette,
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Fine Pansy,
Mixed Leptosiphon,
Lupinus Cruckshankii,
Mixed Nemophila,
Mixed Thunbergia,
Finest German Scabious,
New Dwarf Scarlet Nasturtium.

PACKAGE NO. 3.—TWELVE KINDS.

Acroclinium Roseum,
Phlox Louis Napoleon,
New White striped Pink,
New Camellia Balsams,
New Variegated Flax,
Mixed Eutoca,
Perilla Nankinensis,
New Variegated Viola Tricolor,
Portulaca Aurea,
Blumenbachia Insignis,
Whitlavia Grandiflora,
Viscaria Cœli Rosea.

[Those who wish for only 1 package of these FLOWER SEEDS, should *specify* according to the numbers, *which they prefer*—No. 1, No. 2, or No. 3. It will be seen that No. 1 contains sixteen varieties; No. 2, fourteen varieties, and No. 3, twelve varieties. One dollar pays for one package. Three dollars pay for the whole three packages, forty-two varieties. We pay postage on the seeds at the New York office. Address
FOWLER AND WELLS, 308 Broadway, New York.

PHRENOLOGY IN PHILADELPHIA.

WE copy the following tribute to Mr. Capen from the Philadelphia *North American* and *United States Gazette*, and we doubt not it is well deserved.

The following preamble and resolutions were unanimously adopted by the class of ladies and gentlemen who attended the Course of Lectures on Phrenology, delivered by Mr. JOHN L. CAPEN, at 922 Chestnut Street:

PHILADELPHIA, *Feb.* 24, 1858.

Whereas, We, the undersigned, have attended a Course of Lectures on Practical Phrenology, delivered by Mr. J. L. Capen, at No. 922 Chestnut Street, and have listened with admiration and delight to the instructive illustrations which Mr. C. has advanced, and have been fully convinced of the truthfulness and utility of Phrenology, and the advantages which it offers to the community at large; therefore,

Resolved, That we do hereby return our sincere thanks to Mr. C. for the plain, philosophical, and pleasing manner in which he has explained the causes of the different manifestations of the human mind; and would advise ALL who may desire to KNOW what capacity in life they are best fitted to fill, and how they may accomplish the greatest amount of good, to consult him or some other reliable Phrenologist.

Resolved, That a committee be appointed to have the above published at the expense of the Class, in two of the daily papers.

JAMES LINTON,
WILLIAM GRANGER,
SAMUEL A. McDOUGAL,
Committee.

THE JOURNAL IN N. CAROLINA.

MESSRS. FOWLER AND WELLS—At the instance of my friend Mr. P., I was induced to subscribe for your excellent periodical, THE PHRENOLOGICAL JOURNAL. I am exceedingly well pleased with it; so much so, indeed, that I desire to keep the copies neat and entire until the present volume is complete, when I wish to have them bound. I have received the January and February numbers for the present year. I am now endeavoring to make you a club. For this purpose I have been passing my papers round among my fellow-students. Unluckily, I got the February number destroyed by this means. If you have any copies of that number on hand, you will confer a *lasting favor by sending me a copy.*

I think I shall be able to get you up a club in the course of a week or so. The prospects are favorable. Yours truly, S.

March 3, 1858.

TESTIMONY FROM THE BENCH.—The judges of England are now uniting in the most startling testimony against the liquor traffic. The following impressive passage is from a charge to the grand jury by the recorder of Hull, Samuel Warren, Esq. The same gentleman is more widely known as the author of "Ten Thousand a Year." In all that celebrated fiction there is no passage of such painful interest as the following statement of fact:

"Intemperance and ignorance were, he urged, the two mighty evils at the root of all other social evils." He continued as follows: "Would that a holy crusade would be set on foot—a national movement—against these two inveterate and deadly foes of mankind! I was never heard to speak a syllable with levity or disrespect to the temperance movement, as it is called: for, to me, the sight of a man, especially in humble life, who voluntarily abstains from a pleasure and excitement which he has found to lead him astray from virtue, peace, and happiness, is very noble and affecting, as an act of self-denial, which must be acceptable to Almighty God. Gentlemen, to the best of my belief, no temperance man ever stood at the bar to receive judgment from this seat, in my time at least; while I tremble to express my belief, that seven out of every ten who have done so, have been brought there by intoxicating liquor; I have talked with them afterward in prison, and they have owned it with tears of agony."—*Prohibitionist.*

NOTICE TO AGENTS AND SUBSCRIBERS.

Much dissatisfaction having been manifested by subscribers to the PHRENOLOGICAL and WATER-CURE JOURNALS, because our rules have hitherto been for all subscriptions to commence with January or July, we have concluded to have them commence at any time. We shall then, in future, commence with the number current when the subscription is received. We will, however, send such back numbers as are on hand when desired.

A NEW PREMIUM,

WORTH FIFTY DOLLARS ($50 00).

FOR the encouragement of friends, co-workers, and agents, we have concluded to offer as follows: To the person who may send us the largest list of subscribers for the PHRENOLOGICAL JOURNAL, between the present time and the first of May, 1858, we will give

A HANDSOME CABINET,

embracing *forty* of our best Phrenological specimens, selected from our large collection—the same as those we sell at TWENTY-FIVE DOLLARS; also, the worth of

TWENTY-FIVE DOLLARS IN BOOKS,

which may be selected from our extensive catalogue, making, in all, a premium worth the handsome sum of

FIFTY DOLLARS.

The above shall be promptly awarded to the successful party, soon after the first of next May.

The CABINET will prove a valuable acquisition to any man, and may form the nucleus for a large Town, County, State, or National collection, while a library worth $25 would grace the book-case, and aid to ornament the mind of any reader. Now the question arises, "Who shall be the happy recipient of these trophies?" A little well-directed effort will secure them to some one. Reader, what say *you?* would you like this valuable CABINET, and this very handsome LIBRARY?

SPECIFIC PREMIUMS.

FOR $50, we will send ONE HUNDRED COPIES of the PHRENOLOGICAL JOURNAL one year, to one or one hundred different persons, and $5 in Books published by us, as a PREMIUM to those who get up the club.

For $20, forty copies of the JOURNAL will be sent a year, and $2 in Books.

For $10, twenty copies of the JOURNAL and $1 in books.

For $5, ten copies of the JOURNAL will be sent one year.

For $1, one copy will be sent a year.

☞ $3. FOR THREE DOLLARS, a copy of the PHRENOLOGICAL JOURNAL, WATER-CURE JOURNAL, and LIFE ILLUSTRATED (weekly), will be sent a year to one address.

Clubs large and small may be made of one or of both JOURNALS, and the premiums will be sent as above.

Address, FOWLER AND WELLS, 308 Broadway, New York.

AMERICAN PHRENOLOGICAL JOURNAL.

A Repository of Science, Literature, General Intelligence.

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AT ONE DOLLAR A YEAR, IN ADVANCE.

Contents.

M. B. BRADY.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You have a temperament indicating a high degree of the mental or nervous, in conjunction with a wiry toughness of body, indicative of great propelling power and physical energy and activity. These conditions combined, produce intensity of emotion, depth and strength of feeling, and a disposition to be continually employed. You are living too much on your nerves, and need a great amount of sleep to recuperate your constitution, and to quiet your brain and nervous system; but you are tough, and will wear a long time, provided you take ordinary care of yourself.

Your brain is unusually large for such a body, and therefore you should guard against the use of everything calculated to chafe the nervous system and excite the brain, such as coffee, tobacco, alcoholic liquors, and also the common irritating condiments of the table. In addition to this, if you can secure eight hours of sleep in the twenty-four, you will find it greatly to your advantage.

The development of your brain indicates a great amount of force of character. You are a natural worker, and you would be truly miserable if placed where you had nothing to do. You like to meet and overcome difficulties, and ought to have been engaged in civil engineering, building railroads, navigating ships, or in some other way wrestling with the world's difficult enterprises. You have astonishing Firmness. It would seem that for all your life long you had been overcoming obstacles and bearing heavy responsibilities. Opposition is almost a luxury to you, and to meet and master obstacles and conquer impediments a mere pastime. It is utterly useless to try to force you to do anything against your will. You can not and will not be driven by your peers, though you can be persuaded by sympathy and friendship to go almost any length, and to sacrifice almost any amount of convenience or ease to confer a favor.

PORTRAIT OF MATTHEW B. BRADY
Photographed on Wood by Prick's Patent Process.

You have large Self-Esteem, which gives great self-reliance, disposition to trust to your own judgment, to rely upon your own resources, and take responsibilities. Firmness and Self-Esteem appear to have been greatly increased by use, for they stand out sharply beyond the other organs.

Your sense of duty appears to be strongly marked; and when your idea of honor, your will, your sense of reputation, and your integrity are at stake, you will do and suffer vastly to achieve what you know is right, and to crush out the wrong. If you think that a man is true to you and really honest, you can put up with ignorance, carelessness, want of capacity, and a variety of other unpleasant things, just because of his fidelity; but if a man is treacherous, and indicates a disposition to be an

eye-servant, you bear but little, and rid yourself of him as soon as possible.

You have very strong friendships, and very great aversions. You like and dislike in the extreme and, for a friend you will go through fire and water; and if an enemy pursues you, you would run almost any personal or pecuniary hazard to punish him, or at least to repel his aggressions. You are a man of high temper, of real bravery, but not possessed of a malignant, revengeful spirit. Your anger is mostly made up of powder without the ball, and if you were to injure a man in anger, except it were in an extreme case of self-defense, no person would regret it more sincerely than yourself; but so long as the enemy's flag is flying, you have no idea of giving or taking quarter.

You love home devotedly. Nothing would give you more pleasure than to own a nice situation on the Hudson. Every vine, and every shrub and tree would seem to have a heart and soul beating in harmony with your own, and with these you would seem to take root in the soil.

You love children, and are a fervent friend, and capable of being an ardent, affectionate husband.

Your Constructiveness and Ideality, joined with Order and Calculation, appear to be enormously developed, as seen in that great ridge running upward and backward from the external angle of the brow. We rarely find Ideality so large; and Constructiveness seems wedded to it, as if your mind had been in an artistic and mechanical study and labor for years, and, moreover, as if it were natural for it to be so.

You are continually studying some new and beautiful design; and if you were a worker in marble or a painter, your reputation would be achieved through the talent to devise new patterns and work out original ideas. You are a natural inventor, and had you been trained up as a mechanical engineer, you would doubtless have achieved high success as an inventor.

You have a full development of Imitation, and can copy well, but prefer to work right from the judgment or by the eye—to make new tracks rather than to follow old ones.

Another peculiarity of your organization is the immense development of the perceptive group of organs. Individuality or Observation just above the root of the nose, Form which gives width between the eyes, and Size and Weight which give a kind of frowning appearance, together with Locality, are all remarkably large. You see everything that comes in sight, and remember forms remarkably well, also distances, outlines, and dimensions. You study attitudes successfully, and as an artist would show skill in that particular. Order, as seen in the prominence of the external angle of the brow, is also large, making you fastidious in respect to arrangement, while your great Ideality gives you such a sense of the perfect of what is tasteful and stylish, that your feelings in this respect are almost painful to yourself; and even when you get things just as you want them, the exhilaration in your mind incident thereto is of such an extreme character, that it is hardly pleasurable. Few men are as highly pleased as you with that which is gratifying to your faculties, and few, indeed, are so deeply exasperated when things are wrong. This all grows out of—first, your large brain; second, your nervous excitability; and third, the sharpness and activity of those large organs which give perception and criticism.

Your memory of faces is first-rate, of places and outlines good, of dates, names, and of immaterial facts deficient. You love to read and study mind, and are rarely at fault in your first impressions of strangers. You like to read biographies and travels, in which action and character make up the chief attributes.

You have strong sympathy, and this joined with your friendship makes your character quite bland under certain circumstances; but you have had your mind screwed up to the laboring point so long, that it has become rather angular, and it is less easy to please you and keep you in good temper than it was formerly.

Your Veneration is subservient in its influences, and your respect for others depends upon ascertained merits, real achievement, and the power to do, rather than upon the common fame of the world in respect to them. Your religious feelings are shown more through benevolence than through devoutness. You have a kind of spirituality of mind which often leads you out of the region of the material, and gives, as it were, a foretaste of the inner and higher life, but you rarely attain to this state of mind through the action of your Veneration. Your imagination, faith, and sympathy constitute the only Jacob's ladder on which you climb.

Your forehead appears retreating, not because it is small in the upper part, or region of the reasoning organs, but because it is so very large in perceptive development just over the eyes.

Your sense of property is subservient. If you had a fixed income or annuity beyond the reach of mutation, you would like to work and make money to use in making experiments and in gaining knowledge. You value money solely for its uses—not to hoard it in a miserly manner. If you had been one of the British nobility, with a fortune and an education, you would have been likely to devote yourself to the culture of art and literature and science, as a source of mere gratification; and if you were removed from the idea or possibility of want, so that you could revel in the luxury of experiments and art, of science, literature, and travel, you would feel that heaven was almost begun.

You are working too hard, and wearing out your constitution. You should husband your powers, take life more easily, that you may retain your health and prolong your life to a good old age.

BIOGRAPHY.

MATTHEW B. BRADY, the world-renowned disciple of Daguerre, is a native of the northern part of the State of New York, and is now about forty years of age.

When a mere lad he was attacked with a violent inflammation of the eyes, and came near losing his sight. This misfortune, combined with an indomitable spirit of self-reliance and enterprise, induced his parents to send him from home for medical treatment.

He first came to Albany, where he made the acquaintance of Paige, the eminent artist, who soon became his warm friend, affording him aid and encouragement.

About this time the discovery of Daguerre having been introduced into this country, Mr. Brady decided to devote himself to the practice and development of the new art, and, if possible, to win a name and fortune as an operator and an artist—a resolve which he at once, with characteristic energy and intelligence, commenced to carry into effect. He learned the process, and familiarized himself with the chemical and artistic knowledge required to produce daguerreotype pictures, and soon was able to accomplish wonders in his new field of endeavor.

He shortly after came to this city and opened a gallery, which was soon extended and enlarged to meet the requirements of a large and rapidly increasing business. His popularity and success were established in a very short time, and Brady's Gallery became one of the permanent institutions of our city, and a center of attraction for the resident lovers of the beautiful in art, and for strangers visiting the city.

He early formed a plan for a National Gallery of Portraiture, which should be more complete than anything of the kind in the world.

In connection with this purpose Mr. Brady established a gallery at Washington, and visited Europe, where he received marked attention, and was recognized as the Daguerre of America.

In 1851, at the great World's Fair in London, Mr. Brady was an exhibitor, and carried off the highest award, thus establishing a supremacy which he has since maintained against the most determined spirit of competition.

With the introduction of the ambrotype and photograph he has won a distinctive reputation. Brady's imperial photographs have become a national feature in art, and are spoken of by the highest authorities with the respect due to the most celebrated fine-art creations.

He has recently reopened his gallery at Washington, which had been closed for some time.

He has also commenced, in this city, a splendid Gallery of Imperial Photograph Portraits of Distinguished Clergymen and Pulpit Orators, which excites universal admiration, and has added a most interesting and attractive feature to his unequaled establishment.

The last great success achieved by Mr. Brady in his art surpasses all previous conception of the possibilities of production. Single portraits and groups are taken life-size, with an accuracy, boldness, and perfection of naturalness never before attained.

Mr. Brady's name has become inseparably associated with the development and application of the Daguerrean process in this country, and its history could not be written disconnected from his name, labors, and numerous successful applications of the art to practical uses.

Few men have more vividly impressed individual traits upon a profession; few have ever illustrated any pursuit more brilliantly. His experience has been one of uninterrupted success, and in his hands a process, in itself mechanical, has become a plastic and graceful art, varied in its effects and almost infinite in its susceptibilities, exerting a revolutionary influence upon general art, culture, and taste.

The difficulties which surround the *introduction* and *application* of a new discovery are known only to those who have encountered them. Effects alone impress the popular mind, their complicate

causes being usually lost sight of. Thus while many have participated in the surprise and satisfaction occasioned by the remarkable development of this and kindred discoveries, few have recognised it as the result of combined energy, enterprise, and ingenuity.

The theory of Daguerre was of so startling a nature as to repel general faith in its practicability, and until its assumption by Mr. Brady, no effort commensurate with its importance was made to establish its utility.

Convinced from the first that it embodied the germ of a new and unique art; that it promised to fulfill an important social and esthetic use, he devoted himself to its development with a zeal to which his present exalted position and that of the discovery bear ample and honorable witness.

Improved instrumental appliances, free galleries, and various chemical and optical experiments were gradually productive of a result which soon attracted attention and affirmed decisively the soundness of Mr. Brady's judgment and the success and immense value of the discovery.

Brady's Gallery of National Portraiture, numbering more than six thousand specimens, surpasses in cotemporary interest and historic value any of a similar character in the world.

All of that Titanic race which has covered the present century with renown; all who have added to the art-wealth of the age, or augmented its lettered glory, or aided its material advancement, are embodied in this magnificent collection; and a new grace is lent to the art, a historic dignity imparted to the effort, that thus concentrates and embodies from life the greatness of an era.

Of the millions of engraved portraits issued during the last fifteen years by the publishers of this country, more, than from any other, have been executed from originals derived from Brady's Gallery, thus adding a universal recognition of the skill with which he has rendered the camera auxiliary to the art of the engraver.

Several works, among which the "Gallery of Illustrious Americans," a work unsurpassed in magnitude or symmetry of design, have been issued from his establishment.

In applying the camera to scientific illustrations of all kinds, Mr. Brady has rendered the most efficient aid to the cause of letters, and has given a greatly accelerated impulse to the introduction of illustrated periodical literature, which has become so marked a feature in the history of the times.

Few men among us who have attained great eminence and success in business pursuits are more deservedly popular than Mr. Brady, from claims purely personal; for none can be more distinguished for urbanity and geniality of manners, and an untiring attention to the feelings and happiness of those with whom he comes in contact. From this cause, as well as from the extraordinary character of his artistic creations, has Brady's Gallery ever been recognized by the most distinguished families in the country as a fashionable and popular resort; while thousands have come and gone bearing away a new sense of beauty, with treasured specimens of art reflecting the features of loved and cherished ones.

Mr. Brady, like all men who have impressed themselves with a powerful originality upon an age prolific in such characters, is a self-made man, and owes his present exalted position and remarkable artistic and business success mainly to his own unaided efforts and devotion to a high conviction and purpose.

THE PHRENOLOGY OF NATIONS.

SECOND SERIES—NO. III.

18. Did space permit, we might present a great number of Egyptian heads, taken from tombs, papyri, etc., which fully maintain our position, that the earliest delineations left us of this people show a degree of intellectual development and activity which is not indicated by those of eight, ten or sixteen centuries later date. In proof of this point, however, we can only present a single head, which is believed to be a fair average, or even somewhat above the average of heads, the date of which can be ascertained to be between 1500 and 1600 B. C., and which is therefore at least sixteen centuries later than the time of Merhet (Fig. 5, April No. of Phren. Jour.) The head shown in Fig. 7 is that of the monarch, Ramses I.; and although it is unfortunately disguised in part by the abundant Egyptian head-gear, its outlines can still be made out, and its characteristics determined. The large face and moderate and retreating forehead show a preponderance of sense over thought, quite the reverse of the traits apparent in the face of Merhet. The developments of the latter are well sustained by those of his own time, or of a period not more than from one to three hundred years later; while the unfavorable cast of the head of Ramses is much more than reproduced in very many of the cotemporary relics, and fully reproduced in by far the greater number. The height of the top of the head in Ramses, if natural, is unusual in the heads of his period. But, be that as it may, the lack of the generous and affable qualities, of self-esteem, and of constructive and ideal power, is but too apparent. The back-head is not so well developed as in most cotemporary heads, but the base of brain is, as also shown by the contour of face, heavy.

Fig. 7—Ramses I.

19. Thus, it seems, we have proof of a falling off in intellectual development, in a nation of considerable enlightenment and activity, long before the time of those "Dark Ages," which, from the fact of their influence on our own progress in mental growth and liberality of sentiment, we recur to with so much more distinct views and decided regrets. We may think now it matters little to us whether or not in the valley of the Nile, nearly 2,000 years before Christ, there occurred one of those "Falls" of man, as a civilized being, which, history and monuments alike show, have recurred at long intervals, and have materially retarded the total advancement of our race. Not so, however. If we ourselves bear about in our crania and contour of brain, because we do in our souls, the evidences of the cramping and narrowing influence of our latest "Dark Ages," and there can be no doubt that we do, then in the same manner we and all mankind are less developed, less wise, less high-minded, less humane, and less human than if that distant declension of the Egyptian mind, which then stood in the van of the world's progress, had not occurred. Of the fact of such a declension, the proofs are too manifest. The earlier ages built the pyramids, designed and constructed the most gorgeous and massive of the temples and tombs; discovered embalming and imperishable coloring matters; even wrought in gold, silver, brass, iron, and jewels; and invented an alphabet of hieroglyphics, the use of papyrus and styles for writing. And the later ages added nothing to all this. After the date of 2500 or 2000, or at the latest 1800 years B. C., the whole Egyptian national intellect ceased to be *inventive* and became *imitative*—ceased to produce new ideas, and only repeated the old ones. And this reign of imitation is the surest test of a nation's decline in intellectual power and activity.

What were the causes of this decline it is not our present business to inquire. Many causes, however, suggest themselves. The lack of a democratic equality of rights and instruction; the want of an enlarged basis of true practical science and useful art; the intermixture of foreign elements lower in the scale of cultivation, as those of the Asiatic and Nubian blood, and especially the conquest and sway of the Hyksos, or *Shepherd* kings—all these and other influences doubtless played their part in thrusting Egypt down from her place in the van of nations, and that at a time when the activity of thought in Greece was just beginning to assert the right of a new claimant to the throne of the world's intellectuality.

20. The head shown in Fig. 8 was taken from a temple at Aboosimbel, and was there painted along with a group dating from the time of Ramses II., in the fourteenth century before Christ. The resemblance of features to those of the Chinese of the present day is at least fair; that of the general shape of the head is more nearly so. But since history seems to show that the shaving of the head and the tuft worn on the back-head are but recent customs among the Chinese, the head is considered to be that of a Tartar; since among these tribes the same customs had a great antiquity. The drawing is well executed, and bears internal evidence of being faithful. The phrenological characteristics are obvious. The predominance of face, the small, low head, the undeveloped Benevolence and the massive Continuity (aversion to progress) accord well with our ideas of a semi-barbarian and stationary people, as the Tartars have long been. In this head, also, Constructiveness and Ideality must be feeble; while, as an unusual circumstance among half-savage tribes, the perceptives are also inactive, the lower aspect of Causality being quite as well brought out as the supra-orbital group. Relatively, Inhabitiveness has

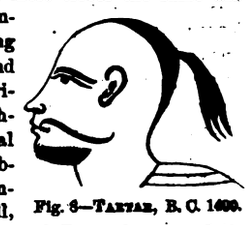
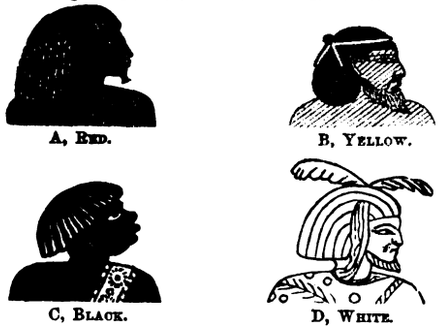


Fig. 8—Tartar, B. C. 1400.

more strength than would be expected in a migratory people.

21. The industrious authors of the "Types of Mankind" have figured on the 85th page of their work four forms, each taken from a group of four marked by similar characteristics, while the groups are very unlike each other, and which were found upon what is called "Belzoni's Tomb," at Thebes. This is the tomb of Seti-Menephtha I., whose reign dates about B. C. 1500. These four heads, Fig. 9, present marked differ-

Fig. 9.—HEADS OF FOUR DIFFERENT RACES.



ences of race, development, and capability. They are distinguished by the painting, as well as by hieroglyphic inscriptions, as the *Red*, *Yellow*, *Black*, and *White* men, or races. It is singular that in this representation the Red or Egyptian, A, has not only the national physiognomy, but also an attire and a cranial development so much inferior to those of the White, D, who is probably an inhabitant of Asia Minor. The Yellow, B, has Jewish or Shemitic features; while the Black is an exaggeration of the true Negro physiognomy. The only head which is either high or intellectual is that of the White race; and it is only the nose and the dress of this figure that forbid our classing it as Grecian. These characters point to an Asiatic extraction; but the particular nationality can not be known.

This drawing, say the authors from whose work it is taken, is a conclusive proof of a complete separation into *four species* of men, as early as 3,300 years ago; the types of which have in the main been permanent since that time. Of the fact of *four races* of men at that early period, it affords very strong proof; but *whether different* RACES *of men are, or are not, necessarily different* SPECIES *of men*, is a question still at issue; and it is one that is not, and can not be, settled by any such evidence as that we have here presented to us. If difference in race is only an exaggeration of the difference in nationality, both of which sets of differences are facts of human development recognized by all, and in favor of this view, there is, as Prichard, Carpenter, and others have shown us, vastly much that can be said—then the finding of human types so widely differing at a period of 1500 years before Christ, only goes to prove that the lapse of time since the *first man*, and before these delineations were made, must have been greater than it has been generally reckoned and accepted to have been. That is all. And here the authors have left themselves without resource or standing-ground on which to maintain their cherished view of human diversity; because they argue at length the views and facts which go to favor the adoption of the chronology of Lepsius and others, who give to the world and to the human race a much higher antiquity than that usually admitted; and because elsewhere they quote with approval the suggestion of Prichard, that between the creation of the first man and the time of Abraham, the human race probably existed for "chiliads (thousands) of years." Here, then, is time enough for all the diversity shown by the drawing under consideration; nor is the case bettered in behalf of their view when, elsewhere, the authors show undeniable negro heads, the original drawings of which they claim were made at the time which orthodox chronology assigns as that of the flood. We do not call German and Hibernian—Teuton and Celt—different species of men, although their features and traits are very different. And that ages of unlike habits and climatic influences may have widened still farther the breach between Teuton and Negro which they have begun between Teuton and Celt, although all sprung at first from a single stock, is a most natural, and under the circumstances almost a necessary, supposition.

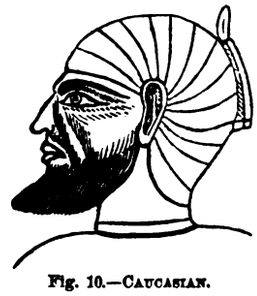


Fig. 10.—CAUCASIAN.

22. Among the earliest that have been preserved of purely Caucasian heads, we choose that shown in Fig. 10, from the fact that the close-fitting leathern cap shows distinctly the general form of the cranium. The features need to be but little rewrought by the experiences and efforts of centuries to furnish many individual samples among the European and Anglo-American peoples of to-day; although their actual form suggests quite as strongly the early Roman physiognomy. The heavy, straight beard finds its best counterpart still among the dark-featured or Melanous sub-variety of the Indo-European or Caucasian nations. The depth of forehead is fair; the development of the perceptive group, though not very large, is still sharp. There is not in the forehead, face, or eye the effeminate impracticalness of the Egyptian, the forcibly narrow vision of the Chinese or of barbarian races, the dreamy selfism of the Oriental, nor the unprogressive stolidity of the Abrahamic type. There is evidence of a keenness of perception and a restlessness of mental action which is still the birthright of the great Japetic family. In those sharp perceptives and smaller, slowly-following reflectives, one can almost read, 3,000 years before its fulfillment, the promise of the new and admirable Baconian philosophy, which gives to *facts* the first place in the scale of human knowledge, and which instructs the reasoning powers to follow at a respectable distance the light of things first positively known!

Yet in this sample of man, the reflective, and it would seem the perfective, brain stands quite as well developed as the moral—another fact that has its parallel in the Caucasian of to-day. Veneration, conservativeness, love of home and country, and the domestic group are fairly represented; and so one would say of Destructiveness, Combativeness, Secretiveness, and perhaps Acquisitiveness; Benevolence and Self-Esteem are moderate.

The head shown in Fig 10 is not a solitary expression; if so, it might be imagined to be accidental. It is one of several of similar cast and nationality, taken from the same pictured walls of a Nubian temple at Aboosimbel, which yield also the head shown in Fig. 8. The subject of the record of which these pictures form part is that of an attack upon a fortress in Asia, conducted by Ramses II.; the heads being characteristic of tribes, there met with as adversaries by the Egyptian monarch. The people whose lineaments are here figured have been conjectured to be mountaineers from the Taurus, or Scythians; their Caucasian origin seems well established by their physiognomy, their blue eyes and yellow hair.

WHAT SHALL WE READ?

THE people of the present age are favored with many advantages which were not enjoyed by mankind a few centuries ago. Among these advantages, and by no means the least in importance, are the opportunities for reading possessed by the people of our country. Yet, while we should highly prize and endeavor to improve the advantages placed within our reach by the art of printing, it becomes necessary to exercise discrimination in selecting from the abundance and variety of reading matter such as will prove most useful and most conducive to the true development of our minds.

The influence of habit in reading, as well as in other things, being great, the importance of forming good habits of reading and study must be apparent to all reflecting persons. The kind of reading, the manner in which we read, and the amount of time which we devote to that exercise are perhaps the principal things to be considered in connection with the formation of habits of reading. Let us first consider the kind, and endeavor to ascertain what kind or kinds of reading matter form man's proper mental food. In doing this, it will be necessary to glance around, and see what nature has already done.

Man forms a part of nature, and is constantly surrounded by nature's works. These works of nature are perfectly adapted to the development of the various faculties of the mind, and a knowledge of them is of great utility in all the affairs and avocations of life. At every turn we are brought in contact with nature, while every work of art is constructed from the materials already furnished by and in accordance with the laws of nature. These facts seem to indicate nature as the proper study for man, and works on the natural sciences as his most suitable reading. To these we may add the biography of great and good men, together with history, particularly the history of the different arts and sciences, discoveries and inventions, which have revolutionized society, and given mighty impulses to the march of mind.

We would by no means convey the idea that every individual should adopt the same course, or form the same habits, of reading. Happily for the human race, there exists among them a great diversity, and we would repudiate as unwise any course of action which would have a tendency to render them all alike.

Yet there is a wrong as well as a right way ever open before us; and it is the opinion of the writer that the true way is broad enough, and that there is in it a sufficient variety for all. A knowledge of ourselves, and of those objects by which we are constantly surrounded, can not fail of being useful to all, yet since some have more disposition as well as ability to acquire that knowledge than others, we are led to the conclusion that attainments in these and all other branches of knowledge should differ in degree with different persons; each devoting himself chiefly to those useful pursuits which are best adapted to his mental capabilities.

In order to derive the greatest possible benefit from reading, it is necessary, not only to read certain books and periodicals, but to refrain from reading others. That some kinds of reading have a bad effect upon the mind will hardly be disputed, while others, perhaps, not directly productive of evil, prevent useful reading. The reading of works of fiction, as a general thing, is not commendable for several reasons. In the first place, it is generally admitted that they have a strong tendency to pervert the mental appetite, and destroy a taste for truthful reading The truth of this is confirmed by experience and observation. Novels are generally so highly spiced that they deprive the mind of a relish or prevent the formation of a taste for plain reading, perhaps much in the same way that stimulants and highly seasoned condiments blunt or destroy a relish for plain, nutritious food. In addition to this, the delineations of life and character found in novels frequently convey to the mind of the reader incorrect impressions, which tend to unfit him for the practical duties of life.

These considerations, together with the fact that comparatively little information or useful knowledge can be obtained from novels, also the loss of time occasioned by a habit of novel-reading which might be occupied in a more useful manner, render it obvious that we should look elsewhere for the mass of our reading matter.

The practice of reading delineations of murders and horrible affairs, in all their shocking details, is certainly reprehensible. It is a law of mind, that the exercise of any faculty or combination of faculties excites in others the same faculties. For instance, the exercise of Combativeness by an individual excites the same organ in those around him, and the same is true of all the different faculties and combinations of faculties. The reading of different events probably operates upon the mind much in the same manner as witnessing those events, but less in degree. In accordance with this principle, to read of good actions or good men must exert an influence for good, while an opposite influence must result from reading the details of crime.

The prevailing taste for and patronage of periodical literature in this country brings a few remarks upon that subject within the range of this article. A certain amount of such reading being essential, both to mental culture and usefulness, should not be neglected. It is, however, an incontrovertible fact, that too much attention is given to newspaper reading, including, as it does, so many particulars relating to events which are constantly transpiring in every part of the country, and which are collected and by means of the press presented in an immense mass to the curiosity-loving and information-seeking people, many of whom derive the chief part of their mental sustenance from this source. What benefit is to be derived from this endless study of particulars?

It has already been shown that a large class of them, viz., those pertaining to crime, have an evil tendency. But what good can result from the reading of those whose tendency is not directly evil? The necessity of keeping posted up in the important events, discoveries, etc., which are continually occurring throughout the world is evident; yet when we descend to particulars which are not in themselves important, and which will in all probability soon be forgotten, there is an appropriation of time which may properly be called a waste, since it precludes the possiblity of devoting that time and attention to things of greater importance, viz., to the laws and principles of nature, which a high mental culture demands.

The periodical literature of the present day is undoubtedly susceptible of much improvement. There is too much detail and too little variety. We get in some of our newspapers a great many particulars connected with a few important events, yet receive no information in regard to other matters perhaps equal in importance. It is true, that by taking several papers an adequate amount of information concerning all the important matters and questions of the day may be obtained, but it is so interweven with detail that too much time is required to accomplish this object. We are obliged to read too much for a little information, and also to pay too much money for it; yet as the supply is in a good degree regulated by the demand, we may expect our literature to improve with the literary taste of the people.

Upon the other branches of our subject previously mentioned—the manner of reading and amount of time devoted to it—we did not intend to dwell. They rank high in importance, and naturally form the subject of a separate article.

I. D. M.

The Love of Home.—It is only the shallow-minded pretenders who make either distinguished origin a matter of personal merit, or obscure origin a matter of personal reproach. A man who is not ashamed of himself need not be ashamed of his early condition. It did happen to me to be born in a log cabin, among the snow-drifts of New Hampshire, at a period so early that when the smoke first rose from its rude chimney, and curled over the frozen hills, there was no similar evidence of a white man's habitation between it and the settlements on the river of Canada. Its remains still exist; I make it an annual visit. I carry my children to it, and teach them the hardships endured by the generations before them. I love to dwell on the tender recollections, the kindred ties, the early affections, and the narration and incidents which mingle with all I know of this primitive family abode. I weep to think that none of those who inhabited it are now among the living; and if I fail in affectionate veneration for him who raised it, and defended it against savage violence and destruction, cherished all domestic comforts beneath its roof, and through the fire and blood of seven years' revolutionary war shrunk from no toil, no sacrifice, to save his country and to raise his children to a condition better than his own, may my name and the name of my posterity be blotted from the memory of mankind.—*Daniel Webster.*

DR. JOHN W FRANCIS.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

Dr. John W. Francis, whose name is associated with much that is remarkable or distinguished in science, literature, art, and benevolence for the last half century in the history of the metropolis of America, was born in New York in 1789. His paternal ancestors lived in the picturesque old town of Nuremberg, in Bavaria, and his mother's family were of Berne, in Switzerland.

His father died when our subject was but six years of age, and he was left to the sole care of his mother, a native of Philadelphia and a very kind-hearted woman: her family enjoyed the friendship of Dr. Franklin.

Dr. Francis, when a mere child, was remarkable for his studious and exclusive tastes. Although possessing the most robust health, combined with great intellectual quickness and spirit, he seldom could be induced to join in the usual sports of boys of his age, preferring rather to retire by himself with a book upon some interesting subject or science, or in conducting experiments of various kinds, in which he could exercise his ingenuity and satisfy his love of inquiry. He was never known to go hunting or fishing, and, it is said, has never fired a gun in his life at any living object, although possessed of unquestionable courage and great positiveness of character. The only boyish sport he was ever known heartily to indulge in was the flying of a kite, an amusement which he seemed never to weary of. He had early read the works of Dr. Franklin, and heard much of the character of that eminent man, which made a powerful impression upon his mind, and doubtless exerted a marked influence upon his habits of thought and general plans of life.

His mother early understood and appreciated the genius of her son, and gave such attention to his preparatory education that he entered an advanced class in Columbia College, from which he received the degree of Bachelor in 1809, and of Master of Arts in 1812, having (while an under graduate) pursued the study of medicine under Dr. Hosack, and received in 1811 the first degree of Doctor in Medicine ever conferred by the New York College of Physicians and Surgeons. The learning and ability displayed in his thesis for that occasion, on the Use and Abuse of Mercury, and the quick judgment and aptitude evinced in the beginning of his practice, had instant and gratifying recognition. Dr. Hosack, who was the leading physician of the city, invited him to a partnership, which was formed and continued until 1820; and the Regents of the University appointed him Professor of Materia Medica in the newly-organized College of Physicians and Surgeons. He was then but twenty-three of age, and he gave his first course of lectures to a class of one hundred and twenty students. His success but increased his ambition for excellence, and he soon after sought the completion of his own education in the great schools of Europe. Going to London, he studied under Abernethy, whom of all physicians with historical names he most resembles; and attended the lectures of Brande, Pearson, and the other most celebrated teachers of that time. He traveled in Ireland, Scotland, France, and Holland, and became acquainted with

Brewster, Gall, Denon, Cuvier, and many other great men, to whom he was recommended by his manners and capacities.

Returning to New York, Dr. Francis was made Professor of the Institutes of Medicine, to which were added in 1817, Medical Jurisprudence, and in 1819, Obstetrics and the Diseases of Women and Children, and he held these several chairs until 1826, when with Hosack, Mott, Post, Macnevin, Mitchill, and his other associates, he resigned. The chiefs of the same faculty, with Drs. Godman and Griscom, soon after proceeded to organise a school as the Medical Department of Rutgers College, and their popularity would have secured the most ample success but for legislative interference in behalf of the old establishment. Dr. Francis continued twenty years a teacher, devoting from four to six hours a day to public and private instruction, besides attending to steadily increasing practice, and writing largely for the press. He now determined to have no other occupation than that of a physician, and his successes in the last quarter of a century, and his present eminence as a practitioner, need no recapitulation.

Upon his appointment to the chair of Materia Medica, in 1813, Dr. Francis published (in his History of the College of Physicians and Surgeons) a syllabus of his course of lectures in that science, in which he states that his classification of the articles of the Materia Medica was founded upon the composition of the human body, as made up of four distinct parts, each, however, to a certain degree, connected with the others, and reciprocally affected by similar causes: as the brain and nervous system, the heart and blood-vessels, the absorbing, secreting, and excreting systems, and the various fluids of the body; and much attention was given to the American Materia Medica, so rich in curative agents. His essay on Mercury is one of the most elaborate and philosophical treatises on the subject. The leading doctrines maintained in it, though at the time startling by their novelty, have since been inculcated with additional force by Liebig, and become a part of positive science. Dr. Francis has not been indifferent to the additions which modern investigation has made to the list of powerful remedies. He was the first to call the attention of American physicians to the use of croton oil, to elaterium, and to iodine. As early as 1823—shortly after the discovery of the properties of the latter—he had recourse to it for the removal of goitre among the Indians of Western New York; and his account of the effects of this important remedy was made known in a report on the subject, which is printed in the American edition of Cooper's *Surgery*. Succeeding Dr. Stringham as the first teacher of Medical Jurisprudence in this country, he has illustrated the principles and enlarged the applications of that important science by many new and important facts and suggestions. On the Asiatic Cholera, his dissertation addressed to the Medical Board of Savannah, during the first prevalence of that disorder in New York, was generally commended, and in Cuba was translated and distributed among the people by the government. His observations on the Mineral Waters of Avon display his abilities in medical chemistry. On deaths by lightning, and deaths by the imprudent drinking of cold water when the body has been overheated, he has published valuable results of autopsical examinations. On the contested subject of dosimasia pulmonum, anatomical investigations, according to his statements (printed in Dr. Lee's edition of Guy's *Forensic Medicine*), tend to weaken confidence in the hydrostatic test of Hunter.

Dr. Francis was one of the early promoters of the New York Historical Society, and contributed largely in money in aid of its establishment, and he has done more than any other man to sustain and surround it with popularity and power. He has been associated with the organization of several of our great hospital and benevolent institutions, which have become a permanent feature in the history of his native city.

In him the State Woman's Hospital, the latest and most remarkable benevolent enterprise of the age, has found a powerful and untiring friend. His magnificent address on this subject, delivered on the occasion of the first anniversary of the institution, is a master-piece of learning, argument, and impassioned eloquence, which immediately placed the future success of the institution beyond all question or doubt.

Dr. Francis is now President of the Medical Board of Bellevue Hospital, and among his latest acts in that connection, was an address at the commencement of the winter course on Clinical Instruction at the hospital, delivered October 19, 1857, before the governors, physicians and surgeons, professors and students, which for erudition, spontaneity, instructive eloquence, and perfection of style, has seldom been excelled.

He was chosen as the first President of the Medical Board of the Woman's Hospital—a position which he continues to hold with Mott, Stevens, Delafield, Green, and Sims as associates.

He is also one of the most conspicuous members of the Academy of Medicine, having held the office of President. He was also the President of the New York Phrenological Society, and delivered an address on its organization, and was a warm friend of Spurzheim. He is also Vice-President of the Ethnological Society.

Harper's Magazine, in speaking of his latest and perhaps most remarkable production, his late Anniversary Address before the Historical Society, thus gracefully and justly remarks: "Dr. Francis has happily availed himself of the occasion of inaugurating the new edifice of the Historical Society to bring forward many of the worthies of the olden time, in a series of life-like pictures, which reproduce in brilliant colors the fading realities of the past. No portion of society escapes the touch of his comprehensive and dashing pencil. His portraitures embrace distinguished men of every profession, pursuit, and calling in life. Concerning many names which are known to the present generation only by tradition, he relates a great variety of original anecdotes illustrative of their character, and presenting many curious traits of strongly-marked individuality. The lover of antiquarian lore and personal sketches will find an ample feast in the lively narratives of our time-honored chronicler."

This address makes a volume of near four hundred pages, and has been presented by its venerable author to his youngest son, Samuel W. Francis, who will publish a revised edition very soon, so that all who choose may obtain it for perusal or study. This work will henceforth form a permanent requirement of every well-ordered library.

To the personal acquaintances of Dr. Francis, nothing is more delightful than the fine enthusiasm with which he dwells upon the characteristics of the remarkable persons with whom he has been familiar in his long and eminent professional career; and the physician of the elder Kean, of Cooke, of the Garcias, De Witt Clinton, Aaron Burr, Philip Freneau, Da Ponte, and troops of living celebrities, must have seen human life in its most strange and various phases. His memory is singularly retentive, his powers as a raconteur of the first order, and his amiability, *bonhommie*, and humor, highly attractive.

But his admirable social qualities are among the least of his titles to respectful and affectionate consideration. Having been all his life a student, he is in the widest and best sense of the word a scholar. His abilities and acquisitions as a physician are illustrated not only in his extensive practice, but in the various medical writings to which we have referred. As a historical critic and character writer he is justly distinguished, and his portraits of Chancellor Livingston, Doctors Hosack, Miller, Mitchill, Rush, Romayne, and Bard, the Coldens, Bishop Berkeley, Dr. Franklin, and others, constitute one of the most interesting galleries produced by any single hand. It is a constant regret with those who know how richly his mind is stored with the most profitable and pleasing knowledge, that he has so little leisure from the arduous labors of his profession for those pursuits of literature to which he is led by his tastes, and for which he is so eminently fitted by his capacities and sympathies.

Dr. Francis is now sixty-eight years of age, and his eye is as bright, his step as elastic, and his vivacity as unfailing as they were at forty. His inquisitive spirit is still informed as thoroughly as then with cotemporary learning and intelligence; and there is scarcely a day of which he does not pass many hours in his carriage or by the bedsides of patients.

In all respects Dr. Francis is one of our leading and most loved and honored citizens, and his presence is solicited for almost every public occasion on which New York displays her greatness, wisdom, or beneficence.

One of the most distinguishing peculiarities of Dr. Francis' personal appearance is the striking resemblance his features bear to those of the great American philosopher, Dr. Franklin—a peculiarity that has a parallel also in their intellectual traits, and which has not inaptly led many persons to style him the Franklin of our day.

In order to catch the most delicate and exquisite tints of his peculiar character, Dr. Francis should be seen in his own genial home, surrounded by the abounding and delightful hospitalities and refined amenities and humanities that sweeten and exalt that cherished sanctuary of the heart and all that is beautiful and desirable in domestic life, where intelligence and love reign supreme.

PHRENOLOGICAL CHARACTER.

You have a remarkably fine development of the vital temperament—the organs which nourish the body and sustain the brain, and generate the steam from which life-power and enjoyment are made. We rarely find so deep and broad a chest indicating very large lungs, and we seldom see a man with such good digestive powers. You have

digestion as perfect to-day as that of a child a year old. Your circulation is also very free and strong, and this constitutional condition has been of great service to you, in its abundant resupply of power for your multiplied and long-continued labors. Your vital development is capable of manufacturing twice as much nourishment for the brain and body as is ordinarly possessed by men of the present age. Thinking does not exhaust, nor labor prostrate you. Your brain is large, but you have body enough to support it, and you may work with your intellect, you may be aroused in sympathy, you may feel girded up to a high effort in the department of force and energy; nay, all classes of your mental faculties may be wrought up so that every organ of the brain is at work on the high-pressure principle, and there will be no lack of power to sustain them; hence you get the advantage of your cotemporaries in this fact of ability to generate an immense amount of power, and work it off continually without being exhausted or broken down. You have a superabundance of health and strength. Your very presence among invalids makes them feel stronger. Your magnetism is abundant, and you always have a genial glow of energy and cheerfulness pertaining to your physical life which is very effective. Your brain is not stinted and starved. Your capacious lungs take in oxygen in abundance, and your blood goes through the system glowing with arterial life, and with so large a brain sustained by such an excellent physiology, you are enabled to exert a great influence over others, and this influence is not only healthful, but it has breadth and momentum.

Phrenologically, you should be known for strong feelings. The base of your brain is large, and your animal propensities are not weak—they produce force of character, courage, and executiveness, and when provoked your temper is rather strong, and they who fall under your rebuke find it out. You have large Firmness. It gives determination and staunchness to your character, and when you are on the right track it serves to fortify you strongly against opposition, and to secure success; and in like manner when you are led to exercise your Firmness in conjunction with the lower feelings it produces a kind of obstinacy which sometimes you have occasion to regret; but you rarely fail to confess your faults, and if you have done a man an injury it does *you* quite as much injury as it does him, and it does you as much good to make reparation and an ample apology as it does him.

You enjoy the acquisition of property. You understand its value and its uses, exhibit economy in your affairs, and feel that you have no right to squander or waste anything; but the next hour you may take that which you have saved with great assiduity and make a free donation of it to somebody who will use it advantageously.

In the pursuit of business, as such, you show earnestness, economy, thrift, and a desire for gain, and you feel that it is your duty to take the advantage of circumstances and make whatever you do in a pecuniary way profitable to yourself. On the other hand, you have very large Benevolence; and sometimes you will give away in an hour all that you have made in a week; still, in giving away, your spirit of economy will lead you to study the best channels in which to extend your benefactions in such a way that each dollar shall count a hundred cents, and do as much good as possible. You would naturally be known in the business circles as a careful, guarded, correct, thrifty man; in beneficent circles you would be known as a benefactor and as a man who would seek out new channels for doing good, and exercise your ingenuity in devising ways and means for accomplishing it.

Socially you are known for cordiality, domestic attachment, and home affection. You may not exhibit so much of the fawning, caressing, petting spirit among your children or with your wife as many men; but you have strong domestic feelings. You love woman in the abstract, and in the capacity of a wife you would feel that your consort was your other half, literally—that she formed the center of your being. You would confide in a woman more than most men of your intellect. You want her sympathy and indorsement. You were a favorite of your mother's, and have always had a facility in gaining and retaining the good-will of woman and her co-operation, and in your profession you have more female friends than most men; and although woman will submit to your dictation, professionally, she ever confides in your sympathy and friendship. Children trust you and look up to you as a director and father, rather than to come to you with a view to be caressed and petted. You value the homestead, the particular room and seat at table and fireside You would not be willing to live on a leased farm or on ground rent in the city. You would want the deed in your own hands, and to feel established like the oak that takes root in the soil.

Your Self-Esteem has been cultivated. In childhood you were diffident, and for many years you could not overcome that diffidence; but you have been accustomed to meet the responsibilities of life, and to exercise the faculty that braces a man up and enables him to sustain himself in responsible positions; and the spirit of independence or feeling of dignity and self-reliance has increased in strength. You are not overbearing, nor have you much disposition to domineer and dictate to others. You prefer to have people ask your opinion rather than to volunteer your advice.

Firmness being a strong and controlling influence in your mind, you are capable of standing up and bracing against opposition, and carrying through difficult and troublesome enterprises.

Your Combativeness never leads you to desire physical conflict. You are very fond of discussion and debate, and disposed to meet questions on a moral and intellectual basis; but never feel like carrying your arguments at the end of your arm or at "the sword's point."

Your Destructiveness is developed largely in the anterior part, which indicates efficiency, but not large in the posterior part, which indicates cruelty; and in all your professional services you give as little pain as possible. You are never wanton in the infliction of pain, and it is only from a sense of duty and necessity that you would inflict it; but you have that kind of mental stamina that can persevere and execute when necessary, without flinching; but yet there are few men of any pursuit who are as tender in feeling as you.

You have a very good relish for whatever addresses the appetite. You would be less likely to employ stimulants and irritants than many, but you enjoy the luxuries of the table and substantial food. In short, you like to live well, but aim to live temperately, and are satisfied with enough.

You have large Constructiveness. Your head is wide at the temples, indicative of planning talent and mechanical judgment; and you also have very large perceptives, which aid you in practical departments of mechanism: but you must always understand the principles before you strike a blow, and begin at the bottom. You never act at random, and as a mechanic you never would "cut and try," as it is called; but would measure and plan, and carry out the problem mathematically. You are fond of the beautiful, especially the beauties of material being. You are less inclined to let your mind sweep off into regions of mere imagination than you are to enjoy esthetic beauty, as connected with art, mechanism, and whatever is tangible. You enjoy very highly a beautiful horse or fine animals of any description; also finely-formed men, women, or children, beautiful pieces of artistic workmanship, and are a good judge of form and harmony of parts, and might have made an excellent practical mechanic or artist. You are naturally orderly, anxious to have a rule for everything. You want a particular place for your hat and cane, and for each book in your library. You classify and arrange things systematically. Nothing displeases you so much as disorganization and disorder.

You relish music, and if you had devoted yourself to it you would have shown more than ordinary talent in expressing it; but especially would you have shown a nice comprehension of harmony and exquisite enjoyment of melody.

Your Language is very large, and had you been cultivated for public speaking you would have become distinguished as an orator, and for your scope and precision of language. You have great control of words, and of their nicer shades and meaning, and never hesitate for a word in private or in public.

Your memory of events is good, and you recall your past history with great accuracy and facility. If, however, this fails to respond, you fall back upon the principle involved in the subject, and reason it out again, and find it to be an old acquaintance which you had laid aside and forgotten. You never really forget that which you have ever known.

Your Causality is large. The upper part of your forehead is very massive. The range of organs in the perceptive group is prominent, but the reflective group is larger. You seek to know the why and wherefore; to go to the foundation, and are never satisfied with mere empirical examination. You want philosophy as well as experiment. Your mind is hungry for knowledge; to reach out into new fields of investigation. Your power of analysis arising from large Comparison is great, and you illustrate a subject with much freedom and force. You enjoy wit, and relish the facetious highly. You can be sarcastic and scourge your opponents with satire, but you more commonly use your Mirthfulness as a plaything with which to amuse yourself and your friends. If you dislike a man you very seldom condescend to use your Mirthfulness toward him, and never joke with him.

PORTRAIT OF JOHN W. FRANCIS, M.D. LL.D.
Photographed on Wood by PRICE'S Patent Process.

You have the organ large which judges of character, which comprehends strangers and understands the motives and capacities of others, and brings you into sympathy with them. You are rarely mistaken in your first opinions of persons. If you were a merchant you would understand whom to trust and whom to deny, and if you were governed by these first impressions you would be rarely deceived.

Your Benevolence is rather too large, and it has, doubtless, been increased in its power and activity by coming in contact with misery and suffering in the long career of your profession. You have large Imitation. You are capable of adopting the usages of others, and you naturally glide into the customs of those with whom you associate. In this way you may sometimes temporarily take on even bad habits. You relish histrionic representation, and appreciate caricature very highly.

You have Spirituality, but it is of a religious cast. It works with benevolence and sympathy, and with your reverence for the Deity, more than it takes on the forms and ceremonials, or leads to a belief in that which is fallacious. In science you are enterprising, but not credulous. You give a cordial entertainment to whatever opinion is honestly presented, and endeavor to investigate it with calmness and candor; but you do not accept new and strange dogmas in science or religion without very close investigation; but you have enough of this spirit of marvelousness to awaken curiosity and give you a desire to hear about everything that promises a better thought or a wiser demonstration. You occupy a medium position between a conservative and a radical. Your reverence for the past, and your regard for fundamental principles, make you lean toward conservatism, while your sympathy with the new, and love of progress, give you a leaning toward the radical, and the result is that you aim to hold on to whatever is valuable in the past, and to reach forward for whatever is promising in the fields of invention and discovery. You are good company for young people, and sometimes you forget that you are not twenty-five instead of sixty-five. Your mind will never grow old so long as you maintain your present health of body. You will always feel elastic, and that youthful spring and enterprise of mind which relishes wit, which responds to friendship, which reaches forward to the future and enjoys the present, will serve to make you not only happy, but useful to others and most excellent company for young or old.

Your faults of character, in the main, will be sins of omission. The heat of passion may lead you to hasty expression, and you may sometimes be overbearing; but these will be only occasional faults. The general tone and drift of your mind will be toward the right, the just, the true, the reasonable, the friendly, and the sympathetic.

If your worst enemies were to sit in judgment upon you they would give you three virtues to one fault. You perceive your faults as quickly as any enemy could do, and feel as sorry for them as any one could desire. You aim to be just, liberal, and true, and you seldom fail in accomplishing your object.

ABEL STEVENS, D.D. LL.D.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

[IT is proper to say, that Dr. Stevens was brought into our office by a friend, with whom he was passing on Broadway, and was unknown to the examiner till the examination was over, and the description taken down by the short-hand reporter.]

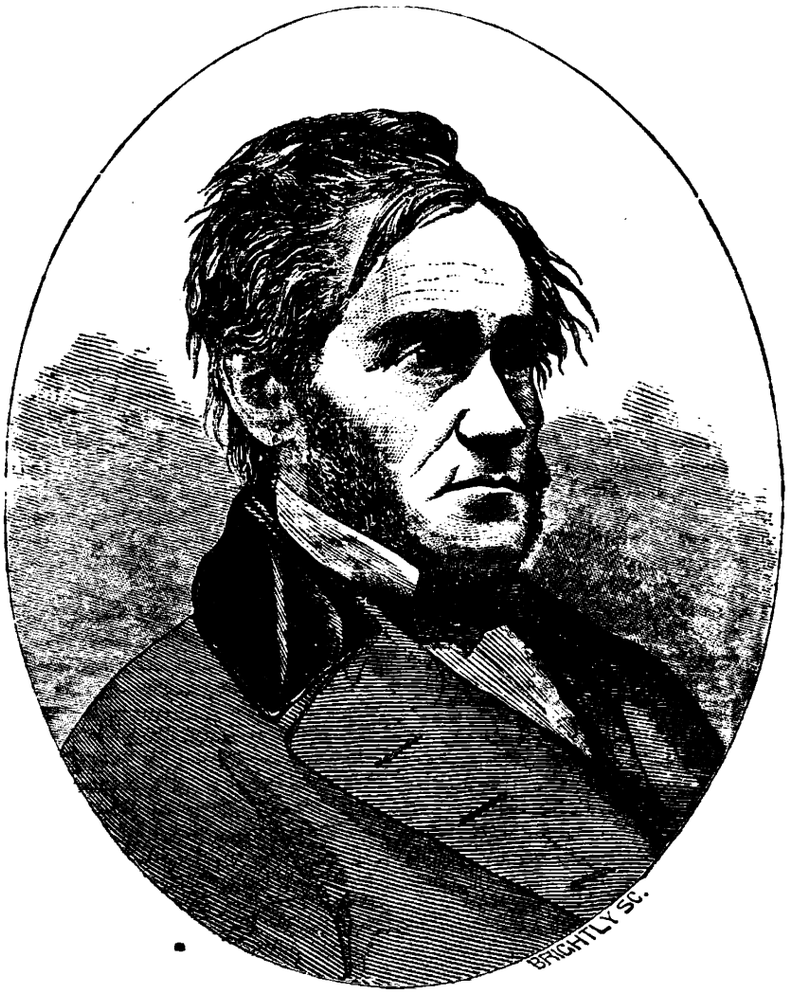
You have a slight frame but a fine organization. There is intensity and endurance rather than brawn and strength. Your brain is rather too large for your body, and though in circumference it measures only about full, yet its height indicates that it is large, like a three-story house, roomy because of its altitude. Your skull is thin, as indicated by the fineness of your temperament and the smallness of your bony structure, and also by the very sensible vibration felt by laying the hands on the head when you speak. This condition gives more room for your brain than if the skull were of ordinary thickness, and is always accompanied by great mental sprightliness. You live a life of activity, and find it difficult to glide along in a passive, indifferent manner. You must take strong grounds one way or another, and sustain or repel whatever subject comes up for consideration. You have strong ambition, though your friends would not suppose it, from the fact that it is too strong for the ordinary motives of ambition; what men around you would consider worthy of theirs, you would consider "game not worth the powder;" but could you write a grand and lasting poem, or fight a great battle, you would do your utmost for it. From a child to the present hour you have had a desire to excel, and a sensitive regard for the good opinion of those whom you respect, has been leading motives of conduct. You are a cautious man in reference to difficulties and dangers. You guard on all points, and keep a sharp lookout, and would succeed well in a business requiring sagacity in planning and watchfulness in administration. You have not much Secretiveness, hence you are often abrupt in your expressions and very frank in manifestation; but are never reckless of consequences. You should have more Secretiveness, which gives policy, and rather less Cautiousness, which produces solicitude. The organs of Combativeness and Destructiveness are sharp in development, indicating activity; hence you are prompt in resisting encroachment, but more naturally through a moral and intellectual or argumentative channel than physically. You are less cruel and morose in disposition than you

are efficient and earnest in feeling, and sharp and sarcastic in thought and word. You are capable of speaking or writing in a critical style, and if necessary of employing keen satire to give it effect. Your Mirthfulness often seeks an outlet through Destructiveness; and you can, if you choose, through wit and ridicule, make a person feel very small. You have so high a sense of reputation, that if a man renders himself liable to criticism in that direction, you would know better than most men when and how to hit him in order to make him feel it most severely; and this trait gives you great power in rebuking that which is mean or absurd. In the training of children or in the negotiation of business affairs you can awaken this feeling in others and use it as a tremendous lever to exert influence on their minds.

Your Firmness is large, indicating determination and will, and when your courage, efficiency, and sense of reputation coalesce with Firmness, you become very strong in your opposition. If you were persecuted for righteousness' sake, and could feel your strong conscience and Firmness standing on either side of you, as "Aaron and Hur" stood by the side of Moses, you would show more than usual heroism in maintaining the right. Your line of life and sphere of duty should lie where you can exercise your intellect as the cutting edge or working part, and where sense of reputation, and honor, firmness, dignity, prudence, and moral sentiment can all combine to drive that edge forward; but if you had a mean business, requiring for success a suppression or wrong coloring of the truth, or downright dishonesty, you would be so completely hedged in that you would hardly be yourself. You ought to be a talker, and if a scholar you are capable of being an excellent speaker and writer. In literature you would prefer the Greek to the Latin, and the *belles lettres* department, if you were to teach. You have a high sense of the beautiful and the grand, and your feelings take a strong hold of the poetical and beautiful. You have a tendency to decorate, polish, and adorn whatever you touch. Your Spirituality leads you to love that which is new or from immaterial sources. You can conceive of value and of durability outside of granite and iron and oak, and you would place a higher estimate upon some exquisite work of art as large as the palm of one's hand than most men, or than you would upon many things which could be measured in worth by hundreds of dollars. If you had the means you would qualify yourself for the higher ranges of thought and feeling in the esthetical world. You enjoy in a high degree whatever is perfect, and pure, and pre-eminent. You have respect for things sacred; but your Benevolence and Conscientiousness, however, are your larger religious organs, and to do justly and love mercy the strongest features of your religious character.

Your sense of property is of a secondary character. Money *per se* is of very little value in your estimation. That which money will buy; the refinement, the knowledge of things, and the good which it enables one to do, would induce you to seek it, but only as an instrument; and if you had an annuity sufficient for your wants, you would pursue an avocation entirely irrespective of its pecuniary reward.

Your reasoning intellect appears large, and your perceptive quite full. You gather knowledge readily, but you seem always to have an object in view in the acquisition of facts; for you incline to twist them up into ideas and bring them to a logical bearing upon your business or upon the interests of the world.



PORTRAIT OF ABEL STEVENS, D.D.LL.D.
Photographed on Wood by Price's Patent Process.

You have an excellent judgment of character, and understand the dispositions of strangers at the first sight, and this greatly aids you in exerting an influence over others.

Your social group of organs is large. Your love for woman is prominent, but your manifestations are comparatively delicate and refined. You can never love a woman who is not a model of delicacy and of sentiment, though anything that is prudish or mawkish would offend you. Your love of children will show itself as a parent toward the little ones; you would feel a regard for the infant, the pet; and however much your ambition and intellect might rejoice in their development, your feelings would want to keep them little

Adhesiveness appears to be unusually large, and has this peculiar quality, that it leads you to be exceedingly interested in the high standing and character of your friends. You watch for their success and for their reputation, and when they stumble you feel it, and when they fall, it seems as if you went down with them. You have not so much of the caressing and fondling spirit toward your friends as you have of that love of family and respect for the genealogy and the honor of your household.

Your intellectual development indicates a love for principles, details, and facts, and you gather thoughts with a view to combine, and classify, and organize them for specific ends. It is natural for your mind to begin with facts, and lean back to principles; and if a principle be stated, you find it very easy to reduce it to its original elements. You appreciate the logical bearings of facts and the philosophy of actions as developed by the facts of history, and you study to comprehend the motives by which the doers were actuated.

You have a fervid fancy, and you sometimes require all your logical power and prudence to keep your fancy within proper bounds. It is a kind of poetical, imaginative, expansive spirit, and, with your temperament, makes you quite enthusiastic, and inclined to use strong expressions and illustrations. Your style as a speaker or writer is clear and vigorous in its facts, logic, and illustration; yet so fertile in fancy and imagination, and warmed by the affections and emo-

tions to such a degree, that nearly every one would find something to appropriate to his own case and condition.

BIOGRAPHY.

DR. ABEL STEVENS, one of the most eminent and distinguished among the many earnest thinkers, preachers, and writers representing the powerful democratic sentiment of American Methodism, was born in Philadelphia on the 17th of January, 1815. His father was a printer, a Massachusetts man, of old Puritan lineage; his mother of Pennsylvania, German descent; an origin eminently calculated to give assurance of a man such as Dr. Stevens has proved himself to be—a revised edition of the all-conquering Anglo-Saxon, as we have heard the Doctor himself phrase it.

His father was successful in business, and accumulated some property; but dying young, his family became dependent, and his son, at the age of nine years, commenced working to aid in its support.

His mother was an invalid by protracted suffering from consumption, so that the family were mainly dependent on the labors of young Abel, who at that early age was called on to give proof of the sterling qualities of his nature, which have since wrought for their possessor a character and reputation of which any man might justly be emulous.

About his twelfth year his mother died, and he was left to fight his way alone. He provided for his board by working in the Old Glebe cotton mill, in Philadelphia. He had learned to read, but hardly to write. He attended a Methodist Sunday-school, to which he ascribes all his later success. He has been heard to congratulate himself that its library was not composed of the modern liquefied books for children, but contained old, substantial works, given from the libraries of families. He devoured them; and as his work in the factory was "piecing-up" on the spinning-mill—a machine which allows of two minutes' leisure out of three—he used to tie his book open on a post or pillar, and running to it when he could no longer reach to "piece" the threads, he would read sentence by sentence. He worked his way at last by the aid of friends, who appreciated his love of knowledge, into a school, where, under the instruction of the Rev. R. M. Greenbank, of the Philadelphia Conference of the M. E. Church, he studied the elements of English knowledge, and opened the path for his future studies.

About his thirteenth or fourteenth year he entered a book-store as clerk, and had permission to read all its books that he could master. A writer, who has given a sketch of him, mentions having seen him buried there among books, mastering Horne's learned "Introduction to the Bible," when he was hardly larger than the folios around him; for his growth had been stunted by hard work.

From this store he went, in his sixteenth year, to Wilbraham (Mass.) Academy, and subsequently to Middletown (Conn.) University, where he studied under the late Dr. Fisk. He followed, but did not like, the routine instructions; he combined with them a large scheme of other studies. No man, it is said, dug more thoroughly into the college library, or laid himself out more in the debating society of the university. The latter he has pronounced the highest advantage of his college life.

Leaving the university, he went to Boston to seek out the relatives of his father; and while there, his preaching interested some gentlemen to retain him, by procuring for him a church. The Church Street M.E. Chapel was in this manner secured. He preached in Boston for three or four years, pursuing his studies meanwhile as systematically as when in college. At the close of his Boston labors he made a European trip. His correspondonce was published extensively in the newspapers. On his return he was stationed, according to the Methodist system, at Power Street Church, Providence, R. I. His ministrations then being near Brown University, the faculty and students were frequent attendants in his crowded audiences; and Dr. Wayland conferred upon him the honor of A.M. in a very handsome style—the honor being unsolicited and unknown to him till he heard it announced as he sat among the Baptist dignitaries at the commencement exercises.

From Providence he was called again to Boston, to edit the Methodist paper there. He was a strong anti-slavery man, and the first thing from his pen ever printed was an appeal in a Philadelphia paper, before his fourteenth year, in behalf of the colored race. He has always cast the free-soil ticket into the ballot-box, since there has been one; but he has always been an uncompromising opposer of the ultra-liberal abolitionists. While editor in Boston he fought against Mr. Garrison, and the extreme party in his own church, which was then led by Rev. Messrs. Scott, Sunderland, etc. These gentlemen left the church while he was editor. He was opposed to the division of the church enacted at the General Conference in 1844. The Southern Conference would, he said, have a right to go as seceders, but no right to organize a division of the denomination without the consent of the laity. He has, in fine, been always an abolitionist of the Channing school. He was the first to introduce the question into the "Methodist Quarterly Review," in an article on Channing, which produced a sensation at the time. He was the first, also, to introduce it into the "Monthly Magazine" of the church. Ultra men, both North and South, find no favor from his pen. He considers slavery as a stern task, to be treated as such by the wisest discussion and the wisest statesmanship.

Some six years ago he was appointed by the General Conference to edit its (the National) Magazine in this city; and three years since he made a second trip to Europe, and was correspondent of the "Christian Advocate and Journal," of this city, and other papers; and his letters were very generally quoted. They were not mere travel sketches, but *studies* of European institutions, and sketches that embraced a large range of facts, statistics, and history. When he returned, the quadrennial assembly of his church was in session at Indianapolis. He had been elected a member in his absence. On arriving there when the session was half over, he found his anti-slavery friends in a strong majority for the first time. They were pushing a measure which he thought not according to their laws, and of dangerous tendency to both the church and the slave. His success as an officer of the body depended upon them; but he opposed them. He was sick, and unable to speak in public; but a speech read for him by his friend Dr. M'Clintock decided, it is said, the question; and though thus siding at first with the minority, he was afterward elected to the editorship of the "Christian Advocate and Journal" by the largest ballot given for any officer of the body. He now occupies this important post.

He is considered a "progressivist," if not a liberalist, by his church, being not only an anti-slavery man, but an advocate of lay representation, and of other improvements in church government. He has worked hard all his public lifetime for such improvements, and for colleges and academies, including theological education, and demands free discussion of all public questions in the church periodicals.

He is one of the most prolific authors of the church. Besides his editorials and frequent articles, during twenty-five years, for the Methodist reviews and magazines, he has published the following volumes: *Memorials of the Introduction of Methodism into New England; Memorials of the Progress of Methodism in the Eastern States; Church Polity*—a work which is used as a text-book in the Methodist ministry; *The Preaching Required by the Times*—a book that slashes into all those peculiarities of modern preaching which distinguish it unfavorably from other departments of popular eloquence; two volumes entitled *Sketches and Incidents*; a volume of *Sketches by an Itinerant*; a prize essay, called *The Great Reform*, on "systematic beneficence;" and several minor works. We understand that he is preparing a complete *History of Methodism* from the beginning, the first volume of which, embracing the Life and Times of Wesley, will be published this summer. He has been some fifteen years preparing this work. He designs it not for the Methodists alone, but for the literary and religious public at large, as a faithful record of the great religious development called Methodism, viewed from a philosophical stand-point.

What Dr. Stevens considers the great literary labor of his life is a *History of the Moslem Peoples*, discussing their religion, social system, literature, and arts, as well as their brilliant military achievements, and the relations of the Mohammedan faith and civilization to the history of Christianity. His foreign travels have had some connection with this subject, and his collections for it are numerous, and have been made at much cost, during a series of years. He has planned it as the concluding and most thorough task of his literary life.

Dr. Stevens' style as a writer is simple, nervous, clear, spirited, direct, and eminently logical, which admirably adapts him to the higher walks of journalism and solid literature. As a preacher, his discourses abound with practical illustrations and point, and are often highly imaginative and eloquent in expression. But it is as a pastor among his people, and in his own delightful circle, that he is best appreciated; his manners being social, unpretending, and kind even to hearti-

ness, and this, too, without any lack of personal dignity or self-respect.

Dr. Stevens affords an admirable illustration of the self-made man, and furnishes to the youth of our country a rare model for study and imitation. Such men as he are the noblest fruit of, and the best comment upon, American republican institutions.

PHRENOLOGY IN THE SOUTH.

We have the pleasure of recording the following complimentary notices, which have been given to our Phrenological missionaries, now on their return from their Southern tour. The first is from the Mobile *Mercury*, as follows:

"Professor L. N. Fowler.—Among the agreeable half hours which we have enjoyed recently, none have been more agreeable than a few which we have spent in the apartments of Messrs. Fowler and Wells. We are not competent to do justice to Prof. Fowler, as a lecturer; our own inclinations do not lead us to lecture-rooms, and probably he would explain the reason why better than we can. It is fortunate that, in this respect, the majority of folks are differently constructed from us, as they are thus led to embrace opportunities of gaining information which can not be easily acquired in any other way. Prof. Fowler's lectures are highly interesting, and what is better, they are eminently practical; and hundreds who have attended them during his stay in this city have thus received instruction which they could not well obtain from any other source, that will be of essential use to them during the remainder of their lives.

We, however, rather enjoy the more conversational tone of the instructions to be gathered in his parlor or examination-room. We there learn more of the man, and the more we have learned of him, the more we like him. He has not only acquired much reputation as a man of science, but has secured great esteem as a gentleman of most kindly feelings, during his sojourn in Mobile. His partner, Mr. Wells, is a polished and agreeable gentleman, and their assistant, Mr. E. T. Weaver, has laid us under obligations which we are happy to take this opportunity of acknowledging. We expect one day to hear of him as a distinguished Phonographic reporter. Mr. Fowler leaves this evening for Montgomery, Alabama, where we trust he will meet with much success. We cordially recommend him to the members of both houses of the Legislature, as a man who can make them "see themselves as others see them."

Their success in Mobile was complete. Indeed, when leaving that city, many regrets were expressed by the citizens that they had not become acquainted with Phrenology before, and that they could not be favored with a more protracted visit by Messrs. Fowler and Wells.

Madam Le Vert—a lady more respected, admired, and loved perhaps than any other in Alabama—presented Messrs. F. and W. with letters of introduction to several intelligent and influential gentleman in Montgomery and New Orleans; and remarked something to this effect: "She had lived in that city some thirty years, and never before knew all Mobile to be so completely interested and absorbed in any one subject as in Phrenology." A real "revival" was awakened, and the good effects of this visit there must produce a lasting good.

The Mobile *Register* gave a kindly parting notice of Prof. F., as follows:

This distinguished lecturer leaves our city today for Montgomery, where he will give a course of lectures. We wish him equal, or if possible, greater success there than even attended him here, and if we do not mistake the taste and intelligence of the citizens of our capital sister city, he will be fully compensated for his delay there.

In Montgomery, the capital of Alabama, they also made many converts to the science of Phrenology, and many warm personal friends from among the best citizens of that State. In noticing Prof. Fowler's first lecture in that city, the Montgomery *Mail* remarked:

There was quite a large attendance last evening to witness the lecture on Phrenology, by Prof. Fowler, of New York. The audience was composed of many of our first citizens and quite a number of gentlemen of distinction from various parts of the State. In short, it was an intellectual audience, and we believe that if there were any persons present who had been skeptical on the subject, Prof. F. is the very man to shake their unbelief. The lecture seemed to be entirely satisfactory, and we can not doubt that the series will be well attended.

After the lecture, a committee was selected by the audience to designate gentlemen who should be invited to submit their heads to a phrenological test. In this manner three well-known gentlemen separately went forward and were examined. The general outlines of their characters were so distinctly and accurately described by the Professor, that we believe all present were ready to acknowledge that he had achieved a complete triumph for his favorite science.

Each of the daily papers—the *Advertiser* and *Confederation*—expressed a hearty approval of the lectures and examinations.

In New Orleans the most zealous interest was manifested. After giving some twenty or more public lectures, two large private classes were formed at the residence of Dr. Anfaux, No. 8 Baronne Street, and the most earnest desire to acquire a complete knowledge of the science. Here a nucleus was formed, and we look forward to the time when Phrenology shall become a permanent institution in the metropolis of the South. On the departure of Messrs. Fowler and Wells from New Orleans, the *Crescent*, an influential newspaper, paid them the following handsome compliment:

Phrenology.—This science, so generally misunderstood by those who have never taken the trouble to look into it, has been extensively and very favorably disseminated in this city by its two able apostles, Professors Fowler and Wells, gentlemen whose names, by their long study and inculcation of the science, have become fairly elevated to the rank of the great names of Gall and Spurzheim.

During their stay in New Orleans, Messrs. Fowler and Wells have delivered lectures, made public examinations, and instructed privately, and examined the heads of all classes and conditions of people, with but one result—that of universal satisfaction. Preaching is one thing, practice another; and if Phrenology had to depend upon preaching alone, it would be considered the most mythical of humbugs. But in its practice it leaves no room for skepticism; when gentlemen like those named, who have made it their life's study, unfold its secrets, break up its mystery, and disclose the sublime mechanism of the Creator in his construction of that sublime creation, the human brain, conviction flows in—the light of truth is felt to be invincible.

As to the benefits of Phrenology, when understood, there can be no dispute. That a good appreciation of a man's character may be formed from an examination of his head, by an utter stranger, and that a man may be profitably directed in life by an understanding of his phrenological organization, are facts too widely proven to fear refutation; and one fact alone speaks highly of Phrenology. This fact is, that no one has ever investigated it properly without becoming a firm believer in it. Large numbers of our citizens have been instructed in the science by Professors Fowler and Wells, and so high is the universally expressed opinion of these citizens regarding it, that none can reasonably dispute its great and important truths. The professors named, having won golden opinions from all sorts of people in this city, and received a remuneration commensurate with their deserts, have left the city, and intend next to introduce their science at the capital, Baton Rouge. We cordially commend them to the inhabitants of that city, as gentlemen with whom it will be no less a pleasure to know socially, than a pleasure and a profit to deal with as professors of one of the noblest of modern sciences.

The following "card" was published in the New Orleans *Picayune*, March 15th, and evinces not only an appreciation of the science, but the kind and whole-hearted manner of expressing it, by some of the best citizens of New Orleans:

Card.—We, the undersigned, certify that we have attended a course of Lectures and Classes on Phrenology, given by Professors FOWLER AND WELLS, and we are fully convinced of its truth and utility in delineating character and elevating the human mind. We would respectfully recommend them to the attention of parents and teachers: N. C. Felger, J. Peebles, R. C. Ker, W. A. Wilson, F. Dean, M. Kaeser, M. Dyas, M. Kenner, J. M. Durand, J. S. Campman, Jerry R. Pike, Wm. Stuart, Robert McCullock, Robert Forrester, David R. Godwin, S. Johnstone, J. S. Knapp, Dr. N. G. Beale, J. M. Murphy, Adolph Elswald, H. J. Burns, Henry E. Buck, J. H. Pope, J. L. Swan, James Moody, John James, R. A. Carden, Lewis Schneider.

From Baton Rouge—the capital of Louisiana—they proceeded to Natchez, Vicksburg, and Jackson, Mississippi; Memphis, Tennessee, etc, in all which places they were cordially received and liberally patronized.

PHRENOLOGY.

Mr. Richardson, Editor of the Galveston (Texas) *News*, speaks thus frankly of a phrenological examination of his own head, made a few months since at our office. It had slipped our recollection, until we saw the following editorial in his paper of the 23d February:

"On our annual visits to New York, we have always had occasion to call at the establishment of Fowler & Wells, in Broadway, where we have invariably been detained for an hour or two, looking over the vast collection of heads which is there displayed, all duly labeled, and from an examination of which a large amount of valuable information may be obtained on a subject that is daily becoming more popular. We had always been somewhat skeptical on this subject till we chanced in there one day last summer, when, in conversation with Mr. Wells, he suggested we should have our head examined, and our true character put down in black and white. More from curiosity than any other motive, we at once agreed, and were introduced into the inner room set apart for this purpose, by Mr. Wells, who, without giving our name, profession, residence, or any clew to our identity, informed the Professor (Mr. Sizer) that we wished to undergo a phrenological examination. He commenced by taking the measure of our head, and then proceeded to give the leading features of our character, all of which was taken down in short-hand, by a very interesting young lady seated at a desk, whom we afterward learned to be the Professor's daughter. Scarcely a single trait in our character was omitted, and many fea-

tures were presented of which we ourselves had been heretofore unconscious, but the truthfulness of which was at once apparent. Before leaving, we were satisfied, if 'the proper study of mankind is man,' we knew more about ourself than we had ever known before. All our weak points were exposed, the few good ones we possessed were brought out in bold relief, and when we arose from our seat, we beheld what we believed to be a true picture of ourself, and not only 'saw ourselves as others see us,' but fancied we had gone through a much higher ordeal, and knew something of which others were ignorant. We were so gratified with the result, that a few days afterward we induced a friend of ours—a prominent citizen of Galveston—to go through the same operation, during which we were present; and though we had known him well for years, we learned more of his true character, as he himself admitted to us, during a half hour's examination, than we had been able to learn from an intimate acquaintance of nine years.

Strange and almost startling as this may seem, it is nevertheless true, and the proof can be produced at any time. Not only were all the leading features of character plainly developed, but many minor details, of which we ourselves were unconscious, were presented to us. It was our intention to have noticed this subject earlier, but it had escaped our memory till we accidentally, in looking over some papers, came across the chart handed us by Messrs. Fowler & Wells. This enterprising firm, who have been practical phrenologists for many years, are publishers of the AMERICAN PHRENOLOGICAL JOURNAL, a highly popular monthly paper, illustrated with numerous portraits and other engravings, and published at the low price of $1 per year, in advance. They also publish the *Water-Cure Journal*, devoted to hydropathy, its philosophy and practice mostly, at the same price, and a first-class weekly paper called *Life Illustrated*, a journal of entertainment, improvement, and progress, illustrating life in all its forms and aspects The three journals can be sent to one address for $3 per annum, and they will be found to contain a large amount of very valuable matter calculated to elevate the mind, and if followed out, to improve the condition of the human race physically as well as mentally."—*Galveston News.*

Miscellaneous.

THE JOURNALS WITH THE PEOPLE.

THOSE excellent and inimitable journals—Fowlers' WATER CURE and PHRENOLOGICAL—for March, are received. We wish we could persuade every family to take at least one of them. They would "pay for themselves" many times over in the "doctors' bills" that might be saved, and the increased health that might be enjoyed, if only a fraction of their advice was heeded. *Life Illustrated* by the same publishers, is one of the best weeklies in the country.—*Cherry Valley Gazette.*

THE PHRENOLOGICAL JOURNAL for April is a most excellent number. It contains a review of the article in *Blackwood* that appeared in December, which, while it did not entirely discard the science of Phrenology, still stated many objections to it, which, to the uninitiated, would seem quite conclusive against phrenological data. The Journal is a work of true merit, and deserves the great circulation it has obtained. Fowler and Wells' publications fill a very important place in our American literature.—*Nashua Oasis.*

THE TRUE SPIRIT.—The writer of the following letter will make a good man, a good husband, and a good citizen. His letter has the ring of the true metal, and it gives us great pleasure to minister to the culture and development of the mind of such a boy.

UNCASVILLE, CONN., *April 6th*, 1858.

MESSRS. FOWLER AND WELLS:—I am learning the carpenter trade, and get only enough to board and clothe myself; but I have managed, by not using tobacco and other useless luxuries, and by taking from my back to put into my head, to save two and a half dollars in gold, which I inclose to you for your work entitled "EDUCATION COMPLETE." S. G. J.

A LAY FROM MY POULTRY YARD.

THE following seasonable lines we clip from the *Ohio Farmer*, and commend them as the perfect inspiration of Philoprogenitiveness and Ideality. How very natural, and how beautifully expressed!

I had a flock of chickens,
The sweetest little things,
With tiny coat of creamy down,
And little hints of wings;
And bills like finest ivory
From Indian jungles brought;
And slender, polished legs, that seemed
Cornelian finely wrought.

How pretty their bright beady eyes,
And cunning sidelong peep,
As 'neath their clucking mother's wings
They nestled down to sleep!
How sweet their chirping twitter,
As they clustered at her side!
How nimbly on her slippery back
They hopped up for a ride!

How daintily they seemed to pick
The crumbs I loved to scatter!
How prettily they used to sip
The water from the platter!
Ah! it would take the graphic pen
Of Hawthorne or of Dickens,
To picture *half* the beauties
Of my charming little chickens.

IT is said that Mr. Paulsen, the renowned chess player, has the largest head of any man living.—*Exchange.*

[This not quite true. We examined and measured his head during the great struggle for the mastery in the Chess Congress, in October last, and found his head to measure 24½ inches. Rev. Mr. Landis, the measurement of whose head is recorded in the table of head-measurements, in our Journal for April, exceeds Paulsen by a quarter of an inch, viz., 24¾. There are probably several hundred men in the United States whose heads are larger than that of Paulsen.]

THE WIND AND THE STREAM.

WE copy the following beautiful little poem, by Bryant, from the *Atlantic Monthly:*

A brook came stealing from the ground;
You scarcely saw its silvery gleam
Among the herbs that hung around
The borders of that winding stream—
A pretty stream, a placid stream,
A softly gliding, bashful stream.

A breeze came wandering from the sky,
Light as the whispers of a dream;
He put the o'er-hanging grasses by,
And gayly stooped to kiss the stream—
The pretty stream, the flattered stream,
The shy, yet unreluctant stream.

The water, as the wind passed o'er,
Shot upward many a glancing beam,
Dimpled and quivered more and more,
A tripped along a livelier stream—
The flattered stream, the simpering stream,
The fond, delighted, silly stream.

Away the airy wanderer flew
To where the fields with blossoms teem,
To sparkling springs and river blue,
And left alone that little stream—
The flattered stream, the cheated stream,
The sad, forsaken, lonely stream.

That careless wind no more came back;
He wanders yet the fields, I deem;
But on this melancholy track
Complaining went that little stream—
The cheated stream, the hopeless stream,
The ever murmuring, moaning stream.

SEXTONS, READ THIS.—The Rev. Abel Stevens says: "The following extract, cut from an exchange, has truth and point, as our own sad experience testifies. As the Rev. Dr. Smith says, to have good preaching, you must *ventilate* the ministers and people. Many a minister has gone from his closet to the church feeling that he could preach Jesus and the resurrection, but on entering the pulpit the impure air of a confined house has depressed his spirits, enfeebled his voice, wasted his strength, and dulled the minds of his hearers. Some sextons are very careful to keep the church well aired; but others can not be made to understand its importance. The minister is a good man, they think, but he has his whims and notions. By their negligence, sextons have taken away the edge and fire of many a sermon, put many a hearer to sleep when he should have been eating the bread of Heaven, and shortened the days and curtailed the usefulness of many a minister of the Gospel. Let us, then, have 'line upon line, and precept upon precept' upon this subject, for it is vitally connected with the health and efficiency of the ministry, as well as the health and spiritual welfare of all worshipers."

CHOOSING AN OCCUPATION.—There is much greater probability of success in an occupation to which we are well adapted naturally, than in one for which we have neither taste nor capacity. We should be careful, therefore, lest we plunge a bird into the sea or a fish into the air. If a boy has naturally only the faculties of an ox, we should not think of hanging him up in a cage to learn the trade

of a canary-bird; neither, if he resembled a canary-bird, should we think of bringing him up to drawing a cart or a plow. If a boy manifest a very striking capacity for music and an utter unfitness for every other pursuit, he ought to be made a musician. If a man had the strength in his single arm of ten thousand horses, and no other force, moral or intellectual, he would certainly be hired to move a gigantic ship or to raise coal from a pit or some such work, and not to thread needles or make watches.

To Correspondents.

R. D. N.—Ought a man, in selecting a conjugal companion, to look for one who has those organs large which in him are small, and one whose predominant temperament is the one most defective in himself?

Reply. This question can not be answered in a single sentence with all necessary qualifications and explanations. We refer you and all other querists on those points to a little work we publish, entitled "Thoughts on Domestic Life, its Concord and Discord." Price by mail fifteen cents.

J. A. K., Ill.—1. If Phrenology be true, why is it that we frequently see talented individuals with small heads, while at the same time there are individuals whom we term "weak" with larger craniums than the former. Some persons also have heads one side of which is larger than the other. I am *almost* a believer in Phrenology, but when such questions as the above are propounded to me, I find them hard to answer. 2. Why is it that you say on page 20, February number, in reference to the North Australians, "No. 8 has a decent forehead, and much more *reflective* power than seems to be manifested by any other one of that class," and then say toward the latter part of the same remarks, "But with the exception of No. 8, there appears to be a great deficiency of *reflection!*" etc. I could not reconcile the two statements.

Answer. 1. Read in the March number the article, "Quality of Structure." The brain is composed of hemispheres, and is therefore double, each half having a full set of organs. Sometimes one set of organs or one half of the brain is larger than the other, but this does not disprove the science. We judge by the average. 2. This No. 8 should read No. 3. It is merely an error of the types.

B., Mobile, Alabama.—The case of the boy kicked by a horse in the forehead, as recorded in the *Northwestern Medical and Surgical Journal*, to which you refer, is analogous to the case of the boy of Mr. George Barnard, and we think it is the same case, for your terms are identical with the description given in a letter by the attending physician. This case was fully replied to and explained in this Journal, in three articles, in the June, August, and September numbers for 1857. To these articles we refer you, since it is impossible to give a reply in a few sentences to so grave and complicated a case.

N. K.—Does the excitability of the temperament depend on the rapidity of the circulation of the blood? if not, in what does it consist?

Answer. The excitability of the temperament arises from a predominance of nerve over the other systems, and the peculiar sensitiveness and susceptibility which exist in a high degree in some constitutions. There is a kind of impulsive animal heat which accompanies a florid complexion and a predominance of the arterial circulation. In this case a rapid pulse is present, but it is not the cause of the excitability, only one of the results of the causes which produce excitability.

M. P. O.—Are there any means by which a grown person can strengthen and develop the vital temperament, and if so, what?

Answer. Yes. Use the organs constituting that temperament. If you have used the mental system too much, use it less, and thereby allow the nervous force to go to the lungs, stomach, and blood-making and blood-circulating apparatus. We have known a person, by such exercise as induced extra deep breathing to increase the size of the lungs and thoracic region in six months, so that the chest measured three inches more than formerly. Such diet as is calculated to enlarge and tone up the digestive system to better health, will increase the development of the vital temperament. Abundance of sleep also promotes its development. In childhood and in mature age this temperament is specially manifest. Those who have not abused their constitutions usually become stouter and fuller in the vital organs after the age of forty. They also live a less nervous, chafing, fiery life, sleeping more, and in other ways taking life judiciously.

J. C. S.—How can I avoid becoming furiously angry at every offense?

Answer. If it is a purely natural tendency, you must try to control it. If it be produced by dyspepsia, try to get cured; if by nervousness, and other nameless evils induced by the use of tobacco, quit the vile practice. In any event, it is a wise plan, when angry, to count ten before you speak; if very angry count a hundred; or say over to yourself half a dozen times, "Lead us not into temptation, but deliver us from evil." If you will observe these rules, we warrant your Combativeness to become weaker and less troublesome, and your higher faculties stronger.

Business Notices.

Notice to Agents and Subscribers.—Much dissatisfaction having been manifested by subscribers because our rules have hitherto been for all subscriptions to commence with January or July, we have concluded to adopt the rules of most publishers and have them commence at any time. We shall then, in future, make it a rule to commence with the number current when the subscription is received. We will, however, send such back numbers as we may happen to have on hand when desired.

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Literary Notices.

The Garden, a Pocket Manual of Practical Horticulture, or how to Cultivate Vegetables, Fruits, and Flowers, with a Chapter on Ornamental Trees and Shrubs; by the author of "How to Write," "How to Behave," etc. New York: Fowler and Wells. Price by mail—paper, 30c.; cloth, 50c.

A good garden does more to make one's residence seem like home in its best sense, than many persons are apt to suppose. The products of the garden are not merely potatoes and cabbage, and the other common vegetables that are measured by the bushel and sold by the cart load. It is not the garden as a mere source of marketable profit of which we would speak, nor on account of which we would mainly prize it. These things can be obtained from the market, and they serve the mere purposes of nourishment as well as if reared under our eye. But it is the many articles which are watched with interest and waited for in hope, and that throw sunny smiles and dancing dimples over the faces of old and young as they are served upon the family table. Who ever saw a frown on a human face with a plate of delicious fruit before him? What child will not smooth an angry brow, or smile through unbidden tears of sorrow, at the sight of a cluster of tempting Catawbas, the ruddy, full-orbed peach, the melting Virgalieu, or a dish of ripe strawberries bathed in cream.

Garden culture, for its delicacies to gladden summer and cheer the winter and make children feel perpetually, even onward to old age, that "there is no place *like home*," should be practiced by all who have a square rod of ground to spare.

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PORTRAIT OF THOMAS H. BENTON.

THOMAS H. BENTON.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

MR. BENTON'S physical constitution was very remarkable. For breadth and depth of chest, for capaciousness and vigor of the vital apparatus, he had few equals. These conditions of bodily vigor sustained him through his great labors to the age of seventy-six, nor was his constitution worn out. He sank under a local cancerous disease, but for which he might have lived twenty years longer.

His head was not large; but being less elongated than most heads, it contained more brain according to measurement than if it had been long and thin. The extraordinary amount of vitality which Mr. Benton possessed furnished his brain with all the power it could work off, and also imparted to it an intensity and vigor absolutely unattainable without it by the largest-sized heads. His mind being so amply nourished by such a healthy and powerful body, was always fresh, strong, and clear.

The phrenological organization of this distinguished man was no less remarkable than his physiology. The perceptive organs were immensely developed, especially those giving the different kinds of memory, and accordingly, in this respect, he had few equals. Individuality, Eventuality, Comparison, and Language were very large, while Form, Size, Order, and Calculation were amply developed. In consequence of the intimate relation existing between the body and the base of the brain, including, of course, the organs of perception and memory, Mr. Benton's extraordinary physical power gave to his large perceptive organs unusual vigor, in addition to that derived from their great size.

In speech he was fluent, yet the style of his speaking was stern, bold, and vehement, rather than beautiful or polished. His Causality was not large, and he was not a deep reasoner, nor a profound planner of ways and means. In short, in the function as well as in the organ of Causation, he was rather deficient, yet this defect was not conspicuous, owing to the large development of his perceptive powers, which furnished him such a vast fund of knowledge to fortify his positions, joined to great Comparison, which gave him unusual power of analysis, inference, and illustration. Mirthfulness in him generally worked with his Combativeness and Comparison, hence his witticisms were more sarcastic and sharp than playful and amusing. His Ideality was small, hence he was prosaic and matter-of-fact, never resplendent, imaginative, and ornamental in style. Both Approbativeness and Self-Esteem were very large, hence he was very aspiring, proud, and ambitious. He was sensitive to praise and to censure, and very haughty and imperious in his treatment of those who opposed or disparaged him. He had a high sense of honor, and never descended to trickery, double-dealing, policy, or meanness. He was bold, outspoken, above reproach in his integrity, reliable, persistent, and to the last degree courageous physically and morally. If he disliked a man or a measure, he never for a moment disguised the fact, or hesitated to push his opinion with all the vigor of which he was master.

The whole base of his brain was very large Amativeness, Acquisitiveness, Combativeness, and Destructiveness were his largest organs, and served to give him that great personal energy and courage, and that love for polemical strife for which he was conspicuous, together with that strong affection for his wife, which was an honorable example for all. His Cautiousness had but little influence, though it had enough to cope with to employ all its energy.

Adhesiveness in him was very large, hence the number and devotedness of his friends; yet it was only those that knew him well and were admitted to his intimacy who were likely to love him or fully appreciate his better qualities. His manner was lofty, and to some repulsive; but his fidelity to friends and to principle made him highly prized by those who knew him best. His Firmness was conspicuous, and his strength of will was never over-rated. His Benevolence was large, and his kindness of heart was known to all who had a claim on his sympathy. For force of character, independence of disposition, practical talent, and singleness and integrity of purpose, and patriotic devotion to his country, Mr. Benton stands out on the page of history with a prominence that centuries will not efface.

BIOGRAPHY.

THOMAS HART BENTON, one of the most talented statesmen America ever produced, died in Washington on the 10th of April. He was born in North Carolina, March 14, 1782, and educated at Chapel Hill College, studied law in William and Mary's College, entered the United States army in 1810, and afterward practiced law in Nashville, Tenn. Soon afterward he moved to Missouri, where he edited a newspaper.

It was in 1820 that Mr. Benton came to Washington as one of the Senators of the newly admitted State of Missouri. At that time Mr. Monroe was President, and some of the ablest men in the country were members of the Senate. Speaking of the executive department of the government at that time, he himself says: "It would be difficult to find in any government in any country, at any time, more talent and experience, more dignity and decorum, more purity of private life, a larger mass of information, and more addiction to business than was comprised in its members. The legislative department was equally impressive. The Senate presented a long list of eminent men who had become known by their sevices in the Federal or State governments, and some of them connected with its earliest history."

It was at this time that his term of thirty years in the Senate commenced, and between 1821 and 1851 there were few public measures discussed in which he did not take an important part. One of the first subjects in which his efforts were enlisted after entering the Senate, related to the occupation and settlement of the Oregon Territory.

Of the great questions of permanent importance which early engaged the attention of Senator Benton, were the "Tariff and American system." It came up in the session of 1823-4, and began to assume something of the importance which subsequently it attained. From that period until its last revision in 1846, it perhaps, for the length of time, has been the most prominent topic before the country. On this subject the views of Mr. Benton were uniformly and constantly expressed in opposition to protection.

In fact, the life of Mr. Benton was more or less intimately interwoven in all the measures of the Senate of the United States during the thirty years of which he was a member. No full sketch of his life could be given without considerable enlargement upon these measures. This would require greater space than our limits permit. Those who desire more details, or who are interested in public men and public affairs during this long period, will find an inexhaustible fund of information in his great work, "The Thirty Years' View; or, A History of the Working of the American Government for Thirty Years." Here is a biography of Mr. Benton to its fullest extent, as comprised in the period above designated, and to this volume we refer for the facts of his political life.

The manner in which Mr. Benton performed this work is admirable The style is as graphic and interesting as if he were narrating in our presence the particulars, and enriching them with personal anecdotes and sketches of a most striking character. His pages are entirely free from all asperity and bitterness, and with the utmost frankness, kindliness, and candor he writes of political friends and foes. It is truly an American work in its spirit and in its contents, and we urge every one to render themselves familiar with it as the foremost political work of the country.

Mr. Benton, as a public speaker, was forcible and impressive. Not possessing that captivating popular eloquence of Clay, nor the power or stately grandeur of Webster, or the clear, compact reasoning of Wright, he yet has always maintained a rank among the ablest debaters of the Senate. It is seldom that there has been a member of that body whose mind was so richly stored with the facts of either American or English history.

Since Mr. Benton's retirement from public life he has devoted his time to the "Abridgment of the Debates in Congress," which, with his usual skill and integrity, he has accomplished by an amount of labor almost superhuman, bringing it down to the close of the year 1850. This work will hereafter be a standard for reference, and its author deserves great credit for thus collating all the wheat and leaving out the chaff, which otherwise would have rendered it comparatively unavailable to posterity. On this work he labored for years, and even dictated the closing chapter in whispers almost inaudible from his death-bed, only a few days before he breathed his last.

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Contents.

THE PHRENOLOGY OF NATIONS.

CONCLUDING ARTICLE.

THE PRESENT STAND-POINT AND PROSPECTS OF HUMANITY.

23. The character of a portion of the ancient nations, and a portion to which we have not yet devoted especial attention, is, we think, well illustrated in the head of the statue of the Assyrian monarch, Sardanapalus I., Fig. 11, whose era is variously estimated at from about 700 to 930 B. C. The low head, depressed forehead, and very heavy side and back head agree too well with our conceptions of what the phrenology must have been of men who, in so many instances, to name which is unnecessary, began a career of power by savage and sweeping conquest, and ended it in debauchery, cruelty, and imbecility. Of such a career the personage under consideration furnishes an example. The developments of brain and mind accorded him by the artist afford the strongest internal evidence of the fidelity and correctness with which sculpture even in that early day was prosecuted. The strength of a mind such as that here indicated lies wholly in perception and in the exercise of the more violent and brutal elements of human nature. Benevolence, Ideality, and Agreeableness were almost wholly wanting. Indeed, we think that *Humor*, in its best sense, is chiefly, if not wholly, a modern growth in the human mind. If there were a few ancient humorists, they lived before their time. No ancient age or people has left us a Sterne, a Lamb, or a Dickens. The master-trait of Babylonish, Persian, Scythian, and even Roman character, seems to have been a grim, relentless force—a character having for its leading elements the least genial and most repulsive elements of mind.

Fig. 11.—Sardanapalus.

24. From a consideration of our humanity in some of the phases now presented, it is a relief to turn to the intellectuality, elegance, and refinement of Greece in the classic ages. The accompanying heads are those which the sculptors have left us of Lycurgus and the philosopher Eratosthenes.

In both these the brain is evidently singularly large, elevated, and active; although the two crania present marked differences. In the head of Lycurgus the anterior brain is peculiarly massive; and the reflectives are in such a degree subordinate to the perceptive intellect, that had the great law-giver lived in an age when *facts* had been to a greater extent accumulated and classified, he might have discovered a system of government that should have endured and gained permanency with age. Instead of this, he invented but a fanciful scheme, and yet one that his wonderful skill or mental magnetism sufficed to place among the most successful and durable of systems of law and rule. We think we can discover the germ of the wonderful mechanicalness of Lycurgus' system in the marked strength of the inner perceptives, occupying the space between and above the eyes. No other legislator seems so accurately to have *weighed* the social elements which he found to operate upon, or so aptly to have *placed* and joined the several materials of which a social structure must be built up. Firmness and Self-Esteem are large, as we would expect them to be; but Benevolence seems too large, and the selfish propensities too small for the character and the work which the man has left after him.

Fig. 12.—Lycurgus.

In the bust of Eratosthenes, Fig. 13, we approach nearer to the general Grecian head and mind of his time; although we shall, of course, abate something from the forehead and top-head of the philosopher, in our attempt to find the type of the national mentality; remembering that by no means all, even of the Greeks, were sages, or correct and admirable citizens. The depth of anterior brain is considerable in Eratosthenes, as well as in Lycurgus; but while the region of the conservative and domestic qualities in the former is well developed, we are not surprised, in view of the character of his system of government, to observe that, in the head of the latter, the domestic gives way to a predominating intellectual, and that, accordingly, the facts of domestic and social life are in his laws made to bend to an inflexible and, in a degree, unnatural theory. Both the heads under consideration are highly endowed with Ideality and Constructiveness. But in the Greeks the highest

Fig. 13.—Eratosthenes.

exercise of these noble faculties was impossible, owing to the want of those accumulations of facts and generalizations furnished by following ages.

We regret our inability to show a greater number of Grecian heads, from which something like an *average* and type of Greek mind could be evolved; but in those before us we see the elements of the mind of the thinking class in that nation. A premature activity—an activity of reason without the grand requisite of extensive observation, and hence a tendency to fanciful speculation—these were the distinguishing characters of the mind of the most enlightened of early nations subsequent to the date of the flood. Where fancy alone sufficed, or where imagination could be bodied in constructive form, Greece stood pre-eminent. Hence her matchless poems, statues, paintings, temples; her chaste elegance of language, and of social and private life. But where knowledge of the rugged basis of facts was demanded she failed. Hence her short-lived constitutions and states, her inflated philosophy, her want of arts ministering to comfort and the daily uses of life; and hence the unfortunate fate of her well-framed schemes of civil liberty and personal right. One other merit we must certainly award to the Grecian mind, however, and the heads presented well show it: it is the high and full moral brain, which strove, though often darkly and falsely, to realize a system and character of truth, honor, probity, and magnanimity. Even the laws of Lycurgus, though greatly misdirected in aim, had for their object the training of men of stern principle, and integrity of a certain kind, such as the changing *no-systems* of our time seldom seek to realize.

25. It was at first contemplated in these essays to extend the review of the phrenological characteristics of nations, so as to embrace crania of all the prominent peoples of past ages, and of the present. This plan the writer finds himself unable to prosecute farther at this time, and he therefore relinquishes an arduous but very fruitful and interesting field to those who may have the leisure requisite for its cultivation. A few thoughts, however, we wish to advance before resigning the topic.

26. In the work we have so often quoted, "Types of Mankind," Professor Agassiz gives a description of eight supposed *realms* in nature, with particular reference to the animal kingdom, and man at its head; in which he concludes that there are upon the surface of the earth several distinct regions, each characterized by an indigenous and peculiar cast of animal life, the men and the lower animals of each having, at least, physiognomical points of resemblance; and finally, that "what are called human races, down to their specialization as nations, are distinct primordial forms of the type of man." In other words, man is of many species; while his development and physiognomy correspond to the qualities of the particular realm or *fauna* to which he originally belonged. Accompanying this sketch is a *tableau* showing points of resemblance between human heads and crania and the heads and general form of certain animals of the several realms. Some of these resemblances are quite obvious; how far owing to the skill of the pencil, the reader can not know; but in some a lively imagination is required to detect the supposed analogy.

A view of this kind was meant to bear in favor of original human diversity, and it does so; especially when we consider the scientific standing of its author. We confess, however, to having our faith in its inculcations much shaken, by ascertaining, not merely that this idea of natural realms is not a new one—which would be a trifling matter—but that, in an author dating no farther back than the year 1799, the last but one of the eighteenth century, this view and an accompanying tableau are found, mixed up with many things which the researches of even the few subsequent years have shown to be untenable and ridiculous. The book we speak of is entitled an "Account of the Regular Gradation in Man, and in Different Animals and Vegetables;" the author being a Mr. C. White. This not very ancient writer quotes with approbation Bonnet's idea of a "scale of natural beings," in which, beginning of course with man and the orang, he descends through quadrupeds, reptiles, snails, insects, polypi, and sensitive plants, to vegetables, lichens, coral, stones, earths, pure earth (what is that?), water, air, and fire, and finds the limit of his philosophic ken in some "more subtile matter" than fire, of course, which is not matter at all! Among other wonders here associated with the paternity of animal "realms," as corroborating the distinctness of human species, and the emergence of manhood from apehood, the author now quoted gives a most offensive drawing of a being which purports to be a "man of the woods;" and also the innocent production of fancy seen in Fig. 14, and which he accredits with a veritable existence, informing us that this "*link*"—apparently between humanity and the *calf tribe*—is termed a "Golok."

Fig. 14.—A GOLOK.

But the whole is not yet told. This essay of Mr. White's was not only written and published *only sixty years ago*, but it was in fact a communication to the "Royal Society," London, and of course entertained by that learned body! If such views could receive currency within the recollection of many who are now living, does it not become those whose teachings to-day tend strongly to overthrow the sentiment of human brotherhood, and a faith in man's immortality, to pause and reflect how complete in their earliest infancy all true science and knowledge yet are; and how, even to day, visions of things unreal and of vague uncertainties must mix themselves up with all reasonings on subjects as yet so little illuminated by facts as the origin and relations of man, even in the thoughts of the profoundest philosopher? Are we admonished that our rule would certainly preclude an unpretending student of nature like ourself from the expression of an opinion on these topics? Our answer is, we admit the uncertainty; but, until forced to do otherwise, we charitably lean to what we think the better and more humanizing view; and we find comfort in the many confirmatory facts which still stand, pointing in the direction of our conclusions. But if any one is disposed to dogmatize on these vital questions, we think it not irrelevant to caution him to look his ground over well, and see if, in the short space of sixty years, all the *Goloks* have been banished from the fields of scientific speculation!

27. We have been led, by our very imperfect survey of the mementoes left us of the craniology of early nations, to the conclusion that there is nothing in the facts inconsistent with the belief that all who wear the human form, whatever their color or development, were the offspring of a single original human pair. We have been led to believe that the really pristine head was small rather than large, low rather than high, with retreating rather than advancing forehead; while yet we have found not one unmistakable fact in evidence of the view that this low development of the early human type ever existed at a stage that was *not human*, or that, because man was in his earliest generations intellectually and morally an infant, therefore he was a *product developed upward out of the domain of the lower species of animal*—that some thousand ages before he was a quadruped, or thousands before that an oyster! Many nations have left us their records, and hundreds of ingenious minds have studied man and his relations, but the "*link*"—the brute-man, the Golok—stands yet unproven, and quite too baseless longer for decent belief.

28. Yet though the human type probably began at a point in the scale far below Shakspeare and Comte, we are still surprised to find, not long after the date of the flood, and some authorities declare before that date, the Egyptian people at their culmination in craniological development, and, at the same time, in the discovery of scientific truths and the invention of wonderful arts. Thus we have proof of at least three culminations of human intellect, distinct and far apart: 1st, that of Egypt, in the age which gave us the pyramids, hieroglyphics, and embalming; 2d, of the Greeks, in the age of Plato and Pericles; 3d, of the Indo-European branch of the family of man, in the eighteenth, and up to the middle of the nineteenth, century. These are three crests of those grand oscillations by which the human mind moves through time. They have been very different in their characters and results; but all have had one feature in common: they have all been ages of wonderful activity and of unusual conflict of opinions, interests, and objects. It is as if, once in from one to three thousand years only, the mental action of a part of the race rose to "fever heat;" while elsewhere, and in the intervals, the *troughs* of the waves have marked long periods of inaction or of action only of a low and unnoticeable degree.

29. It would require a more extensive course than circumstances now allow us to compare the crania of different ages and countries, to ascertain their predominant characteristics, and to inquire in full whether these agree with the history of such times and nations. We have done this in part in a few cases; and we believe that at some time the investigation will be more fully carried out. No study could be more interesting or profitable. In the phrenology of all ages we should have the key to the history of all ages; for men have only acted out themselves—a few gifted observers have caught up and recorded the manifestations, and we call the result HISTORY. The conformation of soul, and then that of cerebrum and cranium, went before the deeds, and deter-

mined the deeds. In other words, the history of individuals and nations is but the lifelong expression of the qualities marking the souls of individuals and nations; and the visible indexes of those invisible motors—the souls—are offered to our inspection in the cranial eminences and depressions. If the human spirit is the *cause*, Phrenology is the *revelation* of man's capacities, motives, tendencies, and destiny.

30. We have found that men's cranial developments, and, of course, their brains, change with the passing of generations, nations, and ages. The average Egyptian head of the time of Cheops was not the Egyptian head of the time of Ramses I. or of the later Pharaohs. The Grecian head of the classic ages was far other than that of the early heroic age, as their own painters and sculptors show; and certainly far other than that of the degenerate Greeks of the present time. The British, or the Saxon, head of the time of Queen Boadicea was a different affair from that of either in the Elizabethan period; and either was quite unlike the English, Saxon, or Anglo-American conformation of to-day. Seldom has poet uttered a deeper truth than that contained in the line—

"*Tempora mutantur, et nos mutamur in illis!*"

The times change, and we in them are changed. Humanity is in this age what it never was before, and what it probably never will be again. Man is not a constant, but an extremely variable quantity. *Now*, in the most advanced nations, Acquisitiveness and Constructiveness are the dominant powers of mind. It will go hard with the race if they are to be so forever.

31. At what stage of human growth, then, have we arrived? The wild Australian; the Negro and his fortune hitherto; the unprincipled European-American dealer, poisoning his commodities with adulterations, and shortening his fellows' lives, in order that he may draw to himself their means, and satiate without bounds his own private desires; a *society* whose very name is a falsehood, because its deepest curse is *un-soci*ableness and absence of brotherly feeling, brought about by pride and exclusive castes, and fed upon confidence-destroying, because dishonest gains—these must be our answer. Universal man, in his highest estate yet, is low, vastly low!

In fact, we classify men's and nations' skulls to this very time by their imperfections and deficiencies, or their deformities; a proof that the true phrenological balance is so far from realized that it constitutes no rule, and only the rarest exception. Thus we have *prognathous* skulls, as those of the Negro and some other tribes, white or colored, and in which, with a projecting lower jaw, the brain is shallow and retreating; *pyramidal* skulls, as those of the Mongolians and Esquimaux, in which the upper, fore, and back head are alike deficient, and the strength lies mainly in the base, side, and top; and *oval* skulls, or those of the Indo-European nations, with all their offshoots, and with that medley of all their offshoots which now occupies the United States; and though we grant the average organization of these latter tribes is more favorable for progress in the future than those of the others, yet we can grant them little more; for what practical phrenologist, who is candid, will tell you otherwise than that he finds *nine hundred and ninety-nine unbalanced heads—and, of course, characters and lives—for one that nearly approaches perfection and harmony, together with a suitable degree of power?* Nay, we believe it would be nearer right to say that this favored character constitutes the

Fig. 15.—Abbott Lawrence.

one in a million! To such a head we have a near approach in that shown in Fig 15. A head like this presents a wonderful contrast with some of ancient times which have accompanied these articles, and with the great multitude even in cultivated nations and among its cotemporaries. It gives a sample of the capabilities of human nature, and leads us to entertain hopes that ages hence, if it is not to be sooner, mankind may approximate that desirable result—the general possession of a mentality of finely harmonious proportions, and yet not without positive and even massive power.

32. But we are not led by our researches to look upon this result as certain, nor, at best, as sure to accrue without further mental declensions. We see no warrant in the character and conduct of mankind to-day that the world is not yet to experience "dark ages," and quite as painfully dark and prolonged as those from which it has in the past emerged. To swing one's hat and shout "Progress," when the most hopeful of the nations, our own, confessedly feels her moral sense waning, and her pecuniary, political, and even social and domestic basis reeling beneath her, is simply insane. No; we must wait and see. The omens do not allow us yet to prophesy great things of this people, or of any people. Whether our career, and that of the civilized world, is to be onward and upward from this time, or down through wars, extinctions, enslavement, and brutalities to the low grade of a new spiritual beginning, is not determined by history, nor by any facts or reasonings hitherto; but it remains to be determined by the spirit of this and the next generations, by the growth of manliness, honor, and virtue, or of baseness, dishonesty, and crime, in the public heart and in the world's history. Let us hope that the higher, and not the lower manhood, may prove victorious; and that the rewards and advantages of true progress may be faithfully earned, in order that they may be fully enjoyed.

PHYSIOLOGICAL EDUCATION.

So long as the American people are amenable to the reproach of being a "nation of invalids," so long will the subject of bodily training and culture be a proper subject for agitation. Without bodily health and vigor, all of the mental powers are, comparatively, useless, for the reason that the mind, however noble its aspirations, and however vast its acquirements, lacks the necessary instruments for applying its emotions and its knowledge to uses.

No work ever published is so well calculated to instruct the people at home in the important matter of preserving or recovering their own health, so far as "Exercise, the Law of our Being" is concerned, as Dr. Trall's "Illustrated Family Gymnasium." The press, with acclamation, has pronounced it, in this respect, "the one thing needful." The *Methodist Quarterly Review* remarks:

"The increase of our population compels a large and enlarging class to devote themselves to sedentary and intellectual life, while among all classes there is a sad tendency to neglect the fundamental laws of our corporeal nature. There is great reason to fear that we are becoming *an unhealthy nation;* and for an immense mass of us the truest remedy is to be found in a better understanding, not only of the laws of our animal nature, but of the modes within our reach of training it to health and vigor.

"This desideratum Dr. Trall has furnished in this beautiful little volume. By description and superabundant pictorial illustrations he has potentially made *made every man is own gymnast.* Let the student, the sedentary, and the recluse here learn the art of securing full play to the system, and full development of his entire corporeal soul-organ.

"Fowler and Wells have given the work a very attractive external finish."

The *Wesleyan* says:

"To all those, therefore, who are in danger of dying for the want of activity, as well as those who are already half dead from this cause, we advise them to purchase these interesting volumes, and learn to kick, jump, swim, twist, stand erect, stoop, stand still, run, lie down, and perform all other exercises requisite to restore vigor and elasticity to the body.

"The community is certainly much indebted to the enterprising publishers for furnishing these and other valuable works that give an immense amount of useful information."

An agricultural exchange remarks:

"As a people we are generally more neglectful than any other civilized nation upon the face of the globe, with the single exception of the Spanish, of physical development. We have the highest regard for intellectual accomplishments, the arts, and everything calling into development the finer qualities of our nature, but are shamefully careless of our muscles and limbs. It is time that popular attention should be directed to this neglect, and we are therefore glad to see the issue of a work entitled, 'The Family Gymnasium,' from the pen of R. T. Trall, well known as the author of several of our most popular physiological works. It is finely illustrated, and contains comprehensive instructions in several

hundred different courses of physical exercise, calculated to call out all the strength of the human frame, and animate all sluggish natures. The treatment of children in the nursery, of invalids, and of persons of sedentary habits, by physiological rules, is finely described. If the hints given in this valuable work were generally acted upon, a vast amount of physical good might be accomplished. It should attain an extensive circulation."

We have heretofore given our readers some extracts from the work. The following will serve as additional illustrations of its matter and manner:

"Exercises should always be commenced as well as finished gently. This is especially important for new beginners, as they are sometimes injured and their progress retarded by too severe efforts at first. As a general rule, too, all very abrupt transitions are objectionable.

Fig. 1.

EXERCISING DRESS.

"Let the pupil never forget that the organs or parts are to be developed and strengthened by moderate and prolonged exertions, rather than by violent and fitful ones. The weaker organs or limbs should always receive most attention, and be more frequently subjected to exercises specially adapted to their invigoration or strengthening.

"The dress should always be light and easy, and all superfluities in the clothing itself, or in the pockets, as toys, knives, etc., dispensed with. Pupils should be careful and not sit in a draught of cold air, nor drink much very cold water, nor lie down on damp or cold ground when fatigued from exercise. Nor should they bathe or wash

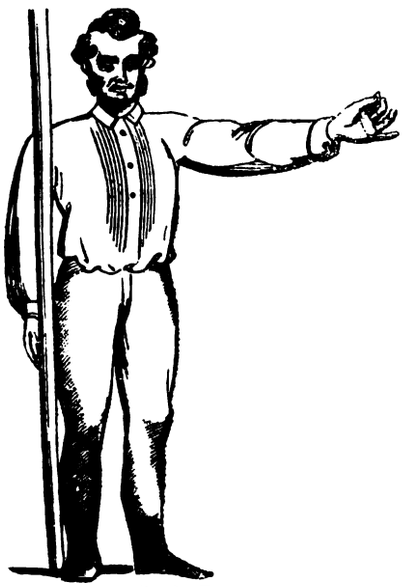

Fig. 2.—ERECTITUDE.

all over when much fatigued. A high temperature, perspiration, or 'feverishness' of the body is in itself no objection to cold bathing, but rather an indication for it, provided the body is not at all fatigued, and the respiration is not disturbed.

"It is always important to vary the exercises frequently, so as to call into action alternately various sets of muscles. When large classes take

Figs. 3, 4.—FEET IN FIRST POSITION—ARMS AT REST.

lessons together, it is a good plan to divide them into sub-classes, giving the easier exercises to the smaller and weaker."

"In all kinds of gymnastic performances, as well as in all occupations, it is essential to observe un-

Fig. 5. Fig. 6.

deviatingly correct bodily positions. In lying, sitting, standing, walking, riding, or laboring, the trunk of the body should be kept erect. The bending is to be done on the hip-joint, and not by crooking the spinal column forward, and thus forcing the ribs and sternum in upon the stomach and lungs. Immense mischief results from this habit.

"Bolsters and high pillows are among the abominations of

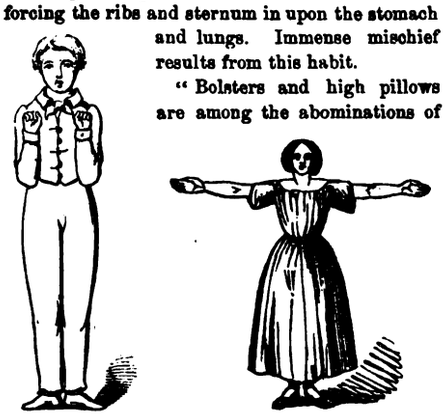

Fig. 7. Fig. 8.

fashionable life. The head should never be raised more than a few inches, by a single *small* pillow. But it is a general custom to pile pillow on pillow, like 'alps on alps,' until the poor 'doubled and twisted' victim is elevated out of all reasonable shape, and the neck so bent and lungs so compressed that congestion is sure to affect the brain, while free breathing is utterly impossible.

"Dulluess of mental comprehension and general torpor or stupidity

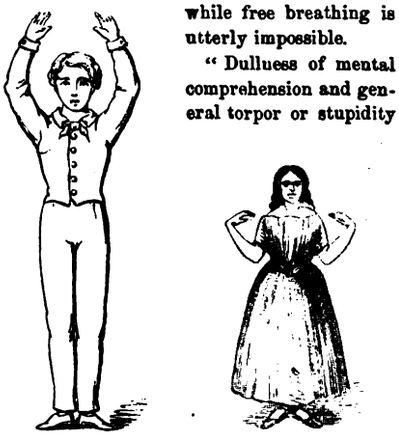

Fig. 9. Fig. 10.

of the intellectual faculties, are among the consequences of this pernicious habit.

"It ought to be among the first duties of parents and school-teachers to guard those under their care against improper attitudes."

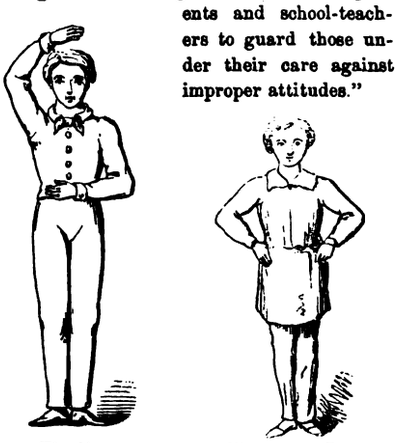

Fig. 11. Fig. 12.—AT REST.

"The exercises more especially known as calisthenic are peculiarly adapted to those of our American females whose contracted chests, 'waspish waists,' and dyspeptic stomachs are the sad diagnostics of deficient exercise and imperfect breathing. No observing physiologist can promenade Broadway, nor, probably, any other fashionable thoroughfare of an American city or village, without noticing the artificial *deformity* of most of the females he passes. Generally they are 'caved in' around the region of digestion and respiration—at the very center and source of vitality—where, of all places, they should be round, full, plump, unconstrained, and well developed; and they are just to that extent insured a feeble frame and morbid tendency, with an absolutely sure passport to a premature grave.

"If these unfortunate victims of disease, ignorance, folly, or fashion would be restored to renewed vigor of constitution, with a promise of a reasonable length of days, and the capacity to propagate a healthy and virtuous, instead of a sickly and vicious race, they must at the same time recover symmetry and beauty of form and figure.

"To accomplish this general result, notwithstanding the great benefit to be derived from such

auxiliaries as diet, bathing, etc., calisthenic exercises ought never to be omitted. Indeed, the term is derived from two Greek words signifying *beauty* and *strength*."

"THIRD EXERCISE.—'Arms Down!'

"Place the arms as in the position of 'attention (fig. 1); then, at the word of command, throw them forcibly downward (the hand being closed meanwhile), as in fig. 5. The movement may be repeated from ten to twenty times, and if the pupil *counts* with each downward motion, the voice is also improved as well as the breathing.

"FOURTH EXERCISE.—'Hands to Breast!'

"This exercise commences with the 'arms down,' as shown in fig. 5, from which position they are brought forcibly up the breast, as in fig. 7, repeating the motion several times with counting.

"FIFTH EXERCISE.—'Arms Outward!'

"Place the arms as in the preceding position, and, at the word of command, throw them out laterally as far as possible, as in fig. 8. The counting may be done with the *outward motion*, which may be from ten to twenty times repeated.

"SIXTH EXERCISE.—'Arms Upward!'

"Place the arms as in the 'hands to breast' position; then, at the word of command, throw the arms upward as far as possible, without raising the heels from the floor, as in fig. 9.

"This movement may be repeated with counting, as in the preceding cases; and then all of these arm exercises, and others yet to be mentioned, may be made in rapid succession.

"SEVENTH EXERCISE.—'Hands to Shoulders!'

"At the word of command, the hands being in the *first position* (see 'Attention!'), raise the hands and bring the points of the fingers in a line with, and pointing to the shoulders, as in fig. 10.

"The head should be kept erect, the shoulders well back, the elbows close to the side, and the body slightly inclined forward.

"EIGHTH EXERCISE.—'Hands Perpendicularly!'

"Place the hands in any of the preceding positions; then, on the word being given, carry one hand and arm in front of the waist, a few inches from the body, the other six inches above and over the head, as far back as possible, as in fig. 11.

"Then reverse the positions of the hands, counting at each change. Begin these motions very slowly, and, after a little practice, gradually increase in rapidity, and ultimately perform them as rapidly as possible."

DISCIPLINE.

BY JOEL REED.

MANKIND follow, throughout their natural lives, the promptings of an inherent nature; and so silent and perfect are its operations—so hidden and mysterious are the sources of its action—that the majority are disposed (and that wisely) to leave it unregulated, and carelessly resign themselves to its guidance. Indeed, many "never think about themselves at all," if we except an occasional vague, wondering inquiry. The physical system works admirably. If we wrong it, we are immediately warned by pain to correct the error. The mind is occupied in performing ordinary duties, or regales itself on the multifarious objects of nature. If we are free, we are happy.

An enlarged capacity aims to accomplish mightier schemes. These require concentrated effort. It is then found that the powers must be disciplined to act in a definite manner, as careful training renders every resource available, and gives impetus to the mental qualities. Here educational systems commence. Many and various have been the schemes invented and applied to educate. Those only can be successful that are founded upon natural principles.

Disciplinary education should commence with youth. The first effort should be to find the natural powers of the child—to ascertain and understand their real condition. Phrenological science enables the parent and teacher to do this. To one who has thoroughly studied the human constitution by such means the task is easy.

If these points can be established, our next endeavor is to inquire into the nature of true discipline. We may with profit look at what is doing in our institutions of learning. The curriculum of study here prescribed is usually such as is deemed best to discipline the mind of the student; and so far as this course is carried out, it is commendable; for it is not so great an object to be learned as to become thoroughly disciplined—by which we mean that the student shall have arrived at the highest point of cultivation when all his powers are in the best possible working order. But it is regretted that in our colleges too much attention is devoted to scholarly acquirements alone; that, as we may say, a unanimity of culture is not attained. The student who aims to surpass all others in the mere acquirement of knowledge can hardly be said to possess the true key of intellectual cultivation. Too many in our colleges put forth the mightiest efforts of their lives, thus exhausting themselves; so that when they have graduated they feel worn and weary, instead of coming out upon the field of action fresh and animated.

In a country like ours, a great deal may be left with the youth himself, after he has been instilled with the general principles of a correct life, and has the influence of good example and society thrown around him. He can thus learn self-reliance, and accomplish by his own invention much that could never be taught by others. Self-made men are well made; they may be said to be built compactly. History is full of illustrious examples.

The first great principle of thorough disciplinary education is to regard the person in every respect as a whole, with mental faculties and the various senses; with bodily organs, limbs, nerves, muscles—blood, life-spirit, voluntary and involuntary powers—all of which are to be disciplined, as far as possible, to systematic modes of action.

The bodily powers come first into operation. To acquire physical strength, proper training, with a well-directed plan of action suited to every muscle, with regular intervals of relaxation and repose, are considered necessary. The system should not be exhausted by continual toil, though a certain amount of work is essential to acquire endurance.

The intimate relation between the body and mind should be studied. The connecting chain which closely unites them—the nervous system—should be carefully disciplined. The nerves of sensation and motion, with their telegraphic ramifications, are to be made to obey the voluntary impulses, and the various evolutions and motions of the person mastered, so as to be performed with ease and grace. The perfection of form is thus acquired, health insured, and greater power of performance attained. We can not better illustrate what we would impress than to take the case of the graceful dancer. His movements are well-timed and executed at will; the whole body partakes of impulses imparted by inherent and well-disciplined faculties, and seems to be clothed with a conscious power of execution.

This mastery of movement may be extended to the acquirement of various handicraft, and when associated with the mechanical genius, is practically applied in the several trades. The printer is employed for many months in mastering the movements of his hand alone in the act of "setting type." The delicates movements, directed and controlled by the nerves which proceed from the sensorium, are at length executed with such ease as to become almost involuntary. The telegraphic operator also finds that he has to acquire new powers, disciplining himself to perform things never before attempted in ordinary life. These are so constantly repeated that they become "second nature." Such is discipline.

If one does not by ordinary effort become able to perform to tolerable advantage, he may know that the natural powers are in some manner deficient, and should accordingly proceed in the manner his genius or innate capacity directs. Genius derives its power from the deeper fountains of our mental nature, while talent is mainly the result of careful discipline. But upon these we can not at present amplify.

Leaving the consideration of the nervous system, upon which we would gladly dwell, for we believe it has been too much neglected, we proceed to the theory of perfecting the discipline of the intellect itself.

The reader can call to mind individuals of his acquaintance who are accustomed to a particular mode of life, whose habits are uniform, and whose range of mind is comparatively restricted, being directed in one narrow channel. They are found fully able to decide upon or perform any part through which their former experience has led them. But if a new subject is presented, they seem to have no capacity for it. The mind will not remain upon it. They look upon it as foreign and unnecessary to their mental economy. Such have been disciplined in a peculiar manner. It may be said that they are without cultivation; whereas it will be found that they excel in many important qualities that go to make up noble manhood. In this way, too, many are educated. The best culture is that which nurtures every faculty and function; that which enables men to decide upon everything appertaining to the real duty of a human being.

The school should be essentially preparatory. The most difficult task of the teacher is to ascertain the wants of his pupils. He must determine if their knowledge is too extensive while the best powers are dormant, or whether their faculties are fully awake, and only seek intellectual food, which they eagerly appropriate.

The young man who understands his own mental nature is best able to improve his faculties

at will. And they should be cultivated by the study of those things which he is to follow in after-life. When he discovers the direction of his strongest faculties, he can follow in their lead with the greatest ease. Mental discipline is the road which the intellect establishes for its own convenience. It is the survey of the field of thought, establishing points, and determining angles, and measuring distances, preparatory to actual duty. The student should task his powers only for the purpose of strengthening them. He who expends his energy in the acquirement of knowledge has none left to render it available. We do not pretend to prescribe what he should study. What the student wants is freedom. It has been said that "*it matters little how we are cultivated, so that we be cultivated.*" To this proposition we are inclined to assent, stipulating that the best efforts he made in the direction of our future occupations and professions. When the studies are so far advanced as to be of real service, and the faculties all brought under control, then the individual can calmly await the occasion for duty, when he is by the promptings of the moment enabled to rouse himself to the highest effort of which his nature is justly capable. All are attracted towards the person whose senses are acute, whose movements are graceful and well-timed, whose very presence shows that all his faculties are in a healthy state of action—that every power has been carefully developed, excesses restrained and defects discouraged—and whose every form and feature are eloquent of feeling.

We do not believe in grandeur of achievement, but admire substantial and well-executed performances. A life founded on every just principle can hardly escape being successful; while ambition is deadly, genius is erratic, and stupidity is criminal. To our imperfectly detailed, but (as we believe) scientific suggestions, we only add, for the benefit of the enthusiastic, the warning of the poet:

"As thy day grows warm and high,
Life's meridian flaming nigh,
Wouldst thou spurn the humble vale,
Life's proud summits wouldst thou scale,
Check thy climbing step elate.
Evils lurk in felon wait,
Dangers, eagle-pinioned, bold,
Soar around each cliffy hold;
Love and Peace, with linnet song,
Chant the lowly dells among."

PHRENOLOGY AND WOMAN.

"KATYDID," a sprightly lady correspondent of the Clermont *Courier*, gets off the following:

Phrenology has done very much toward enlightening man in regard to his social duties and responsibilities. And we of the weaker sex claim, since we have similar organs similarly located, that we also have a right to be harmoniously developed; that freedom is not license; that to act out our nature is consistent with common sense, or the just relation of one thing to another; that any true thing is in accordance with nature, for one sex as well as the other; that close investigation will prove this theory, and practice confirm it. We consider that we are free to use every available means to become harmoniously developed—all that God has placed within our reach, without perversion. We design to monopolize, so far as will elevate and purify us. The idea advanced by our respected grandpas, that woman's education was complete when she could cook her husband's dinner, is retreating. We see in the dim distance the shadow leaving the rear ranks of old fogyism.

We have been developed in a portion of the cranium, until we are ready to be the victims of a cool, calculating seducer, or the willing slaves of tyrannical husbands—in fact, scarce fit for anything else. Philoprogenitiveness has been educated in us to such an extent that we give the surplus portion to a favorite animal of the feline or canine race—purchase, find, beg, or steal one of the right kind from some poor beggar-woman.

Our love for the beautiful has kept pace with our philoprogenitiveness. We can embroider lap-dogs on brown canvas, or create such beautiful objects from colored zephyrs. And then, our sweet humility and dependence on you—you precious lords of creation! We can faint in the most approved style at the sight of a spider or snake; we can be wooed and won by a mustache, and your gold dust dims our eyes to all imperfections.

Our wants! Well, sir, they would fill a royal octavo volume, and bring tears to your eyes, you biped of a Tom, Dick, or Harry.

We want to be educated, head, heart, and hand, under all these feathers, furbelows, and flummery. Phrenology has proved that we have brains—just think!—brains!! We are dying, sir, for the want of exercise. We have kept ourselves delicate for your caresses, you numskulls!—coarse hands ain't admired, I tell you, sir.

Oh, dear! we want more heart training. We want to know who to love, how to love, and when to love. So much to learn, so much to unlearn! And this is not half; but I'll take pity on your eyes, and give you a chance to wipe your gold specks, take a fresh quid of tobacco, you heathens, and time to watch the crinoline over the way. She is making all that display to please you—pity to have it thrown away!

SOPHIA S. CORNELL.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

MISS SOPHIA S. CORNELL, the distinguished author of Cornell's admirable series of School Geographies, and who is extensively known as one of the most successful educators and teachers at present enlisted in the great cause of Popular Education, was born in New London, Conn., and is of American parentage.

Her father, John V. Cornell, was a custom-house officer for the port of New London during the last war, and was a staunch republican, distinguished for his love of country, energy of character, courage, generous impulses, and unswerving sense of justice—qualities that are inherited in a large measure by the daughter.

Many interesting anecdotes are related of him in connection with the means taken to annoy the British fleet during its long blockade of the port of New London. It was his boat (taken against his will, however, as he deemed it an unmanly mode of fighting) that was used to carry Bushnell's celebrated torpedo, on the night when the abortive attempt was made to blow up one of the vessels of the blockading fleet in the harbor of New London. After the failure of the torpedo, the boat was seized by the British, and its owner saw it suspended the next morning alongside of the largest of the enemy's ships, where it remained, and was finally carried away when the fleet raised the blockade and sailed for Halifax.

Miss Cornell received her earlier education in the private schools of New York. Her father died when she was very young, leaving a wife and three children chiefly dependent on their own exertions for support.

One of the strongest peculiarities manifested in her early childhood was an anxious desire to be able to earn the means for an independent support; thus evincing a spirit of self-reliance, blended with the most shrinking sensitiveness, that has since shone forth with such unpretending, womanly, and transcendent luster. The plays in which she chiefly delighted when a child were keeping a book-store or conducting public worship. She often assembled her little companions in what she called her meeting-house, when she would go through the entire service—reading, singing, taking her text, preaching, praying, and administering the communion with the utmost gravity and decorum—often bringing her auditors to tears by the earnestness and pathos of her voice and manner.

At an early age she was offered a situation in public school No. 18, on Madison Street, N. Y., which opened a field full of delightful anticipations to her ardent and practical mind.

Before accepting an appointment, she made herself acquainted with the required course of study, and engaged special professors to give her the necessary instruction in those branches in which she felt herself deficient to conscientiously teach; thus setting a noble and praiseworthy example to all young persons desiring to become teachers.

After acting in a subordinate capacity for one year, she received the appointment of principal, at a salary of $400, the highest sum then paid, where she remained until she left, by resignation, to fulfill an engagement of marriage. But, alas! in the midst of bright hopes Death came, and with meddlesome finger touched and snapped the silver cord; and he who was to have been her life's companion was taken away to rest beneath the restless ocean wave.

This blow for a time utterly paralyzed and prostrated her, shutting out every ray of hope; but with time came a reaction, and she determined to devote herself to the education and care of the young. During her public-school experience she had become fully satisfied that the unnatural methods of discipline, requiring a mechanical "toeing of the line" and sitting with the hands behind the back,' etc., were extremely injurious to the health of the children, while the methods of instruction, course of study, and requirements for examination, were exceedingly hard, indefinite, and unsatisfactory.

At the time when it was proposed to grant certificates to all teachers who would abolish the use of corporal punishment in the management of their schools, Miss Cornell had, from her own observation and experience of its effects for more than two years, voluntarily but silently dispensed with the barbarous practice.

Having received an intimation from her friend, Col. Linus W. Stevens, that her services were de-

sired as a teacher in the new ward school No. 20, in the Fifteenth Ward, she sent in her references to Dr. E. L. Beadle, chairman of the Board of Trustees, and immediately received the appointment of principal.

Under the ward-school system she had almost unlimited freedom to carry out her views, and to organize her school upon such a basis of classification, methods of instruction, and discipline as she deemed most desirable, and succeeded in demonstrating to herself and to her pupils the possibility and the wisdom of instructing youth without stimulating them by presents and certificates.

During the six years she was principal of the largest school ever organized in New York, with a regular attendance of more than five hundred pupils, she never gave nor permitted to be given a single present either in the shape of books, testimonials, or certificates. It was her aim to teach her pupils to love knowledge, and to appreciate the services of those who imparted it to them, and to instill a sentiment of respect and gratitude second only to that entertained for their parents. She sought to cultivate the intellect and the moral nature, and to lighten the burdens that were imposed by the public school course of study upon the faculties of memory, which was used more as an elastic sack for the collection and retention of undigested facts, than as a crucible in which they were to be reduced by the searching analyses of thought to their ultimate uses in the culture of the intellect and the heart.

She entirely changed the monotonous style of reading adopted as a standard in the public schools, and in every way sought to associate herself by sympathy with the judgment, the confidence, and the best feelings of her pupils; striving always to awaken in the minds of her associate teachers a full sense of the dignity and importance of their position; at the same time urging the practicability and wisdom of ruling their pupils through the instrumentalities of intelligence and love. Her school soon became the center of attraction in the ward school system, and left all rivalship out of the question, both in point of numbers and in organization and efficiency. Strangers came by hundreds to witness the working of the school. Taste, refinement, and manners were cultured into active and immediate results, which threatened to depopulate the hitherto successful and exclusive private schools. Hundreds of the daughters of the most wealthy and influential families crowded for admission to No. 20, and many were obliged to turn away for want of place.

In the fall of 1849, when the writer of this first saw Miss Cornell, it was at a public exhibition of her school. At that time there were no pianos or other musical instruments admitted into the schools, and music itself was looked upon as a dangerous minister of evil by more than one of the many excellent and influential men controlling the affairs of the Public School Society. In the course of a conversation wi h Miss Cornell, she remarked "that it was exceedingly difficult to make her pupils keep time while moving through the different changes of the classes during the day, also to control their unconscious attention by any means she had been able to devise." In reply to this remark, a suggestion was made "that it would be impossible to secure such harmony of action and control over so large a number of pupils without the aid of music—in fact, that it would be impossible to arrive at such a result with even so small a number as two or three persons, as was instanced in the case of dancing." Miss Cornell replied, "that she recognized the full force of the position, but from the prejudice existing on the subject of music, feared she should not be able to avail herself of the suggestion." It was further remarked, "that the piano was probably the most desirable instrument for school purposes, from the fact of its very general introduction into families, and from the great amount of private instruction imparted in connection with it which would enable less fortunate pupils to enjoy a portion of the pleasure and the benefits resulting from such culture on the part of many of their associates; and that in any event some kind of a musical instrument should form a part of the regular furniture of every school organization, to be used as a means of securing a basis of harmony and order in discipline and management, besides adding a delightful element in choral singing and other vocal exercises connected with the opening and closing of school, and on public occasions." It was also remarked, "that the Primary School was the most important place to commence with the use of music as a harmonizer and an educator," to all of which Miss Cornell yielded her hearty assent; and with the promptitude of a conscientious conviction, she immediately obtained the consent of the trustees, who had before expressed themselves as being desirous of raising her salary, to permit her instead to rent a piano, to be placed on trial in her school, which was immediately done. This innovation worked admirably, and was soon imitated in several other schools with equal success.

Thus was laid the foundation for the recognition and introduction of the piano and music as an indispensable element in the furnishing and organization of our public schools. Now regular appropriations are made, and the money raised under a specific head in the tax levy of our city for supplying all the schools under the care of its Board of Education with pianos indorsed by the hearty sanction of an intelligent public opinion.

In defining her methods of instruction, and in the classification of her pupils, Miss Cornell found an ample field for the exercise of her highest powers; and, in her efforts, she soon began to discover that text-books were deficient and indefinite; that ideas and facts were often mingled in aimless confusion; and that almost every science and study was embarrassed, rather than elucidated and systematized, by the efforts of text-book makers. She saw that in the attempt to memorize a multiplicity of ideas and facts, the reasoning powers of the pupil were suffered to run almost entirely to waste. To remedy this glaring defect she commenced a systematic series of observations and experiments, for the purpose of satisfying herself how far it was possible and practicable to reconstruct, upon scientific principles, the text-books and methods of instruction hitherto in use. She soon found that this would be a Herculean labor, requiring the devotion and toil of a life-time. Undismayed by this unpromising discovery, she immediately determined to take a single science and commence the good work in earnest.

She selected geography, chiefly a science of facts, which she found to be the most imperfectly and unsatisfactorily arranged of any.

This determination resulted in the resignation of her school and her retirement to the quiet of the country, where she commenced the preparation of what is known as "Cornell's Series of School Geographies," consisting of "First Steps," "Primary," "Intermediate," and "High School" Geographies, having first secured a publisher in D. Appleton & Co. This House made the most liberal terms, in order to secure the publication of her work, the immense success of which has since fully justified this generous course.

The value of a definite and thorough knowledge of geography to every person can hardly be too highly estimated, and all who have sought for ex ctness and system in the arrangement of the text-books on this subject, hitherto in use, have found that a general mixing up of a great number of facts disconnected with the science of geography, indicating a great lack of these essential qualities, has been a prevailing source of vexatious annoyance.

After a careful and detailed examination of Miss Cornell's work, we are satisfied that she has, for the first time, hit upon the true plan of construction. The following are some of the marked excellencies which will be found in her text-books:

1st. In philosophical arrangement, the spirit of their motto being faithfully carried out: "First, the blade; then the ear; after that the full corn in the ear."

2d. The gradual progression, by successive steps, from a single point, whereby the difficulties usually encountered by beginners are removed.

3d. The method of presenting one thing at a time, and impressing it upon the mind before another is introduced.

4th. In the adaptation to the age and grade of scholarship for which it is intended.

5th. The admirable mode they prescribe for memorizing the contents of maps.

6th. Their full explanations and explicit directions for dividing the natural divisions of the earth, saving the teacher and pupil much time and labor.

7th. Their judicious selection of facts, the usual mass of irrelevant details pertaining to astronomy, history, zoology, botany, etc., being rigidly excluded.

8th. The appropriate and intrinsic merits of their illustrations.

9th. The consistency between maps and text.

10th. Above all, their great crowning feature, the introduction into the maps of such places only as are mentioned in the book, thus saving the pupil from the discouraging necessity of grasping after a given locality amid a labyrinth of names.

Her works exhibit great powers of generalization and classification, and the pupils learn to think consecutively and methodically in the process of studying her Geography. These merits characterize the whole series in a pre-eminent degree; some of them are original with their author, and are exclusively confined to her books.

The knowledge acquired from a study of this series must be well digested, and therefore likely to be long retained. The student learns one thing at a time, and learns it well; and the dullest comprehension, with such a guide, can hardly

PORTRAIT OF MISS SOPHIA S. CORNELL,
Photographed on Wood by Patch's Patent Process.

fail to become quite proficient in the science. The advantage of a systematic presentation of facts and principles, each in its proper place, can not be exaggerated; and hence, as well as on other accounts, Cornell's Geographies seem to be greatly in advance of all others heretofore in use.

In conclusion, it may be proper to remark that Miss Cornell has in view the production of other works of even greater magnitude and importance to the interests of Popular Education.

PHRENOLOGICAL CHARACTER.

[It is but just to state that the following analysis of character was dictated *verbatim* to the reporter as here given, without any knowledge or suspicion on the part of the examiner of the name, pursuit, or achievements of the subject, who was brought to our office for examination as a stranger. The engraving, though made with the bonnet, shows nearly all portions of the head that would be seen without it, and therefore, to the reader the phrenology is not much obscured.]

Your brain is large for a person of your slight organization. You have hardly body enough to sustain so large a brain and such an active nervous system. You are apt to live too intense a life. You live too much in the region of ideality and emotion, not enough in the region of hard, cold, stern, dry realities. The moment your mind gets free from plodding care it inclines to soar, and to live in the domain of the esthetic, the cogitative, the imaginative, and theorizing; still, in feeling, you have a good deal of sympathy with common life and home affairs.

You enjoy the social circle intensely, are more than ordinarily capable of loving, and of reciprocating attachment. You have all your mother's sympathies, and in the capacity of a mother, or in that of a teacher, or as a writer for children, you would distinguish yourself. You could edit a "Mothers' Magazine," because you have so much of the motherly in your composition. Your Philoprogenitiveness and home affection would serve as a channel through which your intellect and your imagination could be made to flow out.

You have large Combativeness and Destructiveness. These give you positiveness, thoroughness, courage, executiveness, and the power to back up your thoughts; as men sometimes say, "To back up the vote by the bayonet." You have a heroic disposition, and incline to grapple with great difficulties; at least not to dodge them, but to struggle through and overcome. If you were a writer, you would have more of the tragical than of the comical in your compositions. Your thoughts would have edge, and weight, and momentum; you would not be merely a smooth writer. If you had the polish of Pope, you would try to throw in some of the daring of Byron or the boldness of Milton. You are not averse to the bold, or even to the rough and the rugged. You like to listen to a speaker who dares to utter square-cornered thoughts that arouse and startle the hearer. You have much of the masculine in your mental composition, not only in your feelings, as respects boldness and efficiency, but also in your firmness, in your pride and dignity, and also in your logical thought-power. You have more of the philosopher than it is common to find in the female head, and you have also a great deal of sentiment.

Your Hope is hardly large enough. You look at life in rather too somber a hue. You should throw more of the rose and violet into your picture of life; try to look on the bright and beautiful, the glowing and the glorious.

Your reverence is not a controlling element. You regard the Deity as a wise, holy, beneficent, and just Being, not as a hard, exacting sovereign, who delights in calling his creatures to severe account, but who, on the contrary, delights to forgive and to bless. You regard God as a just and holy parent, rather than as an inexorable judge. You have the love of justice to such an extent that you are almost severe in its action If a man fails to keep his pledges, or if his word is valueless, you regard him as of less account than a dead man; and there is no word in the English language which would express your contempt for the man whose honor and word can not be taken. But he whose word is true, and who is the soul of honor and fidelity, however little he may know, however little of this world's wisdom he may possess, however dwarfed and distorted his body, to your eye he is a man, one of God's noblemen.

You have great ambition, a very high sense of character, and particularly the feeling of independence. You can not stoop in subserviency to anybody; still, you have a very sensitive regard to the good opinions of others, and would do anything that a person can consistently do to keep your reputation from blemish, and to obtain the good-will of others, even down to the house-dog.

Your Cautiousness is too large. You are too solicitous, too much afraid of the dangers and difficulties of life; yet, with your Combativeness and Destructiveness so large, you are uncommonly heroic when the storm comes, but it is the storm in anticipation which disturbs you and makes you unhappy. You have sympathy and kindness strongly marked, and you have an unusual development of Ideality and Sublimity. If you are not a poet, you have a strong vein of poetical sentiment, which is spread out over your whole life, and is seen in nearly everything you do.

If you were to write as a pursuit, your power to create and adorn as a writer would be quite distinguishing; still your sense of what is practical and logical is so strong, that your style would be chastened by judgment, and you would endeavor in all things to "keep probability in view."

You have Constructiveness well developed. You have talent for mechanism and for art; and if you were to engage in anything mechanical or artistic, you would not only succeed, but you would be able to teach others.

You value property "*per se*," but more relatively than for its own sake. You like to have things that you may use and enjoy them. That which costs you a penny, if it be beautiful, you value as much as if it cost you a dollar. You have a capacity for speaking and writing, and, as I have before said, could edit a Mothers' Magazine, could teach the young idea; but you have intellect enough, a sufficient amount of philosophy and breadth of thought, to teach in the higher walks of learning, such as mental philosophy and

the higher branches of science. You have more of theory and philosophy in your mental composition, as I have before said, than most women possess, and this gives to your mind a higher plane of action. You could teach in the mechanical departments, in the artistical, in polite literature—that which is denominated *belles lettres*—and if you had the opportunity, you would excel in languages, especially in Greek.

You have the power of governing and controlling other minds—a kind of magnetism which sways the thought, the sympathy, and the general disposition of those who come within your sphere. You understand character well, and seldom mistake in your first impression of strangers; and for a person of your sensitiveness and natural refinement, you have more breadth of character, more force, dignity, determination, self-reliance, logic, and executiveness than we often find.

You should lessen and restrain your mental action, especially under exciting circumstances, lest your mind wear out your body. You should live much in the open air, be on your feet as much as you can, dress loosely across your chest, so that you can breathe freely, and ventilate your rooms well day and night.

CAPT. HARRY WHITAKER.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You have naturally a very active organization, and are remarkable for endurance and toughness. You have been able to bear up under more fatigue, to stand the weather and endure privation better, than the majority of men are able to do who appear much more brawny. You never had any waste material about you—no surplus; but it was all working machinery, and with your activity of temperament there seems to be a tendency to easy working. There is but little friction in your composition, and you can walk ten miles with less strain and fatigue than ninety in a hundred; and also turn off work rapidly and easily. It was always natural for you to work promptly and rapidly. You were always wakeful and efficient until the day's work was finished. You could work two days and one night, and then with but a few hours' sleep come out bright again the third morning. You are elastic; have great locomotive powers; are from a long-lived stock, and have very little to do with the doctors, and with proper habits your life will probably hold out to eighty or eighty-five years. Your mental development indicates great practical talent—not so much speculation and imagination, but the real available common sense, which you apply to whatever subject comes before you, and you generally judge correctly.

You are a natural critic; you see defects and inconsistencies. You are adapted to make improvements, correct errors, and to seek out new and better ways of accomplishing objects, easier and with less expense than by the old method. Your Constructiveness is large. You never see anything built but what it seems to you that you could do it yourself. You could use tools successfully if you had the experience, and you are good to superintend operations. You have a very active intellect—not so logical, philosophical, and speculative as it is critical and practical. You have a faculty for engineering, for studying natural science, for making yourself well acquainted with common affairs; and you can apply the knowledge which you have gained by study and experience not only to the duties of your own pursuits, but you can project it into the future by way of improvements and discoveries; but you never will go so far at a single leap into the unknown that you can not some way connect that which people understand of to-day with what you propose to do. You are not a dreamer, but a practical utilitarian of the first water.

PORTRAIT OF CAPT. HARRY WHITAKER.
Photographed on Wood by PRICE's Patent Process.

You are a natural critic of character. You have the faculty of understanding men at the first sight, and of controlling and governing them by appealing to their better feelings, and by taking advantage of their weak points in such a way as to guide them into the path of duty, and that without much friction. You never would be likely to have mutiny on ship-board. You would know how to make every man willing to do his duty. You have uncommon Firmness. You stand erect in the hardest storm, and have the greatest strength and courage when most opposed. You have very great determination and independence of opinion and purpose. You are more proud than vain; anxious to enjoy your personal liberty, and to be master of all your actions, and responsible for what you do.

You are naturally upright. You seek to do justly and to redeem your word. You feel as if your word ought to be as good as your bond, and that you are under as much obligation to redeem it as to pay up a bond and mortgage. People trust you with their business, with their confidence, and with their reputation, and from a boy they have regarded you as trustworthy; and from your earliest recollection you have been accustomed to bear responsibilities. People think that you can do whatever they want you to do; and those who know you well, know that you never give up as long as there is a chance of success. You had rather beat against wind and tide all day than to lie at anchor, even though you were to find yourself in the same spot at night.

You are cautious in your affairs, watchful and prudent, and you never run unnecessary risks. You take extra pains to have everything safe and careful, and you rarely have any accident befall you in consequence of carelessness.

You are known for frankness. If there is anybody on earth that you despise, it is a double-faced hypocrite. You speak out your thoughts and feelings too abruptly and plainly; but you are very prudent in your conduct.

You value property for its uses. If you had a good opportunity in business, you would be likely to get ahead in the world, but you could not be a miser; you have too much humanity, liberality, friendship, and fondness for your family and relatives, to be niggardly.

Your Destructiveness is not large, hence you

are not cruel; but you have large Combativeness, consequently you fire up quickly, and as long as opposition is brought to bear upon you, your Courage and Firmness hold you up to the work; but as soon as a man strikes his colors, you "silence your guns." You have no disposition to retaliate or to strike a fallen man. You never revenge an insult or an injury, but you are very spirited while the opposition lasts; and as long as a man is working against you, either in politics, in business, or in enterprise, you stand up for your rights and resist the opposition, but you never feel like revenging yourself upon others.

When you go among children, you are as simple and playful as they. The young like you; children climb on your knee and soon become acquainted with you. You are fond of female society, are naturally gallant. Woman trusts you more than she does most men. She tells you her plans, hopes, and fears. If a woman had difficulty with her husband, she would come to you and ask your advice and follow it. From a child you have been a special favorite with your female friends. You enjoy home and home associations; love the domestic circle, and are naturally social, friendly, domestic, and cheerful in your disposition. When everything is right in your business relations, you carry cheerfulness with you, even in the midst of the stirring business of life; and when your business is over, and you can retire to the home circle, you seem to leave the affairs behind you, and devote yourself to your friends, as if you had no other care.

You look on the sunny side of life. It is natural for you to expect success even when everything surrounding you is dark and doubtful; but you have very little faith. You trust to yourself, to what you can do, to the strength of oak and iron, to watchfulness, and to the performance of your duty.

Your religious character will be shown chiefly through your sense of duty and sentiment of benevolence. You are a moralist in feeling—are disposed to do right and to love your neighbor, but you are not much inclined to accept the dogmas and teachings of men in regard to spiritual and immaterial subjects. You rely upon your own consciousness and your own intuition, and feel less necessity for any intermediate agency between yourself and your God than most men. Your character would be better balanced if you had more of faith and devotion.

You remember your experiences well; that which you read, and what pertains to your own business, you can recall, but the great current of unimportant events which are rushing by, you do not retain. You have fair talking talent, and express yourself clearly, but not copiously.

You should be known for energy, for unqualified determination of mind, for independence, for a desire to excel, for practical judgment, mechanical ingenuity, power to superintend, for natural kindness, and for strong social impulses.

Your weak points come from your small Secretiveness, your moderate faith, and the lack of power to appreciate the spiritual and the immaterial, and the want of power to retain dates, incidents, and circumstances out of the range of your practical experience; moreover, you are sometimes hasty in your temper, and may be overbearing in your disposition while the heat lasts; but as soon as you are convinced of the wrong, you have respect enough for yourself to make it right, even though you are obliged to ask forgiveness of the commonest man in your employ.

BIOGRAPHY.

CAPT. HARRY WHITAKER, extensively known as one of the oldest, most skillful, experienced, and daring steamboat commanders on the Great Lakes, and for his remarkable observing and inventive faculties, was born in Rensselaerville, Albany County, N. Y., on the 26th of March, 1801.

In 1804, his father, Nell Whitaker, removed with his family to the town of Broadalben, Montgomery Co., from whence, in 1809, he removed to Buffalo, his family then consisting of eight children, our subject being the sixth, and now the only surviving member.

The elder Whitaker was a remarkably ingenious man, and was considered an authority on all mechanical subjects wherever he was known; in fact, he was the millwright, bridge-builder, carpenter, joiner and designer of all the improvements made in that region at that early day; and under favorable circumstances he would have won a name and fortune as an inventor.

His misfortune, however, was that he always lived in a new country and at a time when improvements were not appreciated, and before there were any patent-laws to protect the inventor and encourage the man of genius; consequently he never was much benefited by his ingenuity.

At the period of Mr. Whitaker's removal to Buffalo there was not a stage running west of Utica, and the whole country west of that place was almost an unbroken wilderness, and the great Erie Canal with the marvelous changes that have since taken place, were not even imagined in the wildest flight of poetic vision.

In June, 1812, war was declared between the United States and Great Britain, and Buffalo became the seat of war for the Western army, thus adding greatly to the privations of the inhabitants of that region.

Capt. Whitaker saw the village of Buffalo burned down, save a single house, by the British, in December, 1813.

At this time there were but few schools in the entire West and those of a very indifferent character, and thus the school-education of young Whitaker was necessarily very limited.

The family settled on a farm lying on the lake shore, a short distance from Buffalo, at a place now known as Hamburg, where our subject learned the art of farming in a new and heavily-timbered country. In August, 1817, young Whitaker with an elder brother and another companion started in an open boat from Hamburg, on the lake shore, to run down to Niagara Falls, to a grist-mill. In passing Fort Erie, at the outlet of Lake Erie, the youngsters lay upon their oars and floated past the brig Wellington of 110 tons, which was lying at anchor. Her majestic and grand appearance made a profound impression upon the mind of our embryo captain, and from that hour he determined to become a sailor.

On their return from the Falls he and his companions stopped at Black Rock, and paid a visit aboard the steamer "WALK IN THE WATER," commanded by Capt. Job Fish, and afterward by D. W. C. Stuart, then building at that place. This was the first steamer ever placed upon the Great Lakes, and although measuring less than 400 tons, her immense size, as she appeared to the eyes of our hero, as we have often heard him declare, would dwarf even the Leviathan now.

In 1819, he quitted the farm and made his *dé'ût* as a sailor upon the lakes, in the good sloop Huntington, Capt. James Day, of New London, serving as cabin-boy at six dollars a month, and before the close of the season he was promoted to full pay as a sailor before the mast.

The following season he sailed before the mast in different vessels, after which he sailed as mate until 1824, when he took command of the new schooner MACEDONIAN, having first fitted her rigging, made her sails, and painted her, there being neither riggers nor sail-makers at that time in the lake country. With the command of this vessel Capt. Whitaker commenced his long career of ownership and command on the lakes. After building and commanding sailing vessels for several years, he, in 1828, turned his attention entirely to steam vessels, and has since built several large steamers for himself and others, and made most important improvements in the arrangement of old boats, such as the addition of the arched upper cabin, large and well-ventilated state-rooms with double beds and berths above, arranged for families, and many other improvements upon the steamers of the Western lakes have been made from his designs and plans.

During the above period, Capt. Whitaker has commanded fifteen different steamers, many of them first-class vessels, and several owned or partially owned by himself, the last two being the United States and the A. D. Patchin; the latter, which was lost, possibly by design, on a bright moonlight night, by being run on to a rocky island in Lake Michigan in 1850, when under the immediate command of the mate, was built and owned by Capt. Whitaker, who was, by her loss, completely bereft of a handsome fortune.

Capt. Whitaker is noted for his frank, confiding and genial manners, unswerving integrity, and his enterprising and daring spirit.

For five years in succession he made trips through Lake Erie to Detroit, returning to Buffalo during every month in the year, with the steamer United States, a feat never achieved by any other man. He was always the latest out in the fall and winter and earliest out in the spring, and was celebrated for his kindness and consideration to passengers, and his wonderful calmness under the most trying emergencies and dangers, having passed through more gales and storms on the lakes than any other man, without ever receiving damage, the loss of his last steamer having occurred when he was asleep on board, and the weather was perfectly calm.

Capt. Whitaker inherited much of his father's inventive genius, to which was added a keen spirit of inquiry and observation—qualities that early led him to detect glaring defects in the form and arrangement, and in the means of propulsion of steam vessels, and as early as 1847, he became satisfied that some great changes in the theory and practice of steam-navigation were desirable and inevitable.

At this time he commenced a systematic course of observation and experiment with a view to test the comparative merits of the paddle-wheel and the screw-propeller, and very soon became con-

vinced that the screw was much superior to the paddle-wheel, and in all respects the proper instrument for the propulsion of vessels. He also satisfied himself that it was impossible to give the paddle-wheel a velocity greater than twenty-three miles an hour, one-fourth or fifth of which was lost in slip, or yielding of the water, while a much larger proportion of fuel and power were wasted under the most favorable conditions.

He also demonstrated, as many others have done, that a screw properly proportioned to the vessel to be propelled, has much less slip than the paddle-wheel, the per centage being only about one in ten, while the velocity of the screw could be made to reach fifty and even a hundred miles per hour, with the power applied directly to the screw-shaft after the plan of the locomotive engine.

Having settled these points, he next turned his attention to the form of vessels with a view to increasing their speed by diminishing resistance. He commenced by informing himself of the established theories and of the published authorities on the subject, which he found were exceedingly meager, unsatisfactory, and indefinite, all finally running against the apparently insurmountable proposition in hydraulics, "that the power required to propel a boat increases as the square of the velocity." This proposition, by showing the impossibility of greatly increasing speed by giving increased power, clearly indicated that the path of improvement, if any, must lie in the direction of form.

It occurred to Capt. Whitaker, that by extending the forward lines of a vessel, that water which common steamers dash aside from their path with great force and velocity, raising a swell forward and creating an impending vacuum aft, and the rapid removal of which absorbs the whole power of the engine, might be laid aside comparatively, slowly and gently, however great the speed of the vessel. To test this point he constructed three models of equal tonnage whose midship sections were all equal, but whose forward lines were as 1, 2, and 3. On passing them through the water, it was demonstrated that when No. 2 had twice the speed of No. 1, it dashed aside the water in its path with no greater velocity than did No. 1; and that when No. 3 had thrice the speed of No. 1, it dashed aside the water in its path with no greater velocity than did No. 1, and therefore did not require more propelling power, though moving with a velocity three times greater than No. 1, thus demonstrating that the well-known proposition above named does not hold good, but must give place to the more rational and promising one—namely, *that the resistance to the motion of vessels may be made the same for all velocities, by suiting the form of the boat to the velocity required of it.*

We may mention as a noteworthy coincidence, that Capt. Whitaker and George Steers, both comparatively unscientific men, in the mere book sense, unknown to each other, succeeded in practically demonstrating the truth of the same proposition, in regard to the form of vessels.

Capt. Whitaker next turned his attention to the construction of a boiler for the rapid and economical generation of steam under a very high pressure, and finally succeeded in perfecting such a boiler, which he has had with his other improvements patented, and they now form what is beginning to be extensively known as Whitaker's System of Side Screw Propulsion. This system has been tested on the steamer Baltic, on the Western lakes, with the most complete success.

During the past year, a vessel, known as the Charlotte Vanderbilt, has been built in this city under the immediate direction of Capt. Whitaker, designed thoroughly to test his system of propulsion, and which, after many vexatious delays, is now ready for a trial trip. This vessel measures 360 tons, is 210 feet long, 28 feet beam, 58 feet over all, has a draught of less than 3 feet, with very sharp forward lines projecting two thirds of her entire length, with sharp after lines and a flat bottom, and is admirably adapted to carrying passengers and light perishable freight. She is propelled by two screws 14 feet in diameter working right and left, throwing the water inward toward the after lines or run, having a lead of 25 feet at each revolution, with a submersion of 5 feet, which carries the blades of the screws two feet below the keel, the remainder of the screws including the shaft and arms revolving above water, in the atmosphere, similar to the common paddle-wheel. The screws have four blades, and their shafts are placed on a line parallel with the keel, on each side, just at the commencement of the after lines, about 65 feet from the stern, and are driven by two pairs of oscillating engines. The engines are two-feet stroke, 24 inch cylinders, and are designed to work 1,500 horse-power, under a high pressure of steam, so as to give at least 125 revolutions per minute, which will give a velocity of travel to the screw of 36 miles per hour, and a speed of over 30 miles to the boat.

The boilers are novel in construction yet involving no untried conditions, and work with great efficiency and economy—being tubular, and each having over 3,000 feet of fire surface to 40 feet of grate surface, and are so constructed as to safely work superheated steam.

The boilers and machinery occupy a very small space on the guards, chiefly outside of the hull, and with fuel for a day's trip from New York to Albany and back, will not weigh over sixty-five tons. Most engineers have already decided in favor of the screw as the instrument for efficient and economical steam propulsion for vessels, and that the present system of loading down steamers with enormously massive and heavy machinery, working at low pressure and requiring thousands of tons of fuel for a voyage of ten or fifteen days, is ruinously expensive. By Capt. Whitaker's system, vessels of the capacity of the Adriatic would require machinery and fuel less in tonnage than the weight of the huge engines now in her to make her regular trips in less time, it is claimed, than a trip has ever been made across the Atlantic.

The Charlotte Vanderbilt will carry 800 passengers, and is designed for a day boat to run to and from Albany daily.

Capt. Whitaker's system of side screw propulsion involves no new principles, but consists of a new application and use of well-ascertained conditions designed to secure economy in fuel, efficiency in action, and high speed, and receives the hearty commendation of such engineers as Robert Armstrong, author of the "Arithmetic of Naval Architecture," Messrs. Fairbairn, Aytoun, Delemater, Haswell, the Farons, and other practical authorities, including the *Scientific American*, the *Nautical Magazine*, *Life Illustrated*, the Manchester *Guardian*, and the London *Artisan*.

The following statement of the mental processes by which Capt. Whitaker arrived at his conclusions is in his own words. "I was not long in discovering that a revolving inclined plane or screw working in a fluid nut, with its axis and arms working above the water-line at the side of a vessel, was the most economical and efficient method of propulsion. Having settled this point, my mind was then drawn to the following conclusions: viz., that if one screw performed so much in its worst form and application, wallowing at the stern, that two, four, six, or eight placed upon the sides of vessels, only using the thread of the screws, driving them up with direct-acting high-pressure engines, yoked to right-angle cranks, on the plan of the locomotive, would secure great velocity and travel of the screw, which would give me great power and speed, with great economy in room, weight of machinery, and a saving of three fourths of the fuel. After investigating the subject for nearly two years I applied for letters-patent, which were granted October 18, 1853.

Since that time I have been endeavoring to introduce and develop it, together with my patent boiler working superheated steam. For the last five years I have been constantly employed in investigating my new mode of propulsion, modeling, draughting, and arranging boats for all kinds of navigation, and endeavoring to introduce my improvements to the world in order that the public might be benefited by them as well as myself and friends. A supposed friend agreed to build a boat which should fairly test the improvements, which was commenced on the 28th day of April, 1857, and was ready in December following for a trial trip with every design, plan, and draught of mine carried out to my entire satisfaction, except a small device connected with the valve gear, called a second link, which would have been ready in less than a week, without expense, as the engineer offered to attach the second link himself. We had steam on the boilers three times at the dock, and the engines worked more power than I have ever seen displayed on a similar occasion, and gave every assurance of a capacity equal to my highest expectations. While unsuspectingly waiting for the completion of the device alluded to, the boat was taken out of my hands by the friend in whom I had wholly confided, having, to my surprise, a large debt upon her, and he, with the aid of others, has been ever since at work, adding new and untried attachments to my boilers and machinery which are entirely useless, and are evidently designed to embarrass and force me to yield my claims and interests into the hands of unscrupulous and scheming knaves."

Capt. Whitaker was married in January, 1827, to Miss Maria Goodrich by whom he has two children, a son and a daughter. The son, Capt. Chauncey H. Whitaker, who is a chip of the old block, has been in command of four or five different steamers on the Western lakes. In the month of February, 1848, when only nineteen years of age, he made a most daring trip with his father's steamer, the United States, from Buffalo

to Detroit and back, the lake being full of ice nearly the whole distance; the success of this trip forwarded the completion of the telegraph-wire through to Chicago two months earlier than it otherwise would have been done.

Capt. Whitaker, the younger, was to have commanded the Charlotte Vanderbilt, on the North River, during the present season, to thoroughly test his father's system of side-screw propulsion which will unquestionably lead to an entire reconstruction of the theory and practice of steam navigation.

The following is from the New York *Times*, and will show the results of a trial trip of Capt. Whitaker's steamer, which was made since the foregoing was in type.

SUCCESS OF THE STEAMER CHARLOTTE VANDERBILT.—Nautical men have been waiting with interest to witness the trial of the new side-screw steamboat which has been built under the direction of Capt. Whitaker for a North River day passenger boat. The litigation into which it is alleged he has been forced by his late associates, and the efforts on their part to depreciate the value of the new boat, for the purpose of buying up the claims at half their value, and depriving the captain of his rightful interest in the inventions attached to her, explain the cause of the delay. Having bonded a portion of the claims, however, and obtained a release from the marshal, they made a trial trip on Saturday afternoon, which it was intended should be private. Her machinery was set in motion at about 3 o'clock, P. M., with a pressure of 40 pounds of steam to the inch, and she ran out about twenty miles and back in less than three hours, during which time steam was raised to 50 pounds, or about one-half the medium working pressure designed to be used, which gave 76 turns to the screws per minute; and a speed of over twenty miles per hour to the vessel, thus sustaining Capt. Whitaker's position in regard to his method of side-screw propulsion. The vessel glided through the water, raising only a slight ripple at her highest speed. On her return she was run alongside a small dock at Hunter's Point, on the Long Island side, where she now lies. The trip was made without the knowledge or consent of Capt. Whitaker, but the result fully sustained his system, which, if adopted, will work an important change in steam navigation.

Miscellaneous.

WHAT WE INHERIT.

THAT offspring inherit the characteristics, both mental and physical, of their parents, there can be no doubt. Our work entitled "Hereditary Descent" is, perhaps, the most extensive collection of facts extant on this subject; and that work aims to explain the doctrine as applicable to the human race, on the principles of Phrenology and Physiology. We quote some very interesting remarks on this subject from a foreign quarterly, and may continue the extracts in future numbers.

"The transmission of physical and mental qualities from parents to offspring is one of those general facts of nature which lie patent to universal observation. *Children resemble their parents.* Were this law not constant, there could be no constancy of species: the horse might engender an elephant, the squirrel might be the progeny of a lioness, the tadpole of a tapir. The law, however, is constant. During thousands of years the offspring has continued to exhibit the structure, the instincts, and all the characteristics of the parents. Every day some one exclaims—as if the fact surprised him—'*That boy is the very image of his father!*' yet no one exclaims, 'How like that pug-dog is to its parent!' *Boys or pug-dogs, all children resemble their parents.* We do not allude to the fact out of any abstract predilection for truisms, but simply to marshal into due prominence an important truth on which the whole discussion of heritage must rest. The truth is this: Constancy in the transmission of structure and character from parent to offspring is a law of Nature.

"That this truth is not a truism, we shall show by at once contradicting, or at least qualifying it. The very same experience which guarantees the constancy, also teaches, and with almost equal emphasis, that this constancy is not absolute. *Variations occur.* Children sometimes do *not* resemble their parents; which accounts for the exclamation of surprise when they do resemble them. Nay, the children are sometimes not only unlike their parents, but they are, in important characteristics, unlike their species. We then call them deformities or monsters, because while their species is distinguished by having four legs, they themselves have six or none; while their species possesses a complex brain, they are brainless, or have imperfect brains; while their species is known by its cloven hoofs, they have solid hoofs, and so on. Dissemblances as great are observable in moral characteristics. We see animals of ordinary aptitudes engender offspring sometimes remarkable for their fine qualities, and sometimes for their imbecility. The savage wolf brings forth occasionally a docile, amiable cub; the man of genius owns a blockhead for his son. *In the same family we observe striking differences in stature, aspect, and disposition. Brothers brought up together in the same nursery, and under the same tutor, will differ as much from each other as they differ from the first person they meet.* From Cain and Abel down to the brothers Bonaparte, the striking opposition of characters in families has been a theme for rhetoric. Nor is this all. In cases where the consanguinity may be said to be so much nearer than that of ordinary brotherhood, namely, *in twins, we see the same diversity;* and this diversity is exhibited by those rare cases where the twins have *only one body between them.* The celebrated twins Rita and Christina were so *fused* together that they had only two legs between them: two legs, and four arms, and two heads; yet they were quite different in disposition. The same difference was manifested in the celebrated Presburg twins, and in the African twins recently exhibited in London.

"It is clear, then, that offspring do not always closely resemble parents; and it is further clear, from the diversities in families, that they do not resemble them in equal degrees. *Two brothers may be very unlike each other, and yet both like their parents;* but the resemblance to the parents must, in this case, be variable. So that when we lay down the rule of *constancy in transmission,* we must put a rider on it, to the effect that this constancy is not absolute, but is accompanied by a law of variation."

"AWFUL GARDNER."

THE readers of the *Messenger* will have seen accounts of the conversion of this notorious prize-fighter and trainer of prize-fighters. It is one of those instances of almost miraculous power which shuts the mouth of the caviler and skeptic. And now what is Gardner going to do?

Mr. Editor, I consider his experience during the last ten or twenty years one of priceless value in a certain point of view; and I much dislike to see it thrown away. (He knows how to train men's *bodies*, and there are a thousand places where just such a man is wanted.) Sir, I protest against our resigning all these strong, Samson men to the service of the devil.

I dislike to see Satan's body-guard—*black-guards* though they are—six feet high and forty-five inches about the chest; while the servants of God go creeping about—little shad-bellied fellows—scarce able to walk under the Christian armor, much less able to fight in it!

"I hope that "Awful Gardner," if he remain firm in the faith, may have a professorship at some great theological school, where he may bring forth fruit meet for repentance in the shape of strong-lunged and strong-armed ministers of God! Thus only can he give indemnity for the past and security for the future."

Mr. Editor, we want more *muscle* as well as more *mind* in our pulpits. When Henry Ward Beecher went to be examined by the phrenologist, Fowler walked round him, and eyed him as a jockey would eye a fine horse, and said: "You're a *splendid animal!*" "That's just it," he replied; "that's the secret of my success!"

Truth! When a man's *body* is vigorous, his *mind* is vigorous, and his thoughts are energetic, searching, and clear. I don't know whether our Christian churches have grown weak because our ministers have grown lean, or whether the ministers have grown lean because the churches have become weak; but of this I am sure, that many of our ministers to-day weigh too little in the pulpit because they weigh too little on the scales.

Mr. Editor, have you noticed how much *smaller vests* our ministers wear to-day than they did twenty years ago? Sir, Joseph Badger's jacket would button round a half dozen of them; yea, and you could tuck in a Calvinist under every button. I can recall many of those old ministers whose muscle and limb would take "Awful Gardner's" eye.—*Christian Messenger.*

THE EFFECTS OF TOBACCO.—*Hall's Journal of Health* mentions what it calls an "instructive and alarming fact" in reference to the Wall Street forger (Huntington) recently sent to the penitentiary. It was proven on the trial that he was never seen down town without having a cigar in his mouth; that he was never well. On entering the prison, smoking was absolutely and at once prohibited, by an inflexible rule. In three months he gained fifteen pounds in flesh, and his general health was improved in proportion.

PHRENOLOGY IN OHIO.

RESOLUTIONS ADOPTED BY THE "EVANSPORT (OHIO) PHRENOLOGICAL SOCIETY."

At the close of a course of eleven lectures on Phrenology, Anatomy, Physiology, and Hygiene, delivered by Prof. R. C. Barrett, the following resolutions were unanimously adopted:

1st. Resolved, That the above-named subjects were ably and philosophically set forth in all their combined actions, as showing the moral, mental, and physical development of man; and that obedience to these laws, separately and collectively, is calculated to work out for the human family their present and everlasting happiness, and that violation of said laws necessarily produces sin and misery.

2d. Resolved, That the science of Phrenology, as taught by Mr. Barrett, is calculated to impress upon the mind the omnipotence, wisdom, and goodness of the Creator—our duty to Him and to ourselves; and that Phrenology has no part or lot with infidelity, as many were disposed to think before its introduction in our society.

3d. Resolved, That the course which Mr. B. has taken to disseminate Phrenology receives our unqualified approbation, as he has exhibited it to us in a clear and *practical* view, as represented in his numerous examinations of living heads, and his demonstrations from the busts of some of the most distinguished of the age. We are satisfied that we know much more of ourselves, and that we are much more able to judge of the character of others; and we hope, many of us, to become truly practical Phrenologists.

4th. Resolved, That Mr. B. has labored earnestly to make us acquainted with practical Phrenology, and that he has redeemed every pledge which he gave when we became his pupils, and that no candid mind could listen to the course of lectures delivered by him without acknowledging its usefulness and the great utility of the science of Phrenology. And as he is occasionally forming classes for instruction in *practical* Phrenology, if our testimony can prevail with any one to become his pupil, it is seriously and earnestly given.

5th. Resolved, That the above resolutions be forwarded to the AMERICAN PHRENOLOGICAL JOURNAL, with a request for their publication. Dr. J. H. BENNETT, Chairman.

A. J. BOSTATER.
J. C. DONALDSON.
HOUSTON RUSSELL, M.D.

EVANSPORT, O., *May* 1, 1858.

BENJAMIN FRANKLIN IN HIS GIG.—It is now but a century since Benjamin Franklin, postmaster-general of the American colonies by appointment of the crown, set out in his gig to make an official inspection of the principal routes. It is about eighty years since he held the same office under the authority of Congress, when a small folio (now preserved in the department at Washington) containing three quires of paper, lasted as his account book for two years. These simple facts bring before us, more forcibly than an elaborate description, the vast increase in post-office facilities within a hundred years. For if a postmaster were to undertake to pass all over the routes at present existing, it would require six years of incessant railroad travel at the rate of 126 miles daily; while if he were to undertake the job in a gig it would require a lifetime for its performance Instead of a small folio with its three quires of paper, the post-office accounts consume every two years 3,000 of the largest-sized ledgers, keeping not less than one hundred clerks constantly employed in recording transactions with 30,000 contractors and other persons.

THE PRESENCE OF THE MAGNIFICENT.—The contemplation of the mighty and the magnificent, of the noble and the beautiful, teaches us a true estimate of ordinary affairs—a true estimate, because any other estimate than that which makes men's personal concerns of merely trifling import is false. The truth is, that those things which occupy most men's minds are the veriest trifles. Those things, in short, which overbalance men's minds do so only because they are over-estimated, and by being allowed to occupy their thoughts to the exclusion of everything else, come at last, practically, to make men believe that there is nothing else in the world. The dweller in a village has no idea of its littleness till he has seen a great city; and the victim of petty annoyances soon ceases to feel them when he has some great and overwhelming sorrow.

On the other hand, the constant pressure of trifling affairs drives out and causes the extinction of all thought of the vast and the enduring. It is, therefore, a real misfortune to be compelled to occupy one's mind with affairs of little moment, and it should be our endeavor, as much as possible, to elevate our minds to the contemplation of those things which approach the infinite and the eternal. The constant presence of an idea of the vastness and measureless antiquity of the starry heavens, in contrast with an idea of the little portions of time and space we occupy, should have a strong tendency toward the expansion of our minds and the elevation of our motives.

To Correspondents.

W. J. S.—"Where was George Combe born?" Edinburg, Scotland. "Is the heart the center of affection?" The heart, anatomically speaking, circulates the blood, and nothing more. An idiot or a pirate has as large, as strong, and as healthy a heart as a Fenelon, a Wesley, or a Webster, but their brains differ. Every mental emotion, every affection, and every thought has its foundation in the brain.

W. J. B.—"Calvin Cutter, M.D., in his 'Physiology,' page 347, article 774, says: 'What part of the brain receives the impressions, or has the most intimate relation with the intellectual faculties is unknown.' 1st. Is he correct?" *Ans* No. "2d. If not, what part receives the impressions and manifests the intellect?" *Ans.* The front part. "3d. Are children endowed with as much intellectual and physical strength, generally, whose parents are first cousins?" *Ans.* No, and they are frequently unhealthy and idiotic, especially if the cousins resemble each other strongly.

WILLIAM H. B.—We can furnish only bound volumes of this JOURNAL for 1857.

WALTON.—"The Student" is still published by N. A. Calkins 348 Broadway, New York. We can furnish back volumes of the PHRENOLOGICAL JOURNAL, but not many back *numbers*.

R. G. "Can a person be cured of nervousness, and how, provided it is not produced by tobacco, coffee, or strong drink?"

Answer. We suppose you mean nervous irritation; if so, we reply that in most cases it can be modified, if not absolutely cured. This can be done by diet, exercise, rest, recreation, and, in short, by a return to obedience to the laws of health, which we have not room here to expound at length. You have been, perhaps, ten or twenty years in running down, and ought not to expect restoration in ten days, or be discouraged if you do not become sound in ten weeks.

G. H.—The hemispheres of the brain are not always alike in arrangement. If they perform the same function respectively, why are they not more nearly alike?

Answer One eye is sometimes larger, and in nearly all cases one eye is clearer and stronger than the other. The hearing—that is to say, the sharp listening—is done with one ear. The convolutions of the brain are not the demarkation of phrenological organs, but are intended to give a large nervous surface in a small space—in other words, to amplify the structure. A single organ sometimes takes in three or four convolutions. Sometimes, what seems to be a single convolution embraces two organs.

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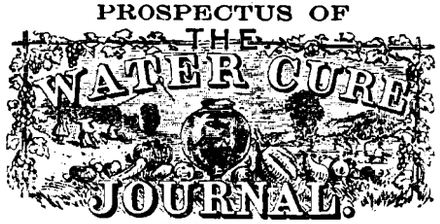

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VOL. XXVIII. NO. 1.] NEW YORK, JULY, 1858. [WHOLE NUMBER, 235.

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Contents.

HENRY WILLIAM HERBERT.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

Henry William Herbert had a strong vital and motive temperament, and all the qualities favorable to the development of strong feeling. The base of his brain was very large, and all the organs of animal propensity were remarkably developed. The top-head was comparatively cramped and contracted, except directly over the ear upward to Firmness and Self-Esteem, where it is high and strongly marked. Forward of that point, in the regions of the moral and religious development, there appears to be a serious want. He had great pride, will, determination, independence, severity, courage, appetite, and excessive Combativeness which produces a quarrelsome disposition. His character was decidedly unbalanced. The very portrait, taking that whole top-head, high back-head, large base, and heavy jaw, indicates the sensualist and the man of passion. He was a man of remarkably strong feelings, fierce passions, an overbearing will, a proud, irascible spirit, a hasty temper, and most intense antipathies. From the ear forward to the root of the nose the head was long, showing large perceptive organs, which gave him his talents as a literary man. The reader, by referring to the remarks on Eugene Sue, in a former number of this Journal, and also in the *Phrenological Almanac* for 1859, will find a counterpart to the writing talents of Herbert.

Herbert had a fervid imagination, but it was mainly devoted to material and sensuous objects. His tendency to sporting and to sporting literature indicates strong animal feelings; for few persons whose top-head predominates, is ever devoted to gunning as a sport, not even in the practice of shooting at a mark, for this presupposes practice in which the shot is deadly. His Alimentiveness was excessive, and for many years he was a slave to that appetite. His Amativeness appears to have been very large, and we doubt not that the excessive activity of this faculty joined with his intemperance, habits of gambling, improvidence, and a haughty and ungovernable temper, constituted the foundation of all his difficulty with his wives—sending one to the grave, and forcing the other to flee in fear and disgust from his unhappy home.

PORTRAIT OF HENRY WILLIAM HERBERT.
(FRANK FORRESTER.)

Such an organization as this is better adapted to some heroic business like civil engineering, house-building, or navigation, where the strong elements of animal feeling can be worked off in the business than it is to literature or light artistic occupation. Where the passions are so vehement, the business ought to be such as to act on the constitution in the way of a drain to the vital force and strong impulses. If the business be otherwise, this force accumulates and leads the individual to be irascible, impetuous, rash, overbearing, and quarrelsome.

This likeness was drawn by Herbert himself, from a photograph, and of course was satisfactory to him. We rarely see a more animal expression of face and head; he had a vigorous intellect, a genius in depicting by language and illustration various scenes in which the strong feelings and passions are involved. Having inherited great pride, independence of mind, and an overbearing will—and aristocratic notions from poor but aristocratic parentage—and being profligate in habit, and becoming indebted, and obliged to expatriate himself, his character became soured and thrown into the channel of his lower faculties. His pride and high notions followed him into poverty and obscurity, and he ever seemed at war with his fate. His pride and imperiousness deprived him of that sympathy among the good whose society might have done much to modify and elevate his character.

He killed himself deliberately, and in such a manner as to evince the controlling influence of the lower feelings of his nature.

BIOGRAPHY.

The suicide of this noted writer and eccentric character occurred in this city on the morning of May 17th. He has been widely known by the *nom de plume* of Frank Forrester—much more so, indeed, than by his real name.

Henry William Herbert was the son of the Rev. and Hon. William Herbert, who at the time of his death, a few years ago was Dean of Manchester, England. This gentleman was son to William, Earl of Montgomery and Pembroke. The mother of our subject, who still lives in London, was the Hon. Lucretia Allen, daughter to Viscount Allen, an Irish representative peer.

Being thus situated from the accident of birth, Mr. Herbert arrogated to himself a spirit of pride and superiority which never deserted him to the hour of his death.

He was born on the 7th of April, 1807. Being destined for the church, he was sent at an early age to Eton, and subsequently to Caius College, Cambridge, whence he graduated in the winter of 1830. Returning to his father's house, Mr. Herbert, who had imbibed extravagant ideas during his residence at college, from association with more wealthy commoners, found his country home monotonous, and launched into those pecuniary extravagances which ultimately became the cause of his exile from the land of his birth. During this period he was an officer of a yeoman regiment, and his experience in field exercises afterward enabled him to compile those able works entitled, "The Captains of the Old World" and of "The Roman Republic," a series he intended to have continued to the middle ages.

Becoming involved in debt, Mr. Herbert, early in 1831, was outlawed, and quitted Great Britain for France, in which country he resided for a few months, and then came to our shores.

Herbert, upon his arrival, had a few hundred pounds, which were speedily exhausted. He now found himself compelled to earn his own living, and, trusting to his superior education, obtained a situation as usher at the school of the Rev. R. Townsend Huddart, No. 5 Beaver Street. While at this school, Mr. Herbert first turned his attention to literary pursuits, and became a writer for the *Courier and Enquirer*. About this time he likewise issued his first historical work, "The Brothers; a Tale of the Fronde"

About the same time he became a contributor to the *American Turf Register*, a sporting magazine, published by William T. Porter. His first articles were in controversy with Cypress, Jr., and from their novelty and vigor the sporting reputation of Mr. Herbert was soon established.

About this time Mr. Herbert, who became prosperous as a writer, connected himself with the crowd of celebrities who were wont to frequent the Washington Hall, upon whose site at present stands Stewart's marble palace. They embraced the most distinguished *beaux* of the time—men celebrated for their eccentricity and utter disregard of popular opinion. In the bar-room of this hotel occurred the quarrel which led to Herbert's first acceptance of a challenge. The duel, however, did not take place, from the fact that Herbert was prevented, from a heavy fall of snow, from reaching the spot in Canada which had been selected as the scene of combat. Upon his return, however, the second of the opposite party having charged him with cowardice, he fired two balls at him, which did little mischief beyond perforating the door. The affair, nevertheless, created an intense excitement, and was for weeks commented upon by the *Herald*, at that period a comparatively insignificant journal. The effect of this disturbance was disastrous to both the business and moral reputation of Mr. Herbert, and gave that turn to his way of life which comparatively isolated him from society.

Shortly after this event Mr. Herbert married his first wife, under circumstances of peculiar interest. Mr. Joseph A. Scoville, subsequently an editor of the *Picayune* newspaper, was at the moment a rich and influential merchant. He solicited Herbert to accompany him to Bangor, Maine, where he was to espouse a young and beautiful woman, the daughter of the Mayor. Herbert consented, and made the journey, but in lieu of acting as groomsman, as had been intended, he cut out his friend, and espoused the lady himself

By this marriage Mr. H. had his only son, an officer in the British army, who now lacks four years of being of age. He is talented, like his father, and gained great credit by his conduct at Inkermann, during the Crimean campaign.

The marriage of Mr. Herbert was far from being productive of happiness to either party, still he loved the woman ardently. The lady—Miss Barker—as deeply returned his passion; and were it not for his most unhappy temperament, his rashness, and his suspicious disposition, there can be but little doubt that the union would have been mutually beneficial. Still, Mr Herbert was naturally selfish, and demanded those marital privileges accorded to husbands by the practices of the English law, but denied by our enlightened jurisprudence. Domestic difference and frequent dissensions were the result. Woman, with Herbert, was an idol; without her he could not exist. He was not of a disposition to appreciate kindness, until after its deprivation. He loved warmly, sincerely, and with the full energy of an ardent soul; still, love with him was secondary to opinions derived from a strict construction of the obsolete law of husband and *femme*. In a wife he observed a emale serf—resistance to his wishes was rebellion, and thus by strongly insisting upon those rights which originated simply in courtesy, he estranged the affections of both women, unto whom he had the good fortune to be wedded. Few, if any men, have had superior good fortune in the devotion of wives, and it is solely to the hasty temper and wayward habits of Mr Herbert that can be attributed the alienation of affection of two young, wealthy, and affectionate creatures, who admired and wedded the man simply from enthusiastic appreciation of his genius. Soon after his marriage Mr. Herbert took up his residence at the Carlton House, and commenced a most extravagant career of life. He worked hard and earnestly, and was prompt and faithful in his engagements. He wrote the entire editorial of the *American Monthly Magazine*, which had been previously established by Mr. A. D. Patterson, his fellow-preceptor in Huddart's school, and at the same time composed "The Warwick Woodlands," and the very superior romance of "Oliver Cromwell" This fit of industry lasted but a limited time, and being once involved in debt, he soon became callous and indifferent as to consequences.

His works are most voluminous, and were they to be collected by a competent editor, they would amount to some two hundred volumes. They treat upon every variety of subject, critical, historical, sporting, and poetical.

After dwelling for some time at the Carlton, Mr. Herbert proceeded to Newark, where he lived with his wife at the Park House. While here his wife died, and shortly after he took possession of "The Cedars," beautifully situated half way between Newark and Belleville.

Near "The Cedars" is the ground where Herbert fought his last duel with Mr. Valentine, a gentleman of the legal profession, who subsequently came to his end by suicide. The quarrel originated from a presumption of incivility, on the part of Herbert, in not introducing Valentine to a friend, as they were standing at the bar of a hotel. The two were in conversation when a gentleman invited the party to drink. Herbert accepted, but having neglected the formality of introduction, Valentine quitted the chamber and sent a friend on the morrow. In this duel Herbert was shot near the ankle, while at the third fire the button on the waist of Valentine's pantaloons was carried off.

In 1851 Mr. Herbert became one of the editors of the *Sunday Era*, and for some time loaned his power and talent to the cause of Sunday journalism. This paper was short lived, as both its conductors were, shortly after its establishment, induced to desert their position for other business. A year afterward they reappeared in the *Sachem*, which may be deemed as one of the most bitter and uncompromising organs of Americanism ever published. Herbert was a most bitter enemy to Catholics, and to Irish Catholics particularly; it was this feeling which caused two thirds of his quarrels with the people of Newark. Although an Englishman, he rarely associated with his countrymen; in fact, he often freely expressed his opinion against the British residents of this city. He refused to be present at the Morpeth dinner, although a brother Yorkshireman, simply from the fact that many of those gentlemen who attended were in the mercantile profession.

The immediate cause of Mr. Herbert's decease was to be attributed to his recent marriage. He had been a forlorn, miserable man, deserted by his friends and relatives; he was alone in the world, when a young and lovely woman came as an angel of light to console his future. He saw in her advent a burst of new life; he mourned the departure of the past as hours wasted, and resolved to recommence life.

But these resolutions of reformation, made under the hopeful inspiration of the love of a confiding woman, were soon blasted. A brood of cormorants gathered around him, and with them he fell back into the most dissolute habits. The wealth of the wife had become a bait for gamblers and blacklegs, and their programme was to lead Herbert into intoxication at his own expense in his own house, and then by gambling at his own table, to fleece

him of every dollar which he could coax from or compel his wife to yield up to him. The wife, finding her husband hopelessly at the mercy of swindlers, and her fortune a prey to their rapacity so far as the husband was allowed to enjoy it, fled from him and his associates, actuated by true womanly dignity and a sense of personal danger and disgrace. His pride was touched, and his feelings goaded to desperation by those whose mercenary greed had been foiled, and he terminated a career of pride and passion by shooting himself through the breast with a pistol, a deed which he had often threatened to perpetrate.

That portion of the press which is under the control of Herbert's friends has led off in praise of their fallen associate, while others, appreciating his talents and knowing less of his vices, have copied widely those eulogies of the haughty and besotted bully, coupled with wholesale calumny of the wife who, advised to do so by her own mother, had been compelled to seek legal release from one whose suicidal hand has anticipated "the law's delay."

JOHN REED,

THE MURDERER AND SUICIDE.

PHRENOLOGICAL CHARACTER.

On Saturday evening, May 22d, 1858, John Reed murdered his wife in the village of Green Island, Albany Co., N. Y., by inflicting nine wounds upon her person, eight of which would singly have proved fatal; and then committed suicide with the same weapon by driving it seven times *to the hilt* into his chest, every wound in itself necessarily fatal, and two of them piercing the heart. The motive for the commission of the terrible deed was jealousy, anger, and a desire for revenge. His wife, a young woman nineteen years of age, prepossessing in her personal appearance, of unblemished character, and a worthy and exemplary member of the M. E. Church, had left him on account of ill-usage, and had repeatedly refused to return to his bed and board. She had also accepted the escort of young gentl men of her acquaintance to and from church, and in her calls upon her friends in Green Island and West Troy, though there was not the slightest circumstance which would give rise to a suspicion of her entire purity and innocence. But

"—— trifles light as air
Are to the jealous confirmations strong
As proofs from Holy Writ."

Incensed by her refusals to live with him, and jealous of the attentions she was receiving from her friends, he determined upon revenge, and, after many weeks of patient waiting and planning that he might destroy others besides her, he finally, on the Saturday evening above-mentioned, ended her career and his own by the commission of the most terrible crimes known to men.

The editor of the Troy *Daily Times* gives the following history of his career, and of his personal appearance as he lay upon the floor in his own blood and in the blood of his innocent victim—

John Reed was in his twenty-fifth year. He was a small, wiry, light-built young man, but little over five feet in height, with a restless, nervous, daring expression of countenance; a dark, quick, sparkling eye; a sharp Grecian nose; thin, sinister lips; and, generally, a "bad look," which was not diminished by a slight moustache, insufficient to cover the lip or conceal its physiological lines. In appearance, he was a man from whom we should expect little cunning or deliberation, but terrible recklessness and unconquerable determination.

Reed was by occupation a sailor. From his boyhood he had "followed the sea," making voyages to various climes, and accomplishing once a voyage around the world. He spent some months on one of his latest trips in Spain, and used to be fond of reciting the thrilling experiences he had had there, and of declaring that he had shown himself not a whit inferior to the veriest Spanish cut-throat of them all, in pluck. In his roving career, Reed had acquired an embrowned cheek, an immense vocabulary of full-rounded oaths, a reckless swagger and habitual gusto, and manners none of the best. His breast and arms were covered with various devices, in Indian ink—sailors and ships, anchors and cordage, and birds of dashing plumage—among them the inevitable American eagle. Some of these he used to say were punctured near the Equator, others on the African coast, and others underneath the walls of Gibraltar.

The writer, who knew Reed personally, can vouch for the entire accuracy of the above description. It is true to nature, and had the editor been acquainted with Phrenology, and an expert in the application of its principles, he could not have given a better synopsis of his physiology and physiognomy. My object in writing is to supply his phrenology.

The base of his brain was very largely developed. Amativeness—which gave him a large, round *bull-neck*—Combativeness and Destructiveness were enormously developed, as were also Firmness, Self-Esteem and Concentrativeness. His Adhesiveness was also largely developed. Secretiveness, Cautiousness, Veneration, Conscientiousness, and Benevolence were scarcely full—on a scale of seven they would have been marked three or four. The anterior lobe of the brain was neither high nor deep, and appeared to be no more developed anteriorly than was the rest of the brain posteriorly. A line drawn from the opening of one ear through to the opening of the other would probably have nearly balanced his brain in the center of its long diameter. Here was a fearful array of passions unchecked by educated intellect or moral faculties.

His very large Amativeness, Adhesiveness, and Concentrativeness gave him strong, deep, and abiding love for the object of his affections; his equally large Combativeness, Destructiveness, Firmness, and Self-Esteem rendered him irritable, exacting, domineering, revengeful, and extremely prone to jealousy. His education had been entirely neglected—or, rather, the education of his intellect and moral faculties had been entirely neglected—while his baser passions had been *drawn out*, *educated*, and strengthened into overwhelming strength by his constant attendance upon the *street school* in his boyhood—that school where many a promising boyhood is ripened into a disgraceful, criminal manhood—and by his many voyages over the seas, and by a life-time spent in the atmosphere of the low groggery, the house of ill-fame, and the gambling hell.

Is it any wonder that a man thus constituted, thus nurtured, thus developed, should murder? The only wonder is that he was so long delayed in the commission of the crime. And when he comes to the commission of the crime, how completely does he do his deed of blood, and with what insane desperation does he drive the dagger, with its blade six inches in length, seven times to the hilt into his own vitals!

What a terrible commentary is this on that long career of evil living on the part of his parents and grand-parents, which culminated in this young man! I tell you he was not the only one engaged in that terrible double murder. His parents sowed the seed of which this is the awful harvest, when they let their own passions run riot, when they nurtured themselves and their boy in the gratification of every lust, every passion; when they surrounded him by no redeeming influences, but brought him up upon the street and in the brothel, with no useful occupation, and with no just ideas of the duties and responsibilities of life. And are there none others to blame? Yes, society as at present constituted is to blame. Each one of us in this community who saw whither these evil courses were tending, and gave no warning, must share a portion of the blame. We are all to a greater or less extent "our brother's keeper," and will be held responsible in a like manner for our brother's deeds; and when we realize that we are all brethren, sons of the same eternal Father and Mother of us all, then and not till then may we call God our Father, since then and only then can we truly and sincerely and lovingly call man our brother.

LECTURE ON PHRENOLOGY

BEFORE THE FREDERICKTOWN (OHIO) LYCEUM.

BY H. C. FOOTE.

This is emphatically a progressive age. Inventions and improvements are multiplying in every direction, in an increasing ratio and with dazzling results. The tendency of the age is to arrive at results by *short cuts*, annihilating time and space instead of following the old round-about roads. In farming, plows have superseded spades, and reaping-machines, which will do the work of a dozen men, are taking the place of the sickle and cradle. In traveling, railroads are usurping the dominion of the stage-coach. Sewing-machines are superseding the needle, that polished little tyrant which has enslaved and enfeebled woman for so many centuries. The time is near at hand when a five-dollar sewing-machine, simpler and superior to those which originally cost $100, will be found in every dwelling, from the shanty to the palace.

Steamships and telegraphs have become so common as to cease to excite wonder. Discoveries are being made in chemistry and astronomy. A new metal, aluminum, is destined soon to compete with the precious metals, gold and silver.

In geography, it seems to me possible and practicable to construct profile maps, with all the elevations and depressions in the surface of the country represented in actual relief on a miniature scale, molded in *papier-maché* or "gutta percha." And who would pay ten, twenty, or fifty dollars now for a painted miniature likeness, when a daguerreotype or ambrotype, which are infinitely superior, can be procured for one or two dollars? And so on with other improvements.

The general tendency and result of these improvements is to enable men to take less time in supplying their physical wants—food, shelter, and

clothing, etc.—and to employ more of our time in ministering to our moral and intellectual natures, increasing our knowledge and improving, elevating, and refining our moral characters.

Since man was first placed in the Garden of Eden to study the works of nature, sin has so confused his faculties and retarded his progress, that it has taken him from forty to fifty centuries to establish the sciences of Astronomy, Geology, Chemistry, and Botany upon an exact basis. The highest of all sciences, Science of Man, has not until very recently been solved and reduced to an exact science—that of Phrenology, and even this solution is not yet in universal acceptation.

"ORDER *is Heaven's first law.*" What would be the study of Botany if Linnæus had not reduced it to a system or science? A man might live to be 150 years old, and devote the whole of his time to it, and not be able to master it without the key. But in its present state, a child can compass it with comparative ease in a short time. Were all the sciences in the condition of the old-fashioned Mental Philosophy, so called, society would degenerate into the condition of the dark ages, in which ignorance was the rule and learning the exception.

Take a bag full of wooden block-letters of the alphabet, jumble them up well, and pour them out in a heap, and call this the "Science of Letters," and you have an idea of the ancient "Mental Philosophy" which Locke, Abercrombie, Stewart, Wayland, and others have attempted to explain; but if they would "explain their explanation" they would perform an achievement indeed.

The term "Phrenology" has a broader and more comprehensive meaning than many concede to it. "Phreno" means mind, and "logy" logic, reason, or philosophy—the philosophy of mind. It means something more than the "bumps" on the head. Many suppose it has nothing to do with the physiological structure of the body; but, properly, it includes the whole man, mind and body, as body and mind are closely connected, inter-related, and mutually dependent upon, and sympathetic with, each other.

There are many persons skeptical with regard to Phrenology, refusing to admit it as a science, or holding it in suspense for want of additional evidence; or admitting its truth, yet conceiving that it is injurious, diabolical, or hobgoblin in its tendency, leading to infidelity, materialism, fatalism, or unpopularity, that dread bugbear of conventionalism and "Mrs. Grundy."

When Robert Fulton's steamboat, "Walk-in-the-Water," first ascended the Hudson River against wind and tide, vomiting forth flames and smoke from its tall chimney, its wheels dashing up the water into foam, the wonder-stricken Knickerbockers along the shore were terribly frightened, and concluded, after a patient cogitation of the *theory* in the *abstract*, that it must be the devil himself! and many made precipitate flight, and sought refuge among the hills of old-fogyism.

THE "MONSTER."—A modern writer says: "I was once walking in the fields. I saw indistinctly an object on a distant hill; I thought it was a *monster*. On approaching it a little nearer I saw it was a *man*. But on coming still nearer to it I found it was *my brother*." So I think it will be found in regard to Phrenology when it becomes better known.

Another misconception arises from the semi-artificial division and nomenclature of the organs; and many jump at the conclusion that Phrenology must be an absurdity, because anatomists, in dissecting the brain, can find no such arbitrary divisions and partitions like the pigeon-holes in post-office boxes. But the truth is, the organs blend into each other gradually and imperceptibly, like the colors of the rainbow. But it is not possible, in my limited time (twenty minutes), to dwell much upon the anatomical evidence, even if I were prepared for it, with all the technical terms. I would refer to the standard works upon the subject.

Suffice it that the truth of Phrenology has been demonstrated a thousand times before a thousand audiences, and by thousands of individuals in private life, who have common sense and independence enough to test the matter practically for themselves, without relying upon some great man's "say so;" and they make a practical application of it to all the affairs of life, education in all its phases—physical, social, intellectual, moral, and religious—and also in business affairs.

PHRENOLOGY AND THE SCRIPTURES.—Many an infidel has been reclaimed and converted to Christianity through the influence of Phrenology, and this I solemnly believe is its legitimate tendency. Phrenology proves to skeptics that they are deficient, either in the development or cultivation, or both, of the organs of Spirituality and Veneration, and that these faculties need cultivation, enlightenment, and *constant, daily discipline*, before the mind can be sufficiently balanced and harmonized to form anything like a correct opinion upon that all-important subject, Christian Theology—a subject, of course, of infinitely greater importance than any other; but I value Phrenology especially as a stepping-stone, a "handmaid" to Christianity, and not by any means as a substitute for it. I am not under the necessity of speaking at random upon this subject, or of borrowing other men's opinions, as I can judge by my own experience and observation; and I would here state that I have not, nor shall not, if possible, utter a word about Phrenology but what I *feel* and *know* to be *true*. It is too important a subject to be trifled with.

Much useless discussion and denunciation has been wasted upon the *theory* of Phrenology in the abstract. Proud man is prone to make laws for nature, instead of humbly studying nature's laws. If we can not make Phrenology square with our preconceived ideas of mind, we are too apt to treat the subject with contempt or indifference, and sapiently echo the stupid cry of "Humbug," "bumpology," etc., and refuse to treat the bantling stranger with sufficient courtesy, even candidly to examine the proofs in its favor. Many eminent scientific men have opposed Phrenology, because, in short, they could not begin synthetically at the beginning, and explain the whole theory *a priori*, and thus be equal with God himself. Erect on their lofty pinnacle of literary fame and greatness, too proud to condescend to test the matter practically, they deal only with the *theory* in the *abstract*, and lose themselves in a fog of ambitious, hair-brained sophistries and speculative hypotheses, contrary to the principles of the true Baconian philosophy, which may be expressed in the homely motto of Davy Crockett, who was a true Baconian: "Be sure you're right, then go ahead!" Gall, the founder of Phrenology, did not discover it by imaginative speculation. He spent the greater part of his life in patiently examining heads among all classes of people, and comparing character with the development. I think we should follow his example, not to the same extent, but as far as practicable and consistent with our business pursuits, and be content in humbly endeavoring to ascertain what nature's laws *really are*, instead of foolishly trying to bend those laws to suit our own narrow, preconceived views, dogmas, and prejudices.

Of all studies, that of man, his nature and destiny, temporal and eternal, is the most important, the most ennobling, elevating, and refining. * * * Phrenology throws a flood of light upon the great problem of life. I speak from my own experience when I say it renders the dark places clear. It solves the labyrinthine mystery of mind in its connection with matter. It throws additional light upon the relation of the material with the immaterial and spiritual. It, in my opinion, harmonizes with revelation, and explains many otherwise indistinct passages in the Scriptures which have heretofore filled the world with religious contentions and schisms. * * * * * *

One reason why I take such a decided stand against tobacco is, because Phrenology enables me better to see the havoc it makes with body and mind. Every day I see men with good enough heads, but who exhibit such a degree of deterioration and depravity in their actions and dealings, showing a blunted moral sense, clouded intellect, mouth foul with tobacco and decayed teeth, complexion sallow, dull expression of eye, irritable temper, and trembling nerves, that the devastating effect of the infernal weed is proclaimed, as it were, in tones of thunder! In examining heads, it is often necessary to make allowances for physical deterioration, and sometimes, on this account, to deduct ten, twenty, or fifty per cent. from the strength and purity of the character indicated by developments.

In the few desultory remarks which I have thus far offered this evening, I have abstained from quoting the opinions or prejudices of other men. I have endeavored to dwell solely upon my own convictions, my own observation and experience. I have learned to despise this flunkey, conventional, moral cowardice which hangs to the skirts of popular opinion, and refuses to acknowledge, or even to examine, any truth, no matter how important, until it becomes fashionable. There may be considerable egotism involved in this, but egotism is a lesser evil than flunkeyism; and of two evils I would, if necessary, choose the least. I have had a very fair opportunity of testing the truth of Phrenology. Instead of being confined to one narrow little circle or nook in society, I have been something of a wanderer for ten years, in search of health and peddling Yankee notions. I have dealt, conversed with, and studied all classes and grades of people, in fifteen to eighteen different States of the Union, from the haughty, pampered occupant of the princely mansion to the stolid or simple and humble denizen of the log shanty. In dealing with people at their own houses, you see them as they are—the mask is thrown off. But in dealing with them from behind the counter, everybody is alike—they act

alike, look alike, and talk alike, and might as well all be automatons, myself included, as far as the study of human nature is concerned.

There are two sides to every question. I can almost, but not quite, excuse many D.D.'s for their blind opposition to Phrenology. It is the fate of nearly all new discoveries in anthropological science, before they get fully digested and universally comprehended, to be seized and made to serve base purposes; perverted to pander to the basest passions, forced to serve as a cloak, not to keep them warm, but to hold above them to obscure the Sun of Justice and Righteousness. The impurity of the air brings its own remedy in the shape of storms and tornadoes, both in the moral and physical world. Ancient error grows till it becomes rank, and attains its culminating point, when a whirlwind of reform sweeps it to the ground, doing some damage as well as much good. New truths are often ushered into the world like the stampede-entrance into a village of a frightened horse, abstractly a noble animal, and very useful when not too much excited, but when running away, wo to the apple-carts of precedent, and unfortunate old women with baskets full of the eggs of error, superstition, and mental depression that impede his progress!

EDUCATION OF THE INTELLECT.

IS A NEW METHOD DEMANDED?

BY LEVI REUBEN, M.D.

1. To a thinking mind, there must be a lively pleasure in contrasting the home and the home-life of the professional or industrial classes now, with life within the castles or in the protection of their shadow, in feudal times. Such a one finds in the retrospect the evidence that mankind have gone forward.

Equally satisfactory and instructive is it to contrast the district-school, in which, in some of the States of our Union, the children of a neighborhood are gathered for the purpose of receiving their school-education, with those few schools, in much earlier ages, and even among some cotemporaneous nations, in which a small number of the children of a community—perhaps those of a caste—have assembled to go through with far more tedious, and as much less compensating studies. The sensible parent of to-day complains if his son or daughter, at seventeen, is only a *smatterer* in Grammar, Arithmetic, Geography, History, Algebra, Natural Philosophy, and Physiology; but the parent of a few hundred years since was glad if his child, at the same age, had become a smatterer only in Orthography, Reading, and Penmanship, and an Arithmetic of much more meager dimensions. Here are proofs, unquestionable, of progress.

2. I know how this word progress has been, and is still, abused. I know that to add to the list and bulk of the school-books is not necessarily to add to the depth, accuracy, or value of the scholarship—that sometimes, unfortunately, the tendency is quite the reverse. I know that even the progress of the past is no warrant of advancement in the present, and a doubtful criterion for the future. As it is the weakest of all boasts that one's parents were clever or distinguished, and the slenderest of all dependences that *they* arose from poverty to to affluence, so it is a thing of most serious and significant augury when a nation or a generation relies upon, or makes great account of, the progress which the world or itself has made in the past. We may boldly accept the fact: a single glance at the much there is yet to be done, should suffice at the same time to teach us humility.

3. Murray, Daboll, and Woodbridge are remembered by the living generation. Their books were better than any which English teachers and pupils had ever possessed before. But now, the same studies have grown to larger dimensions; they are far better methodized, simplified, and illustrated in the more recent books; and they can be, by a faithful pupil, far more thoroughly, and yet more easily, attained. In Hindostan, of twelve or twenty years spent in a tedious and extremely narrow round of study, the pupil is during the first five years bound to absolute silence in the school-room, being allowed only to listen to the conversation of two teachers.

4. What was education before the invention of printing? What was it before Bacon, about the year 1600, called attention to the fact that *practical matters, pertaining to daily life*, should be considered in marking out a course and methods of study? before Basedow, in 1774, announced that the process of learning must always proceed from *the observation of objects of sense?* before Pestalozzi, no farther back than in the last years of the last century, invented that simple but indispensable aid, the *blackboard*, on which objects not present could be represented, and diagrams and mental processes delineated?

From the schools and studies of the Greeks and Romans, there was a very great falling-off in the middle ages; but from the time of Bacon to the present, there has been an immense progress—in the books, the methods, the schools, and the early and general activity of the young minds in attendance on them.

5. Having established this truth, we are entitled to draw from it a *deduction*, and to assert a *possibility*. The deduction is, that *progress will yet take place in our system of education;* unless, indeed, the system be doomed to stop short of perfection. The possibility is, that a great change in our methods of instruction is even now impending—a change that, even though its exact character may not have been yet made out, either by the public or the educators of youth, will be likely to take neither party wholly by surprise; since, however vaguely and undefinedly, both have been looking for and even demanding change of some kind from the present system, which is confessedly very defective.

6. Any system which, like that of our common schools, even in their best samples and under the most favorable conditions, sends out, at the end of their school-life, *nine tenths*, or more nearly *ninety-nine in every one hundred* of the boys and girls that have attended them, still destitute of anything like genuine intellectual life and activity, of any inward love of thought and knowledge for their own sakes, of any self-originating and self-sustained power of reflection and investigation concerning the objects and changes that daily address their senses—any system that stops at results like these, no matter what its aids, its claims from age and authority, its expense and sacrifice of money, care, and thought, is still, palpably, a gigantic failure!

A new age, newly discovered facts and laws in nature, newly determined principles relative to the human mind, new thoughts in the minds of thinkers, new accessions of power and comprehension in the minds of a nation—these demand a new step in the aim and method of education. Whatever is proof of change in the past, is warrant of change in the future, at least, until the product is such that sensible and good men cease to find faults in it.

7. There is a moral education, an intellectual, a social, an emotional, and a professional or artistic education; and so on. The professional education is, in a good degree, addressed to minds already furnished with the rudiments—graduated from the common and academic schools—and it falls under the care of a separate corps of instructors. Of this it is not my province to speak. The moral, emotional, and social education are, in the young, confided in a large degree to the same teachers whose duty it is to attempt the development of the intellectual; but although this is so, these form entirely distinct fields of labor. Though they may have to be cultivated in the same hour, yet the object, the method, and the result are so entirely different from those of intellectual education, that they may be wholly separated from it.

8. In the thoughts which I have to advance in the connection now entered upon, I shall speak only of the education of the intellect. The others are important, but they require to be dealt with in their own way, and hence must be separately considered. It is not even necessary now to decide which is the more important of these several aspects of the work of training the young mind. Intellectual education *is* important, vastly so; and that is the particular field of the teacher's work which we have now to investigate.

9. But again, the propriety and advantage of giving a separate and thorough consideration to the education of the INTELLECT is easily made apparent. A complete and admirable professional, or even industrial, education is only possible as a superstructure, built upon the basis of a complete and admirable development, and storing of the intellectual powers in the common and academic schools. Nowhere else do students for special callings, whether these be the farm, the workshop, the studio, or the so-called learned professions, so often fail, as for the want of this very education of the intellect, which the general schools profess they undertake to furnish, and which is alike an indispensable preparation for a successful life, whether of active pursuits or of leisure. I have known scores of medical students who were assiduously laboring to master the science of life and systems for curing disease, who did not comprehend the action of levers, the phenomena of capillarity and endosmosis, the laws of the pressure and motion of liquids and gases, or even the important subjects of the action of heat and electricity—or at least, the last of these no farther than to imagine it some pragmatical fluid, some physical jack-of-all-trades, which could explain the action of muscles, nerves, and our very thoughts and affections—in fine, everything they found themselves puzzled to explain in any other way. So one meets with painters innocent of a knowledge of Optics, and even engineers, master-

workmen, and inventors who can not bear a decent examination in the science of Mechanics. Comparatively, such always fail. They do not accomplish what they might do, were their powers first harmoniously trained by general study, and their minds stored with the more important principles of existing but too much neglected sciences. They lack some of their best tools, and much of the skill to use them.

10. The professional education, then, presupposes that the school-course has gone before it, and has been faithfully availed of. The emotional and social education—the one fitting more to himself and the other fitting him to society—are, as has been said, a separate work, even though done by the same teacher and on the same days. If we take the INTELLECT alone, and can find the best method for it, such a method can not fail to be in harmony with those that are best for the selfism and the social life; and as soon as these can be found, they can be fitted to that, as parts of a more completed and serviceable whole. So of the moral education: important as this is, when it is brought to the height of a perfect method, it can not fail to be in harmony with a perfect method, if such have been found, for the unfolding and culture of the intellect. So, while we *must*, in nature, do one thing at a time, it is fortunate that we *may* do thus in the present case, expecting only the best results.

11. I am not desirous of raising the INTELLECT to any marked, and as I believe, unwarrantable, pre-eminence over the moral and social natures. But this fact is vastly instructive, and too much forgotten: namely, that in the economy of mind, the intellect embraces all the *seeing faculties*. Hence, if we are ever to find true methods, whether of social, moral, or intellectual training, in any case the intellect, and that alone, must do the work. Religion, conscience, benevolence may furnish in a man's or a nation's mind the strongest incentives to the discovery of such methods, but they can only incite, spur on, desire; they can not SEE, nor can they COGITATE TO, the grand result. In this view, the education of the intellect becomes of primary import; the *sine qua non* and stepping-stone to right advances in all the other departments of our being, as well as in its own field. This is the prerogative of the seeing faculties; and it confers on man his prerogative as a being capable of advance. A person might spend his whole life, if the thing were physiologically possible, in religious ecstasy, or in a glow of benevolence; but when he died, neither he nor the race would from that circumstance be one whit nearer to the possession of the vast stores of natural truth that underlie the existence of our bodies and minds alike, and through the discovery of which alone man can grow to a broader, higher, nobler plane of possibility and power.

12. What is education?

The theme is trite: but something can still be learned by even a brief direction of the mind to this and its related terms, and especially to their origin—a review not undertaken through motives of pedantry, but for the instruction it is capable of affording. Let us look at a few of the more familiar terms

13. PEDAGOGUE (Greek) is one who *leads, guides*, or *trains up children*: there is nothing in the term to indicate *how* the work is to be done. PEDAGOGICS, the training and teaching of children, is equally unindicative.

DOCTRINE (from *Doceo*, the favorite Latin term for teaching) is a *showing, declaring, acquainting*. It implies no drawing out or quickening of powers, but only pouring in; and for this process the subject must be passive. Not only does it not produce, but it impliedly or directly forbids, activity in the receptive mind. Thus, *doctrine* is clearly a dwarfing and dangerous intellectual process; and the history of the world sustains the conclusion.

INSTITUTION (*Instituo*) is an *introducing, building within, instructing*. The work may be a good one; but the teacher alone does it, which is not good. We now apply the word to a place, not to a process.

INSTRUCTION (*Instruo*) is a *setting in order, building up, preparing, equipping, providing with necessaries*. However the word may have been understood, the work is evidently one for the mind of the student, as well as for that of the preceptor, to attend to. It is significant of a true and useful process; and is a valuable term.

INFORMATION (*Informo*) is a *forming within, shaping aright, guiding, in-forming*. The process is a necessary and excellent one, in its place. But with us the word has passed to a new meaning, and signifies the *accumulation of facts or details*—also useful in its place.

ERUDITION (*Erudio*) is a *freeing from the rudeness of ignorance, instructing, polishing, refining*. It is certainly a work in which the learner himself must mainly act, and for which he must first furnish both the innate desire and capacity. It is the higher field of *instruction* and *information* combined—one species of highest education—and as history shows, the desire and the realization alike belong hitherto to the few.

14. What are the idea and force of these broader terms, *Learning, Teaching, Education;* and that not equally broad, but even more excellent expression, *Development?* These are questions which I hope to consider at another time.

It is necessary that we should know what are the meaning and value of the usual educational appellatives, before we can discuss or apply them aright.

15. Reader! I have not yet attempted an answer to the question, What is the new method demanded in education? That a new method is called for is sufficiently attested by the fact that scholars now generally leave school without either the love of study, an inquiring and thoughtful bent, or the knowledge how to inquire and think, even if they desire to do so.

16. The young child thinks and even philosophizes, as naturally as it breathes; it loves to look at phenomena, and to study causes and effects. The boy or girl of seventeen has forgotten or detests all such occupations. The man or woman at thirty is mostly a routinist—rarely a close and logical observer and thinker. All this is contrary to nature. It shows that budding tendencies have been smothered, overlaid with false influences of some kind, and lost to the individual and to mankind. Let us strive to search out the cause of this evil, and the remedy.

WHAT WE INHERIT.

[Continued from June number.]

ANIMAL RESEMBLANCES ARE TRANSMITTED:—

"Facts plainly tell us that *the individual and the individual's peculiarities, not those of the abstract type, are transmitted*. Plutarch speaks of a family in Thebes, every member of which was born with the mark of a spear-head on his body; and although Plutarch is not a good authority for such a fact, we may accept this because it belongs to a class of well-authenticated cases. An Italian family had the same sort of mark, and hence bore the name of *Lansada*. Haller cites the case of the Bentivoglie family, in whom a slight external tumor was transmitted from father to son, which always swelled when the atmosphere was moist. Again, the Roman families *Nasones* and *Buccones* indicate analogous peculiarities; to which may be added the well-known 'Austrian lip' and 'Bourbon nose.' All the Barons de Vessins were said to have a peculiar mark between their shoulders; and by means of such a mark La Tour Laundry discovered the posthumous legitimate son of the Baron de Vessins in a London shoemaker's apprentice. Such cases might be received with an incredulous smile, if they did not belong to a series of indisputable facts noticed in the breeding of animals. Every breeder knows that the colors of the parents are inherited; that the spots are repeated, such as the patch over the bull-terrier's eye, and the white legs of a horse or cow; and Chambon lays it down, as a principle derived from experience, that by choosing the parents you can produce *any* spots you please. Girou noticed that his Swiss cow, white, spotted with red, gave five calves, four of which repeated exactly the spots of their mother; the fifth, a cow-calf, resembling the bull. And do we not all know how successful our cattle-breeders have been in directing the fat to those parts of the organism where gourmandize desires it? Have not sheep become moving cylinders of fat and wool, merely because fat and wool were needed?

"Still more striking are the facts of *accidents becoming hereditary*. A superb stallion, son of *La Glorieux*, who came from the Pompadour stables, became blind from disease; all his children became blind before they were three years old. Burdach cites the case of a woman who nearly died from hemorrhage after blood-letting; her daughter was so sensitive, that a violent hemorrhage would follow even a trifling scratch; she, in turn, transmitted this peculiarity to her son. Horses marked during successive generations with red-hot iron in the same place transmit the visible traces of such marks to their colts. A dog had her hinder parts paralyzed for several days by a blow; six of her seven pups were deformed or excessively weak in their hinder parts, and were drowned as useless. Treviranus cites Blumenbach's case of a man whose little finger was crushed and twisted by an accident to his right hand; his sons inherited right hands with the little finger distorted. These cases are the more surprising, because our daily experience also tells us that accidental defects are *not* transmitted. For many years it has been the custom to cut the ears and tails of terriers, and yet terrier pups do not inherit the pointed ears and short tails of their parents. For centuries men have

lost arms and legs without affecting the limbs of our species. *Although, therefore, the deformities and defect of the parent may be inherited, in general they are not.* For our present argument, it is enough that they are *sometimes.*

"Idiosyncrasies assuredly belong to the individual, not to the species; otherwise they would not be idiosyncrasies. Parents with an unconquerable aversion to animal food have transmitted that aversion; and parents with the horrible propensity for human flesh have transmitted the propensity to children brought up away from them under all social restraints. Zimmerman cites the case of a whole family upon whom coffee acted like opium, while opium had no sensible effect whatever on them; and Dr. Lucas knows a family upon whom the slightest dose of calomel produces violent nervous tremblings. Every physician knows how both predisposition to, and absolute protection against, certain specific diseases are transmitted. In many families the teeth and hair fall out before the ordinary time, no matter what *hygiene* be followed. Sir Henry Holland remarks: 'The frequency of blindness as an hereditary affection is well known, whether occurring from cataract or other diseases of the parts concerned in vision. The most remarkable of the many examples known to me is that of a family where four out of five children, otherwise healthy, became totally blind from amaurosis about the age of twelve, the vision having been gradually impaired up to this time. What adds to the singularity of this case is, the existence of some family monument long prior in date, where a female ancestor is represented with several children around her, the inscription recording that all the number were blind.' But not only are structural peculiarities transmitted: we see *even queer tricks of manner descending to the children.* The writer had a puppy, taken from its mother at six weeks old, who, although never taught 'to beg' (an accomplishment his mother had been taught), spontaneously took to begging for everything he wanted, when about seven or eight months old. He would beg for food, beg to be let out of the room; and one day was found opposite a rabbit-hutch, begging for the rabbits. Unless we are to suppose all these cases simple coincidences, we must admit individual heritage; but the doctrine of probabilities will not permit us to suppose them coincident. Let us take the idiosyncrasy of cannibalism, which may be safely said not to appear more than once in ten thousand human beings. If, therefore, we take one in ten thousand as the ratio, the chances against any man manifesting the propensity will be ten thousand to one; but the chances against his son also manifesting it will be—what some more learned calculator must declare."

[To be continued.]

Birds, which are destined to sleep on branches of trees, are provided with a muscle passing over the joints of each leg, and stretching down to the foot, and which, being contracted by bending the leg in sitting, produces a contraction of their claws, which makes them cling the tighter, in proportion to their weight and their liability to fall.

HENRY S. DURAND.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

As one of the wide-awake, practical, representative men of the wonderful West we introduce Mr. Henry S. Durand, who was born in Connecticut, February 13, 1817, and was one of a family of sixteen *children.*

His father, Samuel Durand, was of French, and his mother of English descent. His father was a farmer in humble, yet respectable circumstances, and though probably never worth to exceed a thousand dollars at any time, he contrived to give all his children good advantage for an early education except Henry S., the subject of our sketch, who, before he was fourteen, was sent abroad to shift for himself. He found employment in a shoe and leather store in Hartford, but afterward was apprenticed to a country merchant in Berlin, Conn., with whom he was brought up.

At the age of twenty-one he engaged in a small trade on his own account in the town where he was reared, but five years after, in the spring of 1843, he removed to Racine, Wisconsin, and engaged in a small grocery and provision business, not having previously succeeded in making money; but by skill and energy he soon extended his business into a wholesale trade, equaling, and probably far exceeding, that of any house in the State. In connection with this business, he was at the same time not only engaged in the lumber trade, and also in the produce and shipping business, with a fleet of vessels employed on the Lakes, but also quite extensively in a general insurance business; and since his residence in Wisconsin he has erected between twenty-five and thirty buildings.

In the fall of 1852 the Racine and Mississippi Railroad Company was organized, of which he was elected the president, and has held that position to this time. The history, success, and present position of that enterprise is well known to the public, and also his connection with it. He is also a director in the Iowa Central Air Line Railroad Company, which is to extend from the Mississippi River across the center of the State of Iowa to the Missouri River, a distance of 350 miles, which road will form a continuation of the Racine and Mississippi, and when completed promises to be of vast importance.

In 1854 he aided in the organization, and to the present time has been a director of, the Racine County Bank, which has become one of the most successful as well as one of the soundest banks in the country.

More recently he organized the Commercial Bank of Racine, of which he is the president and principal owner, and which is also doing an excellent business.

In 1850 he was one of four who entered the land and laid out the present city of La Crosse, and owned one quarter of the town. He erected the first store in that place, and for several years was engaged in the mercantile and lumber business at that point. This young city now contains a population of upward of seven thousand, showing a development unparalleled even in the West. This fortunate investment of a few hundred dollars, has resulted in a profit of ten times as many thousands, and laid the foundation of his fortune. The course he pursued in this enterprise was liberal to actual settlers, and he encouraged improvements by setting an example. Hence he erected a large number of buildings of various kinds, and aided others to build by every possible means in his power; and also encouraged public improvements, both for business, educational, and religious purposes. The course undoubtedly was a source of profit to himself, but it had the effect also to benefit others.

He has aided, more or less, in the erection of not less than twenty churches in Wisconsin, besides several colleges and academies.

He has never been much of a politician, yet has been selected and supported by his friends as a candidate for Congress, and though he lacked a majority of votes, the canvass was highly complimentary to him as a man.

In a recent letter to a friend who had asked him something relative to his education and early habits, he says:

"My early advantages for an education were of the most simple and limited character, the common school for a few weeks in the year being the extent of my privileges in that way. I have always felt my deficiencies in this particular a real misfortune; and while I have not the greatest respect for college diplomas, I still regard it a calamity to any young man to be sent forth into the world as I was, almost wholly deficient in the very rudiments.

"To counterbalance this defect in part, my father early taught me to work, and possessed a wonderful faculty in keeping me at it early and late; and to this fortunate part of my early training I feel myself chiefly indebted for my success in life.

"I am now a little over forty years of age, but have not seen a leisure day in twenty-five years. During the last fourteen years I have scarcely spent one day for pleasure, and have labored on an average full sixteen hours out of the twenty-four each working day. During the last year my business required frequent visits to the East, and I traveled more than ninety nights all night, and lost not a single hour from illness.

"I have always enjoyed labor, but still the severe application has been induced more by a pressure of business than choice."

He has taken a leading part in the subject of education both secular and religious, and has not been wanting in efforts to build up the cause of religion at home and disseminate it abroad. In business he has been prompt, honorable, and just, and as a self-made and successful man furnishes an excellent example to the young. He has doubtless worked too hard, mentally, even for one of his enduring constitution; but the temperance and industry of his life, joined to that elasticity and cheerfulness which braces and buoys up the man, has served to preserve his youthfulness and his vigor, which promises liberally for the future.

[The following description is a *verbatim* report taken down by a phonographer, when the name, character, and business of the subject were wholly unknown to the examiner, and the portrait and biography were solicited by us several months after the examination was made and written for publication. Those who have read the foregoing

PORTRAIT OF HENRY S. DURAND.

biographical sketch, and carefully noted the characteristics of the man evinced in the history, will read the phrenological description with interest.]

PHRENOLOGICAL CHARACTER.

You have a physical organization indicating great activity joined with wiry toughness. You can be on your feet longer, and accomplish more business, than most men of your appearance; indeed, there is hardly one in a thousand that can continue to act, and think, and work three hundred and thirteen days in a year for a score of years, and always be in working condition as you can do. You have hardly vitality enough to give you robustness and great power for a single day's work, still you have such harmony of organization and such efficiency and activity, that you are always in working condition and are able to accomplish a full day's work every day.

You have inherited the prominent features of character from both your father and mother. Your face is probably from your father, and also your pride, determination, and will; your complexion, eyes, sympathies, prudence, enterprise, and social affection are from your mother.

In business you should be known for several prominent features of character. In the first place, you are remarkably clear-headed. You see all the facts, and relations, and reasons which arise from or grow out of a subject. You are an independent thinker, and a sharp critic. You also judge well of character, and your first impression of a stranger is right, and the one on which you rely. You remember your experiences well, and hence your mind is continually posted up.

Another of your important business traits is punctuality. You never let a note lie over. People might set their clocks by the rigid promptness and precision with which you keep your engagements.

You have ingenuity; power to combine means, and plan and arrange work, and to employ men to carry on business, so that everything moves on easily, freely, and generally successfully.

You have a full development of Acquisitiveness, which appears to have been sharpened by activity and exercise, as if you had been obliged to make your own fortune; or had been early thrown into a large and complicated business which had a thousand opportunities for leakage and waste, and you were therefore obliged to keep a bright lookout in every direction. You are regarded among business men as keen for a trade, but upright to the last degree.

You are also known in community—perhaps chiefly by another class of persons, by the poor, and those who are in straitened circumstances—for your generosity. While engaged in business you look out for your own interest; you give thirty-six inches for a yard, a hundred cents for a dollar, and show your liberality and generosity elsewhere.

You have strong religious sentiments—are of the old Puritanic stamp in this particular. You are rigid in your ideas of justice, and believe that honesty is the only true policy.

You are exceedingly firm and positive, even to sternness; not only in your moral uprightness and religious principle, but in business. Your family government is strict and thorough, and you believe in a faithful administration of law, whoever may be the delinquent.

You have large Veneration; have strong tendencies to worship, and great respect for distinguished persons. Your large Benevolence, however, which makes you kind, generous, and philanthropic, is freely blended with your rigid justice, stability, and reverence, so as to soften the rigor of your religious and moral character. Your faith is not wanting respecting the dealings of Providence and that which relates to a future state; but you believe in progress, in new truth, and in advancement; hence you are enterprising, not only in business but in moral and religious ideas; you keep pace with the improvements of the day, and will never descend to a frigid, fixed, conservative state. You look on the sunny side of life, and therefore expect success. Your hope being large, promises a full reward for all your efforts, hence you will be likely to plant trees and make yourself otherwise useful after you have passed the age of sixty. You have a high degree of respect for merit, talent, and distinction. You would walk five hours on a dark, muddy night, just to take the hand of Florence Nightingale or any other beneficent, heroic, and self-sacrificing person.

You are a man of dignity. You rely upon your own power of character and value yourself and your judgment, and though you hear the statements of others, you are not satisfied to give an opinion until you have reviewed the whole case. People trust to your word and to your judgment. You are often referred to by your neighbors to settle their disputes, and you would decide against a brother in a controversy just as soon as you would against an ordinary neighbor.

You are watchful, guarded, and prudent in action; yet frank, open, and direct in speech. You enjoy amusement and wit; are merry and hilarious when the cares of the day are over, and you can retire with your friends or go to the bosom of your family. You have great parental affection. There are very few mothers even who love children as well as you do. You can rock the cradle and make yourself happy with an infant, and you have only to reach forth your hand to anybody's child, or anybody's dog, and they come to you with an intuitive knowledge that you are fond of them; and it would be in keeping with your character to have much to do with the subject of education—with the development of the rising generation—to have the superintendence of a Sabbath school, or to teach a class; and if you are a religious man you are one of the workers in the church, not only an officer, but a financier and manager—one of the trustees to build, or repair, or take the charge of the church property.

You have a large brain, and you are on the whole very finely organized. We rarely find a man of such elasticity, such clearness, vigor, and tireless activity and energy as you possess. You doubtless have faults of education and faults arising from unfavorable circumstances or habits. You are at times impatient and irascible, sometimes, perhaps, too positive and dictatorial; but in the main, if your faculties have opportunity for normal action, this description of you is not too flattering.

You would have made an excellent teacher, a successful manufacturer, merchant, superintendent, political economist, financier, an excellent accountant, or a good public speaker.

MIRTH, WIT, AND PATHOS.

BY WILLIAM C. ROGERS.

"God made both tears and laughter, and both for kind purposes; for as laughter enables mirth and surprise to breathe freely, so tears enable sorrow to vent itself patiently. Tears hinder sorrow from becoming despair and madness; and laughter is one of the very privileges of reason, being confined to the human species."—LEIGH HUNT.

To the man who is acquainted with the writings of Hood and Lamb, the phenomena of witty pathos and pathetic wit are perfectly familiar. The "Charcoal Sketches" of the late Joseph C. Neal, and the Editor's Table of the *Knickerbocker Magazine* also furnish many, very many examples of the same, and by a careful survey of the literature of the language, we will discover that our finest wits possess most perfectly the power of awakening and responding to the pathetic, the sorrowful, and the sad. Why is this? I propose to answer the question.

A few months since I repeated the following poem, the production of a dear friend of mine, to an artist of my acquaintance possessed of more than ordinary acumen, and his criticism confirmed my half-formed theory of wit and pathos It was entitled "A Sad Human Reality," and ran thus:

She went in life's morning,
Unheeding or scorning
Her mother's mild warning!
How fair was her brow!

I saw her at noon—
But the gathering gloom
Of her sin and her doom
Had darkened it now!

I saw her at evening—
Just life left for breathing;
The last sighs were heaving
The poor wreck ashore!

* * * * *

She went in the morning!
How sad that life's ocean
Keeps constant commotion
O'er beings whose portion
Is peace nevermore!

"That is fine!" said the artist; "the man who wrote that has a great head, a great heart, and is

JOSEPH C. NEAL.

a great wit!" "Why do you think so?" I asked. "Because that poem bears the impress of power. It is, moreover, touchingly pathetic, reminding one of Hood's "Bridge of Sighs," and no man was ever capable of long-continued or sustained pathos who was not, like Hood, a great wit." "Why," I asked, "are the two always found combined?" He could not answer satisfactorily, nor could I at the time; but the fact that I had asked a question which I could not answer was sufficient inducement to study and investigation, and I accordingly began my study and investigation where I should—at the fountain-head of the poem, the head of its author. The following is the result of a phrenological examination as far as the same bears upon the subject in question:

Size of Brain	7	Reflectives	7
Organic Power	6 to 7	Mirthfulness	7
Domestic Faculties	6 to 7	Benevolence	6 to 7

Perceptives 4 to 5.

Here we have the elements of power, of sym-

CHARLES DICKENS.

pathy and affection, and of wit. The power is manifest in the size and organic power of the brain; the sympathy and affection in very large benevolence and domestic faculties, and the wit in the very large reflectives and mirthfulness. The quality of the wit is furthermore greatly influenced by the comparatively small perceptives.

This man, in the company of a few select friends, is the most subtle wit I ever met. The time spent in his company is counted by jokes and witty sallies just as we count the minutes of the hour, full sixty between each stroke of the clock. And if you and he be bowed down by a heavy grief, he will gild the tear of sorrow with the comfort of a smile, and you will wonder at the consolation which indwells your grief.

Here is the basis of a theory, but let us look further.

Before you is a likeness of Joseph C. Neal, the "Dickens of America" A table of his faculties

LAURENCE STERNE.

necessary for wit and pathos would stand as follows:

Domestic Faculties	6 to 7	Benevolence	6 to 7
Perceptives	5 to 6	Reflectives	7

Mirthfulness 7.

We have here the identical combination which furnishes us with the sympathy and affection noted in the character above, the same combination of reflectives and mirthfulness which gives us wit, together with the additional characteristics furnished by larger perceptives.

It is doubtful whether America has ever produced a man so perfect in his wit and pathos as Joseph C. Neal. His ideality and self-esteem kept his pen from dipping into low buffoonery, while his exquisitely feminine temperament gave a

EDGAR.

purity, a subtlety, a femininity to his writings which made them acceptable to all capable of a sunny smile and a gentle tear.

And here is Dickens. All know him. A table of his faculties constructed as above stands thus:

Size of Brain	6	Benevolence	6
Organic Power	6	Reflectives	6
Domestic Faculties	6 to 7	Secretiveness	5 to 6
Perceptives	6 to 7	Mirthfulness	6 to 7

Here is the same combination: the same sympathy and affection, the same exquisite, delicate, humanizing wit, as comprehensive and as powerful as a great head and a great heart could make it. His writings are more powerful for good than ten thousand sermons Reader, if you have never read Dickens, begin this day, if possible, to know how much pleasure there is in a sunny smile, and how much comfort and manliness there is in a gentle tear.

And here is Laurence Sterne—quaint, queer, wayward, witty Sterne—now exciting a sunny smile which quickly broadens into a contagious

BLACK HAWK.

laugh, now disgusting you with a looseness which borders upon, if it does not actually degenerate into, positive vulgarity; and then, on the very page which tempted you to hurl the book against the wall, you find something so human, so tender, so full of feeling, of affection, and of love, that you cling to the book and drop the half-suppressed tears upon the page which awoke your mirth, your disgust, and your tenderness of heart.

His combination is as follows:

Domestic Faculties	6	Benevolence	6 to 7
Perceptives	5	Reflectives	6 to 7
Mirthfulness	6 to 7	Secretiveness	6 to 7

Here are the same qualities of head and heart which we have found heretofore, under the dominance, in a great measure, of very large secretive-

JOHN.

ness and uncontrolled by continuity or a dignified self-esteem.

I have in the same manner analyzed the developments of Lamb, Hood, Sydney Smith, and Oliver Wendell Holmes, and have found the same general deductions to apply.

Edgar, in contrast with John, has a head and general organization of the Joseph C. Neal order, is remarkably sensitive, sympathetic, bright, witty,

imaginative, thoughtful, studious, and amicable in disposition.

In the Indian chief and warrior, Black Hawk, we have a form of head and traits of character almost the reverse of those belonging to the three foregoing. His organs would stand as follows:

Domestic Faculties	5	Benevolence	8
Perceptives	7	Reflectives	8
Mirthfulness	3	Destructiveness	7

He was a cruel, unsympathetic, and sedate savage. A smile was a stranger to his features, and pathos formed no part of his emotional life.

In harmony with the character of Black Hawk is that of John—taken from life—and the reader will recognize a shape of head and expression of face similar to those of Black Hawk. He is rough, stubborn, sour, severe, morose, cold-hearted, and unfriendly.

And now for the question, Why are wit and pathos so generally found combined?

To answer let us, in a measure, analyze the two.

To attempt to define wit is to attempt an impossibility. Abler heads than mine have attempted and failed. As good as any is that of Webster—"the association of ideas in a manner natural but unusual and striking, so as to produce surprise joined with pleasure: the faculty of associating ideas in a new and unexpected manner."

From this we see that wit is the result of the activity of several primitive faculties producing a simultaneous result. The greater the number of the faculties engaged in its elimination, the more subtle and striking is the wit; the greater the number of faculties required for its comprehension, and the more intense and lasting is the gratification it excites. Furthermore, wit is excited by, and expends its energies upon, that which is essentially false, incongruous, improper, unseasonable, or unseemly. That which is the opposite of all these is seldom the occasion or the object of wit.

Pathos is "that in language which awakens tender emotions." Language is the vehicle by which the tender emotions of the speaker or writer awaken similar emotions in the hearer or reader. Incidents which excite our pity, sorrow, or grief are pathetic. Now, that which excites our pity, sorrow, or grief is in its nature abnormal, arises from an infraction of a *norm* or *law*, and is thus an evidence of a want of harmony, of incongruity between the actor and the *norma* or *laws* which should govern his action.

Now the great essential of wit is the activity of large or intense mirthfulness. This faculty has for its object the perception of the false, the incongruous, the improper, the unseasonable, the unseemly, the abnormal, and the discordant. Its activity is so influenced by that of comparison and causality, that it is exceedingly difficult to analyze it by and of itself. We must have recourse to experiment and experience. Let us examine the works of those wanting this organ in a great degree, and we are pained by the absence of broad, enlarged, and well-sustained deductions. The result of their thought may be great, but it lacks harmonious development; it may be enlarged, but lacks sustained liberality; it may be comprehensive, but lacks unity of design and execution; it may be large and wide and deep, yet is not altogether well sustained; it is like the bed and the coverlid of the prophet—"the bed is so short that a man can not stretch himself out on it, and the covering so narrow that a man can not wrap himself up in it."

When an incident occurs which is absurd, that is, which violates the unities and proprieties of life, the organ in question seizes upon the same, magnifies it, intensifies the deductions to which it gives rise, and awakens every faculty to laughter and wit. When an incident occurs which excites our pity, grief, or sorrow, which painfully affects the tender faculties of the mind, this organ is as active as in the former case. It perceives the want of harmony, the incongruity, the abnormality indwelling the event, its antecedents, and its consequents, and while the other wounded faculties are grieving over the event, mirthfulness not unfrequently finds the comfort of a smile wherewith to gild the tears of grief.

Now I would not be understood as saying, that those wanting in mirthfulness want also the ability to respond to or comprehend the truly pathetic. This is not the case, since other faculties than this are requisite for its excitement or comprehension. But I do say they can not excite it as well, as completely, as perfectly as those more gifted, since their minds, like their foreheads, lack that breadth and comprehensiveness which belongs to the complete and perfect man. They have one faculty less wherewith "to point a moral and adorn a tale;" there is one color upon the pallet of the human heart which they know not how to use.

An organ ranking with causality, comparison, and ideality can not be wanting without entailing imperfection upon the most powerful mind. The subject is by no means exhausted, and will command our attention at some future time.

Miscellaneous.

A GOOD LESSON WITTILY TAUGHT.

A NEW PROFESSION.

WE hope our readers will not be startled when we say that there is needed a new profession. We shall not stop to argue that doctors, lawyers, and preachers do their duty. We have little or nothing to say in complaint of them. We recognize their necessity, and do not see how society could well get on without them. We duly appreciate their learning, and have the highest regard for their ability and influence.

But in the doubts and perplexities of life, in its various phases and constantly changing conditions, most feel often, and all feel at all times, the want of truthful and candid advice relative to matters out of the range of either medical, spiritual, or legal advisers. Thousands every day have occasion to ask themselves, "What ought I to do? How am I to meet this difficulty? How shall I escape from the troubles that surround me? How shall I act to escape public censure and the sacrifice of principle?" and other similar questions.

Could there be established a profession composed of men who should engage to make it their sole business to give frank and honest advice to those who should apply for it, it seems probable that such a profession would be sustained, and that it would contribute largely to the welfare of society.

The members of this new profession might assume the designation of *Truthtellers*. They might guarantee to applicants an honest opinion upon any subject, when it was fully and fairly presented. They might make it known that they would charge at the rate of ten dollars an hour for time spent in listening to statements of clients, and in preparing their deliberate opinions as founded upon those statements. They would open convenient offices, where men and women, in doubt as to what they ought to do, might consult those whose professional duty it was to tell the "truth and the whole truth" relative to the matter which had caused them perplexity, regardless of the wounds they might give to the vanity of applicants, and with the plainness and simplicity which, in friends, would seem blunt and discourteous. Those who distrusted their own judgment, and those who are involved in unusual difficulties, would find in the members of this new profession an infallible resource. They could not safely apply to friends for the advice they want, because they know that a fear of giving offense would prevent them from telling the truth. Neither could they be assured that their friends would give a full and careful hearing to all the matters involved; nor that an equal friendship for other parties interested in the verdict might not warp their judgment; but in their veracity and absolute candor in advice, rendered after systematic investigation, and without unnecessary delay.

To illustrate more fully the advantages of this new profession, let us imagine it already initiated and a firm already established, who offer advice for stated fees on every matter of business, taste, or affection. We will suppose that Messrs. Keen, Short & Blunt, three middle-aged gentlemen, of varied experience, have opened an office on Canal Street, offering to hear statements and to render advice to all parties applying to them in good faith. They have their rooms of audience and examination, their clerks to record facts as detailed, and examiners to inquire elsewhere to ascertain the veracity of statements, reserving to the members of the firm the duty of rendering written and formal opinions upon the cases presented.

Early in the morning enters Mrs. Heartsease, a young widow of twenty-three, whose husband has been dead two years, and who has recently received an offer of marriage from Mr. Flourish McHumbug. She opens her heart to her business confidants, tells how she admires Mr. McHumbug, how scanty the funds are that were left her by her late dear Heartsease, what a nice and amiable man her new suitor is, how fond her little curly-headed daughter is of him, and how happy she expects they will all be when Mr. McHumbug comes to live with them. Keen, Short & Blunt listen for an hour or two to her story, and learn more about McHumbug's character and purposes than the sweet could learn in forty years, tell her that they will take the matter under advisement, and send her away. The next day they send her their bill:

Mrs. Virginia Heartsease,

To Keen, Short & Blunt, Dr.:

Two hours' conversation.....$20
One and a half ditto, consultation 15—$35

The boy who presents the bill gives Mrs. H. a note in legal envelope, which she opens, and reads as follows:

"DEAR MADAM: We have come to the conclusion that you are deceived. We are satisfied that McHumbug is a knave, and entertains no regard for anything but your money. We are professionally constrained to say that you are a very silly young woman to have anything to do with him. Yours truly,

"KEEN, SHORT & BLUNT,
"Confidential Counselors."

At noon enters a young man with a roll of manuscript. He timidly salutes Mr. Blunt, and tells him he was about to send his manuscript to an editor for publication, but had concluded to consult their firm before venturing to do so. He hands his production to Mr. Blunt, who reads very attentively for an hour, consulting his library very frequently. At last he looks up over his spectacles and asks: "Have you ten dollars about you?" and having received his fee, he proceeds: "Young man, you came here to be told the truth. You have shown me a parcel of stuff which you say you intend to publish. It is my candid opinion that you had better put it in the fire. Your command of language is none of the best; your choice of topics is injudicious; your classical allusions are ill-timed; your style is strained; your efforts at humor are mere shams; and you have not learned to confine your effusions within anything like reasonable compass. Remember, sir, I mean no offense; but you have paid me for telling you the truth, and I hope you will value and act upon it accordingly." The young aspirant departs without his ten dollars, but a wiser if a sadder man.

Next comes a man who thinks he has a good law-hitch on his neighbor, and desires to consult Keen, Short & Blunt as to the propriety of commencing legal proceedings. He explains the case, and shows him how he hopes to win. They listen patiently, but admonish him, from time to time, to speak the truth if he wants a truthful opinion. He concludes his application, pays twenty dollars, and receives from Blunt the following opinion:

"DEAR SIR: We have carefully considered your case. Your design is to swindle your neighbor. We think a smart lawyer would enable you to succeed, yet you will be foolish in prosecuting the attempt. Go home, invite your neighbor to dinner, give up the paper you hold against him, and never again think of robbing him of what is justly his, because you have an apparent legal right on your side. Hoping for further patronage from you, we remain

"Your obedient servant,
"KEEN, SHORT & BLUNT."

An hour afterward, an application is made by young Highfalutin Sonorous, a politician in embryo, who desires to take advice on the propriety of his accepting an office that has been tendered to him by his party. He goes over the matter with as much truthfulness as repeated hints from the counselors can command, and is dismissed to the parlor while the members of the firm consult. In a few minutes a servant asks Mr. Sonorous for twenty dollars, which being paid, he presents the following note:

"DEAR SIR: You have been educated for business at some expense. Your father evidently designed you for a practical business man. You have talent, though it has been somewhat dissipated. But we are compelled, in obedience to our professional duty, to say that you will ruin yourself if you embark in politics. You are unable, in all essential respects, to fill the proposed *rôle*. You would undoubtedly fail. Stick to your law-books, Mr. Sonorous, and let politics go to grass. Mind your own business, and you will soon be rich; begin to serve the political public, and you will soon become worthless. Yours sincerely,

"KEEN, SHORT & BLUNT."

We can fancy hundreds of other cases, in which the members of the new profession of Truthtellers would be consulted. All of that large class who are justly distrustful of their own judgment would be glad to refer delicate and dubious matters to men whose business it should be to speak disagreeable truths for a proper reward. No doubt the new profession would suffer from the unprofessional falsity and flattery of the unworthy; but consistent and uniform candor and absolute veracity would secure to the deserving the great bulk of the consultation business. In an age when so many men are paid for chicanery and deception, it would be refreshing to see a class established whose emolument depended upon their candor and veracity. We must say, however, that we have very little present hope of the establishment of the profession of Truthtellers on the plan proposed.—*Louisiana Courier.*

SUNNY GIRLHOOD.

THERE is an intimate relation between sympathy and wit; and the term, "Laugh till I cry," has a foundation in nature. The following pretty description of a funny, frolicksome, frank, witty, and cunning, good-hearted girl will be read with interest by all who love to study mind and character. The last two lines plainly show the relation between wit and pathos:

FANNY.

BY ROBERT STORY.

We often laughed at Fanny,
  But we loved her while we laughed,
She was so odd a mixture
  Of simplicity and craft.
Whate'er she thought she uttered,
  And her words—she "reckon'd nou't"
Of the fine flash talk of London:
  Here was Yorkshire out and out!
While her little schemes of cunning,
  Which she thought so vailed, were still
As obvious as the channel
  Of the purest mountain rill.
Thus her heart being good and gentle,
  And transparent all her craft,
We often laughed at Fanny;
  But we loved her while we laughed!
A short life was my Fanny's,
  And slight the warning given!
But her sins were those of childhood,
  And her spirit is in heaven.
All through her words, when dying,
  Ran a vein of solemn thought;
And we felt how wise was Fanny—
  We had laughed more than we ought.
Yet even in those moments
  Came out a phrase—a word—
That reminded us of periods
  When the same with mirth was heard.
And we oft recall her sayings,
  Her playfulness and craft;
And now—'tis odd—we weep the most
  At what the most we laughed.

THE COMPLETE MAN.

WILLIAM H. BURLEIGH, Esq., of Albany (says the Ellenville *Journal*), has delivered his lecture on *The Complete Man* before Lyceums and Literary Associations in other places, and we were prepared, by the many complimentary notices it has received from the press, to expect a rare literary entertainment; it is hardly doing justice to the lecture to say we were not disappointed.

"Where," asks the lecturer, "may the perfect man be found?" We have glorious fragments of the perfect man, scattered along down through the ages, in some of the noblest specimens of our race. Strength was represented in Samson and Hercules; Faith in Abraham; Wisdom in Solomon, and so other single qualifications have been largely exemplified in the character of distinguished individuals. But time has yet to furnish us an example of complete integral manhood.

We find the animals in our menageries complete and perfect in their kind, unless they have been too long under our superior training; the horse superbly exhibits his qualifications of strength, speed, and docility, justifying the grand description communicated to the man of Uz: "Hast thou given the horse strength? hast thou clothed his neck with thunder?" etc.; the elephants and lions exhibited are in general complete specimens of their kind. Why is not the same completeness found in individual specimens of the human race?

The "complete man" is essentially an ideal creature, an embodiment of the triune principles of Wisdom, Power, and Love, so unequally and inadequately realized in our disintegrated humanity. In him are these principles developed in their largest and purest sense; his wisdom puts him in communion with the noblest, best existent things, and by that communion is he exalted; it lights his way to the goal of noblest purposes, which proceed themselves from his large, loving nature. His love is more and higher than the mere love of "ladie faire;" it embraces all the race in its scope, endearing to itself the inanimate things of Nature by its warm, ethereal sympathies. It takes in the love of God, of God the Father, and the benefactor: "no arbitrary, capricious tyrant, throned in the ultimate heavens, and grinding mankind on the wheel of inexorable fate." To him God is an object of love, whether revealed in the sublimer aspect of things; in the night, with its million high-hung lamps, like golden censers swung by some giant angel before the supernal throne; in the hushed noonday; in the gorgeous sunlight; and the multitudinous things of the living world, or in human nature struggling up through its imperfect fragmentary developments to a nearer approximation to the

"First Good, first Perfect, and first Fair."

His power flows from a combination of the other principles, manifesting itself in true chivalry; not that conventional chivalry that consecrates the murderous hand of the duelist, that exalts brute over moral courage; that steals upon its unarmed victim in the Senate hall and lays him low with the bludgeon of Cain; but a chivalry all kindness, and tenderness, and honor, and yet terrible to avenge and swift to redress the wrongs of outraged humanity—a chivalry that faces the ills of life unblenchingly, and faces the last dread enemy with calm composure.

But man must be a magnificent animal before he becomes the perfect man. Therefore physical training must not be neglected. It is not impossible that a mind of great power and capacity may be enshrined in a feeble body. But the mind needs a sound, healthful physical organism to put forth its full measure of fervor and energy. The great characters of ancient and modern times had hardy, robust bodies. He would have his heroes vigorous, athletic, as well as accomplished scholars.

ENGRAVING ON METAL, WOOD, AND STONE.

BY JOHN COLLINS.

CHAPTER I.

HISTORY OF ENGRAVING.

NEXT to the simple yet admirable invention of printing with movable types, we may rank in importance the various modes by which copies of drawings and paintings are multiplied. It would be difficult to assign any particular date to the origin of the latter. The ancients, it is well known, engraved gems and seals with much skill, and the royal signets were often executed with the greatest accuracy and finish. The decorations of articles of household furniture or the ornaments of warlike weapons, in primeval times, also proved the existence of the graphic art, although it was frequently more nearly allied to sculpture. The most ancient specimens of engraving on metal are probably those of the Egyptians, found principally in the sarcophagi. A relic in the British Museum, of high antiquity, representing the Goddess Isis standing on two crocodiles, carved in alto-relievo, shows upon the back of the latter, and in other parts of the metal, distinct marks of the graver made in the most careful manner. Other specimens found in different countries prove conclusively that the incision of metal with hardened tools was successfully practiced at a very early date. Even in the book of Genesis, Bezaleel and Aholiab are mentioned as being "filled with wisdom of heart to work all manner of work with the graver, as well as devise cunning works," etc.

The art of die-sinking, for stamping coins, was also in use at an early period, though much later than the engraving of seals. The Greeks were noted for the high relief and beautiful finish of their money, although, it is said, that to this remark the coins of Athens form a singular exception.

A new application of engravings was introduced into England soon after the Conquest. This was the engraving of brass plates for tombstones. They were made in a coarse manner, by lines cut deeply into the metal, and being then fastened to the stones, formed part of the pavement of the church. The frequent abrasion from the feet of those who passed over them must have often rendered the names illegible, and reminded the classic scholar of the celebrated lines of Horace:

"Exegi monumentum aere perennius," etc.*

Engraving for the purposes of printing is believed to have first existed in China, and as the Chinese were acquainted with the manufacture of paper in the year 95 B. C., it is highly probable that the art of printing was practiced by them at that time. Some suppose that it was transported to or reproduced in Germany as early as 1285. The latter country claims the honor of the invention of printing in black letter, as it is termed, but this may be considered as identical with printing from any raised surface. The makers of playing cards, who cut the figures in blocks of wood, stamped them on paper and then colored them by hand, afterward prepared blocks for each separate color, thus facilitating the whole operation. As a mania for the adoration of images then raged among all classes of Romanists, these *card-limners*, as they were called, prepared rude figures of various saints, and engravings of scriptural and other subjects with titles and appropriate sentences under each, cut in raised letters. This practice may thus be considered as the origin of prints and printed books.

It was not, however, till about the year 1442, that Guttenburg, of Strasburg, in conjunction with Faust, a fellow-countryman, conceived the idea of cutting each letter separately and forming them in metal, an operation performed with patient labor, by means of punches and matrices or molds. An edition of the Bible, the first book ever printed with movable types, was thus produced about the year 1420, which for beauty of execution even now excites our admiration.

In a decree of the magistracy of Venice, in 1441, for the encouragement of native artists, it was ordained that no "altar-piece, images, nor playing cards, nor any printed cloth or paper should be allowed to be brought into the city, under a heavy penalty." From this we may infer that wood engraving was in use in that city at the commencement of the fifteenth century.

William Pluydenwurff and Michael Welgemuth are the first engravers on wood whose names are preserved. Their work, consisting mainly of plates in the Nuremburg Chronicle, published in 1493, represent views of towns, figures, etc., cut with spirit, but deficient in accuracy of drawing. Among their cotemporaries and successors we shall notice only the most eminent. Martin Schoen, a German painter, engraver, and goldsmith, born in Franconia about 1520, is noted for the great number and comparative perfection of his engravings, issued between the years 1460 and 1486. The claim of priority of the invention of this art has been contested by the Italians, who ascribe it to Tomasa Finiguerra, a goldsmith and sculptor of Florence, in 1460; but as no well-authenticated print executed by him has ever been produced, we may consider the Germans as entitled to the credit. In the time of Finiguerra it was the practice to decorate the church and other plate with engravings in *niello*, which were lines cut into the metal and afterward filled up with a composition of silver, lead, copper, sulphur, and borax, poured in while hot, the superfluous metal being afterward removed by pumice-stone. To preserve copies of the design, it was customary before using the niello compound, to fill the lines with earth and then pour melted sulphur over the whole. The earth being washed off, an accurate cast or impression was obtained. Finiguerra, by using a mixture of soot and oil for the same purpose, and pressing damp paper upon it with a roller, obtained far better and more durable copies.

Engraving on metal appears to have been practiced first by the German goldsmiths. Among the earlier artists, the name of Albert Durer, born at Nuremburg in 1471, stands in bold relief. He attempted to reform the taste of his countrymen in regard to the style and finish of engraving, and his works show an excellence of execution that will compare favorably with many productions of the nineteenth century. Although, however well acquainted with the anatomy of the human figure, his outline of forms and the details of drapery frequently evince the formal Gothic taste prevalent at the time. Durer is believed to have been the inventor of etching, as his works in that style are the earliest known. His character is thus briefly but beautifully portrayed by the poet Longfellow:

"Here, where art was still religion, with a simple, reverent heart,
Lived and labored Albrecht Durer, the evangelist of art;
Here, in silence and in sorrow, toiling still with busy hand,
Like an emigrant he wandered, seeking for the Better Land.
Emigravit is the inscription on the tombstone where he lies;
Dead he is not—but departed—for the artist never dies."

The German school long continued to produce engravings both on copper and wood, principally illustrations of books, but we find on examination that the Italians attained to greater eminence. They generally drew correctly, and the number of pieces they executed, principally of a religious character, was truly astonishing. Marco Antonia, a painter born at Bologna in 1488, and cotemporary with Albert Durer, having probably learned the art from some goldsmith, at the early age of fifteen commenced his career. When in Venice, happening to meet with a set of wood-cuts of the great German artist, he copied them with such accuracy on copper, that they were often sold for the originals. Durer, becoming acquainted with this fact, came to Venice, and prosecuted Antonia before the Senate for piracy. Soon after, the merit of his drawings becoming more known, the painter Raphael noticed him in a friendly manner, and employed him to engrave from his designs, under his own eye. He executed a large number of copies of the works of that eminent master, all of them distinguished by great accuracy of delineation and beauty of style. Many young artists of Italy and Germany frequented his school, but none of them excelled their instructor. The mode of engraving called *stippling*, practiced at an earlier date by Schoen and Durer, to express the softness of fine fur, was first adopted by Agostino de Musis, one of the pupils of the former, to represent flesh. This style, though but little used formerly, has, within the last half century, become quite popular.

Hitherto engraving had been confined to small plates, but a German artist, named Cort, having finished many copies from the Dutch and Flemish painters, afterward settled in Venice, and engraved some of the finest pieces of Titian in a bold and masterly manner. His example was subsequently adopted with much success in the Low Countries.

Most of the Italian painters cultivated the arts of engraving and etching, each in his own style. In the department of landscape, Claude Lorraine deserves a passing remark. He left twenty-eight landscapes, celebrated for the beauty and variety of the foliage, and the highly picturesque character of the ancient ruins, rivers, and sea views. Gaspari, Poussin, Both, Rousseau, Meyering, and others, frequently imitated the Italian models, al-

* I have raised a monument more durable than brass.

though there is an individuality of manner by which the works of each can be recognized.

The first French engraver appears to have been Noel Garnier, who lived near the middle of the sixteenth century. His engravings were mostly confined to initial letters for books, etc. Claude Mellon, of the same country, at a later date introduced a new method of representing all the variations of shadow by parallel lines without crossing, the darkest parts being made by widening the lines. The effect of this, in many of his productions, was soft and agreeable. One of his engravings is a print called the Holy Handkerchief, or Sudarium of St. Veronica, a copy of the face of the Saviour, believed, by the Romanists, to have been miraculously impressed upon a cloth handed to him before the Crucifixion, to wipe his brow. It is made by one spiral line running from the point of the nose to the extremity of the print, with the motto, "*formatur unicus una*," and represents the Divine head crowned with thorns, on a piece of linen. This picture is remarkable for nothing but the singular dexterity in the use of the graver.

During the reign of Louis XIV. the art of engraving attained to great excellence in France. Among many distinguished artists, particular mention should be made of Gerard Audran, born at Lyons in 1640. He left, as a lasting monument of his talents, very large plates of the battles of Alexander the Great after Le Brun, and many copies of the paintings of N. Poussin and other Italian masters. We note also Nanteuil, an admirable engraver of portraits exclusively, and Le Clerc, an artist of uncommon versatility of talent, whose plates of almost every subject amounted to nearly 3,000. From the time of Louis XIV. to the present, the French artists have been celebrated for their great mechanical execution, but the subjects they selected have not been equal to those of the old masters. In following the antique too closely, they often failed in life and energy of action.

Lucas Van Leyden, born in 1494, is regarded as the founder of the Dutch and Flemish schools. Though cotemporary with Durer, with whom he maintained a cordial friendship, his works are inferior to those of the famed art-reformer in firmness, harmony, and effect. After his death engraving made but little progress. There were, however, at Brussels, and other places in Holland and Belgium, many whose productions display great talent, but they cultivate the art more for the emolument, than from any intrinsic love for it.

The brilliancy of many of Reubens' works stimulated the efforts of the engravers of that day, and furnished numerous models for imitation. We find many beautiful etchings of the Dutch and Flemish schools, and in this connection may observe, that notwithstanding the almost coarse character of many of the figures of Rembrandt, the Ecce Homo and the Descent from the Cross are fine specimens of the great talent he possessed of giving, with the least possible effort, a life-like expression to the forms. So, too, in the landscapes, we can not study too often the beauty of the sentiment he has infused into them. Every stroke shows the nature and the character of the subject. His etchings were usually made with aquafortis, and finished with the point and graver. The few etchings left by Vandyck are unsurpassed for correct drawing and tasteful execution.

A new style of engraving called *opus mallei*, or hammer work, was introduced about this time. It was done upon copper, with a hammer and small punches, or chisels; the depth of the shading being in proportion to the force of the blows and the closeness of the dots.

But few painters who have ever engraved or etched drawings of animals can compare with Paul Potter, whose groups of cattle show a profound anatomical knowledge and great scientific skill. His few etchings command high prices. Several of his cotemporaries drew similar subjects very correctly, surpassed only by Potter.

Till the middle of the seventeenth century, England was mostly indebted to foreign artists for embellishments of typographical works. The earliest engravers confined their attention to maps and small portraits for books.

John Payne, who died in 1648, is the first deserving of notice. His works consisted principally of flowers, fruit, birds, animals, and landscapes, with a few portraits, which are by far the best. He executed a print of a ship called the Royal Sovereign, in two plates, which, when joined, were three feet long by two feet high. He was a man of great genius, who studied the art in France, and afterward devoted his talents to engraving portraits. His son William afterward copied them in *mezzotinto*, the invention of which style has been attributed to Prince Rupert, who saw, one morning, a soldier cleaning his rusty musket, and observing the appearance of a figure corroded in the barrel, conceived the idea that a drawing might be produced, by covering a piece of copper with such a grained ground, and scraping away those parts which, in the impression, should be light. The Prince made and engraved several plates by this method; the principal one representing an executioner, with a sword in one hand and a head in the other, bearing the date of 1658. Several succeeding artists *scraped* in mezzotinto, and among them mention is made of George White, who etched the outlines of his portraits before laying the ground or roughened surface. Vertue, a successor of White, left at his death a "History of Painting and Painters in England," published in four quarto volumes, by Horace Walpole.

Francis Vivares, a native of France, who learned the art in London, has been considered as the founder of the English school of landscape engraving. His best works are copies of the pictures of Claude Lorraine, which approach nearer the character of the originals than those of any other engraver, particularly in the foliage and general effect of light and shade. Woollett, who lived nearly at the same time with Vivares, was even superior to him in the beauty of his mechanical execution. He engraved with great delicacy and effect several large historical pictures—among others the "Death of General Wolfe," after West. Woollett and Vivares deserve great credit, from the fact that they at once raised the art in England from almost total neglect to great dignity and importance. After their time, the number of artists in its various departments was greatly increased. Sir Robert Strange, a native of the Orkney isles, in 1721, is noted for the delicacy and softness of his imitation of human flesh, in which, it is said, he has never been excelled. Many others distinguished themselves in the art of engraving or etching, among whom we may allude to the names of Bartolozzi, Rooker, Heath, Byrne, Bromley, Raphael, Smith, etc. Hogarth might be added to the list, although his engravings have more of the character of pictures transferred at once to copper, without passing through any intermediate process. Line engraving was superseded for a long time in England by mezzotinto, which is peculiarly adapted to portraits in the broad English style of painting that originated with Sir Joshua Reynolds. Even at the present time, some excellent artists prefer this method.

Among English wood engravers we must not omit to mention the name of William Bewick, author of the "British Birds," in two volumes, published about fifty years ago. His drawings, although perhaps not equal to many more modern productions in the delicacy of the lines, are remarkable for their truthfulness. The vignettes and tail-pieces, while they evince sometimes an unrefined taste, are wonderfully accurate, and impart much additional interest to the work. Since his time, more attention has been given to this department of the art, and, except for the most expensive publications, wood cuts have become more popular. In proof of this, reference may be made to the success of the "London Illustrated News," the "Art Journal," and other works in England, and in our own country, we can point to the "World of Art and Industry," or the Report of the Crystal Palace, in 1853, and to not a few illustrated journals successfully conducted. Many beautiful engravings on wood are also to be found in juvenile books issued by religious and other societies, within the last twenty-five or thirty years. Yet it must be confessed, that the art has not attained to that degree of excellence and public estimation of which it is capable in the hands of eminent artists. The comparative cheapness of common lithographic drawings, and the facility with which they are made, may be assigned as a reason why wood engraving has not been more generally adopted. For small editions of books, drawings on stone may perhaps be cheaper, but when a large number of impressions is wanted, wood-cuts are to be preferred on account of their greater durability, and less wear in the operation of printing

For the most highly finished copies of landscapes, line engravings on steel have been used in England for some years. Few works of art equal the exquisite plates to be met with in Brockendon's, Turner's, or Bartlett's, Views of Europe, Asia, and America, while the burin of Finden and others has reproduced, in all their loveliness, the conceptions of female beauty in the minds of Byron, Scott, or Moore. So, too, nothing can exceed the delicacy of the stippled or dotted engraving, now employed to picture the softness of flesh or the delicate shading of flowers. Many very fine portraits have been finished in the line manner, which we find also employed for the artistic bank notes now issued—while the art of mezzotinto is devoted with great success to portraits, published singly as well as in biographical memoirs, or to landscapes wherever strong contrasts of light and shadow are required. Lithography promises its friendly aid to the graphic art, for the representation of any subject that fancy may dictate, or the wants of the community require.

To Correspondents.

F. H.—While attempting to speak, with a good understanding of my subject, and plenty of ideas, I am accustomed to catch at words, perhaps two or three before I get the right one. What is the best method of overcoming it, if it can be overcome at all? Wishing to begin some course of discipline to cure it, I wish to begin rightly.

Answer. Your language is evidently defective and needs culture. Practice in public speaking and in writing will serve to correct this error. You have, probably, an impulsive temperament, and can not be sufficiently deliberate and steady in mind to hold back the thought until the right word comes. Again, small Secretiveness and Cautiousness let the words flow at random. Your blood may go to your head too rapidly, producing a disturbance of memory and a confusion of ideas and words.

THE CURCULIO, ETC.—C. E. P. There are several modes of destroying the curculio or plum-weevil, either of which, if thoroughly and perseveringly applied, will prove effectual. 1. Shaking the tree and killing the beetles. When the insect makes its appearance, spread some sheets under the tree and strike the trunk pretty sharply several times with a *wooden mallet*. The insect will fall, and should be immediately killed. Repeat this daily for a week, or so long as the insects continue to make their appearance. This is a rather tedious but very effectual process. Hens and chickens, if allowed to go under the trees, will aid in the cure. 2. Syringing the trees, after the fall of the blossoms, with a mixture of whitewash and sulphur. Add about eighteen double handfuls of flour of sulphur to a barrel of tolerably thick whitewash, made of unslacked lime. Apply three times a week for four weeks, with a garden syringe. 3. Gathering and destroying the larvæ. By gathering carefully all the fallen fruits and feeding it to swine, or otherwise destroying it, the weevils which would appear next year are cut off. These are not *new* modes, but they are the best with which we are acquainted.

To destroy the borer, Dr. Harris recommends placing a bit of camphor in the mouth of the hole and plugging it with soft wood. But, in this case, as in most others, prevention is better than cure. Place about the trunk of each tree, early in the spring, a small mound of ashes or lime. Where orchards are already infected, the beetles which deposit the eggs from which the borer is hatched, may be destroyed by thousands, by building small bonfires in various parts of the orchard during the evenings, early in June.

E. F. B.—1st. Seeing that the size of the base of the brain is essential in determining the power of any given organ, how is it you ascertain its size? 2d. Are there more organs than that of Amativeness located in the cerebellum?

Answer. 1st. The base of the brain is measured mainly by its lateral expansion. There may be organs in the base of the brain away from the lateral surface, but they are probably devoted to offices intimately related to physical life and health. 2d. We suspect the cerebellum has other organs besides that related to the amative instinct. Motion, or an organ for the control of muscular action, has been supposed to be located in the cerebellum, and there may be others.

W. A. T. S.—Why is it, that, as age advances in persons the hair comes out, except on the organs of the animal and selfish propensities, and sometimes a tuft of hair is left growing on the organ of Human Nature?

Answer. The upper portion or crown of the head, where the moral organs are located, is usually covered much of the time by a hat, bonnet, or other head-dress, and hence the skin is there weakened. Again, congestions of the brain, consequent on impure blood or disturbed circulation, affect disproportionately this portion of the brain; and lastly, the organs on the sides and base of the head are related to individual life, and hence more intimately connected with the nutritive function.

J. E. C.—If the brain is the center of feeling, why is it that no pain is felt by the subject when it is operated upon by surgical instruments? Please answer in the JOURNAL.

Answer. The brain is not the center of feeling, in a strict sense. The brain does not feel anything. But the brain perceives or recognizes the existence of things through the media of the external senses. The skin is the organ of feeling. When bodies are brought in contact with it, the brain, as the center of perception, recognizes its properties, whether hard, soft, round, rough, hot, cold, etc. And so of the other senses, the eye, ear, tongue, nose, etc.; all are feeling organs, properly speaking, through which the brain recognizes the properties, distance, and states of external objects. To make the brain itself sensitive, would be to reverse the whole order of nature. It would be like placing the soldiers in the center of an army, and the general all over the field.

Literary Notices.

BEECHER'S LIFE THOUGHTS, gathered from his his Extemporaneous Discourses by one of his Congregation. Boston: Phillips, Sampson & Co. 12mo, pp. 300. Price $1, postage 15 cts.

We have received from the publishers this unique volume, made up of sparkling gems of thought and of sentiment, which were called forth incidentally by the inspiration of extemporaneous discourse; and there is hardly a human condition of joy or sorrow, an aspiration or an achievement, which is not in this book polished and set in words at once brilliant and pathetic. Probably no volume of its size in the language contains so many beautiful and appropriate similes and metaphors, wedded at the same time to so much sound, sterling sense. Many of these paragraphs are not more than two or three lines in length, and seem to be germs of great subjects. If we mistake not, this work will be more widely quoted for mottoes or chapter-heads, and as brilliant gems to fill out pages or columns, than any book or ten books that have appeared in the last hundred years.

Our numerous exchanges bring from every section of the country most cordial commendation, which seem to indicate that no parallels of latitude are to bound its perusal or limit its influence. We quote from the *Presbyterian Witness*, published at Knoxville, Tenn.:

BEECHER'S LIFE THOUGHTS.—This is the title of a tasteful volume sent by the publishers. It consists of brief extracts, gathered from the extemporaneous discourses of Henry Ward Beecher, by one of his congregation. In this we have about one thousand "thoughts that breathe"—as much at least as in any other book. Whatever prejudice there may be against the Rev. Mr. Beecher, his thoughts, in the main, are great and good thoughts, and are expressed in the most beautiful and striking imagery. And in this respect the book is certainly without a parallel in the English language. A copious and well-arranged index directs the reader with great facility to the subject and page of each thought.

LIFE ILLUSTRATED.—A First-class Pictorial Weekly Journal, devoted to Entertainment, Improvement, and Progress, designed to encourage a spirit of Hope, Manliness, Self-Reliance, and Activity; to illustrate life in all its phases. It is an elegant quarto of eight pages—a perfect model of excellence in size, shape, and sentiment, and is, altogether, one of the most sound and sensible of live papers. Published at $2 a year, $1 for half a year, and to Clubs of Four, three months for One Dollar, by FOWLER AND WELLS, 308 Broadway, New York.

THE AMERICAN PHRENOLOGICAL JOURNAL is not only the oldest and ablest phrenological journal in this country, but has done more to extend, develop, and popularize the science of Phrenology, than any other publication in the world. To the phrenological student it is indispensable, and to the general reader it presents very many things of interest, particularly its portraits and descriptions of the characteristics of distinguished men. Phrenology has certainly won for itself two testimonials of great value. The method of dissecting the brain, which its theory suggested, is adopted by anatomists, and its classification and nomenclature of the mental faculties has passed into general use. What the PHRENOLOGICAL JOURNAL has done for Phrenology, the WATER-CURE JOURNAL has for Water-Cure in this country. The popularity of the system is due in a very great degree to the energy and ability displayed in this journal. It has also done very much to disseminate a knowledge of Phrenology and Hygiene. LIFE ILLUSTRATED designs to be a wide-awake, progressive, amply illustrated view of the physical, commercial and intellectual progress of the world. With fiction and politics it has but little to do, but abounds in portraits of distinguished persons, representations of towns, public buildings, natural scenery, varieties of animals, etc., etc., and is spirited and readable. Persons desiring further information are referred to the publishers, or our booksellers.—*Patriot, Fulton, N. Y.*

Business Notices.

THIS NUMBER commences the 28th Volume of the AMERICAN PHRENOLOGICAL JOURNAL.

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wisely, manage judiciously, and educate properly, their clerks and confidential assistants;

Mechanics wishing to Choose

apprentices and train them for their own particular trades; and every one who would learn

How to Study Character,

select friends, business partners, connubial companions, and general associates; but, above all, HOW TO TRAIN ONE'S OWN CAPABILITIES, in the BEST POSSIBLE WAY to secure personal development, will find the JOURNAL a Monitor and Friend.

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Education.—Despite our Numberless Schools and Colleges, and the universal interest in education, the fact is as clear as the day, that we are not yet a well-instructed people. Our schools must be improved and our colleges reformed. This reform, demanded by the times, and by the growing importance of our country among the nations of the earth, is one which the editors of LIFE ILLUSTRATED are most solicitous to promote.

How to be Healthy.—With the finest climate and the most glorious country upon which the sun shines, we are a nation of invalids! Better health is the first necessity of the people, and it is one of the objects of LIFE ILLUSTRATED to point out the causes of ill-health and the means of regaining and preserving it.

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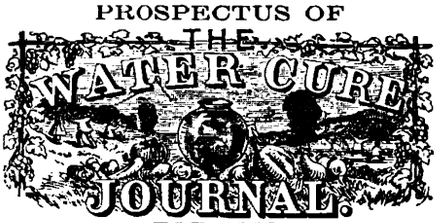

FOR 1858.

VOLUME TWENTY-SIX OF THE WATER-CURE JOURNAL commences with the present number.

Health.—The great want of the age is health—the normal and harmonious action of all the elements of our being, physical, intellectual, and social. This want finds its satisfaction, and this demand its supply, in a knowledge of the LAWS OF LIFE, or a true PHYSIOLOGY; the NATURE and CAUSES of DISEASES, or a true PATHOLOGY; the modes of PURIFICATION and INVIGORATION, or a TRUE SYSTEM OF MEDICAL PRACTICE.

The Philosophy of Health, comprising the laws of PHYSICAL, MORAL, and INTELLECTUAL DEVELOPMENT, are the especial sphere of the WATER-CURE JOURNAL; but all that can promote the great design of human happiness is included in the HERALD OF REFORMS.

Human Life.—Our platform is a broad one, and our plan of operations comprehensive. All subjects connected with Diet, Exercise, Bathing, Cleanliness, Ventilation, Dwellings, Clothing, Education, Occupations, Amusements, and Social Relations—all the elements which combine to make up that complex thing called HUMAN LIFE, will be clearly presented.

Practical Instruction.—Hydropathy will be fully unfolded, and so explained that all may apply it in various diseases, even those not curable by any other means. The Water-Cure is not equaled by any other mode of treatment in those peculiar complaints common only to WOMEN. The WATER-CURE JOURNAL will contain such advice and practical instruction as may be considered most important in all these critical yet unavoidable cases.

Preservation of Health.—Without health, even life is not desirable. It will be a part of our duty to teach the world *how* to preserve health, as well as to cure disease.

Prolonged Life.—Reforms in our individual habits, in all our modes of life, and in our social institutions, will be pointed out and made so plain that "he who runs may read." We believe fully that man may prolong his life beyond the number of years usually attained. We propose to show how.

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AMERICAN PHRENOLOGICAL JOURNAL.

GALL

A Repository of Science, Literature, General Intelligence.

VOL. XXVIII. NO. 2.] NEW YORK, AUGUST, 1858. [WHOLE NUMBER, 236.

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AT ONE DOLLAR A YEAR, IN ADVANCE.

Contents.

ALFRED C. ROE.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You have a fine-grained organization which indicates clearness and activity of mind, strong sympathies and susceptibilities. Your phrenological organization indicates courage, efficiency, and a disposition to meet and repel whatever opposes your course; but generally that opposition will assume an intellectual and moral form, rather than a merely physical one; still, if pressed physically, you would exhibit uncommon personal bravery joined with prudence.

You are never rash, never act without watchful regard to consequences, and rarely do so without considering well its effect upon your reputation.

You have not Self-Esteem enough, you undervalue your capabilities and over-value the judgment and capabilities of others.

You have a very high sense of reputation, and are exceedingly sensitive to praise and censure, and are anxious to be approved, and you feel it very keenly if you are rendered unpopular; this is a strong point when it is harnessed to the car of success, and a weak point when it stands as a barrier to duty.

You have large Veneration, which gives you a great respect for things sacred, for the Supreme Being, for men of knowledge and character, and for whatever is ancient and honorable.

PORTRAIT OF ALFRED C. ROE.
Photographed on Wood by Paice's Patent Process.

Your Hope makes you look on the bright side of life, and you are not easily discouraged.

Your faith enables you to accept truth when in harmony with your other faculties, without intellectual demonstration, but you seek to prove everything that can be proved. You would not hide behind the plea of "not proved," and claim that there was no truth in the proposition, merely because it had not been proved. You have the talking talent, the power to communicate your thoughts freely and easily. You would write or speak well, especially when under the impulses of imagination and ambition, and the excitement of Hope and Combativeness.

You are fond of investigating subjects that pertain to logic and law, first principles and ideas.

Your perceptions are quick, and generally serve you correctly. You have a just view of the phenomena of the universe. Whenever you come in contact with matter or practical thoughts, you seem to take hold by the right handle and understand their uses and meaning.

Your mind is original, rather than one calculated to observe and use other people's thoughts. You prefer to make new tracks, rather than follow in any antiquated one.

You have a creative fancy, and good inventive talents. As a mechanic, you would make improvements in machinery, or invent that which is new; as a thinker, your style of thought would be your own—rather bold and original.

You have a fertile imagination, and are fond of eloquence, poetry, and romance.

Your perseverance is more than your obstinacy. Your firmness rarely takes the form of obstinacy, but rather of persevering action.

When your courage, firmness, ambition, and intellect, joined with imagination, are all combined in action, your mind has a great deal of force and a kind of thrilling effect upon those who listen to your speech, either socially or in public.

As a teacher or writer, you would be remarkable for the clearness and force of your ideas; as a business-man, for your scope of mind and for your energy.

In social life you are cordial in your attachments, and quite inclined to make friends wherever you go. You are not haughty, repellant, nor cold in your manners, but easy of access; children can approach you without being abashed, and you have such a strong desire to be approved that you seek to conciliate everybody whose good opinion is worth having.

You should be known for breadth and vigor of intellect, for force of character, for strength of affection, ambition to be approved, and to excel; for love of duty, for perseverance, for respect, and for imagination and ingenuity.

BIOGRAPHY.

ALFRED COX ROE, favorably known as the principal and proprietor of the Cornwall (N. Y.) Collegiate School, and for his sound intellectual attainments and practical ability as an educator, was born in the city of New York, April 7, 1823. He is a descendant of one of the oldest families in the State. His grandfather, James Roe, settled at Esopus, now Kingston, before the commencement of the Revolutionary War, and was an active patriot; for being which his house was burned and his property destroyed by the British and Tories, on the occasion of the burning of Esopus—a well-known event in the history of the Revolution. Mr. Roe barely escaped with his family.

The parents of Alfred are Peter Roe, the youngest son of James Roe, and Susan Elizabeth, daughter of Jonas Williams, whose ancestor, an English gentleman, came to this country during the reign of Charles II., in order to enjoy liberty of conscience. Jonas Williams settled in the town of Cornwall about the year 1775, when he was about twenty-one years of age, and was one of a party of forty young Whigs who left Long Island at the time the British commenced taking military possession of it.

In 1779 Mr. Williams married Miss Abigail Brewster, daughter of Samuel Brewster, who owned an iron forge on what is known as Murderer's Creek, in the town of Cornwall, Orange Co., N. Y., forming a part of the estate now owned by Mr. Peter Roe. The forge contained four fires, and had an anchor-shop attached. The bar iron used in constructing the *chevaux-de-frise* from Pallopel's Island to Plumb Point, in the Highlands, in 1777, under the direction of General James Clinton, was made at this forge.

Soon after the close of the war, Mr. Williams came in possession of the estate of his father-in-law, and continued the manufacture of iron, with much success, for many years.

When the American army, under Washington, was stationed at Morristown, N. J., before moving to Newburg, Mr. Williams had a contract to supply a part of it with provisions, the execution of which was attended with great trouble and danger, the lines of communication being infested by robbers, "cow-boys," and Tories; notwithstanding which, he fulfilled the terms of his contract to the satisfaction of the commander-in-chief.

Thus it will be seen that our subject owes his origin to a stock of unquestionable character and excellence. His father and an uncle, William Roe, were for many years successful merchants in New York.

When Alfred was about two years old, his father removed with his family to the valley of the Moodna, having come in possession of his father-in-law's estate, where he still resides.

Alfred was educated at home, under the care of a governess, an English lady, Miss Elizabeth Woodhams, a most lovely character, to whom Mr. Roe attributes very much of his subsequent advancement and success in his scholastic and business career.

In the fall of 1835 he entered a school under the direction of the Rev. Jonathan Silliman, in Canterbury village, in the town of Cornwall, where he remained several years, with him and with Rev. William Hill, who conducted the same school a portion of the time. Here he was prepared for college, and entered the University of New York, in the fall of 1840, as a sophomore, in the class with A. Oakey Hall, M. M. Vail, Benj. F. Butler, Jr., and others.

He graduated in the summer of 1843, taking the third honor.

In the spring of '44 Mr. Roe went to Morristown, N. J., as assistant to the Rev. Alfred Chester, principal of a classical school which closed in the fall of that year. While here, he became acquainted with Caroline, eldest daughter of Judge Child, of Morristown, a highly intelligent lady, to whom he was married March 23d, 1847.

In the winter of '44, having returned to Cornwall, Mr. Roe re-opened the school established by Mr. Silliman at Canterbury, which had been closed for want of support. His success for the first two years was not very encouraging, the location being rather against him; but having determined to devote himself to the education of youth, as a life-long business, there was with him no such word as fail. He gave close attention to his pupils, at first confining himself chiefly to English and classical studies, in which he was throughout exact in requiring his pupils thoroughly to understand the principles of the various studies they were required to pursue, stimulating their reasoning faculties by practical illustrations and enforcing a rigid attention to the rationale of every question occurring in the course of instruction, leaving each pupil to exercise his own judgment as to the particular manner of obtaining the required knowledge; thus avoiding the routine-memorizing processes too generally prevalent in public and private schools.

In 1852 he turned his attention especially to mathematics and practical surveying and engineering. Having procured a transit instrument and other apparatus, he commenced to work and to learn practically and then to teach this important branch in the most effective and attractive manner. In this department he is now considered one of the most successful instructors. The only tests that are accepted in his school, from a pupil, as to his understanding this science, is to go out with the instrument and chain, take his measurements, make his calculations at home, and give the correct balanced results. His scholars, therefore, must really know what they profess to know.

On the introduction of this important branch into the course of instruction, his school began to increase, until he decided, in the spring of 1853, to purchase a fine old mansion-house, standing about half a mile from the Hudson River, and about a mile from Cornwall Landing, to which he removed his school, where it is now established. This house is two and a half stories high, and occupies a commanding position overlooking a stretch northward of more than twenty miles of river scenery, taking in glimpses of Fishkill, Poughkeepsie, Newburg, and a region rich in Revolutionary and historic incidents; while to the southward the "Storm-King," with his weird, vapory crown, lifts aloft his rugged head, a giant sentinel, guarding with his patriot brother Anthony (?) the northern entrance to the Highlands, famed in battle-story of Revolutionary times.

The grounds connected with the establishment have an extent of fifteen acres, and are abundantly adorned with fruit-trees and shrubbery, which makes the spot one of the most delightful, healthful, interesting, and desirable for a school that could be imagined.

"IDLEWILD," the grandly romantic home of N. P. WILLIS, adjoins the school-grounds, and is made free territory to the pupils by the gifted proprietor, who has taken a lively interest in the school which he has pronounced more than once, in the *Home Journal*, to be one of the best and most desirable schools for boys in the country.

In the fall of 1857 Mr. Roe added a school-room to his establishment, 54×28 feet, with a ceiling 18 feet high, which is ventilated, lighted, warmed, and seated in the best manner.

His family reside in the establishment, and the school partakes of the character of a large well-ordered family, in which courtesy, self-respect, kindness, morals, and genuine manliness are sought to be inculcated as the true basis of discipline and culture.

The number of pupils is limited to twenty-five, all of whom reside with the Principal, with the exception of those who belong in the immediate vicinity.

Among the exercises required are rowing—a trip to Newburgh and back—in the beautiful boat belonging to the school, with fishing and engineering parties, occasionally camping out among the hills, and visiting the various scenes of interest associated with the great names and events of Revolutionary times.

The delightful freedom of social intercourse under proper regulations is not only permitted, but made an attractive feature of the system of education adopted by Mr. Roe, which has the effect to familiarize the pupils with the manners of society, and to soften that shyness or boorish-

ness so often observable in boys and young men at school.

He has recently given much attention to mechanical philosophy and labor-saving machinery, and, as was humorously stated by Mr. Willis in the *Home Journal* not long since, furnishes an equivalent for the missing mechanical and mathematical bumps in the otherwise properly constructed head of the editor. This pursuit he follows—first, from a decided love for mechanics; secondly, to settle scientifically, if possible, the question of superiority among rival labor-saving mechanical devices which claim public favor.

Mr. Roe requires his pupils to attend church, but seeks in every way to throw around them religious sentiment, rather as an atmosphere than as a rigid requirement, by which their actions are to be strictly governed in mere matters of form; thus strengthening their individuality and giving them habits of vigorous and independent thought. He also requires a rigid observance of the rules of personal neatness, promptness, regularity, and order, in which he is efficiently aided by Mrs. Roe, who extends a kind, motherly, and watchful care over their health and comfort.

That the laws of health are well understood and administered in Mr. Roe's establishment is demonstrated by the improvement continually observable in the appearance of the pupils, many of whom have a brawn and muscle that would do credit to the *muscle*-men of any age.

Mr. Roe affords an admirable example to the large class engaged in the responsible duty of instructing the young, and especially to young men designing to become teachers, and a visit to his school, with a week's observation of his manner toward his pupils, would richly repay the trouble and expense, while it would be likely to lead to larger and more generous views of the duties and responsibilities that attach to the teacher's profession.

EDUCATION OF THE INTELLECT.

WHAT IS EDUCATION?

BY LEVI REUBEN, M.D.

NUMBER II.

17. Learning (Saxon, *leornian*, to learn, or teach) is the act or process of *gaining knowledge, the acquiring of ideas* concerning something before unknown. The word also names the results of such acquisition. In a special sense, to learn an art or business, is to acquire skill in such art or business; and the meaning is the same as before. Webster says, "We learn by instruction, by study, by experience, and observation." Respecting the last two modes, there can be no question; as to the first two, it depends on what is the character of the instruction, or study, whether we *learn* by it, or fail to do so.

Corollary.—If to learn be to acquire ideas (and only those ideas can be acquired which were not before in the mind), then whoever learns adds some number, greater or less, of ideas to his previous store of them; and conversely, whoever does not add to his previous store of ideas, no matter how assiduously he memorizes, pores, or studies, nor with how much fidelity he is taught, heard, talked to, is not a learner, does not learn, and can not amass learning.

Remembering, now, that vague impressions are not ideas, that conjectures are not ideas, that words are not ideas, and that even laws of science and rules of art and practice are not ideas, unless the possessor of them can evolve their grounds and *rationale* from his own mind, as well as their form, we shall probably be able to form a pretty clear conception as to what it is to learn, and as to how many who are deemed to be learners, are mistakenly so called.

Thus, the word learning does not intimate to us anything in respect to the *method* by which the process is to be carried on; but it furnishes us with a very valuable practical *test*, by which we may understand whether the process have been going on, or not, in a mind young or matured.

18. Teaching (Saxon, *tæcan*, to teach; allied to the Latin *dico*, to tell; and the Greek, *deiko*, to show) is the act or process of *communicating to another knowledge* of which he was before ignorant; of informing or instructing, telling or showing. This is the common understanding of this term. It is the gist of the answer which nine out of every ten parents, or a still larger proportion, would return to a query respecting the teacher's office. They would say, "The teacher teaches the child; that is, he puts knowledge into its mind, or head"—whichever they might fix on as the receptacle.

Now, in the first place, teaching is correlative of learning. If the latter be the acquiring of ideas, the former is the act of causing ideas to be acquired. But knowledge, ideas, are not transferable things. They can not be taken out from one mind and put into another mind, as a liquid is decanted, filling one vessel and leaving another empty. *Knowledge can not be communicated*, in the common understanding of this term. All the teacher can do is to open a door to the same light which he has himself seen, and say to his pupil, "Look! there is truth." It will depend on the scholar's capacity, volition, attention, and even his mood and condition at the time, whether he grasps, accepts, appropriates, and thenceforward possesses the truth placed before him; at some previous time his teacher must have done so.

Minds are distinct, independent, at least so far as intellect is concerned; and hence mutually impenetrable and un-exchanging. Each must get and hold its own possessions, though all have the same store-house of nature to study in; and as the original patterns are not destroyed by repeated copying, all may, if they will and have the faculty, amass the very same ideas, in substance and in number. But the knowledge thus attained is a product, a fruit, of the mind's own activity, or else it is not possessed at all, and is no knowledge. There are no educated adults or youth but the *self-educated;* and these are self-educated still, though they may have sat for years in school-rooms, pored as long over books, and received the instruction of a score of teachers.

Corollary.—Teaching, in the common understanding of the word, is an impossibility: every mind does in nature, and *must*, teach itself, or remain untaught; and all the teacher, so called, can do, is to discriminate in regard to the aliment suitable for the mind of a child, to bring it before the mind, and to dispose the emotions and the will favorably to its reception.

Thus, if we rightly conceive of what constitutes the business of teaching, it is, like learning, a term indicative of a highly valuable, and even indispensable process. The word itself does not suggest any method; but suggests a test, which may be expressed in the question, "Has the mind been disposed to acquire ideas?" If the view now presented is correct, it makes the teacher the *servant* of the pupil—it declares that the only true teacher is the *willing and intelligent servant* of his pupils, in the intellectual realm, we mean; whereas, now, most teachers esteem themselves lords of their pupils, in this, as well as in the necessary matter of maintaining order.

19. Development (French, *developper*, to unfold, from the Italian *viluppo*, a packet or bundle) is an *unfolding, uncovering;* the making known of something before concealed; a full exhibition. The powers of a mind are in its early years a folded and sealed packet. They may be brought out, so that each shall receive its aliment and radiate its influence; or they may be suffered to lie still, infolded, like the leaflets of a blighted bud of the spring-time. The former process is development. It simply assumes that the man or woman was intended to be possessor of *so many active powers* of mind; and by adopting the proper provocatives, it calls for, calls out, establishes at its post and invigorates for its work, each of the mental organs through which those powers are to be exerted and manifested. It says to the child, "You are in danger, from lack of activity of the perception of Form, of Number, of Cause, or from lack of the power of sublime, or persistent, or hopeful emotion, or of some other, to be one-sided, and do your life-work very much amiss; it is mine to see that your powers wrong not one another."

This word, like the others we have named, does not suggest a method for the process it names.

20. Discipline (*Disco*) was originally a learning, acquiring. Now, it is chiefly understood in the sense of *training, directing*, the forming within of right intellectual habitudes and activities. As an end, it is a valuable one. But the means adopted for hundreds of years to secure it, are to a mind of fresh, natural instincts obviously chimerical. Those whose minds have grown up within the trammels of a set and disproportionately extended course of languages and mathematics, almost invariably cling to these trammels ever after, and feel them indispensable in the training of other minds. But is it not an admitted fact that the highest powers and activities usually arise outside the set discipline of the college formulas and routine?

Each faculty will grow in capacity and power by, and only by, exercise upon its own aliment. Language, Form, Size, and Number are the objects of only a few faculties, and even these by no reason any more important or valuable to their possessor than all the other faculties constituting the intellect.

Corollary.—The highest possible and most valuable discipline is that obtained in the process of clearly grasping and acquiring any truth of nature, whether fact or law, each for its proper faculty; and the only true discipline of the intellect is complete discipline, which involves the exercise of every intellectual faculty, without favor or exception, in acquiring clearly and fixedly the truths which it alone can perceive and recognize.

21. An EDUCATOR, in the original sense of the term, is he who brings up, *a nurturer, a foster-father*. Cicero speaks of the world as the breeder, seed-sower, begetter, *educator*, and nourisher of all things. This does not give us a very high view of the intent of the term Education. So, an EDUCATRIX, among the Romans, was simply a nurse.

EDUCATE (*E*, out, and *duco, ducas*, an obsolete verb, the meaning of which is lost) was *to foster, maintain, bring up, nurture*. Cicero says, "The midwife leads forth, the *nurse educates*, the *pedagogue instructs*." But Quintilian writes, "If it be granted me to be *educated* an orator," which brings us nearer to the present acceptation of the word.

Too many etymologists and educational writers have pleased themselves with deriving *educate* from *E* and *duco, ducis*, hence making it signify to *lead out, draw forth*. In this sense, to educate would directly signify to *develop*. But however consonant this may be with true views now obtained in regard to the process, it is to a study of the nature and action of mind, not to the derivation of a word, that we must look for the basis of such views. The word did not originally so signify; and if it did, its current form must have been, not *educate*, but *educe*. It is certain, then, that, at the first, the education of mind was meant to name a process different from that of educing mind.

EDUCATION (*Educatio*) then, is a *bringing up, fostering, nurturing, rearing:* at least this was the meaning of the term when it was chosen to express the process of training and storing the intellect. The word meant the nurse-care, rather than the preceptor-care, of the child. Thus, Cicero distinguishes "education *and* teaching;" and elsewhere, "education *and* discipline."

22. But this word, which originally covered the rearing or bringing up of the child physically and physiologically, has been, like so many other terms having an external and tangible application, transferred to the internal and intangible; and has been made to apply to the mental, and particularly the intellectual rearing or bringing-up of the child. It is plain, then, that like the other terms already mentioned it suggests nothing in regard to the *how*, the *method;* it only names the end to be secured. Perhaps the later Romans carried the term over from the field of nursing to that of instruction, because they thought the two processes essentially the same; and that it was the teacher's business only to amuse, to lead about, and to feed the mind of his charge. If so, the thoughts and practice of more modern times have arrived at a different and, doubtless, a truer understanding of the business and means of the instructor.

23. We find, at the present time, that Learning, Teaching, and Education are the only really generic terms—the only ones which we habitually and properly use to cover the whole business and methods of student or preceptor. Of these, the first embraces the work of the student's mind; the second, that of the preceptor's; the third names the process, as carried on by either, and the result secured by the former. All the other terms, as Discipline, Development, Instruction, Information, describe special, limited, and peculiar parts in the general work.

24. If, now, the word *education* does not point out its own method, nor decide on its own meaning, it throws us back upon observation and reasoning. It makes the cultivation of the mind, as indeed it must be, a thing to be reduced to a science—and if so, then necessarily to an *inductive science;* as all sciences must be when rightfully and successfully pursued.

Observation has already taught us that it will not do to go back to the old understanding of the word. Respecting the ends to be attained, it is evident an intellectual education must aim at four distinct, yet closely related results: *first*, to *develop* the intellect; that is, to call all of its faculties into exercise, and bring them, as near as the child's inherited bent will allow, to a balance of activity; *secondly*, to *strengthen* all these faculties, so that they shall readily and successfully grapple with their objects in nature and life (*discipline*, or *training*); *thirdly*, to *direct* the faculties, by pointing out to them their proper objects and the correct methods by which their several results are to be reached (*instruction*); *fourthly*, to *store* the mind with facts, ideas, and principles, which must prove useful in social and practical life (*information*). Thus, education is a complex idea, embracing at least four distinct objects and methods, development, discipline, instruction, and information. The first brings the intellect out as a symmetrical organic whole; the second gives it fiber and vigor; the third furnishes it with the best known instruments for its work in life; the fourth spreads before it the latest charts of all the fields on which human activities can be successfully expended.

In my next article, I shall endeavor to describe what I deem to be a new and more natural and valuable method, than that now pursued, by which to conduct the work of the intellectual education of the young.

ENGRAVING ON METAL, WOOD, AND STONE.

BY JOHN COLLINS.

CHAPTER II.

ENGRAVING ON COPPER AND STEEL.

THIS operation is performed by etching, with an acid, or by cutting lines upon a planished or perfectly smooth and level plate. The cutting instrument or graver is usually square, or in the form of a quadrangular prism, having its point beveled. It is fitted into a pear-shaped handle with part of its thickness planed off. The square graver is used for broad lines, and the other for those that are more delicate. In cutting, this tool is pushed forward in the direction required, being held nearly parallel to the plane of the plate. The scraper, which is made of the best steel, with three edges, and about six inches long, tapering toward the end, is employed to scrape off the burr raised by the action of the graver. A good and well-sharpened three-cornered file is occasionally used for the same purpose. The burnisher or tool, about four inches long, nearly round and highly polished, softens down the lines that are cut too deep, and smooths irregularities of surface. In order to show more plainly the progress of the work, engravers use a roller of woolen or felt called a rubber, which, when moistened with a little olive oil, renders the engraved lines more visible. The cushion, a flat circular bag of leather, nine inches in diameter, and filled with sand, is now seldom used, except by writing engravers, to support the plate and turn it round more readily.

In order to transfer to the metal an exact copy of the outline of the drawing, it is heated uniformly till it is warm enough to melt the etching varnish, which is then rubbed over it, forming a thin coat that can be easily scratched through with a fine point. A tracing of the original design or of the picture being made on thin tracing paper with a lead pencil, the lines are transferred to the etching wax or varnish by a rolling press. With a steel point, the pencil marks are then traced through the wax coating to the metal. The edge of the plate being then covered with a border of wax and pitch to retain the fluid, acid diluted with water is poured upon the surface, to *bite in*, as it is called, and deepen the delicate lines made with the needle. Upon hard metal, nitric and acetic acids are used, but for copper or softer steel, corrosive sublimate and alum are substituted. The varnish being removed with turpentine, the subsequent engraving depends upon the manual dexterity and genius of the engraver. In order to avoid the injurious glare of light from the highly polished metal, it is customary to place a light wooden frame, on which is stretched a piece of tissue or thin paper, inclining inward, from the sill of the window. The ruling machine, invented by Wilson Lowry, of London, and improved since his time, is used for ruling, with a diamond or hardened steel point, the parallel lines for skies, water, and uniform shades. Its operation is perfectly regular. and the lines made with it give a uniform and exquisite tint.

The operation of cutting steel being slow and laborious, the expense is consequently great. At the time of the first appearance of the English Annuals, as they were called, they were illustrated in the most costly manner by the best artists of the day. For the engravings of one subject, about 5 inches by 3 inches, "the Crucifixion," in the "Amulet" of 1830, the enormous sum of 180 guineas was expended. As an instance of the cost of steel engraving in our own country, we may refer to the copies of the pictures of the eminent painter Cole, entitled the "Voyage of Life," four in number, executed by Smillie, of the size of 23 inches by 15 inches. Each of these, which required the labor of the engraver for nearly one year, cost $5,000.

The method of cutting lines on steel is precisely the same as upon copper, the difference consisting in the manner of treating the plates. The credit of the invention of decarbonizing and recarbonizing, or in other words softening and hardening the steel, is due to Jacob Perkins, of Massachusetts. In 1823 he visited London and obtained a patent therefor, principally to prevent the forgery of bank notes, which before that time had been carried on to an alarming extent. The following is his method: the steel plate, die, or cylinder is placed in a cast-iron box, three-quarters of an inch thick, with a tight-fitting lid, and covered with pure iron filings to the depth of half an inch. It is then exposed for four hours to a white heat, which deprives the surface of a portion of its carbon, rendering it essentially soft iron.

The box is then allowed to cool slowly by shutting off all access of air to the furnace, and covering it with a layer of fine cinders six or seven inches in thickness. Each side of the metal must be decarbonated in this manner to prevent it from warping in the after process of hardening. The engraving having been made upon the softened plate, it is placed in a close iron box about two inches in depth filled with pulverized charcoal, made by heating leather in an iron retort. This box is then placed in a furnace similar to those used for melting brass, and the heat is gradually increased until the whole is between a red and white heat. The close-fitting lid is then removed and the plate immersed in the middle of the charcoal, and kept in the furnace for a length of time proportionate to its thickness. It is then taken out and immediately plunged into cold water in a vertical position. The proper tempering is regulated by the peculiar tone of the hissing sound produced while the metal is cooling. Sometimes the plate is reheated so that tallow put upon it will smoke, after which it is again plunged into cold water and the same process repeated.

The advantage of using steel plates is, that a much greater number of impressions may be obtained by subjecting the metal to the operation just described. While copper fails in from 1,000 to 3,000 impressions of good work and 6,000 for the coarsest, a steel plate will often give 50,000 of good and more than 100,000 of coarser copies. Engraving on steel costs from one third more to double that of the same subject on copper.

The press for copper and steel plate printing was also invented by Perkins. Another very useful improvement, originating with this gentleman, consisted in rolling forward and backward, on an engraved steel plate, a cylinder of very soft steel, two or three inches in diameter, until the impression is seen upon the latter in alto-relievo. The cylinder is then hardened and made to roll in the same manner as before upon a copper or soft steel plate, so as to produce a perfect copy of the original engraving. The metal is then hardened, and, if properly prepared, will give more than half a million impressions, or more than six times as many *proofs* as could be obtained from copper. This method is employed only where the number of impressions would wear out six copper plates.

Hence steel is used for the embellishment of standard works, and especially bank note engraving. To engrave the beautiful and curious oval or geometrical figures seen upon bank notes, a very ingenious machine, called a geometrical lathe, was invented by our countryman, Asa Spencer, which, for its power of producing an infinite diversity of patterns, has been justly compared to the kaleidoscope. The turning of a screw gives rise to a new pattern that may never occur again, but which may be secured by the transferring process. The forms produced by this machine, consist of an intricate maze of lines and dots, which, by a peculiar combination of printing, may be varied so that the lines, which in one oval are white, may be black in the next.

Previous to the close of the first Bank of the United States, in 1811, the whole of the engraving was done by a single individual, who, in many instances, printed the plate himself. Upon the consequent increase of the number of banks, an effort was made to subdivide the work, by employing several individuals, each to confine himself to his particular department, and thereby render counterfeiting more difficult. The very best engravers are now employed upon this work.

The following is the process of making a bank note. The drawing of each vignette is engraved on a small piece of steel, that is afterward hardened and fastened to a roll of soft steel by heavy pressure, in a machine made expressly for the purpose. The roll is then hardened, and the picture impressed on the plate on which the bank note is to be printed. Portraits and lathe work dies are cut or engraved also on flat pieces, hardened and transferred in the same way. The last operation is to engrave the title and the writing, when the plate is ready for the printer.

Stippling.—This, sometimes called dotted engraving, is made by minute round dots or excavations in the metal, with the point, the graver, or the etching needle. The operation is slower than line engraving, but it gives a softness and delicacy unattainable by any other method, with the exception of mezzotinto. An expeditious mode of multiplying the dots consists in using an instrument called a *roulette*, which is a small toothed wheel fixed to a handle. This being rolled forcibly along the plate, produces a row of indentations. Stippling by hand is preferred by some, as the tool is, without great care, rather unmanageable. This style of engraving dates back to the beginning of the 16th century, under Schoen and Durer, and was revived, with much improvement, two hundred and fifty years later. The names of Ryland and Bartolozzi may be quoted as of special distinction in this branch of the art, and it is conceded that, for many years, the English artists who engraved in this manner were superior to any others. In France many very fine copies from the antique were made in a style much resembling stippling, by direction or under the auspices of Napoleon Bonaparte. They were generally life-size, and mostly represented parts of the human figure. A specified number of impressions were taken, and the plates are said to have been destroyed at once, to render the former more valuable. Copies of these are now very scarce and command a high price.

Etching.—Etching is a general name for all the modes of engraving on metal or glass by the aid of acids. Piranesi, an Italian, who died in 1770, is considered as the most successful of old engravers in this style. It consists in covering the surface to be engraved with a coating of asphaltum, Burgundy pitch, and white wax, formed into a ball and covered with silk. The plate is heated and the composition rubbed upon it, after which it is smoked with a lamp or taper. The lead-pencil outline of the picture being then transferred in a manner somewhat similar to that for line engraving, the point is then used to scratch through the varnish to the metal. Delicate interlining or dotting may be attempted, so as to finish the plate without the assistance of the graver. The shading being completed, the margin of the whole plate is covered with a compound of beeswax, sweet oil, and pitch, so as to make a border of nearly half an inch in height. Nitric acid, much diluted with water, is then poured on. If in the course of half a minute the liquid assumes a gray, frosty appearance, from its action on the metal, it is of a proper strength, but much judgment and experience are required to know what length of time it should be allowed to remain. When any part is finished, it may be covered or stopped out with the varnish, and afterward a greater portion of acid may be used in the dilution, to darken the remaining parts. The darkest lines and shades are sometimes retouched with the point or graver. A soft covering or ground is occasionally substituted for the mixture of asphaltum, pitch, and wax. This is made by adding to the latter some mutton suet. The effect of the picture in this case is more like that of a chalk drawing. Both copper and steel are used for etching, but the process is more rapid on steel.

In printing engravings, a roller or a dauber charged with ink is pressed upon the surface of the plate, which is generally heated by small jets of burning gas underneath. The surplus ink is wiped from the plane face with rags or by the palms of the hands. When the filling and cleaning are completed, the plate is laid on the bed of the press and drawn by a crank movement under a cylinder, that presses the paper forcibly against the ink in the engraved lines. There is much exercise for the skill of the printer in determining the proper quantity of ink as well as the kind of paper and the pressure requisite to produce good impressions. From 300 to 500 copies of a steel or copper engraving may be taken in a day, if no particular care be required, but for large-sized plates of fine workmanship, the operation of printing is much slower. We may instance the engraving of the "Voyage of Life," before mentioned, from 25 to 30 impressions of which would be considered a good day's work.

Aqua-tint.—This art was invented about 1662, in France, by St. Non, and was introduced into England by Paul Sandby. It is but seldom, if ever, resorted to in this country, but in England and on the Continent is practiced with much success. Its effect is similar to that of India ink or Sepia drawings, and, on close inspection with a microscope, the whole surface of the engraving shows a fine net-work of delicate lines. The drawing should be neatly and lightly etched upon the plate before laying the aqua-tint ground. A solution of resin in spirits of wine is allowed to run over the metal placed in a slightly inclined position. As soon as the liquid has flowed over the whole surface, the plate is immediately placed horizontally, when the alcohol evaporates, leaving the resin in a granulated form. The greater the proportion of resin, the larger will the interstices be. The next process is to *stop out*, as it is termed, or laying on turpentine varnish on the margin and on those parts of the picture which are to be left perfectly white. This varnish is put on with a camel's hair pencil. The border being covered with a wall of beeswax slightly elevated above the surface, a weak dilution of nitric acid with pure water is then poured on, and, if strong enough it will present a frosty appearance from the small bubbles of gas disengaged by the action of the nitric acid upon the metal. A minute is sufficient for the first etching, immediately after which the acidulated water must be poured off and the plate thoroughly washed in cold water. With the same varnish all the lightest shades are to be stopped out, and another portion of the acid liquid poured on. This is allowed to remain as long a time as the first, and is then washed off as

before. Two shades have now been etched upon the plate, the second darker than the first. Deeper tints are produced by allowing the mixture to remain longer on the metal, until, with the addition of more acid, a perfect black may be produced, the stopping out process being continued throughout the whole operation. When the etching is finished and the whole plate is perfectly cleaned, the scraper is used for the high lights, while by means of the burnisher the joinings of the successive shades are softened down. None but a good artist in water-color drawing can hope to succeed in this style. It is capable of the best or the worst *effects*.

MEZZOTINTO, OR MIDDLE TINT.—Claims for the invention of this art, which was first practiced in 1611, have been advanced in favor of Louis Siegen, of Germany, and Prince Rupert and Sir Christopher Wren, of England. In the latter country this mode of engraving has been very successfully employed for large prints, and in the United States, for some years, has been also very extensively resorted to for portraits and illustrations of books.

In this style, the steel plate, which should be harder than that frequently used for line engraving, is prepared by pressing upon the smooth surface, or, rather, rocking from side to side, an instrument technically called a cradle or grounding tool. This is made of the hardest steel, about two inches in width and one eighth of an inch thick, being finely grooved on one side and ground beveled on the other, so that the edge, which is curved like the rocker of a cradle, is regularly toothed. The number of these notches or teeth varies from 50 to 150 to the inch. The cradle is held slightly inclined forward from the perpendicular, and being rocked laterally, advances over the plate by a slow, zigzag motion. The whole surface intended for the picture is thus indented by the instrument, moved over it in parallel lines, and is rocked over by the cradle in a somewhat different direction, and the operation is repeated from thirty to seventy-five or even a hundred times, the line of direction being varied at each successive rocking. The effect is to produce upon the metal a burred, or, in other words, a surface somewhat of the same character as velvet, in which the fiber is perpendicular. This surface when inked will print a strong black. Much practical skill on the part of the artist is required to produce a good ground with the fewest crossings of the cradle. Sometimes, for a plate intended for a landscape, the foreground is so prepared as to show a coarse grain, while those parts covered by the sky and distance are much more finely grained. The outline and principal masses of the picture are usually etched in before the grounding, although it may be done after the plate is thus *roughened*.

After the forms are secured with a point in dots or lines through the varnish and bit in of a proper depth, the scraping is commenced. This is performed by scraping off some of the burr in parts which are not to be entirely black—lighter tones are produced with more scraping, and so on in proportion to the amount of light required—while for the bright lights, the dots of the ground are nearly or quite removed; the pure white and high lights requiring to be polished with a burnisher. The scrapers are thin flat pieces of very hard steel, sharpened on both edges and ending in a point much like a dagger.

Mezzotinto engravings, produced by this method, are more liable to *wear* than line engravings on steel. The dark shades, projecting more than the other parts, are necessarily more subject to abrasion from the hands of the printer, and it is said that the finest shading of *pure* mezzotinto is materially injured in a few hundred impressions. To obviate this, recourse is had to the mixture of line and stipple engraving with the mezzotinto for backgrounds, drapery, and strong shadows, and the roulette, or small toothed wheel, is also used with good effect in combination with the diamond point in the ruling machine. When a plate shows signs of injury by wear in printing, it may be repaired by grounding and scraping the parts requiring it, at but little expense, and thus insure a large number of good impressions. It is considered somewhat more difficult to print from mezzotinto than other engravings, as the ink should be stiffer and of a finer quality, and in wiping the inked plate it should be done in a circular direction instead of straight, as in line printing, with no more pressure than to insure the cleaning of the plate. They, as well as aqua-tint engravings, are printed upon the common copper-plate printing-press.

A well-executed mixed line and mezzotinto engraving finished with the scraper, the roulette, ruling machine, and graver, will, in the hands of a good printer, yield from 5,000 to 10,000 impressions, or even more. The cost of engraving in this style is from one third to one half of line steel engraving of good quality, and for portraits and some other work it seems to present advantages over the latter. Many excellent portraits from the hands of the Sartains and others in Philadelphia have been issued during the past fifteen or eighteen years, and it is to be hoped that this style, which, for softness and richness of effect stands unrivaled, will meet with the increasing patronage it justly deserves.

POWER OF SEA BREAKERS.—From experiments which were made some time since, at the Bell Rock and Skerryvore lighthouses, on the coast of Scotland, it was found that while the force of the breakers on the side of the German Ocean may be taken at about a ton and a half upon every square foot of surface exposed to them, the Atlantic breakers fall with double that weight, or three tons to the square foot; and thus a surface of only two square yards sustains a blow from a heavy Atlantic breaker equal to about fifty-four tons. In November, 1824, a heavy gale blew, and blocks of limestone and granite, from two to five tons in weight, were washed about like pebbles at the Plymouth breakwater. About 300 tons of such blocks were borne a distance of 200 feet and up the inclined plane of the breakwater carried over it, and scattered in various directions. A block of limestone, seven tons in weight, was in one place washed a distance of 150 feet. Blocks of three tons weight were torn away by a single blow of a breaker, and hurled over into the harbor, and one of nearly two tons, strongly trenailed down upon a jetty, was torn away and tossed upward by an overpowering breaker.

GEORGE P. MORRIS.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

WE shall not be guilty of the absurdity of pretension to originality or fine writing in giving a biographical sketch of a living man, like George P. Morris, still in the heyday of his vigorous powers and fame, whose name is a household word wherever American literature is cherished, and where all that is delightful, delicate, and high in sentiment and poetic expression is appreciated, and to whom with Dennie has been appropriately accorded the joint paternity of a distinctive American literature—and who has, during the last quarter of a century, more than any other of our literary men, extended the guiding hand and substantial encouragement to the young writers who have illustrated the literature of our country and age by their genius.

We shall confine ourselves to a simple statement, with such selections from his writings as may appropriately illustrate the peculiarities of style that mark his genius.

Gen. Morris was born in Philadelphia, A. D. 1802, and in early childhood exhibited marked traits of that fine poetic perception and those rare gifts of fancy and feeling which have since given him a companion position with Beranger in France—as the song writer of America.

Gen. Morris owes little to colleges and universities. Having early become proficient as a printer, his education was chiefly won while engaged as a compositor, a circumstance which has doubtless been the means of giving that quality of earnest-heartedness which has characterized the sentiments and given tone to the labors and intercourse of his subsequent editorial and literary career, and has associated the name of Morris with that of Franklin and a bright host of gifted intellects, who have commenced their upward flight in a printing-office.

"Songs written in his boyhood were published and became widely known. The success of these productions finally caused his embarkation upon the sea of letters, and he became in 1822, with the late Samuel Woodworth, editor and proprietor of the New York *Mirror*. In this position he remained until a change came over the spirit of the age. Financial embarrassments in 1837–38 prevailed throughout the country, affecting all classes and all interests. Gen. Morris did not pass through the panic unscathed. His business was stricken a death-blow, and in 1843 its existence ceased with the last issue of the *Mirror*, which should never have been stopped, for it was the principal artery through which the best life-blood of home literature at that time circulated. It was the cradle in which was nursed and reared American miscellany. It fostered into being New-World genius. It gave us Willis, Cox, Fay, Leggett, and a host of others. It was the arena in which the youthful Yankee successfully combated with the giant minds of the old continent."

In 1825 Gen. Morris wrote the drama of Briarcliff, a play in five acts, founded upon events of the American Revolution. It was performed forty nights in succession, for which he received $3,500, a substantial proof of its popularity. It has never been published. Prior and subsequent to this period he was actively engaged upon various

literary and dramatic works. He also wrote a number of the welcomes to Lafayette, and songs and ballads, which were universally popular, besides many prologues and addresses. In 1842 he wrote an opera for Mr. C. E. Horn, called "The Maid of Saxony," which was performed fourteen nights at the Park Theater. This opera received the commendation of the city press generally.

In 1840 the Appletons published an edition of his "Poems," beautifully illustrated by Weir & Chapman. And in 1842 Paine & Burgess published his "Songs and Ballads." They were highly commended by the press of the country, and have had large sales and a wide popularity.

A portion of his prose writings, under the title of "The Little Frenchman and his Water Lots," was published by Lea & Blanchard, which edition has been followed by others enlarged by the author.

Gen. Morris has edited a number of works—among them are the "Atlantic Club Book," published by the Harpers; "The Song Writers of America," by Linen & Fenin; "National Melodies," by Horn & Davis; and in connection with Mr. N. P. Willis, "The Prose and Poetry of Europe and America," a valuable standard work.

In 1854 Charles Scribner published an elegant edition of his poems, illustrated by Weir and Darley, which has had a substantial recognition. In 1844, in connection with Mr. Willis, he established a beautiful weekly paper, called the *New Mirror*, which, owing to difficulties with Postmaster-General Wickliffe, was discontinued after one year and a half, notwithstanding it had attained a circulation of 10,000 copies.

Soon after, the *Daily Evening Mirror* was commenced, and continued for one year, by Morris & Willis, when it was disposed of to Col. Fuller.

A few months after this, Gen. Morris began the publication of the *National Press and Home Journal;* but as many mistook its object from its name, the first part of its title was discontiuned, and in November, 1846, appeared the first number of the *Home Journal*, a weekly paper, which is one of the most tasteful, spirited, and admirably edited periodicals in the country, and which has already reached a very large circulation.

The *Home Journal* is recognized in society and in the home circle as a very valuable publication, and exercises an elevating and far-reaching influence upon all questions of art, literature, and taste.

Gen. Morris is still in the prime and vigor of life, and his sterling character and well-known ability in business affairs have more than once attracted the attention of distinguished statesmen to him, as a man eminently fitted to discharge the delicate and responsible duties of foreign diplomacy; an opinion that is almost universally concurred in by his brethren of the press, and by the American people.

Gen. Morris resides chiefly at Undercliff, his country seat on the banks of the Hudson, a short distance below Idlewild, in the midst of the beautiful, romantic, and inspiring scenery of the Highlands. Almost every week some new and sparkling gem of prose or song appears in the columns of the *Home Journal*, each indicating the fresh and exhaustless quality of his powers.

Although he possesses abilities which eminently qualify him for public station, his literary tastes and habits have, in spite of urgent solicitations, led him to prefer the quiet of private life.

This, however, never prevents his active interest in all questions of public good; and the city of New York is especially indebted to his ever-ready aid for many of her important and permanent improvements.

Space forbids more than a single selection from our subject's earlier and later productions with a reference to a few of the most widely known of his songs. "Woodman Spare that Tree" is perhaps more universally read, quoted, and sung than any other American song, and will last green forever. "My Mother's Bible" is another gem from nature's own laboratory, that will ever awaken the most sacred emotions of the heart, and stamps the author a genuine poet. Here it is—

MY MOTHER'S BIBLE.

This book is all that's left me now;
Tears will unbidden start—
With faltering lip and throbbing brow
I press it to my heart.
For many generations past,
Here is our family tree;
My mother's hands this Bible clasped;
She, dying, gave it me.

Ah! well do I remember those
Whose names these records bear;
Who round the hearth-stone used to close
After the evening prayer,
And speak of what these pages said,
In tones my heart would thrill!
Though they are with the silent dead,
Here are they living still!

My father read this holy book
To sisters, brothers dear,
How calm was my poor mother's look
Who leaned God's word to hear!
Her angel face—I see it yet!
What thrilling memories come!
Again that little group is met
Within the halls of home!

Thou truest friend man ever knew,
Thy constancy I've tried;
Where all were false I found thee true,
My counselor and guide.
The mines of earth no treasures give
That could this volume buy;
In teaching me the way to live,
It taught me how to die.

"The Star of Love" bears the true sparkle of the diamond. Let us turn our glass upon it.

THE STAR OF LOVE.

The star of love now shines above,
Cool zephyrs crisp the sea;
Among the leaves the wind-harp weaves
Its serenade for thee.
The star, the breeze, the wave, the trees,
Their minstrelsy unite,
But all are drear till thou appear
To decorate the night.

The light of noon streams from the moon,
Though with a milder ray;
O'er hill and grove, like woman's love,
It cheers us on our way.
Thus all that's bright, the moon, the night,
The heavens, the earth, the sea,
Exert their powers to bless the hours
We dedicate to thee.

Among the selections that we should offer in proof, to substantiate the assertion that Gen. Morris is "the song writer of America" are, "Land Ho," "Life in the West," "I Love the Night," "When other Friends are round Thee," "The Season of Love," "We were Boys Together," and the "Croton Ode."

That the heart of Morris beats healthfully and truly in sympathy with the needs of our common humanity, none can doubt who reads the very latest of his published songs, which is just now finding its way to a hearty welcome in thousands of American home circles: 'tis the "Song of the Sewing Machine."

SONG OF THE SEWING MACHINE.

I'm the Iron Needle-Woman!
Wrought of sterner stuff than clay;
And, unlike the drudges human,
Never weary night nor day;
Never shedding tears of sorrow,
Never mourning friends untrue,
Never caring for the morrow,
Never begging work to do.

Poverty brings no disaster!
Merrily I glide along,
For no thankless, sordid master,
Ever seeks to do me wrong;
No extortioners oppress me,
No insulting words I dread—
I've no children to distress me
With unceasing cries for bread.

I'm of hardy form and feature,
For endurance framed aright;
I'm not pale misfortune's creature,
Doom'd life's battle here to fight;
Mine's a song of cheerful measure,
And no under-currents flow
To destroy the throb of pleasure
Which the poor so seldom know.

In the hall I hold my station,
With the wealthy ones of earth,
Who commend me to the nation
For economy and worth,
While unpaid the female labor,
In the attic-chamber lone,
Where the smile of friend or neighbor
Never for a moment shone.

My creation is a blessing,
To the indigent secured,
Banishing the cares distressing
Which so many have endured;
Mine are sinews superhuman,
Ribs of oak and nerves of steel—
I'm the Iron Needle-Woman,
Born to toil and not to feel.

We conclude our sketch of Gen. Morris with a dash from the affluent and glowing pencil of Willis. It is in reply to the editor of *Graham's Magazine*.

My Dear Sir—To ask me for my idea of Gen. Morris is like asking the left hand's opinion of the dexterity of the right. I have lived so long with the "Brigadier"—known him so intimately—worked so constantly at the same rope, and thought so little of ever separating from him (except by precedence of ferriage over the Styx), that it is hard to shove him from me to the perspective distance—hard to shut my own partial eyes and look at him through other people's. I will try, however, and, as it is done with but one foot off from the treadmill of my ceaseless vocation, you will excuse both abruptness and brevity.

Morris is the best known poet of the country, by acclamation, not by criticism. He is just what poets would be if they sang, like birds, without criticism; and it is a peculiarity of his fame, that it seems as regardless of criticism as a bird in the air. Nothing can stop a song of his. It is very easy to say that they are easy to do. They have a momentum, somehow, that it is difficult for others to give and that speeds them to the far goal of popularity—the best proof consisting in the fact that he can, at any moment, get fifty dollars for a song unread, while the whole remainder of the American Parnassus could not sell one to the same buyer for a shilling.

It may, or may not, be one secret of his popularity, but it is the truth—that Morris's heart is at the level of most other people's, and his poetry flows out by that door. He stands breast-high in the common stream of sympathy, and

the fine oil of his poetic feeling goes from him upon an element it is its nature to float upon, and which carries it safe to other bosoms, with little need of deep diving or high flying. His sentiments are simple honest, truthful, and familiar; his language is pure and eminently musical, and he is prodigally full of the poetry of every-day feeling. These are days when poets try experiments; and while others succeed by taking the world's breath away with flights and plunges, Morris uses his feet to walk quietly with nature. Ninety-nine people in a hundred, taken as they come in the census, would find more to admire in Morris's songs. than in the writings of any other American poet; and that is a parish in the poetical episcopate well worthy a wise man's nurture and prizing.

As to the man—Morris, my friend—I can hardly venture to 'burn incense on his mustache,' as the French say—write his praises under his very nose—but, as far off as Philadelphia, you may pay the proper tribute to his loyal nature and manly excellences. His personal qualities have made him universally popular, but this overflow upon the world does not impoverish him for his friends. I have outlined a true poet and a fine fellow—fill up the picture to your liking. Yours, very truly. N. P. WILLIS.

PHRENOLOGICAL CHARACTER.

You are remarkable for the strength of your vital temperament. You have very large lungs, which require an ample amount of atmospheric air, and you feel a sense of suffocation when you are deprived of an abundance of pure air to breathe. You have most excellent digestion, and very abundant circulation. Your body is organized to manufacture vitality with great rapidity, and your circulation is so general and so free, that the life-power is freely carried to every fiber in your body. You can work with brain or with muscle, and your vital power will seem to brace up and fully feed the organs that are most exercised. If you were to engage in any athletic sport until you became accustomed to it, you would acquire a great amount of physical power; in short, you have a compact and vigorous constitution, and you have such an abundance of vitality, and such an active nervous system, that whatever part is used will be built up in strength, without any severe task upon the constitution in general. The natural flow of vital force is such, in your case, that you can labor and toil without breaking down; and your brain has just as much nourishment as it requires, and it may be compared to a mill on a stream of water where there is a continual surplus, so that every part of the machinery may be kept in working condition, without any lack of the motive power.

You are youthful in feeling, and have the glow, spirit, and strength of feeling which enable you to enjoy outside life in a very high degree. Men of your age ordinarily begin to gather themselves in, as they house a ship, in Arctic climes, for the winter. You have not gone into winter quarters yet. You feel as young as you did at eighteen; and if there is any sport, of sailing or fishing, and those merry games which youth enjoy, or of eating and drinking, and music and dancing, you have as keen a relish for these things as you had thirty years ago. This is owing mainly to your superabundant vitality and active nervous constitution.

Phrenologically considered, you have several striking peculiarities. In the first place, you have a massive head, which gives you mental momentum. You have grasp of thought, and handle subjects with ease. If you have a business arrangement or a negotiation to attend to, if you have men of strong will to meet, you take hold of the subject as if you felt a sufficient amount of strength to manage it. Men sometimes give you credit for possessing more Self-Esteem than you do, because you engage with them, either in controverting their opinions or otherwise, with an apparent consciousness of power, which they attribute to Self-Esteem. It is due to that in part, but chiefly to your grasp of thought and your momentum, which a large and well-sustained brain gives to a man. There is a healthiness, also, in the action of your mind; it is not morbid, angular, and narrow, but hopeful, cheerful, genial, and hearty.

You have a great deal of sympathy, and if you had an abundance of this world's goods, you would love to bestow it bountifully; but whether you have much or little, you do what you can to benefit others. You can not see suffering, especially with the little ones, nor can you read or speak that which is pathetic in its character, without feeling strangely about the heart and looking awkwardly about the eyes.

You have a great reverence for whatever is sacred, venerable, and time-honored. You were always popular with old people, especially with old ladies, and the happiest hours of your life, and those to which you recur with more than usual interest, are those spent with some grandmother or maiden aunt, or some "everybody's aunt," when you were a boy. The advice of such persons, and the comfort and encouragement, were more potent in framing your character and guiding you to manliness than all the rods that were ever used.

You are remarkably susceptible to female influence. Your mother, by gentleness and persuasion, could do more to guide your footsteps and to reclaim you from waywardness, than your father could do by all his authority and severity; and if you had a daughter, she would do more to allay your anger, if excited, or to inspire you to deeds of nobleness, than half a dozen sons. You are a man of very strong affection, not only to children and to woman, but to friends and companions. You remember your chums of thirty years ago with a freshness and tenderness as of yesterday, and you are more disposed to keep alive those old associations, by frequent re-unions, than most men. You never want to let a friend fall out of your circle, and so long as men treat you with ordinary kindness, you keep them on the list, and revise the catalogue as new ones are matriculated.

You are an ambitious man, anxious to be kindly regarded by everybody, and to stand high in public estimation.

You aim to do justly; and whenever you fail, you are willing to make reparation. You ought, with this head, to be a moral man, with strong reverential tendencies. Faith is not so strong an element in your mind, but you reverence the Deity and things sacred, and pay proper respect to whatever men think is true religion, whether you can accept it as a matter of faith or not. Your strongest moral element is Benevolence, and you are inclined to regard the Deity as a beneficent heavenly Father rather than as a stern, exacting Judge.

You have a keen relish for the study of character, appreciate motives, and enjoy the reading of biography. You think a thousand times more of a man's motives and intentions in regard to what he does, than you do of the mere outward transaction. You have an intuitive sense of the dispositions and characteristics of strangers at the first sight, and people sometimes accuse you of having strong prejudices in this regard; but it is safe for you to follow the suggestions of your own mind, instead of letters of introduction, or the commendations of anybody. This sometimes leads you to regard with favor a man of shabby appearance, a poor address, and whose exterior is decidedly against him, but to your eye he is a diamond in the rough.

You are not a great imitator. Your manners, your style, and frame of phraseology are your own.

You have an excellent memory of what you see and experience, and also of historical events, but more especially so of language. You might have learned many languages, and spoken them without foreign accent. It is no trouble for you to command, not only just the word, but you are affluent in style, and have just the temperament for a public speaker. If you had been trained for the law, or as a statesman, you would have excelled in oratory.

You are a man of energy and courage, ambition and determination. You are naturally prudent,

hopeful, sympathetic, and affectionate; practical in your intellect, and in all your reasonings inclined to link the abstract with the useful and practical. You care but very little for conflicting, entangled theory, and you would employ your imagination in embellishing truth and making it palatable, and allowing your thoughts to flow out on the plane of natural sympathy and deep fraternal emotions; not in wandering off with Edgar A. Poe into the regions of wild and abstract fancy.

N. P. WILLIS.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

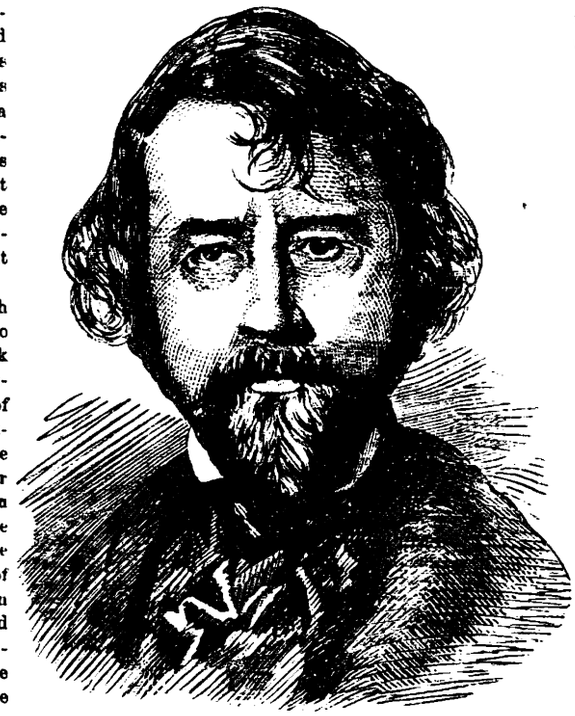
YOUR temperament indicates fineness of texture and consequent sensitiveness to external influences, and this quality of organization imparts to your mind a peculiar smoothness and freedom. You have a large brain for your body, at least large for your nutritive apparatus. You have a finely developed chest indicating large lungs, and your brain being large your mind works with unusual intensity and activity, but you lack the abdominal or nourishing portion of the system, and hence you are liable to break down by mental activity, and are obliged to lie by to recruit.

You can not labor mentally up to your true standard except at short intervals, and the best things you ever do are done under favorable impulses, without hard study, but by a kind of inspiration, and as soon as the first flush of success is achieved you frequently feel your constitution flagging. If you were to write a book it would be better for you to write it in chapters and make a chapter a day, rather than to sit down and plod through it like a day-laborer.

You have more than ordinary force of character, and if you had the sustaining physical power, your mental character would show more uniformity of strength, more general courage, more consistent perseverance, and more thoroughness; hence, sometimes, you are a mystery to yourself, and even more so to your friends, because they lack your personal consciousness to aid in the explanation of what seems mysterious. You frequently feel a spirit of heroism, as if you could "run through a troop and leap over a wall," but you seldom make any manifestation of mind beyond your customary effort. As a boy, unless you were assailed, you never were disposed to be aggressive. Your force of character is shown rather in giving tone to your ideas and in repelling assaults.

You are remarkable for your Firmness. There are few men who have as much as you, and this has done much toward sustaining your mind and character; and when you are in bad health, and have work to do with the mind, or have a journey to perform, your will, alone, acts as a source of strength and as a stimulant both to body and mind, and by saying "I *will not* yield," you seem to acquire the strength to accomplish what you have to do, and this determination of mind will probably give you ten or twenty years of life, by acting on the body to give it support.

You are much more influenced by your judgment and will than you are by hope and anticipation. You ought to have more of Hope. You frequently struggle through difficulties and conquer them, without much of that buoyancy and cheerfulness which large Hope imparts; and instead of looking forward to great results with the joyousness of a schoolboy, you lay your plans and plod over the course, as by a sense of duty, as we work out a mathematical result, or as a mariner steers a ship through darkness and storm at night by dead reckoning. You have done a deal of work "by dead reckoning," without the encouragement which large Hope gives.



Your Self-Esteem is large, which gives dignity and independence to your mind, and also leads you to look upon base and mean actions with intense reprehension. Your love of approbation leads you to enjoy reputation, but you are anxious to deserve it. Praise from those whose tastes or judgments are not high seems to you of no value. You care less for the throwing up of the caps of the thoughtless multitude, than you do of the nice discriminating approbation of one clear-headed, sound-minded person. You understand well Hamlet's advice to the players, where he says that the approval of one of the judicious is worth more than the applause of a whole theater of others.

You have great respect for that which is ancient. You can readily throw your mind back into ancient history, and seem to be living in feudal ages. You enjoy the society of old people, and care a thousand times more about gathering up old legends that are sanctified by time and by the great names that are cotemporaneous with them, than you do of the ordinary rush and current of every-day life. Your historical memory, also, gives you the power to live in the past and to bring the past up to the present, and you are not only respectful and deferential toward that which is ancient, and worthy, and sacred, but you have politeness as well; and these qualities aid much in giving character to your manners and writings.

You have naturally a very strong religious sense, and you never feel so much in your element as when the religious sensibilities are active, and your intellect and your imagination are being exercised in conjunction with your religious feelings. You would have made an impression upon the world as a sacred poetor as a preacher, had your mind been directed in that channel.

The central line of your head, from Individuality back to the nape of the neck, is prominent, indicating strong individualism, that you balance yourself on your own mental center, that you think and feel for yourself, discriminate in your own way, analyze character and comprehend it almost instantaneously by a kind of intuition. Benevolence lies in the same line of development, and nothing arouses your manliness more than something which demands the action of philanthropy, or which awakens sympathy for the helpless. As a writer or as a lawyer you would have shown great strength in defending the weak, especially widows, children, those whom the selfish world deem fit prey and plunder. Your Firmness being strong, and your Self-Esteem making you feel that your opinions are right, your course is pursued without much modification by others. These give you a tendency to live an individual life, and to lead others, or at least to govern yourself in your own way. In some respects you are very deferential and modest. You do not like to come into sharp conflicts of party strife, but you wish to wield your power in your own way, so as that you will govern the sentiments and actions of others.

Your love of home is remarkably strong, and there are few men who can put so much meaning in that which they say about home and home associations. Your description of a bird's-nest would have more of home in it, and would carry to the reader more meaning than most writers would be able to put into it, because of your large organ of Inhabitiveness.

Your Amativeness is fully developed, and with your sensitive temperament your feelings toward woman are tender, and gentle, and cordial. You enjoy her society and feel much interested in her character and development, education and position. As a teacher you could train her mind successfully, because you could make yourself understood to her consciousness. You appreciate what woman says or does, or writes or speaks, because you have, in many respects, the feminine physiology and tone of mind; and this is, also, one great reason why you have more lady readers than most writers.

You have a knowledge of character. You understand motive, disposition, and purpose, and how to manage minds. You can often settle a quarrel between persons by a single sentence—it will drop like oil on the troubled waters. You can even settle other people's difficulties easier than you can your own, because in your own you

are not cool, while in theirs you stand as an umpire and work both ways.

You imitate but little. If you were an actor you would have your own style—would take your own conception of a character and live it out in your own way. You appreciate writers more than most men, because you have so much of the talent that gives knowledge of character and feeling, and your reviews of the writings of others are, in the main, more just than those of most men. You can seem to feel the faults and the merits, and while you are not afraid to touch the faults you are willing to speak of the merits, and have never felt that other people stood in your way. As a lad, in young company, you always felt that you had a standing and position of your own that was not to be set aside or occupied by anybody else; so also in the world of letters you have no fear of being supplanted, hence you are willing to speak kindly of those who are trying to make headway, and you never feel that you are lowering yourself by raising another writer.

Your Comparison is large. This is your leading intellectual oar. It makes you a very discriminating critic. You can combine well, but your chief skill consists in separating "the precious from the vile," and in going through a subject as a fish-net does through the water, taking from it whatever is adapted to the character of its meshes.

You enjoy wit, but your wit is not of a boisterous kind. Your enemies, or those whom you oppose, read your witticisms which are made at their expense with about as much amusement as if they were uttered for others.

Your power to quarrel is weak; your disposition to do so is weaker. You seek peace and quiet, and this is one cause of your success, that you reach out after the better elements of humanity, and have been more willing to say three kind words than one unkind one; and you mingle so much kindness with your reproofs that, for these, people generally thank rather than blame you. You doubtless have few enemies, and if you live your character out according to your nature, you deserve but few. You mingle but little with the rougher elements of humanity except to do it good through your philanthropy and sympathy. Your disagreements are mainly with men of your own standing, and position, and acquirements. Your subordinates you would not stoop to quarrel with. You would prefer to stoop to lift them up rather than to depress them.

You value property mainly for its uses, and if you could have an annuity which would place you out of the reach of inconvenience and possible want, you would prefer to work merely for the amusement of it.

In mechanism your capacity is to plan the outline and understand the structure or building, but you have not a great deal of practical mechanism. Your plans are better than your facility in using tools. You are rather the engineer than the mechanician. Your Calculation appears to be small, and you are much better adapted to literature and general science than to arithmetic. You find it difficult to attend to the details of accounts, and would like to be rid of financiering altogether. Your Language is full. Your eye being small, does not show externally so great a phrenological sign of Language as we often find; but there is a fullness beneath the eyes which indicates an unusual development of the power to comprehend the power of words, to use them pertinently, and also to trace their analogies and etymologies.

Your knowledge of places is good. You are interested in geography and travels, and are able to describe scenery, roads, and routes in such a way that another person could follow your path by reading your description. Your Ideality and Sublimity are both large, and these, joined with nice discrimination of character, power of language, and the inspiration of your religious elements, impart to you decided poetical talent; and, singularly enough, you have about as much power to comprehend the poetical and beautiful as it relates to the material world as you have to the immaterial, and to the world of thought and sentiment. Some can describe, like Pope, that which has form and tangible existence; others, like Moore, will describe sentiment, emotion, and disposition. Your organization indicates that you are equally at home in either department.

Your faith is a religious one—it takes hold on the better life; it works with your humanitarian spirit, with the sense of Providence; it trusts to the uniformity of Nature's laws and to the outworkings of history. It is not a faith that grasps the wonderful and accepts with credence whatever may be stated. In the department of friendship, when nothing supervenes to disturb it, you have confidence, and you accept from a friend a statement bordering on the wonderful without analyzing it; but that which is extravagant and expanded staggers your faith and is at once rejected.

Your imagination always reaches upward and outward into the world of sentiment; it does not pertain to material things and every-day life; hence you are faithful and rigidly just in your description of material things, for you do it under the guidance of perception and comparison, not under the inspiration of a credulous imagination. If a rock is rough, you feel in duty bound to describe it as rough as it is, and never to smooth it off, or to make the landscape finer, or allow the stream to get down the mountain side more gently than the facts will warrant; hence it is that people can follow, from your descriptions, and read from nature what you have written in words, and this truthfulness and life-likeness is the principal charm of that which you write.

Your Conscientiousness joins with your Firmness and Self-Esteem in organization, and acts with them in character, rather than with Cautiousness and Approbativeness. Your sense of duty is more strongly represented in action, and is more consciously felt by you, when it has to do with great purposes and what is manly and noble, than when it relates to moral circumspection in small or common things. You may frequently be accused of carelessness in respect to little affairs which pertain merely to what the world may say, or what may be advantageous to yourself. Another man's conscience is all alive where fear or the love of praise is influential, but never has much to do with the domain of dignity and honor. You sometimes are unpopular because you follow your judgment and your will in contradistinction from public sentiment, and some of the most pleasant statements that have ever been made to you were by those who have differed with you, and finally, perhaps, by years of observation, have come to think and harmonize with you, and confess their change of feeling and opinion.

You are regarded as an odd man. Those who see you often but do not know you well, think you are full of whims and eccentricities, sometimes approving and sometimes disapproving of your course. Those who know you best and understand your motives and the hidden spring of your character, give you credit for general uniformity and consistency.

You retain the friendship of your school-mates and early associates. Those whom you knew at fifteen adhere to you still, and as one after another of your old friends drop away you seem to cling to the residue with a remarkable freshness and force. Your letters to those friends about old times, if collected, would show some of the finest traces of your mind—letters written without any expectation of their seeing any other light than that of the eyes of him for whom they were penned.

You need an abundance of exercise to enable your constitution to develop a sufficient amount of vitality to support your brain, and you may count yourself a pensioner upon these natural physical laws. You will be obliged to work out, day by day, your salvation. For every hour of physical exercise you take, you may count on acquired strength for two hours of mental labor. You have been able to do more with your brain for the amount of real physical hardihood with which you have been endowed, than probably one man in fifty; for this reason, that your lungs are large, and you can almost live on air. With your large lungs you keep your brain stimulated to mental action, and you have such an easy-working temperament that you do a vast amount of labor without much friction. You should take an abundance of sleep and pure air, and such exercise as will not fatigue, and such food as is nutritious and easy of assimilation, and with care you may live to be old.

BIOGRAPHY.

[The following sketch of Mr. Willis was prepared for the JOURNAL at our request by a literary friend.—EDS. PHREN JOURNAL.]

In attempting a biographical sketch of Willis at a time when his own magic pen is daily and weekly dashing off prose poems, exquisite word-pictures in which are blended with the free sketchiness and dewy freshness of the youthful limner the elaborate and thoughtful finish of the master-touch, one is compelled to tread upon delicate—almost dangerous ground.

To give an analysis of his character as a man, as he really is; to measure the altitude of his genius by a true standard, testing him by his various productions—by what he has aimed to do and to be in the world of letters—by his influence on society; to accurately trace his individuality as it has been revealed to his own consciousness under the light of his own remarkable experience; to describe him as the citizen, the man of character, integrity, the head of a home circle, in fact, to sum up the lights and the shadows, to arrange the delicate tints, grouping all qualities into a true and spirited representation of the man of genius—standing as Mr. Willis does, beyond all

question, alone and unapproachable in many distinctive peculiarities as a literary man, requires a more intimate acquaintance, a keener insight into the hidden springs of action, a wider knowledge than we possess.

It will be our aim, therefore, to give a simple statement of facts bearing upon his career, with a few choice selections from his pen, and a sketch or two illustrative of the estimate placed upon him by his cotemporaries, leaving the picture to be finished, the finale to be written when time and distance shall have corrected the perspective, and the cold passionless breath and the thin vail of the dark valley shall have winnowed the chaff of prejudice, misapprehension, injustice, and all unkindly influences, from the golden immortal sheaf bound with the charmed circlet of his literary fame.

Nathaniel Parker Willis was born at Portland, in Maine, on the 20th day of January, 1807, and is a descendant, in the fourth degree, of the Rev. John Bailey, an eminent divine, who was the pastor of the first church in Boston two centuries ago.

Nathaniel Willis, the grandfather of N. P. W., worked, as an apprentice, in a printing-office with Benjamin Franklin, and afterward published *The Independent Chronicle*, in the same office, in Boston, during the American Revolution, and was a guest at the celebrated "tea-party."

He went afterward to Virginia, and settled at Martinsburg, where he established *The Potomac Guardian*. Some years later he emigrated to Ohio, of which State he was the first postmaster and editor.

Nathaniel Willis, the father of N. P. W., was a practical printer and a political editor in Portland at the time of the birth of his gifted son. A few years later he removed, with his family, to Boston, where he established the first religious newspaper in America, *The Boston Recorder*. He has since started the first child's paper ever published in this country, *The Youth's Companion*, which he continues to edit. His mother, a gentle and gifted woman, to whom her son was most tenderly attached, died in 1854.

Mr. Willis obtained the rudiments of education under the tutorship of the Rev. Dr. McFarland, of Concord, N. H., and subsequently at the Boston Latin School and at the Phillips' Academy, in Andover, where he pursued his studies until he entered Yale College in 1823.

His father had destined Nathaniel to be a printer, and it was only after long-continued and urgent solicitations on the part of his son, to which also were joined those of his mother, who early saw and sympathized with the genius and aspirations of their son, that he was permitted to follow the bent of his inclination, and enter college.

While he resided at New Haven, as a student, he won a high reputation by a series of "Scripture Sketches," and other poems.

These "Sketches," known as 'Willis' Sacred Poems," received unmeasured praise and commendation, and could not be blotted from existence without leaving starless and rayless a whole quarter of our literary heaven.

He was graduated in 1827, on which occasion he delivered a poem, at the departure of the senior class, which was a model of high, earnest, dignified, and manly expression—a production that embodies the very majesty of wisdom and right-feeling. Here is a brief extract—

The soul of man
Createth its own destiny of power,
And, as the trial is intenser here,
His being hath a nobler strength in heaven.
* * * * *
Ye shall look down on monarchs. O press on!
For the high ones and powerful shall come
To do you reverence: and the beautiful
Will know the purer language of your brow,
And read it like a talisman of love!
Press on! for it is godlike to unloose
The spirit, and forget yourself in thought;
Bending a pinion for the deeper sky,
And, in the very fetters of your flesh,
Mating with the pure essences of heaven!
Press on!—"for in the grave there is no work,
And no device."—Press on! while yet ye may!

In the following year he published a "Poem delivered before the Society of United Brothers of Brown University," which with his "Sketches," issued soon after he left college, received very favorable notice in the best periodicals of the time.

He also edited "The Token" for 1828; and about the same period published in several volumes "The Legendary," and projected "The American Monthly Magazine," a periodical of high character, which was established by Mr. Willis before he had attained his majority. To this periodical several young writers, who afterward became distinguished, were contributors; but the articles by its editor, constituting a large portion of each number, gave to the work its character, and most of its popularity.

The following by Mr. Greeley, taken from the *New Yorker* for April 18, 1840, will not be uninteresting:

"*Nathaniel P Willis.*—We have exhumed and placed before our readers one of the noblest and most admirable prose-essays of this accomplished writer. We are aware that for many it will lack the charm of novelty, but we believe these of all others will most thank us for the trouble we have taken to procure and place it before them. Although exceeded in beauty and richness by no production of the author's pen, we believe it has never found a place in any published edition of Mr. Willis' writings, being unlike in character and scope to the sketches in prose and verse by which he is most widely and popularly known. It appeared originally in the first number of 'The American Monthly Magazine,' a noble periodical that was read and admired by the discriminating few, patronized by the unthinking many, paid for by perhaps one half of them, and swindled by the residue; so at the end of its second year, its founder and editor was constrained to discontinue it, having achieved golden opinions, and therewith a small mountain of debt to clog his subsequent efforts and harass his after years."

We give a brief extract from this essay, which was entitled "Unwritten Music:"

"Yet, after all, whose ear was ever 'filled with hearing,' or whose 'eye with seeing?' Full as the world is of music—crowded as life is with beauty which surpasses, in its mysterious workmanship, our wildest dream of faculty and skill—gorgeous as is the overhung and ample sky, and deep and universal as the harmonies are which are wandering perpetually in the atmosphere of this spacious and beautiful world—who has ever heard music and not felt a capacity for better? or seen beauty, or grandeur, or delicate cunning, without a feeling in his inmost soul of unreached and unsatisfied conceptions? I have gazed on the dazzling loveliness of woman till the value of my whole existence seemed pressed into that one moment of sight; and I have listened to music till my tears came and my brain swam dizzily—yet, when I had turned away, I wished that the beauty of the woman had been perfecter; and my lips parted at the intensest ravishment of that dying music, with an impatient feeling that its spell was unfinished. I used to wonder, when I was a boy, how Socrates knew that this world was not enough for his capacities, and that his soul, therefore, was immortal. It is no marvel to me now."

In 1830 this magazine was united to the New York *Mirror*, and Mr. Willis became one of the conductors of that journal, and immediately departed for a tour in Europe, which resulted in "Pencilings by the Way," a series of letters published in the *Mirror*, which met with a boundless popularity on their first appearance in this country, and have been republished, with many of the other productions of the author, in various forms, and are now universally read wherever our language is spoken. "This first residence abroad was a long and eventful one. It led our traveler through all the capitals of Europe, even to the city of the Sultan, and yet beyond to the poetic altars of the Orient, and everywhere under agreeable circumstances, his own commending accomplishments being set off with the diplomatic button of *attaché*, given to him by Mr. Rives, the American ambassador at Versailles."

During these wanderings, abounding with pleasant and stirring incidents, Mr. Willis chanced to make the acquaintance and to secure the cordial recognition and friendship of an English family of high rank—a circumstance which proved the key to unlock to him the inner temple of social exclusiveness, and led to his introduction to the homes and haunts of the highest nobility of England, with many of whom he still maintains a correspondence, and by whom he is remembered with affectionate concern. At this time, and, indeed, at all times, Mr. Willis moved on very limited means, yet, by his distinguished address, fine personal appearance, and intellectual force, he never failed to sustain himself under the most trying circumstances. The most interesting result of his acquaintance and residence in England was his marriage in 1835 to Mary Leighton Stace, the daughter of a distinguished officer who had won high honors at Waterloo, and was then Commissary-General in command of the Arsenal at Woolwich.

In 1837 Mr. Willis returned to his native land, bringing with him his young wife, and soon after established himself in that quiet and delightful retreat on the banks of the Susquehanna, which he has since immortalized under the name of Glenmary, bestowed in compliment to his wife, where he wrote the celebrated "Letters from Under a Bridge," in which are embodied some of the rarest gems of descriptive expression that were ever shed from mortal pen.

We transcribe from one of these letters the following passage descriptive of the scenery around Glenmary:

"There are more romantic, wilder places than this in the world, but none on earth more *habitually* beautiful. In these broad valleys, where the grain-fields, and the meadows, and the sunny farms are walled in by glorious mountain sides, not obtrusively near, yet, by their noble and wondrous outlines, giving a perpetual refreshment and an hourly-changing feast to the eye; in these valleys a man's household gods yearn for an altar. Here are mountains that to look on but once 'becomes a feeling,' a river at whose

grandeur to marvel, and a hundred streamlets to lace about the heart. Here are fertile fields nodding with grain, a thousand cattle grazing on the hills. Here is assembled, in one wondrous center, a specimen of every most loved lineament of nature. Here would I have a home! Give me a cottage by one of these shining streamlets—upon one of these terraces that seem steps to Olympus, and let me ramble over these mountain sides, while my flowers are growing and my head silvering in tranquil happiness."

The cottage at Glenmary was first built at a contract price of $450, yet by the taste, the genius, and the loving care of our poet and his wife, it became all that the heart and the fancy would imagine and desire to realize in home—"Sweet Home."

One of the distinguishing characteristics of Mr. Willis' mind is his abounding home-feeling, a peculiarity that is revealed in every page and in every sketch in his descriptions of natural scenery. It is this wonderful faculty of locality that enables him to detect beauties where the common eye sees but useless, broken ground, marked by no special features of interest. It was this faculty which enabled him, with limited means, to turn an unnoted spot into the Glenmary now resorted to a shrine by all who appreciate genuine sentiment and would learn the truth of our poet's marvelous descriptions—a shrine that is protected and hallowed by his genius, and by an appeal which, on leaving it, he made to its future "unknown proprietor," that will ever do credit to his head and his heart.

It is this extraordinary capacity to turn all times, places, and conditions into a pivot whereon to hinge the teeming world of his thoughts and fancies, that has led Mr. Willis to seize upon a neglected, idle wild on the banks of the Hudson, and with a few touches of his magic wand to mold it into a genial and delightful home, to make it "Idlewild," an artistic creation, the realization of the poet's rarest dream of landscape beauty. It is this peculiarity that gives the chief value to his writings and makes his word-pictures complete in themselves, and studies pleasant and profitable for all.

Mr. Willis is remarkable for his practical and common-sense turn of mind. He is, and always has been, a hard worker, and under the guidance of his own impulses could never be other than a generous and broad-hearted man, ready for a good deed at the slightest call.

That he has been bespattered with blind praise and badgered unmercifully was his misfortune—the price of his position.

That he has been misapprehended, and will continue to be all his life long, we have no doubt, yet we persist that no man can be a very bad man in practice or at heart who has toiled as incessantly and achieved so much that is really excellent, under influences such as have surrounded Mr. Willis.

After a few years of heart-sunshine at Glenmary, the shadows began to fall around his hearth-stone. The first blighted hope was shattered by the death of his first-born, and is marked by a little mound at Glenmary, and immortalized by lines as tender and touching as the sigh of an infant seraph—an inspiration from the unsealed fountains of a father's, a poet's heart. All who love truth, nature, tenderness, and appreciate feeling will be better for reading the lines beginning thus—

"Room, gentle flowers! my child would pass to heaven."

After this bereavement, the shadows continued to deepen; the death of his father-in-law and the failure of his booksellers cut off his moderate income, and at the end of five years he returned to the great city and started *The Corsair*, a weekly journal, and entered upon the hard struggle for bread. About this time his health began to fail, and soon after his wife died in New York, leaving one child, Imogen, the eldest daughter of his house.

The portraits which remain of this lady, and the testimony of all who knew her, describe her as a woman of great personal beauty, and the embodiment of grace, gentleness, and loveliness of character.

This bereavement was the climax to a series of misfortunes and sorrows, and for a time completely unsettled all his plans of life, and he went abroad for relief, taking his daughter with him to England, where he suffered from a violent attack of brain fever, followed by a long and painful illness at the baths of Germany. It was his intention to place his daughter at school with her mother's relatives, three of her uncles being officers in the British army, but this plan was never carried into effect, and he soon after returned and joined Gen. Morris in establishing *The Home Journal*.

In 1845 Mr. Willis was married to Cornelia, only daughter of the Hon. Joseph Grinnell, of Massachusetts, a very accomplished and admirable woman, whose devotion to her husband has more than once shielded him in the hour of adversity.

Soon after this event, Mr. Willis became interested in the scenery of the Highlands of the Hudson, and established himself in the midst of the historic scenes of Revolutionary times, at Idlewild, from whence he weekly dictates his delightful editorials on all subjects, addressed to old and young, through *The Home Journal*.

Mr. Willis has a collection of autograph letters, more remarkable for the distinguished character of the writers, than has ever been addressed to any other private American citizen.

His private notes to Gen. Morris and other friends, could they be collected and published, would form one of the most quaint, popular, and delightful volumes ever written.

A complete edition of his works, in a closely printed and ponderous octavo, was issued some years since. More recently a uniform collection, in a dozen handsome five-hundred-page volumes has been issued by Charles Scribner, who has also recently published an elegant edition of the songs of General Morris; the catalogue concluding at present with a reprint, from *The Home Journal*, of "Paul Fane; or Parts of a Life else Untold," and a volume entitled "Out-Doors at Idlewild; or The Shaping of a Home on the Banks of the Hudson."

At the close of an elaborately illustrated article entitled "Idlewild, the Home of N. P. Willis," by T. Addison Richards, which appeared in the January number of "Harper's Magazine," we find the following:

"In the editorial chair Mr. Willis has been uniformly and eminently successful, always displaying a delicacy and nicety of appreciation and judgment, a subtle tact and taste, a habitual and hearty kindness for his brother authors, and a comprehension intuitive of the wants of all classes of readers rarely possessed; though he can not well be spoken of as a journalist except at the same time as an author, so closely has he been devoted to the labors of both, and so much has the product of the one grown out of the other.

"No writer has so unvariedly and so entirely won the admiration of readers of the most refined sentiment and daintiest fancy, and, at the same time, the full sympathy of the masses of all tastes and calibers. * * * * *

"He is essentially the man of genius, as that term is understood in contradistinction to talent and learning merely. * * * *

Even the vagaries and eccentricities of his language have their value as growing out, necessarily, of his singularly unique and original style, and as they never overstep the pale of idiomatic English." * * * * *

Dr. Griswold, in his Prose Writers of America, says:

"The life and fertility of the mind of Mr. Willis are very remarkable. His spirits and faculties seemed to have been bathed in perpetual freshness. The stream of thought and feeling in him is like the bubbling outspring of a natural fountain, which flows forth with gayety and freedom, if it flows at all. His powers seem never to be lessened by exhaustion. His fancy is never soiled by fatigue. He never copies others, and he never repeats himself; but always prompt and always vivid, his mind acts with the certainty of a natural prism which turns every ray that reaches it into peculiar beauty."

In early youth Mr. Willis became a member of the Park Street Presbyterian Church, in Boston, of which his father was and still continues to be one of the deacons, and a very religious man.

About the time he left college, he announced to the church that his opinions were essentially modified in regard to the requirements of church members in relation to amusements, which led to his exclusion from the church, although his doctrinal views remained unchanged.

At the present time, Mr. Willis is a regular attendant on the ministrations of the Episcopal Church.

Miscellaneous.

OUR BOYS.

WE always rejoice in the promotion and advancement of our young friends whose fortunes have been, or may be in any way, identified with our own; and it is good cause for congratulation that *all* of *our* boys "turn out well." Among our present and former employees we could give the names of "half a hundred," all of whom have done and are doing well in the world. Some are practicing physicians; some are lawyers, clergymen, editors, lecturers, merchants, manufacturers, farmers, navigators, explorers, etc., etc., and, so far as we know, *not one* has led an unprofitable life.

Within a few months two of our phonographic reporters have been admitted to the bar. The Chicago *Press*, of recent date, said:

C. J. HAMBLETON was admitted to practice at the bar, yesterday, on examination. He has opened a law office at No. 80 Dearborn Street, Chicago, Illinois.

Mr. Hambleton was with us, in New York and Boston, some years, and we feel safe in predicting for him a life of uniform success.

WM. W. VAUGHAN, also an expert reporter, has qualified himself for the practice of the law, and has just been admitted to the bar in the Supreme Court of the State of New York. He is scholarly, competent, and modest. We place him on the judicial bench as his most appropriate sphere in life. He intends, we believe, to locate somewhere in the Great West. He will deserve respect anywhere.

DAVID HAMBLETON, a brother of C. J., now a lawyer and successful business man in Philadelphia, was with us for years as a reporter.

E D. STARK, an educated young man, equally rapid and correct as a reporter, has taken the field as a lecturer on Phrenology. Dignified and gentlemanly in his bearing, thoroughly imbued with the utility and magnitude of his chosen profession, he will command respect for himself and his subject, and, as a consequence, deserve and secure success.

WILLIAM and FINDLAY ANDERSON—brothers—also excellent *verbatim* reporters, have accepted places on two of our leading daily papers as first-class reporters, and are rising rapidly. They will ere long take responsible positions among our leading journalists.

HENRY MATSON, reporter and writer, is studying theology in Oberlin, Ohio. Should he not go into the University, it is his intention to connect himself with the "press," to which he is admirably adapted. Our readers have been favored with occasional communications from him, under the initials H. M., in LIFE ILLUSTRATED.

EDWARD T. WEAVER, a most apt and promising reporter, will, after some more practice, try his hand at reporting the proceedings of Congress, in which there can be no doubt of his entire success.

We might name many others who have engaged in callings of a less public nature, but who will make their mark on time, and leave the world the better for having lived in it. We do not claim these favorable results altogether from the fact that these young men commenced their business career at our establishment! We simply state the facts.

LESLIE AND SWILL MILK.—An exchange, speaking of the suits instituted against Frank Leslie, by the aldermanic apologists for the swill-milk and stump-tail institutions, suggests that whatever expense the defendant may incur in the trials, be raised by penny contributions. It is a capital idea; we second the motion, and all our folks, especially the children, have their pennies ready. The vote against stump-tail milk is unanimous. Hurrah!!

BE INDUSTRIOUS.—Everybody knows that industry is the fundamental virtue in the man of business. But it is not every sort of industry which tends to wealth. Many men work hard to do a great deal of business, and after all make less money than they would if they did less. Industry should be expended in seeing to all the detail of business—in the careful finishing up of each separate undertaking, and in the maintenance of such a system as will keep everything under control.—*How to do Business.*

I NEVER knew a man to escape failure, in either body or mind, who worked seven days in the week.

To Correspondents.

E P.—I am lecturing on Phrenology, and giving examinations and charts. Any hints or advice you may please to give will be gratefully received and faithfully followed.

ANSWER. In regard to hints of advice, etc., we hardly know what you need or what to volunteer. We may say, in general, that you should always endeavor to live and labor for the honor and advancement of the SCIENCE, and not place the making of money paramount to it. If you do honor to the science, then the people, in supporting the science, will support you. Secondly, endeavor to place the science on high moral ground, teaching its value as an educator, and treat it in such a way that the best people, those who live by the top-head, will be your friends and the supporters of your cause. Do not join with the skeptical in deriding sacred things, nor allow your teachings to take a sectarian or bigoted turn. Teach godliness through Veneration; a sense of the immaterial and celestial through Spirituality; and the golden rule through Benevolence and Conscientiousness. Command the respect of the world by living under the inspiration of a high self-respect. Administer the profession in such a spirit that the world will recognize you as a benefactor, and you will then deserve pecuniary success, and achieve it. Observe these suggestions, and you have our best wishes for your success.

P. G.—Does the strength of an organ depend upon its surface, or upon the amount of brain in a given organ, other things being equal?

ANS. Chiefly on the amount of brain appropriated to the organ.

R. V. B.—We can send you Ruskin's Elements of Drawing, prepaid, for 87 cents.

Literary Notices.

THE FARM; A new Pocket Manual of Practical Agriculture; or, How to Cultivate all the Field Crops. Embracing an Exposition of the Nature and Action of Soils and Manures; the Principles of Rotation in Cropping; Directions for Irrigation, Draining, Subsoiling, Fencing, and Planting Hedges; Descriptions of Improved Farm Implements; Instructions in the Cultivation of the various Field Crops; How to Plant and Manage Orchards, etc. With J. J. Thomas' invaluable "Prize Essay on Farm Management," revised by himself. By the author of "How to Behave," "How to do Business," "The Garden," etc. New York: Fowler and Wells, 308 Broadway. Price, in paper, 30 cents; in muslin, 50 cents.

A glance at the extensive catalogues of agricultural books published in this country might lead to the conclusion that the work before us is uncalled for; but a careful examination of the books themselves would show that the publishers are right in believing that there is room and a demand for such a manual as "The Farm." The majority of the works on farming issued in this country are reprinted, with more or less modification, from English editions; and, although some of them are exceedingly valuable, all contain more or less what is of little value to the American farmer, and are deficient on points of the greatest importance to him. For many, also, they are too large and high-priced. There was a want, here so well met, of a cheap hand-book combining with clear and concise practical directions so much of the theory of agriculture as will enable the intelligent farmer to carry on understandingly all the operations of his art, applying and modifying the rules given him to suit the particular conditions under which he may work. Here we have it in a style adapted to the comprehension of everybody, and at a price which will form no obstacle to any. It has evidently been prepared with great care, and is, so far as it goes, thorough and reliable. If you wish to get a clear understanding of the nature and action of soils and manures, without wading through the large and abstruse works to which you might be referred, here you have all that is essential within the compass of two or three brief chapters. The principles of rotation in cropping may here be mastered in an hour; and the directions for irrigation, draining, subsoiling, fencing, planting hedges, and cultivating the various field crops, are so plain that "he who runs may read." J. J. Thomas' "Essay on Farm Management," here reprinted in full, is alone worth, to any young farmer, ten times the price of the book. It will surely be his own fault if the reader of this little work does not make farming "pay." Ignorance of a few simple facts and principles, here made clear to the dullest comprehension, lead directly to those expensive blunders which ruin the farmer and bring discredit upon the science and art of agriculture.

"The Farm," like its popular predecessor, "The Garden," is adapted to all parts of the country—the South as well as the North. It must, we believe, have a wide and extensive sale.

We append the table of contents, to give the reader an idea of the scope and plan of the work:

Chapter I.—Soils; II.—Manures; III.—Rotation of Crops; IV.—Draining; V.—Fences; VI.—Agricultural Implements and their Use; VII.—Farm Management; VIII.—Farm Crops; IX.—The Orchard.

THE ILLUSTRATED PHRENOLOGICAL ALMANAC for 1859 is ready for delivery. It embraces much practical information, and is most amply illustrated. It is quite equal to any of its predecessors. Price by mail, 6 cents.

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This much-called-for and greatly needed work as a reading book for students in Phonography, has at length appeared. For artistic neatness of execution it leaves nothing to be desired. The Psalms were published some years ago in England by Isaac Pitman, but subsequent changes and improvements in Phonography rendered that edition valueless; and now the great vacuum in phonetic literature is filled by the republication of the Psalms.

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DECLARATION OF INDEPENDENCE IN PHONOGRAPHY, by Benn Pitman.

This beautifully-engraved sheet, the right size to be framed, has been received at this office. Its mechanical, or perhaps we ought to say *artistic*, execution is faultless. We regard it as the very best phonographic engraving and printing we have ever seen; and when this is said of the work of Benn Pitman, nothing more need be said. Every phonographer, and all who are studying the art, should have this excellent and ornamental specimen.

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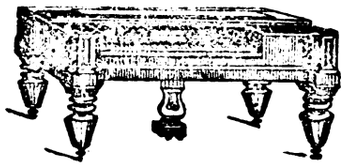

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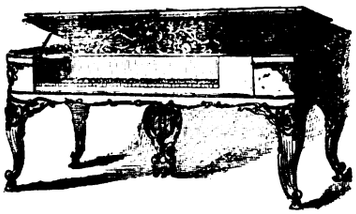

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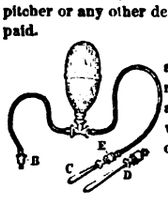

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SPELLING.

PROBABLY the *worst* feature of any composition, be it ever so poor as regards construction and sentiment, is the misspelling of common words. And however neatly written, however beautifully constructed, any piece of composition may be, if, here and there, a word may be found incorrectly spelled, it takes all the beauty away from both composition and penmanship The most glowing language ever used, the most inspiring sentiments ever uttered, "thoughts that breathe and words that burn." if written and incorrectly spelled, lose all their force, all their power to win and control, and make but a feeble impression on the reader

Spelling we all have to do with, more or less. Whether we read, or write, or talk, or only think, we must *spell our words*. And it is just as easy to spell correctly as incorrectly. Or, if not as easy, it is certainly far the best way. Attention while reading, close application to the spelling-book, and frequent reference to the dictionary, will make any one a good speller. Inattention and carelessness in these respects will generally result in a poor knowledge of spelling.

Spelling should certainly be considered a subject of importance with teachers. It should be their aim to inculcate in their scholars a love of correct spelling. At any rate, they should call their attention to the important words in their reading lessons. No teacher has done his whole duty toward his scholars, who has suffered even one reading lesson to pass by without having been satisfied that every one in the class could spell every word correctly. This may be ascertained in various ways, according to the capacity and circumstances of the class. It is not my intention here to designate any plan. Each teacher can follow that which best suits his school.

If it be necessary that scholars have thorough training while at school, that they may become good spellers, is it not very important, indeed—is it not an absolute necessity—that the teacher have a thorough practical knowledge, not only of spelling, but of the rules which govern correct spelling, and of the pronunciation of our English words, at least? And yet we often meet with teachers who can not spell some of the simplest words of our language. Such teachers are sorely puzzled by having to refer to the dictionary, when called upon by a scholar to spell a word. And well they may be. But is this as it should be? Is it right for any one to enter upon the duties connected with a teacher's life without being fully qualified to meet all the demands made upon him as well in spelling as in mathematics, or any of the other branches?—*Binghamton Standard.*

HOW COFFEE CAME TO BE USED.—It is somewhat singular to trace the manner in which arose the use of the common beverage of coffee, without which few persons, in any half or wholly civilized country in the world, now make a breakfast. At the time Columbus discovered America, it had never been known or used. It only grew in Arabia and Upper Ethiopia. The discovery of its use as a beverage is ascribed to the superior of a monastery, in Arabia, who, desirous of preventing the monks from sleeping at their nocturnal services, made them drink the infusion of coffee, upon the report of shepherds, who observed that their flocks were more lively after browsing on the fruit of that plant. Its reputation spread through the adjacent countries, and in about 200 years it had reached Paris. A single plant brought there in 1714, became the parent stock of all the French coffee plantations in the West Indies. The Dutch introduced it into Java and the East Indies, and the French and Spanish all over South America and the West Indies. The extent of the consumption can now hardly be realized. The United States alone annually consume it at the cost on its landing, of from fifteen to sixteen millions of dollars. That of tea is a little over eight millions of dollars. You may know the Arabian or Mocha, the best coffee, by its small bean of a dark yellow color. The Java and East Indian, next in quality, are larger and of a paler yellow. The West Indian Rio has a bluish or greenish gray tint.

HISTORY OF THE ISABELLA GRAPE.—Gen. J. G. Swift, of Geneva, in a letter to the *National Intelligencer*, correcting an article previously published in that paper, gives the following history of the Isabella grape: "As to the Isabella, it originated at Goose Creek, near Charleston, South Carolina, and is a hybrid of the native Fox and the Burgundy of Huguenots. Gov. B. Smith, of North Carolina, brought the grape-vine to Smithville, in 1809, and Mrs. Gibbs took a cutting from Gov. Smith's garden to Brooklyn Heights in 1818. In 1819 I purchased the Gibbs place on Brooklyn Heights, of George Gibbs, Esq., who came from Bladen County, North Carolina; Colonel George Gibbs was from Newport, Rhode Island. In 1820, from the first well-grown vine in my garden, I gave cuttings to Wm. Prince, of Flushing, who in compliment to Mrs. Smith proposed to name the grape 'Louisa.' Mrs. Smith objected, saying Mrs. Gibbs' 'Isabella' was more entitled to the name; and thus the name. As to the hybrid character of the plant, the two faces of the leaves show the upper to be Burgundy and the lower Fox. In 1821 I gave Mr. Skinner, of the Baltimore *Farmer*, a history of the Isabella, which he published in that paper."

A GRATEFUL CLIENT.—When Judge Henderson, of Texas, was first a candidate for office, he visited a frontier county, in which he was, except by reputation, a stranger. Hearing that a trial for felony would take place in a few days, he determined to volunteer for the defense. The prisoner was charged with having stolen a pistol; the defense was "not guilty." The volunteer counsel conducted the defense with great ability. He confused the witnesses, palavered the court, and made an able, eloquent, and successful argument. The prisoner was acquitted—he had not stolen the pistol. The counsel received the enthusiastic applause of the audience. His innocent client availed himself of the earliest interval in the hurricane of congratulations to take his counsel aside. "My dear sir," said he, "you have saved me, and I am very grateful. I have no money, do not expect to have any, and do not expect ever to see you again; but to show that I appreciate your services, you shall have the pistol!" So saying, he drew from his pocket and presented to the astonished attorney, the very pistol the attorney had just shown he had never stolen or had in his possession.

RESPONSIBILITY.

A LATE number of the New Orleans *Courier* discourses in the following elevated strain on the importance of cultivating the faculty of Conscientiousness in business transactions:

"For the punctual discharge of private obligations, and for the due transaction of public business and fulfillment of public trusts, there is a too prevalent opinion that pecuniary responsibility is the one thing needful. So long as a borrower is supposed to be possessed of property from which the debt may be collected in the last resort, or so long as a man occupying an important office shall give bonds for the right discharge of his duties, people are disposed to extend their inquiries no further.

"Character, and that alone, should be the foundation of credit, whether private or public. A man should be trusted for his honesty and fidelity, not for his money. No man should be allowed to become the incumbent of a responsible office, where much of public property is intrusted to his keeping, merely because he can procure the requisite security. The man in whose hands it would be unsafe to trust half a million of public funds without security, is equally unsafe with it; for where there is a disposition to be dishonest, means are always found by the scoundrel functionary to save his friends and yet rob the public.

"When assistants are employed by merchants, brokers, and bankers, the defense of the employers in their integrity is seldom based upon any security other than their own honesty. To base confidence on bonds and pecuniary securities degrades fidelity to a mere consideration of interest, which will, of itself, in the end, produce the bad result that was sought to be avoided.

"There are men in every community whose first and constant aim is to be strictly, scrupulously, and conscientiously honest in all their dealings, who would as soon think of throwing themselves into the Mississippi as of appropriating to themselves anything but what belongs to them. The temptation of a hundred thousand dollars to such men is no more than that of a dollar. Their integrity forms a part of their nature—it has grown with their growth, and strengthened with their strength—you can not separate it from them. It is often connected with an exactness in lesser pecuniary matters which tends to render it odious to the unthinking; but of this despised parsimony, honesty is the foundation. Such men are careful how they risk rashly their means of discharging their duties to their creditors or to society. They are seldom speculators, seldom brilliant financiers, but their word is as good as their bond, and their bond is as good as gold,

"It is the duty of society to select their public servants from men of this class; it is high time that *honesty* should be the first requisite to public trust and public employment. There would be less difficulty in finding this attribute were a due value set upon it, and public attention turned to it in a proper spirit. The right material for public employment is abundant enough, but it is generally accompanied with a modesty which renders it necessary to find it out and call it forth. The men of integrity are the truly great men in every State, but this greatness, from its own nature, often remains in obscurity."

AMERICAN PHRENOLOGICAL JOURNAL.

A Repository of Science, Literature, General Intelligence.

VOL. XXVIII. NO. 3.] NEW YORK, SEPTEMBER, 1858. [WHOLE NUMBER, 237.

Published by
FOWLER AND WELLS,
No. 308 Broadway, New York,
AT ONE DOLLAR A YEAR, IN ADVANCE.

Contents.

FRANCIS BICKNELL CARPENTER.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

[THIS character was given without any knowledge of the person or of his pursuit.—ED. JOUR.]

Your constitution is remarkable for its fineness, and for its compactness and power; but you need more exercise to give you the highest rate of power of which you are capable. There is, however, a grip, a spirit, and vigor to your organization, that pertains to the mind as well as the body.

You have clearness, positiveness, and efficiency of mind and character. There is a tendency in your intellect to concentration and focalization, and to intensity of action. You have a natural faculty for acquiring and relishing the sharp facts and distinctions of chemistry and mathematics; and your Order is also gratified by science. You have large Comparison, which makes you keen in criticism, and enables you to draw nice distinctions, and readily perceive differences and relations respecting everything which is presented to your contemplation.

Your knowledge of character is good. You seem to appreciate a stranger at the first glance, and comprehend his motives and the drift of his character. You sympathize readily with those who are at all like yourself, or whose minds act on the same plane as your own. You have the power to adapt yourself mentally to persons of different tastes, but are naturally independent in your disposition, firm in your purposes, proud-spirited, and anxious to excel, and to enjoy the good-will of all, but are not very anxious for praise or flattery. Indeed, ordinary flattery offends you. You want your works to praise you, yet you love to hear that people have spoken well of you. If you were to hear persons talk of something you had done, and they were not aware that you were its author, you would delight in their approval; but anything uttered to your face that can by possibility be regarded as flattery or of doubtful sincerity, your dignity and self-respect would be offended.

PORTRAIT OF FRANCIS B. CARPENTER.

Your veneration is not a controlling element, though you appreciate eminence and nobleness of character very highly. In a religious sense, you are more conscientious and sympathetic than devotional. You obey the commandments and do good, and feel more like being a practical missionary than a devotee. You have a love for the beautiful in nature and art; especially for that which takes on material form—that which has length, breadth, color, and organization. Your imagination has less to do with abstract idealism than that which embodies the lines of beauty and the graces of proportion. You would excel as a bank note-engraver, as a sculptor or a painter, or as a maker of mathematical instruments. It must be you follow something that requires nicety, order, sharp discrimination, clearness of thought, accuracy of plan, delicacy of touch, and approximation to the perfect in execution. To pursue some common, coarse vocation as a mere means of making dollars, would seem to you sordid, and in such a pursuit you would feel that your life was wasted.

Had you given yourself to literature, you would have been fond of the Greek language and literature, on account of the polish, refinement, and imagery connected with it. If you had been thrown into business circles as a merchant or trader, you would show good talents for the performance of mercantile duties—would financier in a bank, or elsewhere, according to the science of the subject, rather than as a mere sharp, selfish trader. You could sell goods if you could do it

decently, and in a manly way, without truckling to custom, or stooping to the low arts of trade. You have power to understand articles, to describe their qualities, to recommend yourself to the confidence of persons, and to win them to your way of thinking; but you do not love money well enough to sacrifice your manliness on the altar of Mammon.

You are conscientious in your general conduct, guarded respecting danger, and usually capable of averting adversities which ordinary men would suffer from. You do your own thinking, plan for yourself, and act with a kind of breadth and freedom which shows that you know what you are about, and that you are anxious to be your own master, and to earn your reputation and achieve your success as much as possible without aid from others. You have sufficient Combativeness to give you courage, and Destructiveness enough to give executiveness, but not enough to make you sour and morose. Socially, you are a warm-hearted friend, fond of children and fond of woman; and as a parent and husband would be more than ordinarily happy in the society of your wife and children. You love home intensely, and should own a house and garden as soon as circumstances favor it. You are not a general favorite in general society, because you don't allow yourself to affiliate with everybody on terms of familiarity. To some people you appear proud—some call you cold—and to some you are cordial and sympathizing. The few to whom you unbosom your mind and let yourself out, regard you with especial favor and confidence, while you pass many with only a recognition.

Whatever you do is original so far as it can be in a field of effort trodden by many. As a writer you have a style of your own, and it is distinguished for clearness, perspicuity, and vigor. Occasionally you would dash out into new ground, and say things which stir up the conservative world. If you were to teach on themes religious and theological, you would be independent, sympathetic, and liberal. You have great power of combination or mental constructiveness, which in literature or art would greatly aid you in arranging your argument, constructing your story, or in composing your poem or your picture. The clearness of your perceptions, the vigor of your reasoning and combining powers, the sharpness of your criticism, the depth of your sympathy and affection, your fondness for the beautiful, your taste, discrimination, and ingenuity, joined with energy and independence of character, will sooner or later give you decided success in whatever vocation your choice may lead you to follow. Your true place is in art, or the finest descriptions of mechanism and invention.

BIOGRAPHY.

This still youthful, but already widely-known artist, was born at Homer, in Cortland County, New York, August 6, 1830. His father is a respectable farmer, in comfortable circumstances, who has raised a family of eight children (of whom Frank was the second). He is a social, intelligent man, but one whose ideas seldom range beyond the practicalities of life.

The passion for art first developed itself when the boy was about eight years of age, and while attending the district school. A lad by the name of Otis (now a distinguished surgeon in the California Mail Steamship service), who had acquired a rare facility in the use of the lead pencil, made a drawing, one day during recess, upon the panel of the door of the school-room, which was the first thing of the kind young Carpenter had ever seen; and it proved to be the spark which set on fire the genius till then dormant, and awakened within him "the vision and faculty divine."

For some years his progress was very slow; for he had no such aids as drawing-books or models. All the money he could obtain was expended for drawing materials, and he often walked to the village store, a distance of three miles, to invest a couple of pennies (usually the extent of his finances) in a sheet of unruled foolscap and a pencil! The blank leaves of account-books, and everything in the shape of paper at home, was seized upon and appropriated; and when these failed, the walls of unfrequented apartments and the sides of the outbuildings were used by the youthful aspirant, and to this day perpetuate his application. Historical scenes were then the subjects of his fancy, and "William Tell shooting the apple from the head of his son," and "The capture of Major Andre," were delineated in chalk on the side of the old barn. A story is told of this period which is to the point.

Deacon I——, a near neighbor of Mr. Carpenter, was once questioned by one of the villagers about the boy's remarkable passion for drawing. "Humph!" exclaimed the deacon, "you can't turn over a *chip* on his father's farm without finding a *picture* on one side of it!"

Mr. Carpenter had a great contempt for art as a profession, and every intimation from his son that he would like to become a painter was immediately silenced as an idea too absurd to be indulged for a moment!

At the age of thirteen, Frank was placed in a store with a relative in Ithaca. But after six months he was sent home to his father with a letter stating that the boy's mind seemed to turn entirely to drawing and reading; that he manifested no capacity whatever for mercantile pursuits, and it was his employer's opinion that the best thing that could be done with him was to keep him on the farm!

At this juncture, Geo. L. Clough, a native of Auburn, just commencing his professional career, visited Homer, to paint some portraits, and young Carpenter made his acquaintance. Mr. Clough kindly permitted him, on one or two occasions, to see him paint, and every movement was silently but closely watched.

Several weeks subsequent to this, having procured some white-lead, brick-dust, and lamp-black, our young artist made his first attempt to paints a portrait! His mother, ever fond, sympathizing, and appreciating, he induced to sit as his subject. Did our limits admit, it would be interesting to follow him through the few weeks immediately preceding his commencing this portrait—the idea he had of the value of the materials of which pictures were composed—how a neighbor suggested to him that ordinary house-paints would answer for a beginner—how he walked to the village and procured a pound of white-lead, ground into a bowl, which he carried home in his hand—how he found some lamp-black, used for marking sheep, and some venetian-red, dry and hard by laying up in the barn for years, and which he pounded on the old door-stone, and some camel's-hair pencils used by carriage painters—how he "*whittled*" a palette out of a shingle, etc.—but we can not detail these.

With such materials, on a piece of canvas designed for coat lining, which he rudely prepared with the assistance of a house painter, Frank made a likeness, readily recognized by all. Fearing to excite the displeasure of his father, who had become quite violent in his opposition to what he termed "the boy's nonsense," the picture was kept a secret till nearly completed. Although old enough to assist on the farm, he was never at hand when wanted. It was at such a moment that the father came to the house to call him; and resolved to give him "an effectual calling" for once, he went directly up to Frank's room instead of shouting for him at the foot of the stairs. His curiosity exceeded his impatience, and going in to see what the boy was doing, he saw the picture. "Who is that?" he exclaimed. "Don't you know, father?" "It is your mother, I suppose;" and he turned, and without a word left him to finish the picture. A very perceptible change was manifest in the father from that day toward his son. He soon promised that he would himself sit for his portrait; on rainy days only, however, for he could not afford to throw away time that could be otherwise profitably employed. When he did sit for the boy to commence, it was with so little concern that he fell asleep ere ten minutes had elapsed. But Frank persevered, and in two or three sittings secured a good likeness, which, though rude and rough, was readily recognized, and highly commended by the neighbors, who pronounced it superior to the works of *itinerant* artists who had formerly visited the locality.

Harper's School District Library had been introduced into the district a few years previously, and this gave young Carpenter the opportunity to lay the foundation of his mental discipline. He has often referred to the benefit he derived from a perusal of the various works, and to the influence of particular books upon him, such as Mrs. Hofland's "Son of a Genius," and the "Pursuit of Knowledge," illustrated by biographies of distinguished men, among others, Benjamin West, Sir Joshua Reynolds, and Sir Thomas Lawrence. We may say here that his educational advantages were limited, with the exception of one term in the village academy, to this district school.

At an early age, his conceptions of art were so exalted that he conceived its votaries ought to be men of the purest character, and he solemnly resolved that if he was ever permitted to become a painter he would endeavor to preserve a reputation unsullied and spotless; and now that he has entered the temple and ministered at the altar of the goddess he then, though afar off, adored, she appears to him still more exalted and pure. The cultivation of his moral nature has given a strength and dignity to his character which commands the respect and wins the esteem of all who make his acquaintance.

The rapid improvement made in his successive works, and the strongly expressed opinion of the neighbors that it was useless to try to make anything but a painter of his son, at length influenced Mr. Carpenter to consent that an application might be made to some professional artist for instruction.

Frank was not long in introducing himself to the notice of Mr. Sandford Thayer, of Syracuse, who, after a careful examination of the evidences of his ability, kindly received him into his studio. The judicious training received during the five consecutive months here spent, laid the basis of his subsequent success.

Mr. Elliott, who was then rapidly rising to the highest position in his profession, made a visit to Syracuse during these months, and painted several portraits in the studio of Mr. Thayer, formerly one of his pupils. Mr. E. became interested in young Carpenter's progress, and has ever since been his warm friend and counselor. The opportunity of observing his method of painting and of studying his pictures was of great value to the young student at this period in his career.

Returning to Homer, in 1846, some months before he reached his sixteenth birthday, we find the subject of this article opening his first studio in his native village. To save expense, for the first few weeks he boarded at home, and walked to and fro over the same three miles' distance that he had so often tramped to exchange his pennies for pencils and paper. His father told him that he must henceforth rely upon himself alone for support; and this, with the hopeful spirit ever characteristic of him, he felt that he could do.

From house to house in the village did he in vain apply for board, proffering to secure the amount of it by painting the portraits of the family. For some time no one seemed willing to trust such a mere boy with such an undertaking. His prices were very low, and for a year or two his patrons were mostly of the humbler class.

At a later period the young artist was visited by Hon. Henry S. Randall (late Secretary of State), who resided in a neighboring town, and was at that time engaged in preparing his valuable work on sheep husbandry. He wished for some illustrations for his book taken from his own flock. Young Carpenter accompanied him to his farm, made the drawings he desired, and returned from thence with the reward of *ten* dollars—a greater sum than he had ever received for any of his productions. We may add that Mr. Randall perceived his talent, and faithful to his promise, soon sat for his own portrait.

We must pass over the succeeding two or three years, in which our artist made rapid improvement, and found almost constant occupation. His portraits of the nine surviving original Trustees of Cortland Academy are placed in the library of that institution; and these, though crude in execution, are characterized by the same strength of individuality for which his pictures have always been remarkable.

About this time he sent an ideal head of a girl to the American Art Union, which was then in the full tide of success. "It was sent with some hopes, but many fears," as he expressed it, in writing to a friend. With some four hundred other paintings, it was submitted to the committee at one of their meetings. Twelve only were selected from these for purchase, and Mr. Carpenter's was so fortunate as to be one of this limited number. Subsequently several pictures—indeed *all* that were offered by him—were purchased by the management of the Art Union at fair prices. Among these was a figure composition, which indicated sufficient talent to warrant success in this department, could he devote his energies to it; but the necessities of living have required such constant devotion to the demands upon his time for portraits, that he has hitherto found little leisure for any other branch of art.

In the autumn of 1850 Mr. Carpenter decided that New York city offered more inducements for an artist than any other place on this side of the Atlantic, and in the following spring he adventurously set up his easel here, the youngest, perhaps, of a large number of already established artists, without a relative, and with scarcely an acquaintance in the city to bid him God-speed! A portrait of a young girl, which he sent to the Annual Exhibition of the Academy, attracted considerable attention; and Wm. S. Mount, one of the most eminent in the profession, regarded it as so meritorious that he sought the acquaintance of the young artist, sat to him for his portrait, and exerted himself to make him known to others. In August of that year, 1851, being 21 years of age, he was united in marriage with Miss Augusta H. Prentiss, only daughter of Mrs. F. C. R. Prentiss, and granddaughter of Deacon John H. Rollo, names which were a few years ago well known in the musical world of Western New York. Mr. Carpenter soon made warm friends, who have contributed much toward giving him his present distinction, among whom may be named Mr. Alfred G. Benson and Mr. Wm. Bullard, of Brooklyn, and Gen. Geo. P. Morris. Through the influence of Mr. Benson, he was commissioned, in the following winter, to paint a full-length portrait of David Leavitt, Esq., then President of the American Exchange Bank, a name extensively known in commercial circles. It was a bold undertaking for a young man whose productions had hitherto been of the "kit-kat" size, to attempt a work of such magnitude; but undaunted by the difficulties of the subject, Mr. C. undertook and completed it, in time for the Exhibition of 1852. The multitude, who overlooked the simple but sweetly painted head of the young girl, which he contributed the year before, could not well pass without observation a canvas of this size; and the artist was complimented on every side. His name began to be mentioned frequently in the public journals, and several of them pronounced the portrait as an extraordinary production.

He was honored at this early stage of his residence here by being elected an "Associate" of the National Academy, a dignity which has rarely been conferred upon one so young.

Up to the time of the commencement of the picture of Mr. Leavitt, a period of about ten months, he had executed but one or two commissions for portraits. But his industry did not flag. An early resolution was to fill up his time with work of some kind. If he had not orders that would be remunerative, he would induce friends or acquaintances to sit, that he might be the gainer in experience. His motto was: "Always make the most of a subject, without regard to the *pay* for it, which should ever be secondary;" or, in other words, never to paint a picture solely for the dollars and cents it would yield him in return, but, on the other hand, if there was anything in the subject he could be advantaged by studying, to spare no pains in the endeavor to reproduce it. With this principle, he, of course, could but steadily improve.

The portrait of Mr. Leavitt paved the way, the succeeding autumn, for a full-length portrait of President Fillmore, which was commissioned by Hon. David A. Bokee, of Brooklyn. Mr. Carpenter proceeded to Washington, and was received by the President with great kindness, who granted the necessary sittings at the White House. On its completion, Mr. Fillmore addressed a letter to his friend Mr. Bokee, in the highest degree commendatory of the picture, and of the artist. A copy of this picture was purchased at five hundred dollars by the Corporation of the city of New York, for the Governor's Room, City Hall.

The winter following the inauguration of General Pierce, through the intervention of some New Hampshire gentleman, Mr. Carpenter again went to Washington to paint the portrait of the President of the United States. The portraits which had been painted hitherto had been so unsatisfactory to Gen. Pierce, that it was with great reluctance he consented to sit. But after the second or third sitting he became much interested in the progress of the portrait, and when finished it was pronounced by himself and his friends to be incomparably the best likeness ever taken of him! By the special desire of the President and Mrs. Pierce, Mr. C. was induced to attempt to paint, from a defective daguerreotype, a portrait of their lamented son, the victim of the railroad accident near Andover, which occurred soon after the Presidential election. In this commission also he was so fortunate as to give entire satisfaction.

In February, 1855, Mr. Carpenter proceeded to Washington the third time, with a commission to paint Gov. Marcy, Senators Seward, Cass, Houston, and Chase, of whom he obtained successful likenesses, although laboring under the disadvantages of the close of the session.

After the adjournment of Congress, President Pierce invited Mr. Carpenter to spend the remainder of his time in Washington at the White House. A suitable room was placed at his disposal, and in the three following weeks, such is the rapidity of his execution, he painted two portraits of Gov. Marcy, one of which was for Gen. Pierce, a fine head of Hon. Caleb Cushing, then Attorney-General, and a profile likeness of the President. During this period Mr. Carpenter was treated with much kindness and consideration by these distinguished gentlemen, who, instead of appearing to regard the sittings as a task, seemed, on the contrary, greatly to enjoy them. Mr. Fillmore was once asked by a lady during the progress of the portrait, if he did not "find the sittings to be very tedious?" "Oh, no, madam," was the ready reply, "it is the pleasantest hour in the day."

Mr. Carpenter combines in a rare degree the grace of a natural ease and dignity, with good powers of conversation, and these, with his electric motions and the zeal of the artist intent upon his work, relieve the sitter of any tedium or fatigue.

These portraits drew forth many and repeated notices from the press, not merely of Washington, but of many sections of the country. We give as a specimen one of the paragraphs which went the rounds, though incorrect in its statement:

"A prodigy has appeared in Washington, in the art of portrait painting, by the name of Carpenter. He is said to have commenced painting about three

years ago, without instruction, in the interior of New York, of which State he is a native. His genius was made known to himself and to the world in very nearly the same manner, and under the same circumstances, which characterized the first attempt of Benjamin West. He is at present, by invitation, staying at the White House, and his portraits of President Pierce, Marcy, Cushing, and others are said to be very remarkable."

Mr. C.'s contributions to the Annual Exhibition of the Academy of Design have shown his progress toward the high standard ever before him. Commissions have continually poured in upon him, so that his time is usually pledged for months in advance. The press have frequently noticed his works with high commendation. The art critic of the *Home Journal*, in the review of the Exhibition for 1856, admirably embodies the characteristics of Mr. C.'s pictures in the following language: "The painter of these pictures is, perhaps, the most *variously self-adaptable*, the most symmetrically constituted, safe, and sure of any of our portrait painters. With neither the exceeding prominence of one or two merits, nor of one or two defects, which marks all our masters, he is proportionate and satisfying. If he can be characterized by anything, it is the almost unexampled number of his variations of color and style to suit the complexion and character of his sitters."

We venture to say that no artist of his years in this country has ever had the honor of painting so many distinguished men. In addition to those already named may be mentioned the portraits of ex-President John Tyler, Mrs. Judge McLean, Col. John C. Fremont; Mayors Brush, Lambert, and Hall, for the city of Brooklyn; Rev. Drs. S. H. Cox and J. Spencer; Prof. Gibbs, for the Trumbull Gallery of New Haven; Chandler Starr, Esq., for the Brooklyn Atheneum; ex-Mayor Wall, of Williamsburgh; Capt. Hudson, of the Telegraph fleet; Rev. Dr. Field, of Stockbridge, Mass., father of the now celebrated Cyrus W. Field; Judge Stephen J. Field, of California; Rev. Dr. R. S. Storrs, jr.; the venerable Dr. Lyman Beecher, and others. The portrait of the distinguished Brooklyn pastor, Dr. Storrs, is a three-quarter length, and is to be engraved in superior style by Ritchie, the eminent engraver.

Mr. Carpenter has recently achieved, perhaps, his greatest triumph in a portrait of Rev. Henry Ward Beecher—an exceedingly difficult subject, if we may judge from the numerous caricatures which have been put forth as likenesses of him. The sledge-hammer force, the irrepressible humor, and the refined taste of the mind that utters the "LIFE THOUGHTS" of the present age, are all embodied in this presentment.

The generous commission he has received from a gentleman of wealth and refinement, to execute two ideal subjects, will enable him during the coming season to show his powers in that department of art, to which he has ever aspired.

In personal appearance, Mr. Carpenter is of slender build and delicate features, with flowing black hair, and eyes mild, yet clear and penetrating, of dark gray, or hazel.

He has acquired a home in Brooklyn, in the vicinity of Clinton Avenue and Washington Park. There he has a large circle of appreciative friends, with some of whom he has become intimately associated in the relations of the church and Sabbath-school, as well as in the walks of Christian visitation and charity.

EDUCATION OF THE INTELLECT.

A NEW METHOD PROPOSED.

BY LEVI REUBEN, M.D.

NUMBER III.

THE intellect, the physical, social, and moral natures of a child, and therefore of persons of all ages, grow by different aliments and modes of exercise. And these four departments of our nature must, in fact, be separately educated, even though the work be done by the same teacher, and in the same hour.

Hence, these phases of education may with propriety be separately studied and improved. When the true or the best possible method of intellectual education is once discovered, it must, in the nature of things, be consistent with the best methods of physical, social, and moral training; and when these also have been ascertained, the whole can be combined into a true general system of culture. Viewing the subject in this light, I shall confine myself to a few thoughts directed to the education of the intellect, considered alone.

After the long apathy of the middle ages, during which the scope and depth of popular education had dwindled to the meagerest dimensions, the poet Petrarch, as we learn, first began to agitate the mind of his time in behalf of a revival in educational methods and means. This was in the early half of the fourteenth century.

Bacon, about the beginning of the seventeenth, followed up the spirit of this work. He would not only enlarge the field of study, but desired that the school should deal more with practical matters, important to the daily affairs of life. He did still more than this, in recognizing and introducing to the world the true law of advancement in a knowledge of nature.

In Germany, Wolfgang Ratich, about the same time, made a considerable step in this direction. Among his ideas were these: that nothing should be learned by *rote;* since the understanding occupied with words loses the things, that always *the thing* should be first presented, afterward the explanation; that everything should come by *experience* [observation and experiment], and the investigation of parts.* This last rule aims to extend Bacon's scientific method to the school-room. It will be very evident to those who compare the processes of the philosophers with those of the instructors of youth, that, whatever Ratich may have contemplated, this extension has not yet been satisfactorily made.

Locke, Fenelon, Rousseau, and others carried on the work. John Bernhard Basedow, of Hamburg, in the middle of the eighteenth century—just about 100 years ago—found the business of education practically still very imperfect. Among the principles he strove to impress on his profession, are these: that the cultivation of the understanding is the chief thing, since even the way to the heart is through the head; and that the process of learning must always proceed from the observation of sensuous objects.

* Barnard's American Journal of Education; July, 1858.

In the close of the last century a shining light appeared in the domain of education, in the person of J. H. Pestalozzi. More particularly, and to a greater extent than any previous instructor, he succeeded in bringing the Baconian or natural method into the school-room; and in a degree, but as yet only in a degree, he has impressed a conviction of the importance of this method on the minds, and wrought its steps into the practice, of the teachers of his own and the succeeding period. Biber sums up in a few words the aim of Pestalozzi's mode of teaching: he aimed to bring the child, 1st, to OBSERVE accurately; 2d, to EXPRESS the results of its observations correctly; 3d, to REASON justly upon the objects of its perception and thought.

These men have made encroachments on the old, abstract, memoriter, passive, rote-system of education: but they have not removed it. And I believe the reason why they have not fully succeeded is, not that there has not elapsed sufficient time, but that the first efforts have, and very naturally, been expended on the work of bringing the minds of teachers to the right stand-point—of bringing them to see that to discourse ever so assiduously about unknown, remote, or abstract things to the mind of a child not yet furnished with the elementary ideas of the things discoursed upon, or with a visible or tangible image of it, is time worse than wasted—while the teacher's *alter ego*, his other self, in the work of education, namely, the school-book, has been quite overlooked, or improved only by piecemeal, and as yet to a very limited extent.

Truly said a writer in an educational journal not long since published in this city, "The constant preparation of school-books indicates both a *want* and a *failure*."

Allow me to go further, and say, that the point at which the want of a true method is now most gravely felt, *is found in the text-book and its use at the recitation seat*.

It would be an admirable thing if every teacher could dispense wholly with school-books, and could still hear recitations in all the branches he teaches, fully, minutely, correctly, and always in such a way as best to call out the pupil's power of thought, and most firmly to impress the desired truths. Every teacher should aim at this independence, in a degree; but almost all teachers will still find that at least the suggestive power of the text-book is valuable, and that they can not ordinarily dispense with it. Even if *they* could do so, the want, on the part of the pupil, of books following the best possible method, would still exist.

But, at the present time, the teacher who has the clearest views respecting the method which should be pursued in teaching, is constantly thwarted by the books in the learner's hand and in his own. He may see, mentally, the true plan of introducing to the scholar's mind the facts and laws of science: *the books do not pursue such a method*, and hence, in a degree, forbid his applying his knowledge. I have spoken generally; but I should say that the best treatises we have on Intellectual Arithmetic, led by Colburn, are the only real exception as yet to the sweeping assertion. And why do we have what may be called an *intellectual method*, only in works for beginners in arithmetic? This question is full of meaning.

I meet everywhere, in educational journals, re-

ports, addresses, in documents of all kinds bearing on education, with the expression of the want which I have been striving to indicate. The writer last quoted from above, and whose name I can not give, tells us that education is most deficient in the introduction of science to the minds of young children. He says that a "natural or logical development of the subject" is required for young or old, and that the most common defect in our books is the "formal statement of propositions;" but he does not tell us *how* to secure the former, nor how we are to escape from the latter.

Mr. Randall, in his First Annual Report, as Superintendent of Schools in the city of New York, in speaking upon the method of teaching required, says: "They (the pupils) must be thrown, to as great an extent as possible, upon their own intellectual resources. They must be taught, not only the rudiments and first principles of knowledge, but *how to think, and how to obtain knowledge for themselves.* They must be made acquainted with the powers, faculties, and capabilities of their own minds; *and accustomed, at the earliest practicable period, to exert their own* energies of thought and reason, of discrimination and deduction. Self-reliance and the power of self-instruction should be inculcated and conferred; and nothing superficial (as merely memorized learning is sure to be)—*nothing incapable of clear and satisfactory elucidation from their own intellectual stores, should be permitted to pass current for genuine knowledge.*"

A correspondent of the *Teacher* for April of this year, "E. W. K.," declares that education is *not* the possession of, but the *power to acquire*, knowledge. He says we must prefer *How?* to *What?* and get the child to ask the question. Again, "Lead him (the student) to acquire, to think, and to reflect; not passively and listlessly to *imbibe* the results of these processes in others." "In the ordinary method, the pupil receives on *faith* the *dogma*, right or wrong, propounded in the book." All this is true; but again, the writer does not make clear to us how we are to escape from the difficulty.

And all this can never be remedied, nor can the really possible advantages of an education ever be fully secured, until the pupil is aroused to life, and the teacher aided, by the possession of a set of school-books in an entirely new method—on an entirely new basis of treatment.

The great error which most school-book writers have made, ever since it was decided that something better than Murray and Daboll must be had, has been that the essential of a perfect book is *simplification*. If they can only cut up a subject into parcels small enough, and adopt language clear and easy enough, they have flattered themselves that thereupon learning must become a pleasure, the student must betake himself eagerly to his books, and must come from them in the end with the power of thinking and investigating for himself. It is all a mistake. Make the facts and principles of any branch of study as simple as you choose, and unless the order of their presentation be natural—be that order, from observation to laws and causes, in which the mind naturally moves, whenever it moves surely and successfully—the child, except in the rare case of prodigies that find a pleasure in unraveling complexity, will still turn from the book with loathing. He will do so, because he must. It is not in his nature to violate his nature for the sake of acquiring knowledge, however great the incentives or threatenings attending the process. But present knowledge to him naturally, and he will have the same avidity for its acquisition that he has for food, for running and riding, for seeing, or hearing of every new thing.

The important question which arises, then, is, What is the Natural Method in Intellectual Education? In a few words, I may intimate what it is *not*. In a series of text-books on Geography lately published—books which have been highly praised, which are admirable in most respects, and the great lack of which is in this very particular, the want of a natural method—in this series, in the PRIMARY volume of the course (probably intended for pupils of the ages of six to nine years), the first question is this: "What is the *planet on which we live called?*" and the answer, to be memorized, and understood if may be, by the pupil, runs in this wise, "It is called the Earth." Now here is, on the very threshold of the subject, a use of terms which pre-suppose the possession by the pupil of at least the knowledge that would fill a respectable part of the volume he has in hand, and yet knowledge which it is almost certain he does not possess, and with which the book does not furnish him. If he has a clear conception of what is meant by the term "earth," and this is very doubtful, it is as good as certain that the word "planet" is incomprehensible to him. He has not reached these ideas by the steps that fit his mind to lay clear hold of them. Not half the teachers who hear recitations from this book, will stop to put their pupils' minds in possession of these ideas before advancing; or if they do, the discoveries are most likely opened to their minds AFTER they have done their work upon the lessons; and their chance, therefore, for realizing *positive knowledge*, *positive discipline*, and *positive pleasure* from their hour of study, is lost. They have positively memorized the assertions of the book; and they are injured by the process. They have begun their work with a problem of "two unknown quantities," and which, save by accident or unusual penetration, are to remain unknown.

What is required, then? That the expression of the first thoughts of the subject be still further simplified? Not in the ordinary sense of the term. The true simplification consists in leading the child's mind through a series of *simple observations—facts*—which he can obtain or the book inform him of, and then, in leading him to draw from those facts the conclusions to which they must direct him, furnishing him then, if needs be, *the ideas and language in which to embody discoveries which he himself*—not the book for him—*has made.*

How is this to be done? Through various lines of observation. I will suggest one. By proper statement or questions lead him to appreciate clearly, first of all, the fact that the general contour of the earth's surface, to his eye, appears FLAT. *Secondly.* Start the inquiry whether it is possible his sense of sight may be deceived; whether if he could see more of this ground on which he stands, it would be seen to have any other form. *Thirdly.* Describe to him a balloon; inform him that persons have ascended in this to great heights in the atmosphere (I am using language now for teachers, not for infants); then inform him that as the aëronaut rises, he continues to see more and more of the surface of the mass beneath us—new circles of hill, valley, river, forest, etc., continually come into view about the edges of his field of vision. *Fourthly.* Take a school-globe or a large orange; raise on its surface a minute elevation to represent the height of the pupil's head; draw tangent lines from this point in various directions, and let him see that their direction is almost an absolute plane; then take successively higher points from the surface, and show that tangents let fall from these would successively take in broader circles of the surface. *Fifthly.* Inform him that, at no matter what distance or in what direction from himself, if one should ascend in a balloon, the same results would be true. Now he is ready for his *inductive discovery* (an induction of particular from particulars), that the body on which he exists is round; and this discovery he will make, retain, and ever after be profited by. Various corroborating facts may then be presented.

Next in order would come observations respecting the sun; and he would probably have to be informed of what he could not be led to observe—that the earth makes a yearly circuit about that body, a statement which is very simply illustrated by the orange and a candle; that several other globes do so; and now, at length, he is just prepared for the name *planet*, and a definition of the word, to be memorized, if desired. No subsequent introduction of the idea can compensate for its want in the right place. If but once we compel the child to adopt a conclusion, or to accept a result, before he has been enabled to reach it by natural, that is, logical steps, we in so far do a positive injury to the integrity and activity of his reasoning powers. And I challenge successful contradiction of this statement; the observing and reasoning powers of a majority of children manifest themselves more distinctly, appropriately, spontaneously, and, in a comparison of ages, more successfully, before, than after, they have entered on the discipline of the great body of our schools, public or private.

Children's minds are not released from the laws of action that govern the minds of persons of mature age. The child's mind is bright, quick, apprehensive; but with reference to all unacquired knowledge, it stands in precisely the attitude of the experimenters and discoverers of riper years. It is to come to results not only previously unknown, but not even conceived of. The philosopher is a maturer child: the child is a young philosopher. Because their nature and faculties are identical, the law of their intellectual action must be the same.

It follows, therefore, that like the discoverer of riper years, the pupil must proceed by systematic steps, from the observation of phenomena to generalization and the acquisition of inductive conclusions; and, then, from the latter processes to the deduction of particular truths or results. Generally, the course of research—and STUDY IS RESEARCH—may be summed up in these steps: observation; analysis; definitions; generalization; induction, of causes; deduction, of consequences; illustrations and practical applications. This order will vary somewhat with the nature of the topic.

This method of arriving at or imparting knowl-

edge I will term, for the sake of a name, the METHOD OF DISCOVERY, or NATURAL METHOD.

The method now popular in the school-books may properly be styled the METHOD OF ASSERTION (that is, of *statement*, *narration*, or *exposition*), or the DIDACTIC OR DOGMATIC METHOD. It aims only to state the results arrived at by other minds, using the facts that originally led to these results more as *illustrations*, than as essential links in the chain leading to the results—though the latter is what they really are; and then it leaves it to the pupil to imbibe, or masticate and digest anew, or stumble upon, or in some way to acquire a clear possession of the principles; or, what is as often the case, to acquire the credit of scholarship by patiently memorizing the words, and dispensing with the principles altogether, for want of a way to encompass and grasp them.

Of the advantages that may follow from adopting in our school-books the METHOD OF DISCOVERY, I have here spoken only by implication; and I may return to this part of the subject at another time. It has occurred to me that an expression of the opinions of TEACHERS now engaged in the work of instruction, relative to this plan, would prove at least of great interest, perhaps of as great value, to all the parties concerned. Having been for some years a teacher, I know something of the difficulties under which the teacher, as well as the pupil, labors.

Will this plan, or will it not, conduce in a degree to meet that want of a change in educational books and processes, some expressions of which have been given in a previous part of this article? If so, it is capable of resulting, not merely in a new method of teaching certain sciences, but in a new method of intellectual education, at large.—*New York Teacher*.

*** A sample of the general working out of the method which I have proposed may appear in a future number of this JOURNAL.

PHRENOLOGY OF CHILDREN.

THE characters of different persons develop at different ages. Some have an activity of nearly all their faculties while they are children. Their minds are harmonious in action, and their judgments, so far as they extend, are sound upon all subjects of which they have knowledge. Other children ripen slowly in general. Others, again, have certain faculties very active, while other faculties remain latent for years. Such are called green, awkward, blunder-headed, and so they are. In this latter class, many organs are of full or large size, and have not yet come into activity. With such, a phrenological examination, in some respects, is a prophecy of what they are *to be*, rather than a history of what they are or have been.

In the examination of children, therefore, one half we say of the child's capabilities may not yet have received illustration and practical demonstration in his conduct or history. A phrenological examination, however, if sought for with a view to practical use and improvement, is not necessarily a mere history of what the individual has done; and should not be valued either theoretically as it respects its truthfulness, or practically with reference to its utility, on the basis of having already been shown in the child's character.

We discover talents for mathematics and engineering, for architecture or art, in a child who has never yet had an opportunity to show these talents practically. In this case the inference or announcement is a prophecy. Sometimes we find large Self-Esteem and Firmness; but by the peculiar training and circumstances of the child, these traits have not been prominently manifested. We often find Combativeness large in amiable little girls, whose position and surroundings have been such as to soften and soothe and to smooth their pathway! We have been sometimes disputed by parents and others as to correctness in such cases. But five years of experience on the part of such a child would often call out all the Combativeness we attributed to her, and the parents have confessed their mistake, and the truthfulness of the original delineation.

We remember a little girl ten years of age, in this city, who was brought to us six years since for an examination and a full written character. Her life had been passive, vegetative, and quiet. We attributed to her, however, a high order of intellect, great force of character, and insatiable ambition. Her parents pronounced all these strong points incorrect, and said that we had given her more credit than she was deserving of—that we had rated her 40 per cent. too high. At the age of fifteen, she had become one of the best scholars in her circle, exhibited great ambition and remarkable ripeness of mind and character. She had, in short, redeemed all our prognostications; and to such an extent had she studied and been sustained by her ambition and energy, that she had sapped her constitution, and fallen a victim to mental excitement and gone to the grave. For a year before her death it was a common remark, that the prophecy of the phrenologist had been proved true in all respects—that her character was precisely that which we had attributed to her. Had these parents accepted our advice, and done less to urge her forward into premature mental activity, she might have been living to-day, an ornament and blessing to her family.

Another instance in Philadelphia, some years since, was related to us by a lady, who brought her child to obtain a full written character. She stated that she was induced to procure this examination, thus fully reported and written out, in consequence of an interesting circumstance which occurred respecting a child of a friend of hers. This child, it appears, had been examined by us, and all our remarks fully written out—in which we stated that the child required a peculiar course of treatment—that they would ultimately have their hands full in managing it, and that we had laid down for their guidance a specific and peculiar mode of treatment. This examination had been thrown aside and forgotten. The boy had grown in stature, and his character had become developed and he unmanageable, turbulent, and exceedingly difficult to get along with. Accident discovered the forgotten description of character; and on reading it, the parents found that our predictions, made when the child was comparatively tame and passive, had been fully realized and verified by the boy's habits and conduct. They resolved from this time forward to change their course of treatment, and to train him according to our suggestions, written down for their guidance years before.

They went forward at whatever sacrifice of convenience and patience, endeavoring, as far as possible, to conform to our directions. "But," said the lady, "strange as it may appear, the child's conduct has become thoroughly reformed by a single year's training under the new regimen, and he has become a model boy for his obedience and correctness of character and habits."

This boy, instead of becoming a sorrow and a burden to his family, a pest to the neighborhood, and perhaps an audacious, high-headed, and quarrelsome man, possibly the inmate of a prison, he will be saved to himself, to his friends, and to the world.

Such instances as this encourage us to trust to our predictions in the reading of the characters of children, although the mothers may deny the truth of our statements relative to their darling boys—who, to her, seem all innocence and purity; but who, if not properly trained, will be likely to bring her hairs, before they are gray, with sorrow to the grave. Such instances encourage us to labor faithfully in this vineyard, since not a week passes that some signal instance, evincing the great value of these practical examinations, does not come to our knowledge. If we can know that every year we save from crime, degradation, and misery even fifty such interesting specimens of the human race, is it not worthy the labor? And though we did no more than this in the way of leading men of full age to mend their ways, to avoid various vices, to make more of their efforts and of their manhood, would not the world be greatly the gainer by our efforts? Suppose that in the many thousands every year whom we examine, not more than one in every five should be essentially benefited—does not the world get this benefit at a cheap rate? Some may come to us, and, like the man who sees "his natural face in the glass, go away and forget what manner of man he is." And this is true of many, respecting all valuable teaching. All men do not become saints who hear good sermons; but we believe that most of our preaching is like Nathan's—it is accepted personally; and more than the world knows of, it is put in practice.

MENTAL EQUALITY OF THE SEXES.

THIS mooted question, with its array of strong partisans on either side, is perhaps as far from being settled to the satisfaction of the contestants, or of the world at large, as it was the day it was first broached. That it ever will be settled, so that all will "see eye to eye," there is no present prospect. Unfortunately for the subject, most persons who attempt to discuss it have no well-defined principles as a basis for a thorough and satisfactory investigation. In our title we use equality as it relates to value and use, not *similarity*, or absolute *likeness*. Two things may be precisely alike, as, for instance, pound weights, or foot rules—and they are equal to each other, because they are alike. If a man were to ask a mechanic to equalize the value, utility, and importance of two parts of a piece of machinery, or two parts of an ax, as the cutting edge and the body of the article, which gives strength and force and support to it; if he were to ask whether the hub of a wagon-wheel were equal to the rim, or whether the steam-engine or the rudder of the boat were of the greater im-

portance, and if they were *equal*, he would come nearer to the subject before us.

People speak of male and female minds as if the mind were a special power, not made up of different faculties, of different degrees of strength. A correspondent from Missouri, in writing to us, says: "I should like to know something definite from Fowler in regard to the relative power of the male and female mind. Phrenologists are not agreed upon this point. Some say that the minds of the male and female are equal; some, that the males have greater strength. I think, and so do others, that Fowler dodges this question."

We should like to know what we have said or written which indicates a disposition to "dodge this question" True, we have not deemed it necessary to make this a specialty—to enter the arena of woman's rights, and woman's sphere, as such. When we commenced teaching Phrenology, and showing the mental peculiarity of the sexes, analyzing them as they had not before been analyzed, many of the advocates of the woman question were in their leading-strings, and are now using arguments, as new and fresh, which are as familiar to us, and have been for thirty years, as are our own faces. Because we do not in so many words make an outcry, the tendency of which is to deify this subject, these young soldiers have the politeness to call us old fogies, or accuse us of "dodging the question!"

For the gratification of some querists who have not read what we have written, or listened to our lectures for the last twenty years, we wish to say once for all, that we regard man and woman mentally as not *alike*, but *equal* in the aggregate—not equal in intellect, not equal in courage, not equal in affection, not equal in pride, will, ambition, prudence, ingenuity, taste, or physical strength, yet, on the whole, *equal*. We regard each as the natural consort of the other. Each is the other's "other half." Were this not so, it would argue a fault on the part of the Creator. Are not the male and female blossoms of fruits equal in importance and influence in the result sought and the result achieved? Which blade of the shears is the more important? which does the more cutting? Each is the fellow of the other. One may be twice as large as the other, but its cutting edge meeting the cutting edge of its fellow does but the half of the work at most. Neither can cut without the other. But suppose that one were passive and the other positive, as is the case in the straw-cutter—which is but a pair of shears in another form—in this case we ask, which does the cutting, the revolving blades or the stationary one?

But to return to the question before us. Which has the greater amount of mentality—man, or woman? We have said they are not alike, or necessarily equal in any one class of faculties. To show what we mean, we will say that man has more logical power, more that takes on plodding, scientific, delving intellectual labor; woman has more intuition, she feels what is true or false by a kind of intuitive sympathy with or repugnance to the subject, but can not always give a reason for her opinions; and though she feels satisfied that she is right, yet she can not always, or perhaps often, demonstrate it. Woman has more taste, more of the sense of beauty and poetry and polish and perfectibility than man, and in these respects she is his superior. She has, also, more tact, more policy, more prudence; but man has more courage, fortitude, and determination. She has a quicker conscience, more ready religious susceptibilities, and therefore is admirably qualified to teach and mold the young mind. She has also larger Philoprogenitiveness, or stronger love for children, to make this duty toward children a pleasure to her, rather than a burden. Here, too, she is man's superior. Man has more pride, will, and courage; woman more love of praise, more sensitiveness to censure, and more regard for consequences, more sympathy, and more spirituality. Man has more Constructiveness, and this, joined to his mathematical talent, makes him the world's builder. Man is by nature qualified to struggle with the hard, rough, and heroic pursuits. Woman is better qualified for that which is gentle, delicate, and esthetic.

Now if our correspondent can balance the account of superiorities and inferiorities which, he ought to know, pertain to the masculine and feminine mind respectively, he may, perhaps, be able to answer the question, "Is man or woman superior?" or that other question, "Are they alike, or equal?" Our idea is, and Phrenology proves it, that they have their relative superiorities and inferiorities; and that these, when properly developed according to the true indices of nature, render them unlike though not contradictory, yet equal. We should have said that the feminine temperament is finer, and more susceptible; that woman is quicker to feel, and more susceptible to happiness and misery. She is more like the treble string than a bass string: and will our correspondent tell us which is most important to the instrument, which is superior, or whether they are not equal, though unlike? Man can perform certain duties requiring physical strength and courage, and hard, logical judgment, better than woman; while she is vastly his superior in performing the duties of patient, delicate, and painstaking care—as a housekeeper, nurse, and teacher, which, from time immemorial, she has adopted as her vocation. She is superior in the moral and sympathetic, he in the physical and economic spheres. It takes both to fulfill the thought of God in man's creation. "In the image of God created he *him;* male *and* female created he them."

In a late number of *Life Illustrated* (July 31st), in a leading editorial, may be found the following: "We have conceded to woman equal rights, socially, religiously, and politically. We have also conceded her to be man's equal mentally. What more could woman ask or demand of us? After this exercise of justice and generosity, are we not entitled to say to the woman question, 'peace, be still?' While man is laboring in the more outward world, preparing the way, perhaps, like a John the Baptist, and co-operating in various ways in the development of human beings, destined to become hereafter angels around the throne of the Most High, woman is, under God, the immediate creator and preserver of the divinely human.

"There is a serious thought in this view of the subject. It involves the character and destiny of the human race. The influence of the mother being so immeasureably greater on the character of the offspring than that of the father, how important that mothers should be women indeed! Precisely as women are elevated and ennobled, will the next generation be sound in body and aspiring in mind. Degrade woman, make her a silly parlor toy, a fashionable flirt, a creature of dress and affectation, or a mere house drudge, and the children born of her will tell of it all through their lives."

"PRIESTS OF THE SUN."

It is but a few years—we remember it in 1841—since Daguerre's great invention, or, more properly, *discovery*, was first opened to the American public. Now, scarcely any family is so poor or so remote from civilization and its refining appliances that a greater or less number of these most beautiful specimens of the photographic art can not be found in their home, though it be but a cabin.

Photo-graphy—*describing by light*—is a generic name for all descriptions of pictures taken by the camera according to Daguerre's discovery. We have the picture taken on the silver plate—this is now technically known as the daguerreotype. We have a similar picture taken on glass, and it is called *ambrotype*. But these are now taken on iron, tin, leather, cloth, and wood, and they are as much ambrotypes as if they were taken on glass. We have also that which is called *photograph*. This is made by taking an impression on a glass surface so coated that the action of the light in the camera renders certain portions of the image transparent, others less so, and others still nearly or quite opaque. This glass is called a *negative*, and is placed over paper that is first made sensitive to light. The light passes through the negative upon the paper with different degrees of intensity according to the opacity or transparency of the different parts of the negative, and in its action upon the chemical substances in the prepared paper produces the different lights and shades which constitute the picture. This is a photograph. Our readers will remember that, in the February number of the *Phrenological Journal* for the current year, we gave an account of the invention by Robert Price of the process of photographing on wood, stone, and steel for engraving. Nearly all our illustrations for our journals are now obtained in this way.

This subject has been suggested by the copying out of the phonographic notes of the character of Mr. Charles Meade, taken by Prof. Fowler while Mr. Meade was on his way South last winter in search of health. He, however, soon after paid the debt of nature. Mr Meade was one of several who constitute the widely known, enterprising, and popular firm of Meade Brothers, the Daguerreotypists, 233 Broadway, N. Y. Few men in this country have become so distinguished in this beautiful art as the Messrs. Meade, and we believe they well deserve their high reputation. We subjoin the following beautiful lines by Wm. Ross Wallace, entitled

THE PRIESTS OF THE SUN.

Let them sing as they will of the broad grandeur won
At their altars, by Peru's old priests of the sun;
It was theirs to *take life* from the pale victims bound
By the sacrifice-shrine with blood flowing around.

But behold how much grander the Meade Brothers shine
At the art that may well be called almost divine;
It is theirs to *keep life* as it glows in the face
Of the lovely and strong of Humanity's race.

And so down the far-stretching river of Time
Send the Beauty, the Merchant, and statesman sublime.
Yes, Brothers, ye have the true laurel wreaths won,
With the Photograph standing *true* priests of the sun!

SYBIL HURLBURT LUDDINGTON. SARAH HURLBURT BUSHNELL. SUSAN HURLBURT GRINNELL.
TRIPLETS, NOW SEVENTY YEARS OF AGE.

THE TRIPLETS.

MADAMES LUDDINGTON, BUSHNELL, AND GRENNELL,

SEVENTY YEARS OF AGE, MARCH 26TH, 1858.

THESE persons resemble each other very strongly, more especially Mrs. Bushnell and Grennell. Though it is not always the case that twins and triplets resemble each other in appearance and character, yet it is more common for them to do so than it is for those of single birth, because the parents in cases of twins transmit characteristics to the progeny from one given condition of body and of mind; but when the births are separate, and a term of one or more years intervene, the condition of the parents is likely to be very different at such different intervals of time, and therefore a corresponding difference exists in the looks and dispositions of the offspring.

We remember two young ladies named Jackson, in Massachusetts, who were twins, and who always dressed alike, and could not be distinguished by their friends generally. At balls they would change partners while dancing and nobody would know it; and it was said of them that they carried this practical joke so far as to alternate in entertaining a beau who called to spend an evening with one of them. Of their phrenology we can not speak, as our acquaintance with them closed before we became acquainted with the science.

In 1841 we examined the heads of two ladies, eighteen years of age, in the city of Washington, who were so much alike that they weighed in the same notch, measured every way the same, and whose mother, even, could not tell them apart when they stood before her. We found, however, two differences in their phrenological organs, and pointed them out, and, sure enough, these differences of character constituted the only means by which anybody could tell them apart. One had more Self-Esteem and less Cautiousness than the other, and she went forward like an elder sister, when making calls, shopping, or when introduced. But let them stand up before their parents and friends, saying and doing nothing, and no one could say which was Mary or Martha. By the phrenological difference in respect to Self-Esteem and Cautiousness, we could distinguish them in a moment, and we pointed out to their parents this difference in the shape of their heads, and they could also see it.

The Siamese Twins are so much alike that it has been pretended that they possess but one mind, or that the union of their bodies is such that their minds work in unison. Their education and surrounding influences have been more alike than those of any other two persons, and though they are strikingly alike in phrenology as well as in looks and disposition, yet there are some slight differences which, by an examination made in this city twenty years ago, were distinctly stated, and which were pronounced eminently correct by those who knew the twins well.

In the portraits before us, several facts should be noted. What firm, strong, substantial general organizations, indicative of a long-lived, healthy ancestry! Three children at one birth capable of becoming thus strong in body and in character, and living to be seventy, with a fair promise of fifteen years more, must have had hardy, healthy parents. To give birth to them at all shows great vitality, but three such as these is a wonder.

The resemblance in their phrenological development is quite as striking as that of their features. Their foreheads appear to retreat, though they are quite high. The organs across the brows being large, give them clearness of mind, practical talent, memory of events and experiences, power to manage business and understand what is going on around them. They should be known for their strong common sense and soundness of judgment. The height of their heads from the eyes upward shows very strong firmness, self-reliance, and thoroughness, good moral sentiment, and strong religious feeling; while the width of their heads shows energy, economy, ingenuity, order, and general executiveness.

The two right-hand figures appear to have a little more of the vital and motive power, while the left-hand one shows nervousness and excitability. But behold those large cheek bones, those strong and well-set chins, those firm and well-defined mouths — especially the one in the center; behold, also, the fullness of the cheeks across the region of the lower jaw—and then find a parallel, for their age, in any one family, if possible.

The following sketch is sent us, with the likenesses, by a friend of the ladies:

PHRENOLOGICAL CHARACTER.

Mrs. Sybil Luddington, Mrs. Sarah Bushnell, and Mrs Susan Grennell were all seventy years of age on the 26th of March, 1858. They are three sisters, triplet born, and were, in July, visiting in Honesdale, Pa., after a separation of several years. They were born in Goshen, Litchfield County, Connecticut, in 1788. Their parents were Gideon Hurlburt and Anna Hurlburt, whose maiden name was Beach. Their father was accidentally killed, by being drawn into the cog-wheels of a grist-mill, when they were nine months old. Their mother is deceased. She was married three times. Hurlburt was her first husband.

Mrs. Grennell has had four children—two sons and two daughters; Mrs Bushnell nine children—four sons and five daughters; and Mrs. Luddington one child—a daughter. Mrs. Grennell lost her husband, Michael Grennell, Nov. 30th, 1857; Mrs. Bushnell's husband, Pope Bushnell, is still living, and is hale and hearty; and Mrs. Luddington lost her husband, Theron Luddington, forty-one years ago.

The three sisters moved away from the place of their nativity when they were about eighteen years of age. Since then they have lived in different parts of the country, mostly if not entirely upon farms. None of them have been married but once. At one time, from fifteen to twenty years ago, they all lived within cannon-shot of each other, at Bethany, Wayne County, Pa. Mrs. Grennell is the largest, and Mrs. Luddington the smallest, of the three. Their personal resemblance is very striking; Mrs. Grennell and Mrs. Bushnell resemble each other so much, that even Mrs. Luddington has mistaken one for the other. I can not tell them apart, and have often taken one for the other, though well acquainted with both. Mrs. Grennell now resides in Rushville, Susquehanna County. Pa.; Mrs. Bushnell in Dyberry; and Mrs. Luddington in Texas township, Wayne County, Pa.

They all enjoy excellent health, which I suppose is owing to having good constitutions, and the fact that they are never idle. Though in comfortable circumstances, they are always busy about some profitable and healthful employment. They go about their daily avocations of household work "spry as crickets," if I may be allowed the homely comparison. Their minds are perfectly sound, and I am happy to say they all bid fair for many more years of usefulness. M. W.

HONESDALE, PA.

SULLIVAN DWIGHT HARRIS.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

This portrait exhibits indications of remarkable vital power, joined with high nervous activity and great bodily and mental vigor. That broad, well-set face, those massive cheek bones, heavy chin, and large base to the brain, indicate vital power and endurance. In harmony with this, the chest is broad and deep, showing large lungs, vigorous circulation, excellent digestion, and power of assimilation. All these conditions combine to make him a man of health, strength, endurance of body, and healthfulness of mind.

His phrenological developments indicate unusual practical talent. The lower part of the forehead is amply developed, showing large perceptive organs, as seen in the width between the eyes and the heaviness of the brow. The head is long and massive from the ear forward, showing general scope and strength of intellect. But the lower part of the forehead, as we have said, where the organs of perception are located, predominates over the upper portion, or reasoning department of the intellectual organization. He has the right kind of talent for gaining a knowledge of science, especially of chemistry, mathematics, and the science of engineering. He has an excellent judgment of proportions, of magnitude, and also first-rate balancing power. This would aid him as a marksman, as a horseman, or as a mechanic. He also has judgment of perpendicular and level, and has an architectural cast of talent. He can work well by the eye, understand proportions and outlines, and with a short experience would superintend almost any kind of work successfully.

He is a good critic of the qualities, uses, and value of things—would succeed well in buying and selling property which has to be judged of by the eye, as in the purchase of stock, lumber, or other materials, the value of which can not be estimated on the spot, either by weight or measurement. He is a man of decided force of character, but he has more Combativeness than Destructiveness, more courage and energy than severity, and is better qualified to control men by an appeal to their sympathies, their manliness, and their judgments, than to lord it over them in an authoritative manner.

He understands character remarkaly well. The organ which gives the knowledge of human nature is one of his leading traits. He is rarely at a loss for a correct judgment of strangers at the first sight, and is able to awaken their sympathies and touch the tender string in their disposition; especially can he call up their benevolence, their kindly feeling, and their friendship, because these elements in himself are so strong, that he is enabled to appeal to and call them out in others. He has more prudence of action, for so enthusiastic and energetic a man, than it is common to find; but he is frank, direct, and open in his speech. He has a great amount of self-reliance, determination, and independence of mind, and his feelings are buoyed up by such strong vital energy, that his mind never seems to lack sustaining power. If his courage, his pride, his ambition, his will, or his judgment become awakened, he always has physical steam enough to keep all these strong elements fully at work, so that none of them seem to flag, but all work powerfully and efficiently. He enjoys the pleasures of sense—his food, air, exercise, amusement, recreation, sleep, and all forms of physical enjoyment; hence he has a strong hold on life and its affairs, and if he lives temperately, he will be likely to endure to a good old age.

PORTRAIT OF SULLIVAN DWIGHT HARRIS.
Photographed on Wood by Pace's Patent Process.

He has very strong affections. He loves ardently, and makes friends wherever he goes. He thinks much of children and pets, of woman, and of home. He inclines to join clubs, associations, and fraternal orders, on account of his social disposition. His sense of the beautiful is well developed. He is naturally refined in his feelings and somewhat artistic in his tastes, but he has such whole-souled enthusiasm, such breadth and force of mind and character, that he never shows a mincing nicety in regard to etiquette, manner, mode of speech, or in anything which he does.

He is upright, truthful, earnest, constant in friendship, manly as an opponent, keen as a critic, truthful as a reasoner, and is one of a million for the healthfulness of his body, and the health and harmony of his mind.

BIOGRAPHY.

Sullivan Dwight Harris is a native of the State of Vermont. His father, Asa Harris, was a skillful machinist, a native of Massachusetts, and among the first builders of wool-carding machines in New England; who, being early thrown upon his own resources, as became a youth of indomitable perseverance and iron constitution, soon wrought for himself a comfortable estate, and about the year 1805—having married several years before—purchased a fine farm and settled in Middlebury, Vt. Here the subject of this sketch was born, in the year 1812, being the fourth child of his parents. His early habits of seclusion and study did not meet the approbation of his thrifty sire, who desired that his boys should "be good for something;" while the young reprobate cared for nothing so much as a good book and time to read it. He had no high opinion of the schools; and when it became evident to his parent that he "never would make a farmer," he was offered a liberal education at Middlebury College, which proposition he promptly rejected, choosing rather the severer education of out-door life among men and affairs, joined to his private literary pursuits at leisure hours. His school education consisted of attendance at a small district school during the winter months only, from the age of seven to sixteen years. Thus he passed his minority, and before arriving at the age of twenty-one, he married Miss Marian Clark, of the same neighborhood, a lady some three years his senior, and commenced life on his own account.

After a few years spent principally in agricultural labors at Middlebury, Mr. Harris, with his little family, made a bold push for the West, and settled first in the County of Ashtabula, in Ohio. Here, with a former acquaintance, he learned the painting business, and three years after removed to Warren, in Trumbull County, where he opened "shop" for himself, and carried on a flourishing business for ten years. During the winter season, when the painting business was dull, Mr. Harris

was employed in teaching in various public schools.

Having in the mean time acquired some reputation as a writer, which brought him favorably into public notice, in 1851 he was engaged as Associate Editor of the *Ohio Cultivator*, then owned by M. B. Bateham, of Columbus, and so successfully did he fill this position, that in 1855 he purchased the whole establishment, and became sole editor and publisher.

As a pleasant pastime and school for manhood, Mr. Harris early engaged in military practices; and, at the age of fourteen years, was chosen captain of a juvenile company, wearing, upon parade, portions of the military uniform of his father, who was a soldier in the war of 1812, and was at the notable defense of Plattsburg in 1814. The possession of his father's arms and uniform was an inoculation of the military spirit which has coursed in the otherwise quiet blood of the son all the days of his life; though it is said the antecedents upon the paternal side, going back only a few generations, take root in one of the boldest Norman buccaneers that ever swept the Bay of Biscay, who, in his primitive squatter sovereignty, hurled defiance in the teeth of the powers of both England and France; but, becoming tired of a war against the world, retired to America and became a loyal citizen.

At the breaking out of the Mexican war, Mr. Harris was in commission as colonel of a fine battalion of light infantry, in Trumbull Co., Ohio, and volunteered for the war; but, in consequence of a surplus of companies offered, they were not mustered into service. Upon the accession of Governor Chase to the chief magistracy of Ohio in 1856, Col. Harris was appointed Adjutant-General of the State, and leading an example in person, the first fully uniformed executive military staff in Ohio appeared on parade during that administration. At the close of Gov. Chase's first term, in Jan., 1858, Gen. Harris resigned his commission, and declared his determination never more to take part in military affairs, but to devote himself entirely to the cultivation of the arts of peace, as more effective and more Christian.

From early childhood, Mr. Harris has been a passionate lover and trainer of horses, especially under the saddle. His convictions of the benefits to be derived, by persons of sedentary habits, from active exercise on horseback, has led him to advocate its adoption for the failing race of American women, and his constant exertions in this behalf have contributed largely to bring into practice this healthful accomplishment among the women of the West.

Gen. Harris inherits a physical organization that knows nothing of sickness, and a buoyant, hopeful soul that laughs in the face of discouragement. It has been the successful study of his life to obtain a perfect mastery of himself, so as never to be taken by surprise, or thrown from his philosophical balance. As a writer, he is bold and independent. As a controversialist, he wields a polished rapier that always draws blood before his antagonist is aware that he has begun to cut.

In his earlier life, Mr. Harris was much given to the writing of poetry for newspapers and magazines, but latterly seldom indulges in composition of this sort, except in fulfillment of public appointments, for which he is often importuned by Associations, Conventions, etc. As a public speaker, he is always ready, and delights most in extempore, open-air addresses to farmers at their agricultural fairs.

As a friend, he is genial and true, with a blunt and homely sincerity that scorns treachery and overleaps conventionalism. He respects and defends the rights of all men, and as promptly claims his own. In party politics he takes no active part, believing that all good citizens have an equal interest in maintaining a just government. In religion he is liberal, and has been for many years an officer in the Protestant Episcopal Church. He is a loving husband and father, a boon-companion, and in the language of a brother editor, "has about as many friends as the law allows!" In pecuniary habits he is plain and economical. For money he cares nothing, and is the sworn foe to sham and pretense.

He preserves his health by temperance and cleanliness, being a staunch believer in the virtue of cold water; so that at his present time of life—forty-seven years—he has all the vigor and elasticity of youth, combined with the ripeness of experience and observation. Three vigorous children, born at intervals of five or six years, comprise his family.

In person Gen. Harris is five feet eight or nine inches in height, stout built, with powerful muscle; very full-breasted, with a strong vital action, capable of sustaining the constant and severe labor with which he applies himself to his business.

DEVELOPMENT OF THE HUMAN RACE.

A CORRESPONDENT sends us a letter on this subject, from which we extract the following thoughts:

As your JOURNAL has furnished its readers with some valuable information relative to the shape and size of heads in the different ages of the world's history (alluding, we suppose, to articles on the PHRENOLOGY OF NATIONS), there is a view of the subject to which I wish to ask your attention. It appears to me that humanity, taken as a whole, has its infancy, its childhood, its manhood, and its old age. (1) This is the order of nature. In the first stage of animal existence, the vital predominates; the animal manufactures life and grows rapidly, but answers no useful purpose. In the second stage, the vital and emotional predominate, as shown in frolicking and play; but still the end of existence is not answered. This can only occur when maturity is attained.

So with humanity. In the first ages of man's existence, vitality predominates. Humanity for the first two thousand years had a strong physical and animal nature; a truth of which sacred history affords ample proofs. The race was then only furnishing vitality for future duty. (2) In consequence of their great vitality, they attained to a great age; (3) and owing to their large animal organs, they became very wicked. Mankind have thus spent the early part of their existence without answering any very exalted end.

Why did God give no system of religion to man in the first ages? Was it not because he was incapable of understanding it? Why was the religion given to the next stage one repulsive to the truly refined and moral mind of the present time—I mean the Jewish religion. Was it not because it was adapted to the state of development of those who lived in that age? Why did not God introduce the Christian religion at first to the human family? Was it not because their moral and intellectual powers were not sufficiently developed to appreciate it? As well might we expect the parent to teach the infant the problems of Euclid. The parent is as well pleased that the child learns its alphabet, as he is that the young man or woman masters Euclid, or the languages. So God introduced the Christian religion just as soon as Man was able to comprehend it. (4)

Although some ancient heads were large and tolerably formed, probably the *coarseness of organization* was unfavorable to the action of the moral organs; as we frequently observe in individuals in our day. (5)

Will you not, now, examine whether facts will bear out this idea; or whether human progress is the result of education and circumstances? (6)

Some remarks on this subject, I think, might be of interest to your readers. J. L. W.

REMARKS.—1. This idea, we suppose, the writer will not claim as new. That the race of men, as such, should have its infancy, youth, and manhood would seem to be, *à priori*, very reasonable; and the idea may also be found, according as we interpret them, to be in agreement with the facts of history. But why "old age?" What necessity is there in man's physical, intellectual, or moral nature, that the race, as such, should become *old*, in essence as well as in years? unless we are sure that infirmity, decrepitude, and second childishness are no parts of old age. We are inclined to think that at this point, the parallel between the life of an individual and that of humanity must fail. At all events, if the "last stage" must come, it is to be hoped we have not yet entered upon it.

2. It is difficult to see how, during two thousand years, or more, of its infancy, the race could be really "furnishing" itself with any more vitality than it started qualified to manifest. The effect, in fact, would seem to have been the reverse; even if we do not admit that the centuries of life of the antediluvians were composed of years equal in length to our own. The infancy of the race was, probably, rather a necessity, than an advantage.

3. The various essays on the Length of Human Life, in *Life Illustrated*.

4. We can not say how, if we were theologians as a matter of profession, we should respond to these suggestions; but not being such, and looking at the subject with every-day eyes, we may say that the view seems reasonable, and in full accordance with the principle laid down by the Great Teacher in the words, "First the blade, then the ear; after that, the full corn in the ear."

5. This view is doubtless well grounded. Inactivity or sluggishness in manifestation always corresponds with coarseness and imperfect elaboration of structure. But what is more to the point, *forced activity*, not so great as to destroy, always compels refinement, and a tendency to perfection of organization. *Vexatio dat intellectum:* excitement leads to intelligence.

6. Finally, analogies are always captivating, and therefore to be received with caution. The development of an individual necessarily gives place after

a time to exhaustion; but not so of the race, so long as the young generation generally owes itself to the best periods of its progenitors. Is, then, the gradual development of humanity a matter of time only, as are the successive ages of one man, or the "result of education and circumstances?" First, a man's education really includes the arousing and informing influences of all the circumstances that can ever affect him. Secondly, circumstances and teaching, education natural and artificial, do affect us all; and tend to make us more and more intellectual. We shall conclude, then, that the powers of humanity are not developed merely as a matter of innate force, or of time; but rather by the action of educating circumstances on beings capable of change and improvement, and who are thus continually compelled or attracted to a wider and more complete range of thinking.

REMARKABLE CURE OF A LUNATIC.

The following interesting and remarkable case of pressure on the brain and consequent derangement of the mind for the term of five years; the restoration to healthy consciousness and soundness of mind in a single hour, and the fact that the mind of the patient began to think where it left off five years before; all these facts go to show the intimate relation of the brain to the action of the mind, and strong evidence of the truth of Phrenology. The Cleveland *Herald* of August 9th gives the case as follows:

"Dr. Thayer, on Thursday, performed a surgical operation on a lunatic. The man was thrown from a wagon about five years since, fracturing his skull against a fence stake, the injury bringing on violent derangement, which became permanent. He was taken to the lunatic asylum, where he remained a considerable time, until he was discharged as incurable, and finally remanded to the jail of this county, where he has remained for about a year past. His wife engaged the services of Dr. Thayer to attempt the cure of her unfortunate husband. After examining the case, Dr. Thayer found a portion of the skull much depressed, and resolved to remove it. On entering the cell with his assistants for that purpose, on Friday, the man became greatly enraged, and poured out volleys of execrations on Dr. Thayer, as though he was aware of the business he came on. At the order of jailer Frazee, the lunatic laid down on his bed, when he was immediately confined, and copious doses of chloroform administered, until he became perfectly insensible. The depressed portion of the skull, forming a piece a little smaller than a quarter dollar, which had been pressing on the brain, was then taken out, and found to have thickened considerably on one side. The head was then bound with a bandage saturated with water, and the patient left to recover from his stupor. On Saturday morning he awoke, arose from his bed, and walked up and down the room, perfectly rational. He complained that the bandages, which for some reason that he didn't understand had been put on his head, hurt him, and asked the attendant if they might be loosened. As soon as relieved from the pressure, he lay down on his bed and fell asleep. On his again awaking he was asked if he would like his wife to see him. She had a child but a few days before the accident, and he now expressed a doubt whether she would be able to get out of bed. On her entering, he was astonished to find her so well after her recent illness, and feared that her health would suffer from exposing herself so early. He asked after the child and wished to see it, but was put off with an evasive answer until it was considered advisable to explain matters to him. He then commenced talking of things that happened five years ago, as if having occurred but yesterday. It was a long time before he could be made aware of the fact of his long illness and insanity, and when at last convinced of it, stated that he had no recollection of anything other than a misty kind of dream about his being sick. He recommended his wife to go home to her friends until he was well, as her stay in Cleveland would be expensive, and talked perfectly rational on other subjects. He is now in a fair way to recovery, and will probably do well, unless inflammation should supervene."

QUESTIONS ABOUT IDIOTS.

A correspondent asks of us the following questions:

"1st. Does the mind ever originate any new ideas, independent of outward influences or circumstances?"

"2d. Were it possible to place an infant where it could not receive any impression or influence through the senses, or in any way independent of itself, what would be the mental condition of that child at five or ten years of age?"

"3d. Is it the mind itself, or the peculiar constitution of the physical organs, that renders it impossible for the mind to act through or control them, which makes the idiot?"

Answers: 1st. We believe mind exists independently of the body. But during the present life we know nothing about its action, except in connection with its organization; therefore it is impossible for persons whose minds and bodies have always been connected, to say what the mind can do out of the body, or whether "independent of outward circumstances, the mind can originate ideas."

2d. The mind and body are sent into this life together, the mind working through the bodily organs upon the external world, as its only means, in this state of existence, of coming in contact with outward life. If, therefore, the child were to be placed where it could not receive any impressions or influences through the senses, or in any way independent of itself, the mind would be likely to remain entirely dormant. In the first place, it would be impossible for a child to be placed where no outward influence could effect it. There would, at least, be the cold, dark walls of his prison-house. The sense of touch would be left to him; and if he were not an idiot by birth, he would have hunger, sense of pain, and, we think, many of the lower forms of mental action. Still, we think, he would, at ten years of age, be idiotic, knowing very little, if any, more than an infant an hour old. Caspar Hauser, who was imprisoned from infancy, in France, for the term of seventeen years, was brought out a seventeen-years'-old baby. He was worse than an infant, because the infant is teachable, and it is said that he was not. His mind had remained so long in darkness, that his brain had become, as it were, fixed in its condition of inactivity, so that scarcely any intelligent impression could be made upon his mind.

3d. The idiot, in general, is so in consequence of a defective brain, either in its health, or in its size and form. In visiting a school for idiots, there will not be found more than one in a dozen which might be truly denominated natural idiots. One little fellow we recollect, who has a very small brain, no reasoning intellect, but a full development of the perceptive organs. With these he is quite smart, but has such feeble comprehension of the laws of cause and effect, that he may be set down as a natural idiot. But others are idiotic from various causes: that is to say, are wanting in intelligence, in capacity to learn, in ability to be improved like other children.

One beautiful boy, who has a large head, a finely formed body, and handsome face, is an idiot from congenital influences, his father, for instance, being a great business man, and having his mind worn down to a state of feebleness, and the mother being a very high liver. Begotten by a father whose brain was completely exhausted on his business, and brought into life by a mother whose mornings were passed under the influence of sleep and strong coffee, and whose afternoons were spent under the influence of stronger brandy—is it strange that the boy should inherit the fine physique of good-looking parents, joined to a stultified condition of brain which an intemperate mother and an exhausted father would be likely to bestow? Idiotic children do not always pertain to overworked and intemperate parents; but the iniquities of parents are not unfrequently visited upon their children, either in the form of disease of body or idiotcy of the mind.

The mind of the idiot is like beautiful objects behind opaque glass—lacking the proper medium through which to shine forth. We might, perhaps, liken his mind to the brain behind blinded eyes. It is not the eye that sees, nor is it the optic nerve that takes the impression made on the mirror of the eye. For if the connection of the brain be cut off from these, no knowledge by vision is obtained; and, we may add, neither is it the brain that sees, but the mind, that lies in and behind it. The mind employs the brain, and it employs the optic nerve, and this, again, uses the lenses of the eye, and these lenses must have still another medium, namely, the light to reflect upon them the image of objects; so that the mind, lying behind all, can gain a knowledge of external things, Question: does the power of seeing reside in the light, in the lenses of the eye, in the optic nerve, in the brain, or in the mind? If the mind were taken away, neither brain, nor nerve, nor eye would be of any service. These, therefore, are all instruments which the mind employs by which to come in contact with the outward world.

Now, if in idiots the brain be defective, the mind is shut out from contact with the world just as effectually, in all respects, as it is shut out from external things, when the power of vision is destroyed, in respect to objects, a knowledge of which must be obtained alone through vision. Dr. Richards once had a pupil in Massachusetts who was so destitute of all knowledge of the outer

world, that pins might be thrust into him without his manifesting any sense of feeling. His taste was so obtuse, that the most nauseous substances he would eat as readily as articles the most delicious. He could not even sit up, or roll over upon the floor. He was a mere bunch of breathing flesh and bones—a great *oyster*—only lower than an oyster, for an oyster is normal, and has the sense of feeling, and one or two mental elements which are perfect as far as they go—but this poor child was a blank. But by diet, by being rubbed and exercised, first by the power of others, his bodily functions were awakened, and by unwearied though prolonged efforts he was raised in about three years so that he could read understandingly, take care of himself, answer ordinary questions, comprehend the idea of a Deity and moral obligation, and take his place with other children of ordinary capacity of five years of age, he being ten years old.

Is it not fair to conclude, then, that the mind itself, as connected with idiotic bodies, is merely shut up, and that, when freed from the body, it will start, like an infantile mind, in its next state of being? In this life, mind can come in contact with matter only through physical media, the brain being the honored link on which mind fastens, and through it acts on nerves, muscles, bones, and by means of these upon oak, granite, and iron.

EACH PHRENOLOGICAL FACULTY,

AS ADAPTED TO, AND EXPRESSIVE OF, A GREAT INSTITUTE OF NATURE.

NUMBER I.

THE evidences of the truth of Phrenology are twofold, external and internal. Facts—inductive, Baconian proof, and on the broadest scale—a scale commensurate with the entire animal kingdom, the carnivorous and the herbivorous, on the one hand, and the whole human family on the other—with the various human (species) in comparison and contrast with each other—attest unmistakably the truth of the *principles* of phrenological science.

But there is another and even a higher order of this proof. It is its *philosophy*. All truth is philosophical. All that is philosophical is true. Phrenology is, *par excellence*, philosophical and true.

Do not, hurried reader, expect, from this exordium, a long-winded, theoretical disquisition. Expect, rather, an eminently *practical exposition* of the science, its facts and philosophies, explaining and enforcing each other. No system of laws can be understood or appreciated without its facts, nor any facts except in and through their governing laws. And this series of articles is designed to expound the nature and function of each phrenological faculty by pointing out that great institute in nature, and want in man to which it is adapted. That is: it would treat nature in her totality as a great phrenological structure, and her several departments as corresponding with individual faculties.

We might begin with the groups—might show how perfect the correspondence between each group and some generic institute of nature—the organs in the base of the brain corresponding with material nature, those in the top with her immaterial entities; its reasoning with her philosophies or first principles; its moral faculties with her moral arrangements; its intellectual with her scientific; its social with her grouping institutes, genera, species, etc.; but we will not enlarge here now, for fear, as when looking from some lofty mountain-peak upon some far-spreading landscape, the very grandness and vastness of the view may prevent its full appreciation. To begin, then, directly with the several faculties—and that first which comes first in the phrenological nomenclature—and justly first, for it is first in nature's creative institutes, and most important, because the base and instrumentality of all—Amativeness: this is the expression and embodiment of the creative institute or energy implanted in nature. Nor is any form of life established but in and by its instrumentality. It is adapted to the male and female arrangement of nature—to sexuality; and it expresses the attractions of the sexes for each other.

What is there in nature that is not sexed? Have the human and animal kingdoms their male and female, and have not equally the sylvan, pomal, cereal, tuberal, and floral kingdoms? And is not this element of sex as universal in the sea as on the land? Indeed, what is the sole use and end of nature's entire floral department, but that sexual conjunction endowed with the capability of fructifying the seeds begun therein, and rendering them fertile thereby. True, the female flower may, without the male, form its seed; just as without masculine aid, the female fowl may lay its egg; but both products are equally barren of life, and for a common cause—namely, the non-concurrence or want of blending of the two sexual principles. Hovey's seedling strawberry is a female plant, and sterile, unless fructified by the pollen of some contiguous male plant. And the forms of the sexual structures of plants, the lower animals, and man are analogous, varying in accordance with the specific wants of each species, but having in all the same general outline and structure Nor is any form of life established, in any department of nature, but in and by this common instrumentality.

But all this is familiar truth. That this amatory institute extends throughout all forms of vegetative and animal life, is obvious, as also that the same kind of mutual *attraction* exists between the opposite sexes in the vegetative and insect tribes, as exists between the male and female in animal and man. But goes it no further? What is electricity, galvanism and magnetism included, but this same sexual element extended to this department of nature? What is the positive electric force but the male element, and the negative but the female? And what the great motive instrumentality of all growth and motion and life but this same electricity? And may we not suppose that the operation or instrumentality of each muscular movement, emotion, desire, or thought, even the whole of life is a result of the action of this very electricity—the coming together, or sexual conjunction of these two forces, male and female; that all these things are the *progeny* begotten and brought forth in consequence of such union.

Positive electricity is excited at the skin by the friction of clothing, as is proved by the *sparks* given out in cold weather, upon briskly pulling off one's under-garments. But, besides, owing to changes going on in the blood and the tissues, galvanic currents are at all times circulating in the human body. And the proof is absolute, that it is the positive or male electric force which gathers at the skin, and the negative or female that is secreted by the mucous membrane, or inner surface. And as these two forces are always and everywhere attracting each other, mutually seeking each other's embrace, of course they must rush, one from each surface, through all parts of the body, to meet the other; and this continued operation, controlled in many cases by will, generates and conceives all those bodily functions and mental manifestations we call *life*.

And what, pray, is cause and effect but this same sexual conjunction and its progeny? Scan every cause, philosophical or experimental, and it will be found to consist of two conditions analogous to the male and female, the confluence or conjunction of which generates and brings forth the *effect* that follows—the effect being but the legitimate *child* of the two parental conditions in confluence. Nature's cause-and-effect institute has its *quo modo*, its philosophy, its machinery.

If these things be thus, this is obvious—that not only has every human being, every animal, and everything endowed with life, its father and mother, but that every motion and emotion of every animal and thing has its father and mother also; that same sexual instrumentality which is always and everywhere peopling the earth, and doubtless all worlds, with the various forms of life, is both from everlasting to everlasting generating matter for the formation of other, and still other worlds, throughout the boundless fields of space and eternal epochs of time, at the same time that it is likewise the parental cause and author of every function of universal life and nature, or the one grand base and author of all that is. Verily, how vast the sweep, how broad, how boundless the scope thus assigned to the phrenological element christened Amativeness, but which ought to be called Sexuality! And its being the one grand means of every form of life, and through life, of all function, only confirms both the relative position of this faculty and the infinitude of its potency over human weal, woe, and destiny. Its position, too, in the higher organized beings, at the top of the spinal column, within the brain, to be sure, but in the most direct anatomical inter-relation possible with all those nerves that ramify throughout the body, but shows that its right or wrong state produces more concord or discord, more virtue or vice, more happiness or misery, more effect for good or bad, on all that is, in man, in woman, than any other cause or condition whatsoever. And hence the practical importance of marriage, and of a right one, and the evils of celibacy and of a wrong or discordant conjugality, as well as of perverted amatory desire.

We had intended to take up other faculties in this article, but have protracted it till it becomes best to pass them over into subsequent numbers. Meanwhile, we beg our readers to *re*peruse and meditate over its suggestions.

As the Chinese have no word that will compare with the word "Amen," they say, "*Sin geuen chiing sin*"—"The heart wishes exactly so."

MARRYING RELATIONS.

The influence of marrying relations has become a subject of grave consideration by many who scouted, at the time of its publication, the facts and conclusions contained in our work on "Hereditary Descent." We are glad that physicians, moralists, and political economists are waking up to the sad consequences of the intermarriage of those of kindred blood. We clip from the Cassville (Ga.) *Standard* the following, which will be read with interest:

Dr. S. M. Bemis, of Kentucky, during the session of the National Medical Association, in Washington city, read an able and interesting report on the influences of marriages of consanguinity upon offspring, from which the following extract is published by the Washington *Union*:

Your reporter has made great effort to ascertain the proximate percentage of the deaf and dumb and blind in our asylums, who are the descendants of blood-intermarriages. This effort has not been successful, from the difficulty principals of such institutions find in gaining the requisite facts. Parents are often sensitive on this score; and it is a delicate matter for principals to attempt investigations which the friends of the beneficiaries suppose to be unauthorized by the regulations of their various institutions.

I feel, however, that my researches give me authority to say, that over ten per cent. of the blind, and nearly fifteen per cent. of the idiotic, in our State institutions for subjects of those defects are the offspring of kindred parents.

Aside from the facts which I have gained by corresponding with gentlemen who have given close attention to these points, a curious but perfectly legitimate process of computation confirms me in the opinion that those estimates are very nearly correct. The classes C, D, E, F, G, give seven hundred and eighty-seven marriages of cousins, two hundred and forty-six of which have given issue to deaf and dumb, blind, idiotic, or insane children. Admitting the same ratio to prevail, the Ohio report, which contains one hundred and fifty-seven marriages of cousins, followed by deaf and dumb, blind, idiotic, or insane offspring, would indicate the existence of three hundred and thirty-two other marriages of cousins in the same population not followed by such defects. The counties which furnish this one hundred and fifty-one marriages, as above, and are supposed to comprise in their limits three hundred and thirty-two unreported marriages, making a total of four hundred and eighty-three, contained, in 1850, a population of one million five hundred and twenty-eight thousand two hundred and thirty-eight. If the same ratio be supposed to exist throughout the Union, there would be found to the twenty millions of white inhabitants, six thousand three hundred and twenty-one marriages of cousins, giving birth to three thousand nine hundred and nine deaf and dumb, blind, idiotic, and insane children, distributed as follows?

Deaf and Dumb	1,116
Blind	648
Idiotic	1,854
Insane	299

Then, if the figures of the last United States census still applied to our population, there would now be found in the Union—

9,136 deaf and dumb, of whom 1,116, or 12.8 per cent., are children of cousins.

7,978 blind, of whom 648, or 08.1 per cent., are children of cousins.

14,257 idiotic, of whom 1,844, or 12 93 per cent., are children of cousins,

14,972 insane, of whom 299, or 01.9 per cent., are children of cousins.

I invite the attention of gentlemen of this association to this calculation of probabilities either to confute or confirm it by any facts in their possession.

A very cursory examination of the tables of my report will suffice to show that *pari passu* with the increment of the same blood, the sum of defects of offspring is likewise increased.

We observe in the report of the proceedings of the association, upon the last day of its meeting, that Dr Henry F. Campbell, of Georgia, read a report on the "nervous concomitants of febrile diseases," which was accepted and referred to the committee of publication; and that Dr. Arnold, of Georgia, "exhibited specimens of some membrane incomprehensible to the reporter, but which was evidently interesting to the Association."

THE OCEAN TELEGRAPH.

The Fifth of August, 1858, the day the Atlantic Telegraph was landed from the Niagara on American soil, will be remembered as a glorious era in civilization. The Agamemnon was a day or two later in laying the European end of this "bond of union," but the connection of the East and West is fully achieved, and the nations rejoice. Our countryman, Cyrus W. Field, is spoken of on both sides of the water as the master spirit of this crowning act, begun by Franklin with his kite and line, continued by Morse, another American, and now triumphantly consummated by still another.

"The steed electric, say the Fates,
Was tamed in the United States;
'Twas Franklin's hand that caught the horse,
'Twas harnessed by Professor Morse."

But conquering Cyrus, "line" in hand,
Drove him o'er earth and ocean spanned;
Thus has this steed been made to yield
His power to Franklin, Morse, and Field.

PERSONAL.

Married, by Friends' ceremony, Lucretia Bradley, of New London, Conn.—widely known in the Middle and Western States as a lecturer on Phrenology—and Algernon Sidney Hubbell, of New Haven, Conn. The interesting event occurred in Rome, Oneida Co., N. Y, August 10th, 1858, at the residence of Drs. Miller and Walker.

The lady, with her consort, we understand, intends to continue lecturing, and will hereafter be known to the public as Lucretia Bradley Hubbell. May prosperity, present and prospective, professional, pecuniary, and parental, be the portion of the plighted pair.

ADAPTATIONS OF NATURAL TALENT TO BUSINESS.

BY PHYSICUS.

Many parents think they are doing an exemplary duty in curbing and breaking down the spirit of some fiery youth, and compelling him to studies for which he has no taste, and giving him a profession for which he has no natural talent, consequently takes little or no interest in his profession, and can always be found dabbling with something else—becomes a regular "Jack-of-all-trades, and master of none." How frequently do we see some mischievous boy, who is always quarreling with his playmates, except when alone pulling the cat's tail, stealing birds' nests, kicking somebody's dog, or throwing stones through somebody's window, sent to school, compelled to study works on theology; whipped by his parents because he can take no interest in them; then sent to college to study for the ministry, and, while there, probably quarrels with most of the scholars, robs the neighbors' chicken-coops, breaks down their orchards, kicking up a constant muss in the community adjoining the college, playing tricks upon the professors, for which he is disgraced and sent home. Or if he succeeds in subduing his natural talents, by turning the course of his natural thoughts into an unnatural channel, and compels himself against his natural instincts to go through a certain routine of studies and graduate, then locates himself as a minister, he soon, after the first flash is over, becomes notorious for dull sermons and loose morals—his conduct making more infidels than his preaching Christians. Had he been sent to West Point, he would have graduated with honors, enjoyed life in its fullest sense, sailed through the world in his natural element, won laurels for his country, credit to himself, and honor for his family.

Another boy, who is a desperate foe to the writing-desk, benches, window-frames, and college doors, but is terribly addicted to a jack-knife, is compelled to compose Latin verses and translate Greek. He takes just as much interest in Latin and Greek as Latin and Greek take in him. But if he can get a stick and knife and a few old carpenters' tools, he is perfectly at home and easy, and because he has no natural taste, talent, or disposition for the studies assigned him, he must be degraded and punished for not doing that which he has not the ability to do—and again, be punished for doing that which he can no more avoid (whittling) than he could avoid breathing. Had works of natural philosophy and mechanics been placed in his hands, and the boy sent to the mechanic shop to study, in place of college, he might have been an Arkwright, a Fulton, or a McCormick.

At the same time, if you go into the mechanic's shop, you find there a boy kicked and cuffed for spoiling everything he undertakes to do, and kicked and scolded because he can think of nothing but books, and because he will study while others are working, or playing, or reveling, or sleeping. But mechanism has no charm for him. It would be just as reasonable to expect that all boys should be classical scholars, as to expect that all should be mathematicians, or geologists, or botanists, or astronomers, or mechanics, or farmers, or merchants, or poets, or day-laborers, or musicians; or that all should be beautiful and rich. If your boy must have a Catalini's burst of melody, he must have a Catalini's organization. To be a Chalmers, he must have a Chalmers' ideality. To be a Newton, a Bacon, or a Galileo, he must have their reasoning faculties. Never think of making a boy into a Webster, a Clay, a Napoleon, or a George Washington, without having first given him the organization of these men.

If every man had an occupation to which he was better adapted, all things considered, than to any other, he would be in possession of the highest and best field of action he was capable of fulfill-

ing, and would have within his reach the greatest amount of happiness he was capable of enjoying, and consequently would be happy and content.—*Minnesota Times.*

FAVORS RECEIVED.

WHILE we were making our professional tour through the South and West, which commenced with January and ended with June last, we received numerous favors and courtesies at the hands of the good people all the way from New Orleans to Chicago, and if "it is more blessed to give than to receive," the donors must be blessed indeed. The ten thousand personal kindnesses, the friendly welcomes and cordial greetings, the numerous nameless favors and the farewells, can only be remembered with sincere and abiding gratitude. We wish, however, to express our thanks, by name, to many daguerrean artists for likenesses of eminent personages, which will serve to enrich not only our private portfolios but also our phrenological cabinet. We have thus also been able to bring to New York the likenesses of many valued friends, whose hopeful and familiar faces will, in years to come, enable us to live over again those signally happy months of our lives. Among these artists, our acknowledgments are due to Mr. A. C. McIntyre, Montgomery, Ala.; Mr. Barnes, Mobile, Ala.; Mr. F Law, Mr. Clark, and Mr. E. Jacobs, New Orleans, La., to the latter for photographs of the Professors in the Medical College; Mr. Boyd, Baton Rouge; Mr. Gurney and Mr. H. J. Herrick, Vicksburg, Mississippi; Mr. Gurney, Natchez. Among the very interesting photographs are a series of steamers loaded with cotton and otherwise, also views indicating life and scenery on the Mississippi River. These are from Dr. Carr, Memphis, Tenn. Messrs. Fassett & Cook, and Mr. A. Hessler, Chicago, Ill., also made valuable contributions of pictures. Among the many portraits received are some of public characters. We may name Judge Bibb, Hon. Wm. L. Yancy, of Alabama, and the notorious Gen Lane, of Kanzas.

We regret that the names of several from whom we received favors have been mislaid and can not be recollected, one artist in Jackson, Miss., and one in St. Louis, Mo., especially. But to these and to all others, named and unnamed, we renew assurance of our grateful remembrance and cordial friendship. FOWLER AND WELLS.

To Correspondents.

J. P.—Will you inform me what will prevent too great a rush of blood to the head? It hurts my memory and injures my health.

Answer. Drink no tea, coffee, or alcoholic liquors—use little of any spices, eat light food, and not over-eat, sleep much, but not with the head low, avoid hard labor or much stooping, avoid anger or other excitement, and use cold water on the head by wetting, or a wet cap.

J. G.—Some of my organs need cultivating. What shall I do to improve my Language and Memory?

Answer. Exercise is the secret of improvement. If you would have full directions on this subject, you should procure "Memory and Intellectual Improvement," by O. S. Fowler. Price by mail 87 cents.

Business Notices.

OUR publications may be obtained of E. G. FULLER & Co., Halifax, Nova Scotia; DE MILL & FILLMORE, St. John, N. B.; A. CHITTENDEN & SON, Portland, O. T.; F. COOMBS, Portland, O. T.; A. R. SHIPLEY & Co., Portland, O. T.; J. B. CLARK, Selma, Ala.; A. HUTCHINSON, Cincinnati, O.; CLEAVES & GUION, Memphis, Tenn.; FORD & GALL, Kingston, Jamaica; H. D. NORRELL, Augusta, Ga.; STRICKLAND & Co., Milwaukee, Wis.; RAYMOND & SELLICK, Detroit, Mich.; E. D. STARK, Morgan, O.; HAWKS & BRO., Cleveland, O.; T. S. HAWKS, Buffalo, N. Y.; RUFUS BLANCHARD, Chicago, Ill.; J. R. DEUPREE, Calhoun, Mo.; J. C. MORGAN & Co., New Orleans, La. We shall add to list in subsequent numbers.

Advertisements.

ADVERTISEMENTS intended for this Journal, to secure insertion, should be sent to the Publishers on or before the 10th of the month previous to that in which they are to appear. Announcements for the next number should be sent in at once.

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"DOMESTIC ANIMALS" will be issued about the 15th of August, and "THE HOUSE" the 1st of October. These three works and "THE GARDEN," already published, will be furnished to subscribers for $1 in paper, or $1 75 cloth.

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"GOOD-NIGHT, PAPA."

[EVERYBODY with large and active Philoprogenitiveness and Inhabitiveness will recognize the beauty and truthfulness of the following; and we commend its spirit to all families. It should be cultivated where it does not exist. There is a deal of heaven on earth if we only knew it.—EDS. PHREN. JOUR.]

These are the words whose music has not left our ears since the gloaming, and now it is midnight. "Good-night, darling! God bless you; you will have pleasant dreams, though I toss in fever, haunted by the demons of care that harass me through the day. Good-night!" The clock on the mantel struck twelve, and no sound was heard in the house save the regular breathing of those little lungs in the next room, heard through the door ajar. We dropped our pen, folded our arms, and sat gazing on the lazy fire, while the whole panorama of a life passed before us, with its many "good-nights." It is a great thing to be rich, but it is a rich thing to have a good memory—provided that memory bear no unpleasant fruit, bitter to the taste; and our memory carries us back to many a pleasant scene—to the little arm-chair by the fireside; to the trundle-bed at the foot of *the* bed; to the lawn in front of the house, and the orchard behind it; to the butter-cups, and the new clover, and the chickens, and the swallows, and the birds' nests, and the strawberries, and the many things that attract the wondering eyes of childhood, to say nothing of the starry skies, and the weird gloom of the moaning forest. But, then, there were the "good-nights," and the little prayer, and the downy bed, on which slumber fell as lightly as a snow-flake, only warmer, and such dreams as only visit perfect innocence! The household "Good-night!" Somebody, in whose brain its rich music still lingers, has written this:

"'Good-night!' A loud, clear voice from the stairs said that it was Tommy. 'Dood-night!' murmurs a little something from the trundle-bed—a little something that we call Jenny, that filled a large place in the center of one or two pretty large hearts. 'Dood-night!' lisps a little fellow in a plaid rifle dress, who was named Willie, about six years ago.

'Now I lay me down to sleep,
I pray the Lord my soul to keep,
If I should die before I w-a-k-e'—

and the small bundle in the trundle-bed has dropped off to sleep, but the broken prayer may go up sooner than many long petitions that set out a great while before it.

"And so it was 'good-night' all around the homestead; and very sweet music it made, too, in the twilight, and very pleasant melody it makes now, as we think of it; for it was not yesterday, nor the day before, but a long time ago—so long, that Tommy is Thomas Somebody, Esq., and has forgotten that he ever was a boy, and wore what the bravest and richest of us can never wear but once, if we try—the first pair of boots.

"And so it was 'Good-night' all around the house; and the children had gone through the ivory gate—always left a little ajar for them—through into the land of dreams."

And then the lover's "Good-night," and the parting kiss! They are as prodigal of the hours as a spendthrift of his coin, and the minutes depart in golden showers, and fall in dying sparks at their feet. "Good-night."—*N. Y. Atlas.*

PHRENOLOGICAL CABINET.

WE take pleasure in extracting from the Editorial Correspondence of the *South Carolinian* the following notice of our Phrenological Cabinet. Visitors are always welcome The writer says:

"There is, however, a store in Broadway which deserves a passing notice, as it is one which the casual traveler is apt to pass, but where the ordinary citizen may find curious food for reflection, as well as the scholar or man of science. We allude to the unique specimens to be found in Fowler and Wells' phrenological museum We dropped in for a short time, and were surprised at the extent and value of the rich accumulation of years of toil and expense which these gentlemen have made Our readers will be surprised here to see original casts from the heads, and, in many instances, the faces of the great men who have figured in public life during a century or more. Casts of Lord Chatham and the younger Pitt, Lord Eldon and Jeremy Bentham, Fox and Sheridan, Garrick and Burns, Walter Scott and Thomas Chalmers, with a host of European celebrities, present before you the personal characters of these eminent men, in the natural record of physical development of the material structure used for the exhibition of their mental power. The head of THE BRUCE is a most remarkable one, from the extraordinary resemblance of his skull to that of the Aboriginal American—the breadth and height of cheek bones, with prodigious lower jaw and remarkable development of the combative organs, are peculiarly striking. The collection of statesmen of our own county is particularly extensive and few can be named that are not here present A large number are the original casts from the molds directly from the head of the subject, and many, as in the case of Aaron Burr and J Q Adams, have hairs of the eyelashes adherent to the plaster. The characters and features present fine opportunities for comparison and reflection, and give great interest to the observer We would be pleased, did time afford, to give a catalogue of our prominent representatives of the intellect, and political, scientific, or literary character of our country. We advise a visit to the establishment"

FLAT-HEAD INDIAN SKULL.

MR. GEORGE A. PIKE, editor of the *Gazette and Comet*, of Baton Rouge, La., has presented us with the skull of a Flat-Head Indian, from the Clatsop tribe, Point Adams, Columbia River, Oregon Territory.

It indicates nothing remarkable, except its artificial shape. The head of the child is pressed when very young—while the skull is tender and flexible—and this *flattened* shape is thereby produced. It is with them a mark of royalty, and only those of high degree are permitted to enjoy this distinction. New Zealanders are tattooed, Chinese shave the head and press the feet, while some American and French ladies press the waist.

We can not judge of the disposition and character of specimens of this kind very satisfactorily, but we may safely infer that the Flat-Heads can not be distinguished for intellect, moral sentiment, mechanical ingenuity, poetry, nor any of the *refining* qualities of mind. But they should be known for great caution, timidity, and severity when excited. They are not noble and brave, but shy, selfish, and cunning.

We shall place this rare specimen on exhibition in our collection, where it will at all times be open to the public. We take this occasion to thank Mr. Pike for his care in preserving, and his kindness in presenting to the public, through us, this valuable contribution. It may be found, with some thousands of other skulls, in our cabinet or museum, at 308 Broadway, New York.

DANGER OF PRECOCIOUS DEVELOPMENT.—There can be no doubt that many a child has been sacrificed in early youth to the pride of parents, who, delighted with the intellectual activity of their children, have striven to make them prodigies of learning. By these cases of early and undue employment of the brain inflammation of the hemispherical ganglion, or the living membrane of the ventricles, with serious effusion, has usually been the cause of either a fatal issue, or of subsequent mental imbecility. A late distinguished physician related to us an interesting case of this kind. An extremely intelligent boy, of about twelve years of age, was brought to him for *phrenological* examination (the doctor being skilled in that science), by a parent who was very proud of the intellectual endowments of his child. The physician gave his opinion of the boy's character, at the same time cautioning the father of the dangerous course he was pursuing. But the father's reply was—Ah that other boys consider labor and hard study were merely child's play to him; that his studies could not be hurting to him, he employed them so much. Again the doctor endeavored to save the child, but the father would not attend to the warning. Two years from that time the father again called on the doctor, and in reply to his inquiries about the child, his father burst into tears—his child was an idiot.—*Christian Evangelist.*

PHONETICS IN PUBLIC SCHOOLS.—In the tenth annual report of the Superintendent of Public Schools of the city of Syracuse, we find as follows:

Children taught by this method, learn the first rudiments of reading and spelling by the sounds only. The process is so simple and the connection so close between the sounds and the words they make when combined, that the children learn very readily to read, and that, too, with a distinctness of utterance never attained under any other system. This latter result is so marked that it deserves particular notice. Some of the classes experimented upon were composed of pupils of every variety of parentage, American, English, Irish, and German, yet when trained for only a few months upon this system, they were found to have so completely lost all their peculiarities of pronunciation, that the most critical ear would find it difficult to detect their nationality. This advantage is not confined to the class pursuing the system, but is participated in by the whole school; and a continuance of frequent drills throughout the school course must effectually remove all provincialisms, and reduce our pronunciation to a uniform standard.

We have not the least doubt of the superiority of phonetics over the present Romanic system, and should be glad to see it introduced into every school in the country.

AMERICAN PHRENOLOGICAL JOURNAL.

A Repository of Science, Literature, General Intelligence.

VOL. XXVIII. NO. 4.] NEW YORK, OCTOBER, 1858. [WHOLE NUMBER, 238.

Published by
FOWLER AND WELLS,
No. 308 Broadway, New York,
AT ONE DOLLAR A YEAR, IN ADVANCE.

Contents.

GEORGE COMBE.

A GREAT and good man has fallen! GEORGE COMBE has ceased from his labors, but his works survive to enlighten and benefit the human race. His writings have done more to enlarge man's knowledge of himself, and of the laws that govern his physical and mental being, than those of any ten men within the last five hundred years.

Without being a discoverer, he adopted the original views of Gall and Spurzheim, and elaborated them to a practical application to the affairs of education, government, moral and social science, which has made those great discoveries available to millions of mankind. The pulpit and the press, the halls of justice and legislation, prison discipline, the treatment of the insane, the idiotic, and the poor, have been enlightened by the noble science of Phrenology, as set forth by the lamented Combe in the CONSTITUTION OF MAN.

The newspaper press on both continents, since his death, are loud in praise of the labors of Mr. Combe; of the purity of his life, and the philanthropy of his efforts. The familiarity with his name and writings, which now appears universal, is a gratifying fact, and shows that the good seed has been scattered broadcast, and taken deep root in the convictions of men.

In 1851 we gave in the PHRENOLOGICAL JOURNAL a full biographical sketch of the life and labors of Mr. Combe, with which most phrenological readers are familiar. The engraving we give is from an oil painting by Rembrandt Peale, when Mr. Combe was in this country, in 1840, and being then fifty-one years of age, and in the ripeness of his manhood and vigor of his labors, we deem this a more fitting representative of the man than the engraving ordinarily seen, which was taken when he was thirty-five, or than such an one as his face at seventy would give, after he had been weakened by age and wasted by disease.

PORTRAIT OF GEORGE COMBE.

The portrait from which our engraving is copied may at all times be seen in our office in New York. It is to be presumed that all readers of the JOURNAL will see in this head a noble illustration of the beneficent labors of the long and useful life of Mr. Combe. The clear and profound intellect is seen in the brow and forehead; the elevation and expansiveness of the top-head shows the moral and refining elements of his nature; while the side-head shows a subordinate development of the baser passions and selfish impulses. By the principles of the science he spent his life to illustrate and enforce, the character of Mr. Combe is shown to be such as the best people delight to honor, and whose virtues and memory all good men seek to embalm.

We copy from the *London Illustrated News* the following appreciative estimate of, and just tribute to, the illustrious dead:

The late Mr. George Combe, who died on the 14th of August, at Moor Park, Surrey, England, while on a visit to his friend Dr. Lane, long occupied a distinguished place among the foremost benefactors of the age in which he lived. There were many who attached to his name associations connected merely with the driest and most uninviting details of Phrenology; but to those who knew and appreciated his writings — and they were to be numbered by millions on both sides of the Atlantic—he was something better and higher. He was—if ever man was—a guide and a teacher of his fellows; a philosopher who made evident the duty which the soul owes to the body, and taught the importance of the physical, moral, and social, no less than of the intellectual, nature of man. It was not for him merely to map out the brain, or to accept the maps of others. It was his to study the manifestations and the developments of the various faculties acting through, and by means of, the brain, which in their entirety constitute the Mind. It was his gift, his calling, his duty, and his highest pleasure to show the justice and the beneficence of the Great Creator, who made the eye for sight, the ear for hearing, and the brain for the manifestation of intelligence and will, and to prove to a world which had too much neglected or utterly ignored the fact, that the laws of bodily are those of mental health, and that in one sense it is as truly irreligious, and as contrary to the Divine laws by which the world is

governed, to live in habitual uncleanliness of person or abode, and to breathe polluted air, as it is to steal, or bear false witness against one's neighbor. Mr. Combe was a philosopher in the noblest sense of the word—a benefactor, as well as an instructor, of his fellows. In his teaching there was neither variableness, asceticism, nor contradiction. His system was one and homogeneous, strictly logical to those whose minds received it, mercilessly logical to those who opposed and sought to escape it. No book published within the memory of man, in the English or any other language, has effected so great a revolution in the previously received opinions of society as Mr. Combe's "Constitution of Man considered in its Relation to External Objects." The influence of that unpretending treatise has extended to hundreds of thousands of minds which know not whence they derived the new light that has broken in upon them, and percolated into thousands of circles that are scarcely conscious of knowing more about Mr. Combe than his name, and the fact that he was a phrenologist. One of the great objects, if not the greatest, of his life was to introduce into schools the teaching of physiology as a necessary part of the education of every child, without which all other education might fail of its proper effect. To this object he devoted the most unwearied industry and the most hopeful zeal, and, though assailed at times by the scoffs of the prejudiced or the unthinking, and the more stubborn opposition of some, unwisely apprehensive that religion might be shaken if the people were made to imagine that this world, if not exactly a heaven, might be rendered more like heaven than men have ever yet allowed it to be, he persevered to the end, and had the satisfaction of being cheered by the support and aided by the efforts of the most advanced minds and the most illustrious persons of his day.

George Combe was born in Edinburgh, Oct. 21st, 1788. His brother Andrew, the celebrated physician, was born nine years later. There were, in all, seventeen brothers and sisters of this prolific family; but George and Andrew alone attained eminence. George was bred to the law, and in 1812, in his twenty-fourth year, commenced practice as a writer to the signet, as solicitors are termed in Edinburgh. To the duties of his profession he devoted his energies for upwards of five and-twenty years, and amassed, it is understood, a competent, though not a very considerable fortune. Early in his professional career his attention was directed to Phrenology by the visit of Dr. Spurzheim to Edinburgh. George Combe and his brother Andrew became earnest converts to the then new and much-abused doctrines. The career of the young lawyer received from this circumstance its future bent. The philosophy that he adopted acted on his whole life and course of thought. From that period to within a few weeks—we might almost say days—of his death, his active mind, kept in activity by his enforced attention to the laws of his bodily health—always weak and uncertain—was continually employed in promulgating, by means of books, lectures, letters, and newspaper articles, the truths which had become the essential parts of his moral and intellectual being, and in scattering to the reading public of two hemispheres the beneficent knowledge of which his phrenology was the mere germ and not the fruit. In 1827 he read to the Phrenological Society of Edinburgh the first part of a work "On the Harmony between the Mental and the Moral Constitution of Man and the Laws of Physical Nature" This treatise was afterwards expanded into the more celebrated work by which he is best known, "The Constitution of Man," the appearance of which, in 1828, created a sensation unparalleled by any philosophical work ever published in the language. It excited great praise and greater blame; but, having attracted the attention and the concurrence of a Mr. Henderson, that gentleman bequeathed a considerable sum to be spent in publishing cheap editions of it in Great Britain and America, and in translating it into foreign languages. By this means it was made known to readers who, under ordinary circumstances, would have had little or no chance of becoming acquainted with it; and zealous disciples bought hundreds of copies for gratuitous distribution in schools, colleges, atheneums, and universities, and sowed it, as it were, broadcast through the land. Among the other works of George Combe are "A System of Phrenology;" "The Elements of Phrenology;" "Outlines of Phrenology;" "Moral Philosophy, or the Duties of Man, Individual, Domestic, and Social;" "Notes on the United States of America," where he passed two years in lecturing; "Phrenology Applied to Painting and Sculpture;" "The Life and Correspondence of Andrew Combe;" "The Principles of Criminal Legislation and Prison Discipline Investigated;" "Lectures on Popular Education;" "What should secular education embrace?" "Remarks on National Education;" "On Capital Punishment;" "An Answer to the Attack on the Constitution of Man by the Rev. C. J. Kennedy," and a series of valuable, and to many minds irrefutable, letters on the "Currency," first contributed to the *Scotsman* newspaper. He also enriched the *Scotsman* by occasional leaders and letters both at home and abroad. In fact, his pen was never idle; and it may be said of it, with truth, that it was always employed in what he firmly believed to be the promulgation of truth and right, and in the furtherance of the knowledge and the individual and collective happiness of all mankind. His last great work, which he at one time intended to be posthumous, was published in the autumn of 1857. It is entitled, "The Relation between Science and Religion," and carries farther to their conclusions some of the doctrines which he had previously laid down than he had ventured on in his earlier publications. This work has already gone through four editions, and been translated into German.

It has been asserted by those who did not know Mr. Combe that his mind was cold, dry, and unimpassioned, and that he had no taste or appreciation for music, poetry, or the fine arts. Nothing can be more erroneous. When it is recollected that Mr. Combe married the accomplished daughter of the celebrated Mrs. Siddons, and that he was a frequent, if not constant, attendant at the theater in Edinburgh whenever Mrs. Siddons performed, it may be suspected that he had a keen appreciation of the highest forms of the drama. To these beauties his wife, taught by her mother, knew how to render justice by her admirable elocution, at the intellectual readings, which shed a charm over their Edinburgh fireside. Mr. Combe was also a lover of poetry, as the terms of his cordial and affectionate dedication of his last volume to his friend, Mr. Charles Mackay, might lead those to suspect who were not previously aware of the fact; but the poetry which he loved was not the poetry of the frivolous, nor the elegantly sentimental, but the poetry of the heart and the intellect, united with the purest fancy and the highest efforts of imagination. His work on "The Principles of Phrenology applied to Sculpture and Painting," shows how conversant he was with, and how much he enjoyed, the finest works of ancient and modern art.

Mr. Combe was in his seventieth year, and was interred in Edinburgh, in the Dean Cemetery. It is in contemplation to erect, by private subscription, a suitable memorial over his grave. We borrow from the *Scotsman* the following particulars of his last illness: "Mr. Combe had, as was his annual custom, left Edinburgh early in the summer, and paid visits to several of his friends and connections in the south of England, the mild and equitable climate of which was peculiarly beneficial to his delicate constitution. He had profited in health and spirits by the change, and a week or two ago went to the Hydropathic establishment of Moor Park, Surrey, not as a patient, but for the sake of the agreeable residence, and of the pleasant society which he knew, from former experience, was generally to be found presided over by his friend Dr. Lane. The weather, which had been very warm and fine, about a fortnight ago became somewhat less so, affecting Mr. Combe unfavorably. It was only, however, within a week, that he was considered decidedly ailing. On Thursday his malady, an affection of the chest, left no hope of recovery, and he expired on Saturday, the 14th instant. Mr. Combe had been more or less of an invalid for several years, and in his particularly delicate state of health the fatal issue of anything of the nature of acute disease could not be unexpected by any of his friends. Still less could it be so by himself; he knew well the frailty of his tenure, and, though conscientiously careful in all that conduced to the preservation of such moderate share of health as he enjoyed, had long held himself prepared to rest from the labors of a worthily laborious life. He had attained the three-score and ten years which is set down as the common term; that he did so was undoubtedly due, under Providence, to his strict obedience to those laws of physical and moral well-being, the knowledge and practice of which his works have done so much to extend and enforce. His life was in all points a wonderful example of the soundness and beneficial influence of the practical precepts of his philosophy; but it was only those who enjoyed and were honored by his friendship who really knew how thoroughly compatible that philosophy was with the exercise of every amiable and generous feeling. Those who knew him most intimately the best appreciated the depth and soundness of his moral nature; his intellectual powers and position are before the world. Throughout a very wide circle—a circle not limited to this country only, but extending to continental Europe and America—the announcement of Mr. Combe's death will be received, not merely as telling of the departure of a man in many respects one the most

remarkable of his generation, but as of the loss of a kind, considerate, zealous friend; and the news will also sadden very many far and near—citizens of Edinburgh or dwellers in other and it may be distant lands—who have experienced the ready and unassuming hospitality which, in spite of always feeble health, he exercised with a catholicity of welcome daily, we fear, becoming more and more rare among us."

MARRIAGE VINDICATED, AND FREE LOVE EXPOSED.

[From "Thoughts on Domestic Life: or, Marriage Vindicated, and Free Love Exposed." By Nelson Sizer. Published by Fowler and Wells, New York. Now in Press. Price, by mail, 15 cents.]

The desire for companionship or social intercourse and communion is a prominent feature in man's mental constitution. This is true, also, in a more or less distinct degree, in all the lower forms of animated life.

Man can not enjoy life alone. He pants for society, for union and intercommunion with other persons, hence he builds cities, towns, and villages, where many may be near each other. Most animals go in flocks, which shows that they have the gregarious, society-loving spirit, and thus evince, so far, their likeness to each other and to the human race.

The organ of Vitativeness, or love of life, located behind Destructiveness and below Combativeness, has to do solely with selfhood. It serves to give the instinct of self-preservation, and its location near the organs which impart the instinct for food, for self-defense, and procreation is very significant.

The social organs, on the contrary, have reference to others, not alone to self, and are five in number—viz., Amativeness, Philoprogenitiveness, Adhesiveness, Inhabitiveness, and Union for Life, or Connubiality.

These propensities, perhaps, should be considered in the order in which they are developed. If we adopt this method, Adhesiveness will first demand attention.

ADHESIVENESS.

The child is first conscious of the caressing care of parental love, and this awakens his Adhesiveness. He is surrounded by brothers, sisters, and playmates, and his fraternal feelings are called out and gratified.

The action of Adhesiveness gives general friendship. It is not confined to sex, equal age, or other circumstances. It sends forth its tendrils to clasp not only kindred, as brother, sister, and cousin, but also the neighbor, and to make friends with those who are strangers. It merely asks for fellowship, for affection, for fraternity. This feeling seeks whoever will respond to friendship. It exists between men—between women—between man and woman. Perhaps some of the most exalted and perfect specimens of simple friendship have existed between men, as in the case of David and Jonathan, Damon and Pythias; and also between women, as in the case of Ruth and Naomi. Of course this faculty added to that of Amativeness and Connubiality, greatly elevates and strengthens the affection existing between husband and wife, but is not absolutely essential to matrimonial affection—in other words, it can exist, in its full strength, disconnected from love as between the sexes; but when it is added to this, it of course greatly strengthens the bonds between husband and wife. The friendship arising from Adhesiveness often exists between a man and woman before any other love element is awakened; but a look, a word, or other slight incident, awakens between them the connubial impulse, and in a moment their views of each other and of their relations for life are changed. Before, they were friends, as two men or two women could be, nothing more; now, they are lovers, and henceforth their hopes, aspirations, and joys run in the same channel.

Some of the lower animals manifest this disposition strongly; others in a subordinate degree; and others appear to unite only under the impulse of some other propensity. Among those which are distinguished for gregariousness we may mention horses, neat cattle, sheep, swine, many kinds of fishes, pigeons, crows, blackbirds, turkeys, geese, ducks, hens, martins, and swallows; and among insects bees and ants furnish conspicuous examples. Of those which do not go in herds or flocks are lions, tigers, hyenas, panthers, wolves (except when they combine their strength to assault animals larger than themselves), foxes, bears, raccoons, cats, the eagle, hawk, owl, and albatross.

AMATIVENESS.

Another element of affection, distinct from, yet not antagonistic to, those already considered, is that of Amativeness, which produces love between the sexes as such. Its primary office is the continuance of the race; but we venture to assert that the normal action of the faculty does as much as any other to elevate, refine, and ennoble mankind. It is a law of nature that each sex shall treat the other with uniform kindness and courtesy. Before this propensity comes into activity, girls and boys disagree and quarrel, but not so readily as girls with girls or boys with boys; but when that age arrives that gives it activity and development, nature dictates the utmost forbearance, courtesy, and kindness between the sexes. Each begins to regard the other with special favor, seeks its society, is ambitious to be valued and loved, hence strives to be respectable, worthy, and refined. The boorish rustic who hardly knows the first lesson in gentlemanly bearing, becomes transformed when his love finds its object, and his manners assume a grace and nobility truly surprising. The shy and awkward girl, as her womanly nature awakens, becomes changed. Her voice has a richer and more musical tone; her eye acquires a new luster; her walk becomes elastic, and every motion comparatively graceful and winning.

The young man not unfrequently floats along the sparkling stream of life, careless of his time, his money, and his reputation, until some fair being, his counterpart, awakens in him a new life. From that moment he is a new man. His aspirations and objects are all changed. He begins to seek respectability and refinement, to husband his time and his means, and to look for a position of manly independence. This result will uniformly occur in the case of every well-constituted and unperverted mind.

Among the lower animals the male will not fight with the female, or manifest cruelty toward her. We know of no exception. Among the human race, cursed with intoxicating drinks and other artificial influences, quarrels and murders sometimes occur; but we are safe in asserting that these grow out of general morbid conditions and often out of special abnormal action of the love element itself, and are abnormal instances and gross slanders on human nature.

As we have said, it is the office of this propensity to propagate the species, and we now add that it does not necessarily induce what we call marriage, as marriage is not necessary to the continuance of the species. This leads us to the consideration of the organ called

UNION FOR LIFE, OR CONNUBIALITY.

Before entering upon the analysis of this organ we wish to settle a point as to what constitutes a special faculty. That is a separate or special faculty which one animal has and another has not; which appears later or disappears earlier than the others in the same individual, or which may be stronger or weaker than the other faculties in the same person. To illustrate: the beaver and the bee *build*, and thus exhibit Constructiveness. The ox and horse do not build. The bee and beaver have one faculty, in common, which the horse and ox do not possess; therefore the disposition to build is a separate and distinct faculty. The lion, tiger, and other carnivora, show a disposition to destroy the life of other animals. The dove and the rabbit do not show a disposition to take the life of other animals. The lion and tiger have one propensity, in common, which the dove and rabbit do not possess; therefore Destructiveness, or the propensity to take life, is a special faculty.

Some birds and animals choose a sexual mate, and remain faithful to that mate for life, as the lion and the eagle. The sheep and horse associate promiscuously, and do not choose mates at all. The lion and eagle manifest one faculty that the horse and sheep do not evince, consequently the disposition to choose a sexual mate for life is a distinct and special faculty.

Man is an epitome or embodiment in himself of all the capabilities and propensities of

all the lower animals. However much they may differ in capacity and disposition, ranging all the way from "the half-reasoning elephant" down to the scarce conscious oyster, from the ferocious tiger to the docile and inoffensive rabbit, not one of all the animal tribes or varieties has a mental faculty or a propensity which man does not show in most distinct characteristics. The very fact that any of the lower animals can be proved to possess any given faculty is proof positive that man possesses the same. And we may say, in passing, that man is more than a mere animal. He has several faculties which no one of all the races of animals exhibit; among these may be mentioned Conscientiousness, Veneration, Spirituality, Mirthfulness, Ideality, Sublimity, and the higher manifestations of Causality.

Among the faculties displayed by some of the lower animals and not by others, thereby proving it to be special, and which is also manifested by man, is the MATING DISPOSITION. Man, therefore, is a mating or marrying being, and this propensity or predisposition is as much a law or institute of his being as is sexual love, or the procreative instinct, or the love of young.

This mating instinct, or faculty of Union for Life, is the basis of marriage and of the laws and customs which recognize the life-choice of one woman for one man. That this faculty is a part of the mental nature of every well-constituted human being scarcely admits of a doubt. If the consciousness or testimony of the inner life of ten thousand well-organized and unperverted men and women could be obtained, we believe ninety-nine in every hundred would cordially respond to the presence of a strong desire to select one, and but one, sexual mate, and cleave to that one for life.

This faculty very often comes into actitivy before Amativeness, and the young heart pants to find its mate, and really does select, meets with a response, and never regrets the choice or changes in the least. Some of the most perfect and happy of unions we have ever known have been of this sort, formed in childhood, perhaps five years before the promptings of Amativeness were experienced. We appeal to men and women if in early youth they did not have their minds concentrated on a beloved object, anxious to be set apart for and have the loved one reserved for themselves exclusively, and that for life, and if they did not feel a willingness, if not a desire, to be engaged, and to feel that the selection was made and the great question settled, and all this without any conscious sexual love. And did you not regard such engagement, not as a yoke of bondage, but as an achievement and a source of rejoicing and gratulation? Millions, we know, will readily and heartily respond yea and amen to this interrogatory. Mating for life does not depend upon Amativeness; for this faculty can be exercised and its normal function answered in the human race as perfectly as it is in unmating animals without the exercise of the faculty of Union for Life. Moreover, among the lower animals those that pair for life are just as constant in affection the whole year round as they are during the procreating season, showing that for ten months in the year Amativeness is by no means their bond of union.

The modern social heresy of free love, which, within a few years past, has turned so many unbalanced heads, and frightened so many others whose moral worth and purity of life far surpassed their philosophy, is now fairly before the reader.

As we have said, every faculty which belongs to any of the lower animals also belongs to man, and as mating for life is an inherent trait in certain animals, and as this tendency is indicated by the human race in every age, we claim Union for Life, or instinct of Monogamic Union, as an original constituent element of man's nature.

It is asserted by the advocates of "Free Love" that marriage is not a natural institution; that the selection of one sexual mate is not a law of our being, but is a cunning device of tyrannical kings and bigoted priests, which has been imposed upon the common people as a means of exercising an undue control over them.

For an interpretation of the law of God, or nature, in this matter, let us appeal to nature or the voice of God as revealed in the best developed of the lower animals. No one will assert that the king of beasts and the imperial bird are controlled in their mating habits by any law except that which God has written in their natures. The lion, whose voice makes all other animals, and even man himself, tremble, might assert and maintain his right to indiscriminate love without restraint or opposition; but he selects his companion for life, and lives faithfully attached to that one object of choice and affection. The eagle, that gazes unabashed at the sun, whose imperial wing sweeps over mountain and plain, and at whose very shadow every song of the forest is hushed and every other bird hides in fear; the eagle, the lord of all that wings the air, quietly chooses his life-companion and lives in the bonds of faithful wedlock; and they, on the solitary crag that overhangs the yawning ravine or frowns over the foaming sea, year after year, for half a century, labor together to feed and rear their young. Do kings and priests make the marriage laws of lions, eagles, geese, and robins? Is their marriage institution an imposition, a burden, a yoke of bondage? If so, why do they not assert their freedom in some great "free convention," or set up a "free love" community?

EDUCATION OF THE INTELLECT.

THE SCHOOL-BOOK ON A NEW METHOD.

BY LEVI REUBEN, M.D.

NUMBER IV.

BEFORE proceeding to illustrate the proposed new method in education, and which I have called the *Method of Discovery*, a few words further on the subject will be in place. In my last article I endeavored to draw, from a view of facts concerning the action of the mind, the method in which persons at any age, and hence, of course, children, *must* arrive at the possession of ideas, facts, or laws previously unknown, if they ever arrive at them at all. I drew the conclusion that a child, or a philosopher, coming to the work of learning or discovering something before not known, must each proceed by similar steps, if he attains the result aimed at. Either must first have his FACTS spread out before him. These he must observe for himself, or he must be informed of them in terms which he has already been prepared to understand. Then he can, at the right point, conceive clear ideas as to such facts, and, with trifling aid and direction, generalize the facts, analyze them, discover their laws, causes, and consequences. Thus Faraday proceeds when he wishes to investigate some electrical principle as yet unknown to all men; thus every school-boy or girl must proceed when beginning to labor for any set of ideas or discovered principles which are as yet unknown to him or her. And having worked, intellectually, through these necessary preliminary steps, either the philosopher or the child will then comprehend, possess, and *positively know* the results attained. Still further; he will have had the true intellectual exercise or work which the subject was capable of affording him, and his observing and reasoning powers will both have grown stronger in consequence. Here, then, is training combined with teaching; work with food; invigoration with acquisition.

Education, then, if it be more than the name, is a prolonged work of continually fresh discoveries. It follows as the simplest corollary that the child must, if possible, take nothing for granted, nor be expected by the teacher or book-maker to do so. Hence, every book must begin with what the pupil, at proper age to take it up, can clearly comprehend, with facts and principles which he already knows, and then go on, lesson by lesson, step by step, to more complicated, difficult, or remote, or to more comprehensive and higher knowledge. No term must be introduced until it is needed, and the thing to which it is applied has first been presented. When we introduce this method into all the books, and make it the law of every recitation, we shall have at last introduced the tenets of Bacon into the school-room. The philosophers have had the benefit of these tenets the last 250 years. The children would be young philosophers if we would let them, and their present shortcomings, their sorrows over tasks ill-acquired and worse comprehended, their failures and their needs, call for the application of those benefits to their advantage also.

Every person is a natural philosopher in kind, though the degrees may be very various. Every child, not idiotic, begins life by proving itself, in some degree, a philosopher. Its intellectual faculties act philosophically, or they do not act

naturally. To these grand facts of our being our school systems must sooner or later conform. But everything is blocked, in this desirable direction, by the want of proper school-books. When these are constructed upon the true philosophical basis—that is, when their steps follow the necessary order of the action of the intellectual faculties, the results will be education of the senses to the relief of the passive memorizing power, habits of acute and constant observation, a truly retentive memory of all important results, clear comprehension, development of intellectual power, growth of the intellectual phase of our nature, and the clear possession and practical use of whatever is learned.

When my thoughts were first called to the imperfections of the present system of school-books and recitations, the question was soon brought forcibly to my mind, "Why not make each study or book *a complete course of discovery*, by observation, induction, and deduction, so that the pupil shall retrace, so far as is now essential, the steps of the original discoverers, and arrive positively and satisfactorily at their results?" This idea, modified and extended in some respects since that time, has been the guiding-star of my labors. The more I have examined it, the more fully I have become convinced of its inherent value, and of its truth to nature and the wants of the young mind.

When I first arrived at these conclusions, so interesting in themselves, I supposed them in essence, as well as in their practical working out, to be original first with myself. A more extended course of reading has shown me that, in themselves, they are not wholly so. Yet none of the writers on education, so far as I can learn, have carried the idea, even in theory, out to its true extent. They have insisted forcibly on the necessity of beginning with *observation* rather than rote-learning, but they have not reached the true consummation. This, I believe, my studies have led me to, and it is found in the simple idea, that the whole series of school-books and all recitations must be so changed that the student's work shall be ONE PROLONGED SERIES OF DISCOVERIES, to be made by himself, his intellectual faculties moving in the order natural and necessary in discovering truths previously unknown, and only aided, as needs be, by cabinets, books, and teachers. This at once, and for the first time, makes education a unit, a symmetrical whole, a great system, instead of a medley of incoherent methods and results. In the practical working out of this in a school-book, also (the fundamental step necessary to the realization of what so many have theorized upon and longed to behold), I do not relinquish my claim.

In my last article I showed how indispensable is the school-book. One word more on that point. As knowledge is accumulating on every subject, it is clearly impossible that any teacher who has many branches to instruct upon, should so possess and retain in his mind all their various facts and principles, as to give to each, and to every part of each, its due share of attention without the book, to serve as a guide and remembrancer. If the teacher could dispense with the book, the pupils can not. If he mainly or entirely throws books aside, especially in advanced studies, his pupils' learning will be patch-work; or it would be, were it not that the very pieces will fail to be stitched together.

My last article also named some of the leading educators of the last 250 years, who have, with more or less clearness, pointed out theoretically the true method in education. The reader can recur to the principles urged, and in degree practiced, by Ratich, Basedow, Pestalozzi, and others. Pestalozzi set forth the law of education for the teacher very clearly; he did not succeed in constructing a whole science upon the basis he thus indicated, and his views certainly were tinctured with much that was fanciful. His fundamental idea was well stated in an article from the pen of Lowell Mason, in the *N. Y. Musical Review*, for 1855. "The Pestalozzian teacher," says Mr. Mason, "never allows either himself or the book-maker to attempt to teach by mere *explanations*, *descriptions*, *assertions*, or *declarations*. He relies entirely upon present *examination*, *investigation*, and *proof*." This, in teaching music, is literally possible; for the facts are *sounds*, which the teacher and pupil can produce on the spot. In teaching natural philosophy, it will not be possible, until every school shall have a most elaborate cabinet and apparatus. But the principle is right still. Only, here, the book must do by drawings and clear delineations of facts much of what the teacher can do in music. But, let it be remembered, the book must not content itself in any science, however vast or complex, with bringing forward *results* or *conclusions* of other men's obtaining; it must bring to the pupil the facts he can not go to see, call on him to observe and state such as he can, and then, from these facts, as facts, suggest, or lead the learner's mind to suggest, the laws, causes, consequences, etc., that grow out of them.

But while there were, thus, men long before Gall, who saw, for the teacher, the true educational method, it can not be denied that Phrenology has done much to pave the way for the realization of what these earlier thinkers aimed at. It has done this by pointing out many, and perhaps all, of the special faculties or powers of observation which the human mind possesses, as those by which we observe Individuality, Form, Size, Weight (or manifestations of Force), Color, and so on; and also by naming and clearly distinguishing some or all of the reasoning powers. When with Phrenology, which is in one sense the *anatomy of mind*, shall have been combined all that is true in the old intellectual philosophies, which give what may be called the *physiology of mind*, the practical deductions relative to education and its methods will doubtless become still more complete and valuable.

Not only have the teachings of Phrenology, in reference to the nature and purposes of the intellectual faculties, helped to clear the way for true methods of teaching, but many of the leading minds engaged in expounding the principles of this science have very clearly shown its bearings on some of the prominent questions in education. To say nothing now of the writings on this subject of Spurzheim and of George and Andrew Combe, we meet with the following clear statements in Mr. O. S. Fowler's work on "Memory and Intellectual Improvement:" "In fact, as all education of mind should be conducted in harmony with the *laws* of the mind educated, and as observation (as a pre-requisite to reasoning) is a PROMINENT law of the juvenile mind, therefore children should be taught by OBSERVATION MAINLY, till this has developed both memory and reason." "This being thus, of course existing systems of education require to be remodeled, so as to become adapted to the cardinal law of mind, or rather based upon it." In the present method these systems, "instead of developing observation, actually repress it [which is undeniable], not even allowing it its natural action." "Then, should not education be at once remodeled accordingly? It WILL be thus remodeled. Fifty years, probably twenty, will see this fundamental change effected." These views were published in 1846, now twelve years since.

The following chapter from a manuscript text-book upon natural philosophy, designed for somewhat advanced pupils in our public and academic schools, is inserted in accordance with the request of the editors of this JOURNAL. It is a sample, though a brief one, of the method which I have endeavored to explain in the previous pages. A more complete illustration, because taken from the body of the science, may possibly appear hereafter. The *questions* have very seldom any answer in the book. They are addressed to the pupil's observation, experience, and thinking powers, and are intended to put his mind in an *active*, rather than a *passive*, position, with regard to the subject in hand.

THE ELEMENTS OF NATURAL PHILOSOPHY.

CHAP. I.—OUR KNOWLEDGE OF MATTER AND FORCE.

1. *Observation.*—If, when light is present, we look around us, we become conscious that there are before our eyes a multitude of THINGS or OBJECTS, distinct from each other, and differing in their forms, sizes, and appearance in many other respects. If we approach these objects and touch or handle them, even if the eyes be closed, we become aware in another way of their distinctness from one another, and of many of the differences between them which are discoverable by the eye.

Do we *believe* that such objects exist *within*, or *externally to*, our own minds?

You are conscious of the presence of *this book:* by what means do you become so?

Name all the ways in which you could become directly conscious of its existence.

Inference.—In our bodily structure we possess certain *organs*, calculated to receive, in various ways, *impressions* from the objects that constitute the external world, and to communicate those impressions to the mind.

Definition.—The mental powers by which we discover external objects, through the impressions made by the latter on certain organs of the body, are termed the SENSES.

Enumeration.—The senses are five in number: TOUCH or FEELING, SIGHT, HEARING, TASTE, and SMELL. These, being powers or capacities of the mind, must not be confounded with the *organs* of the senses.

Is the *sense* of sight the eye? or is it the power of the mind that sees by means of the eye?

What parts of the body are capable of *feeling*—*i. e.*, what is the organ of *touch?*

What is the organ of *sight? of hearing? of taste? of smell?*

The brain is the organ through which the mind acts: now, when we see an object, is the perception of it in the *eye*, the *brain*, or the *mind?*

Suppose a fragment of rock present: without the use of any of your senses, how much could you learn of its color or other qualities, or of its existence?

Inf. b.—We can obtain no knowledge of the external world, except through the medium of the senses. And since the body, including the organs of the senses, is wholly external to the mind, we should, if deprived of all those organs, have no consciousness of possessing a bodily organization, or anything, indeed, except the power of thinking.

2. *Obs.*—By the use of our senses we discover, not only that external objects differ, but also that, under certain circumstances, many of them undergo *changes* in their form, condition, and so on; and also changes of place. As with objects, so with their changes, we can by close attention separate these one from another, and observe the nature and effect of each by itself.

Def.—Whatever is discerned by our senses, whether it be a tangible object, a quality belonging to one, or a change taking place in such object, is termed a Phenomenon. A phenomenon is *simple*, when it is a single object, quality, or change; *complex*, when it includes many particulars.

Derive and define the word *phenomenon.* (See Glossary.)

Give the *plural.* Is it, or not, correct to speak of *a phenomena?*

Name some phenomenon that is a *tangible object;* one that is a *quality;* one that is a *change* taking place in some body.

Is, or is not, a thing never yet observed, properly a phenomenon?

Do you judge that all phenomena have, or have not, yet been discovered?

Do you think the *growth* of a plant a complex or a simple phenomenon?

3. Suppose a block of marble introduced into water: does, or does not, the water occupy the place filled by the marble?

Can you, now, *imagine* the block removed without anything taking its place?

Would, or would not, the *place* remain, though no body were in it?

Def. a.—The *containing place* in which bodies exist, and from which they may be supposed to be removed, is termed Space.

What do the walls of this room inclose?

Name some larger space—name the *largest space* you can think of.

Is, or is not, the *air* in the room the *space?* Which exists *in* the other?

What relation must all objects have to space?

Bodies can be moved: do you judge that a space can, or can not, be moved—that space can, or can not, be *destroyed?*

Obs. a.—When we examine tangible objects we find that each of them extends throughout, and appears to fill, a certain portion of space. That is, every such object is something that *excludes* other objects from its own space, and that possesses *extension* or is *measurable* in three directions, namely, 1, in *length;* 2, in *breadth;* and 3, in *thickness, height,* or *depth.*

Def. b.—Whatever occupies space in such a way as to exclude other objects, is termed Matter, or Substance.

Do you, or not, judge that all space is occupied with matter?—that any matter, although occupying space, may not be perceived?

Def. c.—Any portion of matter existing in a separate form, is termed a Body.

What name, then, shall we give to visible and tangible objects?

Consequence.—A body differs from matter only in being limited in its extension, and therefore having some definite size and form.

What would you call a *rock?*—a *grain of sand?*—why?—a *tree?*—why?

Would you consider the *earth* a body?—the *air?* a *vapor?*—a *sound?*—a *thought?*—an *animal?*—a *color?*—the *mind?*

Give additional examples of bodies.

How do the dimensions of bodies compare with those of space?

4. *Obs.*—It has been already seen that by the senses we discover in bodies certain qualities, as form, size, color, etc., that distinguish them from one another. So, by the touch we ascertain that some bodies are *hard*, others *soft;* that some are *rough*, others *smooth*, and so on; while other qualities are detected by hearing, tasting, and smelling. Each of these qualities in a body evidently makes a distinct and peculiar impression upon the organ of the sense by which it is discovered, and by which it is recognized as unlike all other impressions. And since each of these qualities constantly manifest itself in a given substance when in the same state, it is said to *belong* to such substance.

Def.—The qualities belonging to any substance or body, and by means of which it makes certain impressions on our organs of sense, are termed its Properties.

Suppose a body present, but that your senses could detect neither its form, size, color, consistency, nor any other property; what would you know of it?

Cons.—It is only by the difference in the impressions made upon our organs of sense that we can distinguish one body or substance from another; and it is only through those impressions, or, in other words, by means of their *properties*, that we can learn that any matter or bodies have an existence. *We know nothing of the* Nature *or* Essence *of Matter, but only its* Phenomena, *or the manifestations by which it addresses our senses.*

5. Having a ball in your hand, keep the hand at rest: can you in this way *throw* the ball?

In order to throw it, into what state must you put your hand?

To give movement to your hand, what must you exert upon it?

What, then, is necessary in order to put the ball in motion? From what source, in this case, was the cause of the ball's motion received?

Suppose you hold a stiff coiled spring in your two hands, and pull out upon it at both ends; what would you become sensible of, in the spring?

What would you be conscious of exerting, yourself?

Press your two hands together with equal force: what are you conscious of exerting? Can *power* be applied without giving motion? When?

Suppose you stop a ball flying *at a given rate: what* must you exert?—and *how much?* What do you thus *destroy?*

Suppose a ball made to move to the east: what must be done to turn its motion toward the north?

Press the ball out of shape, or cut it in pieces, or dissipate its parts by exposing it to the action of fire: does, or does not, each of these changes require the action of some power?

Inf. a.—Every change which can take place in bodies, whether in their form, state, place, or otherwise, requires for its production the operation of an *acting cause* or *energy* of some kind.

Def.—Any cause or energy which changes, or is capable of changing, the form, state, place, or any other condition of a body, is termed a Force.

Bring two *equal* forces to *oppose* each other, as in pressing the hands together: do they, or not, produce a visible change of place?

Inf. b.—The effect of a force, when not counteracted by an equal and opposite force, is always to produce a *change* in the state or place of a body or bodies?

Give examples, other than those above-named, of the action of forces.

In case of motion or other change, do you perceive the energy that acts to produce the change, or only its results?

Cons.—As we discover and distiguish matter only by its *properties*, so we discover and distinguish forces only by the *changes* which, under given circumstances, they produce. Although we can not apply our own energies to move the moon and planets, yet we know from their motions that energies the same as our own, only greater, must be urging them forward in their course. We observe only the *facts; of the* Nature *or* Essence *of Force we know nothing, but only its phenomena, or the manifestations by which it addresses our senses.*

6. *Def.*—The sum of all the bodies in existence, taken in the places in which they are found to be, and with the properties which they possess, constitutes what we term the Material Universe; and this, with all the changes occurring in it, forms the system of Nature.

Derive and define the word *nature.* [Glossary.]

Is it active, in sense, or passive?

Do, or do not, bodies and changes cause themselves?

Why, then, is the term *nature* appropriate to what we observe around us?

Can anything be truly said to be *spontaneous?*—*unnatural?*—*accidental?*

In forming the conjugal union, the health and constitution of the parties should be critically regarded. We have no natural or moral right to perpetuate unhealthy constitutions. We have no right to poison the *morals*, or cramp and mislead the *minds* of children; and we do them, and the race, a serious wrong in multiplying the number of hereditary invalids. A whole family of children fall before some hereditary malady into an untimely grave. These misfortunes are generally regarded as the inscrutable providence of God, as "severe trials," and "sore afflictions," without dreaming of the true cause which produced them. —*Thoughts on Domestic Life.*

LEWIS F. W. ANDREWS.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

The subject of this sketch was born in Rutherford County, N. C., September 7th, 1802, consequently he is now fifty-six years of age, though from the uniform tenor of his life and natural vigor of constitution, well preserved, he would readily pass for a man ten years younger. In stature he is five feet six inches high, his head, chest, and trunk being well developed.

He is descended from a Scotch Presbyterian family by the paternal side, his grandfather being one of three brothers who emigrated to this country shortly before the period of the American Revolution, and settled in Virginia and Maryland. He thence moved to the mountain regions of North Carolina, where he was an active participant in the struggles of that eventful period in behalf of the independence of the colonies. Living not far from Mecklenburgh County, where the patriotic fires of the Revolution were first enkindled, it may well be supposed that the descendants of these patriots were early imbued with the principles of liberty

The father of Dr. Andrews was the Rev. John Andrews, well known in the annals of the Old School Presbyterian Church of the United States as the first projecter and publisher of a strictly denominational and religious newspaper in this country. He commenced his ministerial career about the year 1792 in North Carolina, moved to Kentucky in 1802, thence to Chillicothe, Ohio, in 1812, and thence to Pittsburg, Pa., about 1820. For seven years from July, 1814, he edited a newspaper in Chillicothe under the title of the *Weekly Recorder*, and for another seven years he was engaged in the same manner at Pittsburg, Pa., in publishing the Pittsburg *Recorder*, which was commenced in 1822, having for fourteen successive years been a leader in the denominational literature of the church to which he belonged, and for nearly half a century a minister of righteousness. Of this ambassador of the Cross, who departed this life in 1849, having passed the age of fourscore years, it was often said, "Behold an Israelite indeed, in whom there is no guile."

Lewis F. W. Andrews was the *third* son of John and Eliza Andrews, whose maiden name was Calhoun, daughter of John Calhoun, who at an early period removed from what is now the District of Columbia to Scott County, Ky. At seven years of age Lewis commenced the study of the Latin language under the instruction of his father, then the principal of a private classical academy at Bethel Church, Woodford County, Ky., and continued at school till his father's removal to Ohio. He then was transferred to the printing-office, and served the period of an ordinary apprenticeship, when he was privileged, above his seven brothers, to receive an academical education at the Male Seminary of Chillicothe. From this he was transferred to Jefferson College, Canonsburg, Pa., where he graduated in 1820.

His parents being strict religionists, he was regularly initiated into all the beauties and mysteries of the "Shorter Catechism," and the peculiar tenets of old-fashioned Presbyterian theology. He was also fitted, as far as a literary education would qualify him, for the *ministry* of that Church. This was the hope and the prayer of his parents, and, in deference to their wishes, after graduation, he remained at home about two years, engaged in the study of history and kindred *belles-lettres*, waiting for that spiritual illumination and regeneration which were deemed necessary for a proper entrance upon the study of theology. Not finding these graces, with the consent of his parents he chose another profession, and took a seat in the law-office of John H. Hopkins, then a distinguished lawyer of Pittsburg, Pa., now the Protestant Episcopal Bishop of Vermont, but he soon became disgusted with a calling which revealed so much of the dark side of human nature, and in three months abandoned the office for that of a celebrated physician, James Agnew, M.D , who was then at the head of his profession in Western Pennsylvania. Here he prosecuted his studies with vigor, and in due time was licensed to practice medicine, which he did for six years, at several localities, with the ordinary success of young men of his age. During the period of youth and early manhood, and for two years after his marriage, at the age of twenty-five, the subject of this sketch was in all things a Presbyterian in faith, though not a member of the Church. There were, however, difficulties in his way of great magnitude He could not understand the justice and reason of the decrees of election and probation, and his natural benevolence revolted at the idea of endless torment for himself and others who could not obtain the evidences of personal salvation, though they had diligently used the means of grace lying in their pathway. Hence he entertained hard thoughts of his Creator, and was, to all intents and purposes, a practical infidel in theory, though very moral in conduct and deportment. Things continued in this way for a few years, when providentially, as he believes, he had an opportunity, at the small village of Augusta, Ky., on the south shore of the Ohio River, to hear a preacher of Universalism (Rev. J. C. Waldo, of Cincinnati, Ohio) deliver a discourse. This finally led him to an investigation of the subject, and to his acceptance of the doctrine of the "restitution of all things," and to his fellowship and ordination as a minister of that religious denomination.

In this new profession, as an itinerating evangelist, he spent ten or twelve of the best years of his life, traveling extensively from Boston to New Orleans, the most of the time, however, in the States of South Carolina, Georgia, and Alabama, where it was his fortune to encounter the bitterest persecution, and to be the subject of the most vindictive assaults for conscience and opinion's sake, but which were met with a firmness and steadiness of devotion that soon moderated the zeal of antagonism, if it did not disarm it altogether. During this period he established the first Universalist journal ever printed in the South, and also published a book, entitled, "The Two Opinions, or Salvation and Damnation," which was very popular with his denomination. Finding it necessary to settle himself, in order to escape the penalty adjudged to those who did not provide for their own households, he removed to Columbus, Ga., in 1843, and soon after engaged in the publication of a political weekly paper, entitled, the Muscogee *Democrat*, which he continued for five years. He then removed to Macon, Ga., where he established, and now publishes, another political and secular paper, entitled, the *Georgia Citizen*, now in the ninth year of its existence, under his proprietorship.

In politics Dr. Andrews was originally a Jackson Democrat, but he never was considered a good party man or party editor. He is noted, on the other hand, for his independence of thought and his contempt of mere party ties, irrespective of principles. This was evident in the heated political contest of 1850, in Georgia, on the question of Union and Disunion, when he arrayed himself on the Union side of the question and aided in the election of the Hon. Howell Cobb to the gubernatorial chair of the State, by the largest majority (18,000) ever known in Georgia! Subsequently, in 1852, he was the first editor in the State to call a convention for the purpose of ratifying the nomination of Gen. Winfield Scott for the Presidency. His call was successful in bringing together about 150 of the strongest politicians and ablest men in council, and though the leaders of the Whig party and nearly all the old Whig presses of the State had committed themselves to the fortunes of a third ticket (Webster and Jenkins), the Scott men mustered, at the election, to the number of over 40,000 voters, out of about 96.000. Again, in 1856, the editor of the *Citizen* attached himself to the *American* party, and did yeoman service in behalf of Millard Fillmore for the Presidency. He still calls himself a conservative Democrat, and should his life be spared, and he not retire before the contest of 1860, he will doubtless be found advocating the claims of the man he deems best qualified to administer the government, *according to the Constitution*, irrespective of former and old party distinctions of Whig and Democrat, provided it can be done consistently with his paramount duty to his *section*, the South.

As a writer, Dr. Andrews is concise, clear, sententious, and argumentative. His style is plain, terse, and vigorous, partaking much of the Anglo-Saxon strength and purity. He seldom indulges in flights of fancy, but when a great occasion calls forth his ideality, he is no mean daguerreotypist of the beautiful in nature. As a newspaper paragraphist he has few superiors, being pithy, pointed, humorous, and sarcastic by turns, or combining all these elements in a single article. He seldom indulges in prolix disquisitions in his editorial columns, and never unless compelled to, from the nature of the subject, or in reply to an adversary. On the contrary, his editorials are generally brief, yet comprehensive, epigrammatic, yet clear, and partaking of the telegraphic "*multum in parvo*" style of diction. In short, he is a *live* editor, always wide awake to "catch the living manners as they rise," and multiply the images thereof, for the benefit of his readers.

In social life Dr. A. has always occupied an advanced position, and may be classed as a Reformer. He aimed and perhaps effected something to reform the harsh features of popular theology, by inculcating more rational and sublime views

PORTRAIT OF LEWIS F. W. ANDREWS.

of the purposes of the Infinite toward his creatures. In medicine, he learned to distrust the time-honored dogmas of the old-school Allopathy, in which he was indoctrinated, and now leans more to the systems of the Botanic and Hydropathic schools, though he is *eclectic* enough to receive what he finds to be good in all systems. The leading philanthropical associations of the age, such as Masonry and Odd-Fellowship, have ever received his sanction and support. For thirty years and more he has been a member of the mystic tie, and has frequently been called on to deliver Masonic addresses. He has also been an active Odd-Fellow since 1842, and has passed through all the chairs of both branches of the order, inclusive of those of Grand Chief Patriarch, and Grand Master of the Grand Encampment, and Grand Lodge of the State of Georgia, the latter office being filled by him for the term closing June, 1857. As a citizen, he also is ever ready to respond to any calls made upon him, in furtherance of measures of public utility, and as an editor, his pen is laid under frequent requisition, to advance such matters of private or public improvement as may come under his observation.

In his domestic relations he has probably enjoyed as much happiness as the next man. His marriage to Jane Gray, eldest daughter of Rev. James Gray, of Pittsburg, Pa., which took place thirty-one years ago, or on the 6th day of June, 1827, has been blessed. Six daughters and two sons have been born to them, two of the former having passed to the spirit-land after arriving at the age of early womanhood. Those who survive, with two little grandsons, constitute the present family circle, at Macon, Georgia.

PHRENOLOGICAL CHARACTER.

[The following character of Dr. Andrews is a *verbatim* copy as given him when he was an entire stranger to the examiner, and with no thought that it would be published.—Eds. Journ.]

Your head is too large for your body, but the temperament is favorable to the manifestation of mind. You ought, by all means, to live by head, not muscle; should fill some intellectual position; are every way adapted to operate on the minds of your fellow-men; will improve all whom you influence, for your own standard of mentality and morality is high, and you will naturally bring people up toward it, though not many to it, for you are a good way above the great mass of your fellows. Your constitution is *first best*, or it would have been used up before this time. You are one of the toughest of men; have good lungs, and know how to use them; have fair digestion, but are not giving yourself time or strength enough to carry on this function. Take this warning: you are seriously impairing your health by overmental exercise; are all thought, and this is what is wearing you out.

Your qualities are inherited almost entirely from your mother, and on that side your ancestors were distinguished for superior talents and exalted morals. Your mother was a magnificent woman, and swayed a powerful influence over you. You always loved her, and always worshiped at the shrine of female character; are eminently and pre-eminently a ladies' man, but your love is pure, is directed to the female mind more than person; are calculated to make one of the very best of husbands; would add friendship to love; are easily and powerfully influenced by wife; are inclined to consult her and make common cause with her; possess the highest order of friendship; will be universally esteemed. You don't belong to the blustering school that makes great professions, but at the heart's core your affections are strong. Are fond of children, fond of country, and patriotic. Are particularly interested in the young, especially in young men and their improvement, and have a great deal of the fatherly sentiment.

You have great energy of character for one of your strength, but it is more intellectual than physical; energy of thought and argument rather than of muscle or brute force, and you put everything you touch right through; difficulties only embolden, not intimidate. Destructiveness is simply fair. Appetite is too large; eat less, or exercise more, and you will be happier and better. Love of property is only fair, yet you value it only as a means, never as an end. You spend freely, and it is doubtful whether you will ever be rich; you are not close enough; you don't hold on to enough, but are industrious, and will always be well off, and never want.

You have one weak spot: you set too much by the good opinions of others, and too little by your own opinion of yourself, in phrenological language. Self-Esteem is wanting, and Approbativeness excessive; do rise above the frowns and favors of others. You allow things said against you to sting you too much. You really set too much by praise, but it must be for intellectual and moral worth, not for dress or even wealth. Would be amazingly delighted by approbation applied in the ballot-box; are easily complimented; are too extra particular to fulfill promises; have the highest sense of honesty, the most scrupulous regard for the right, the moral, and the just; are scrupulous to do everything that duty demands; are a man of the strictest principle; will especially keep your morals spotless. Are wanting in spirituality; are not a believer unless the proof is absolute; are pre-inclined to be reformatory rather than "*old* fogyish." Your Benevolence is a ruling motive, and you wish a good name more for promoting human happiness than for anything else. Don't let your sympathies run away with your judgment, which you are inclined to do. You are certainly one of the most kindly disposed and friendly men that come under our hands—for this thank your mother, who was one of the best of women.

You have good descriptive powers—much that is glowing and poetic, only your physical powers will not allow you to rise into your natural poetical mode; but you have a large share of poetical inspiration, enjoy beauty everywhere in sun, nature, flowers, and especially in woman, but are disgusted with what is common in the sex. You also love bold, grand, mountain scenery; always loved the classics, and ought to have had a classical education. Are an elegant writer, know how to touch the string of human sentiment. Are as full of mirth as need be—in fact, are overflowing with dry humor, and your fun is always the better because it is combined with the argumentative; are noted for seizing hold of some absurdity and showing it up in the best possible manner. Are good in giving home-thrusts, especially with the pen; not a mere flaw-picker, but an intellectual critic, and relish fun equally with the next man. You are particularly felicitous in

your witty comparisons, in putting this and that together and drawing inferences; are to the point, but never prolix.

You are not as good an observer as thinker; are wanting in memory of names and dates, but are clear-headed in reasoning, deep, original, sound, philosophical, and always carry conviction, for your ideas are pointed. Yours is eminently a metaphysical mind; you always loved theology, the study of the human mind, but always did your own thinking. You are remarkable for summing up, for jumping from premise to conclusion, and jumping right, for condensing, giving a bird's-eye glance, say of the proceedings of any convention; are laconic. I rarely find comparison as well developed as in your head, and it is admirably supported in Causality and Ideality. For power of analysis, illustration, and drawing inferences, you have not many equals. The fact is, you are naturally a great man, but are almost worn out, and must rest.

JOHN H. W. HAWKINS,

FOUNDER OF THE WASHINGTONIAN TEMPERANCE MOVEMENT.

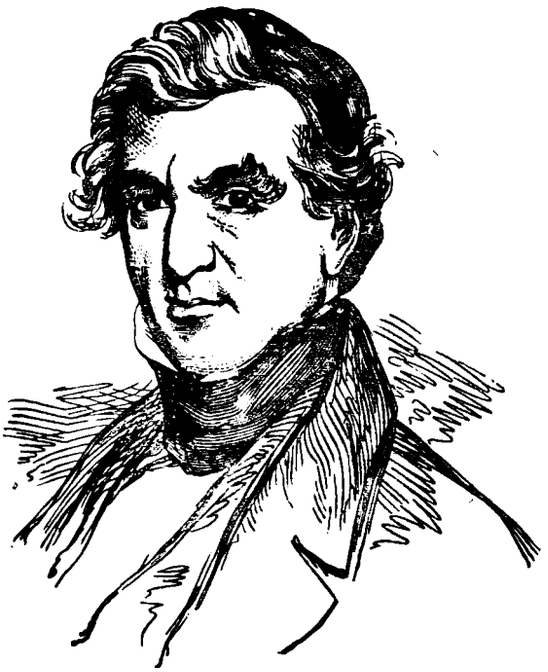
PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

[This description and biography of Mr. Hawkins was published in this JOURNAL in 1850. His recent death, which occurred in Parkesbury, Pa., Aug. 26, seems to warrant its republication. Few men in any age are so fortunate as to be connected with a movement out of which so much good to mankind has arisen as this to which Mr. Hawkins has devoted himself.—EDS. JOURNAL.]

PHRENOLOGICAL CHARACTER.

THIS gentleman is above the medium size, and possesses physiological combinations that impart very strong powers of endurance. He has a large chest, as well as a large brain; the former measuring over forty, and the latter over twenty-three inches He has a very superior development of the bilious, sanguine, and nervous temperaments, and so intermingled and proportioned to each other as to confer not only durability, but a great tendency to continued mental and physical action. He could never be contented with idleness, but would always be anxious for something in which to be engaged, and considerable physical, coupled with strong mental exercise. would best harmonize with his organization. His constitution would long resist the encroachments of disease, and he would be likely to live to very advanced age, unless guilty of gross violations of the laws of life.

He has uncommon energy of character, fearlessness, and courage. Combativeness and Destructiveness are large, while Self-Esteem and Approbativeness are full; hence, coupled with such an active and enduring temperament, he must exhibit a decidedly energetic, go-ahead, and enterprising disposition. He is not a man to faint and cower before ordinary difficulties, but will plunge with resistless ardor into whatever once thoroughly engages his attention. Few men have all the domestic organs so largely developed. As a husband and father, he must exhibit the warmest affections; will often speak in his absence of his wife and children, and would feel it a great sacrifice to be absent from them. He would be much influenced by considerations connected with their welfare, and take a lively interest in whatever concerns them. He is a man of no small degree of self-respect, and has naturally a good degree of ambition; and notwithstanding the all-powerful influence of appetite, when sober, he always felt that he had made a dreadful stoop from his manhood. His Self-Esteem and Approbativeness made him feel his degradation so sensibly, when, after a long absence from home, he returned to visit his aged mother. While absent, he was conscious he had awfully descended in the drunkard's path. He says: "When I got to the edge of the town, I was ashamed even to walk on the ground of my nativity. In the dusk of evening, I crept along to my mother's, and was soon dressed up decently." Like thousands of others who have been low sunken in inebriety, Mr. Hawkins has large Adhesiveness; and this was, doubtless, one of the millstones that helped to drag him down; he would frequently drink to be social. He has also a large organ of Benevolence, which, together with his Adhesiveness, makes him eminently philanthropic. He feels most intensely, and it is a feeling that generates action, when he looks back upon his own life, and especially when he beholds the wretchedness and ruin of the wives and children of thousands of bloated victims of intemperance.



PORTRAIT OF J. H. W. HAWKINS.

Mr. Hawkins has large Firmness, which gives stability to his resolutions; a man not easily swerved from his purposes and determinations. His entire moral region is fully developed; hence, before and since his career of drunkenness, he has ever been a man devoted to moral and religious contemplations. He is a man of great independence of mind, though by no means haughty and arrogant. Ideality is full, Causality full, and Comparison large; his lectures would, therefore, be characterized more for strength than beauty; they would be marked, to a considerable extent, with comparisons, metaphors, and figures of speech. The propellants being large, he would speak generally with considerable harshness, and sometimes even with great severity; would be seldom beautiful, romantic, and refined in discourse. He has a full organ of Eventuality, full Language, and nearly all the perceptives, including Individuality, large. His conversation, therefore, and his public addresses, are full of narrative, and abound with a collection of facts to an extent equaled by but few public speakers. Imitation is large, hence his inimitable mimicry. No man can surpass him in ability to imitate the poor, degraded sot in his drunken revels.

Mr. Hawkins has been charged with a strong desire to obtain money, but Phrenology charges him with no such motives in his public labors; on the contrary, it fully exonerates him from anything like a wish to acquire property. The organ of Acquisitiveness is really quite deficient in his brain, and it is doubtful whether he would ever accumulate much property by his own labors. A fortune might fall to him; but, then, it would soon be scattered for the benefit of his fellow-men. Alimentiveness in his head is uncommonly large; hence his powerful appetite, which, for many years, made himself and family so miserable. His reformation must have required, on his part, almost superhuman effort. His appetite may be inferred from his own confession. He says: "I would often get a ten-dollar bill changed, go and buy a single glass, fully determined not to take more; but that would prove a fatal glass, and I would drink myself to the most degrading drunkenness, blasting all the hopes of my wife and children."

BIOGRAPHY.

Mr. Hawkins was born in the year 1794. What, if anything of importance, transpired in his boyhood, is not known to the writer. His early advantages were quite limited, having enjoyed nothing beyond the most common opportunities at the country school. He was early apprenticed to, and learned the hatter's trade; and the shop where he worked, he says, was as perfect a grog-shop as ever existed. This laid the foundation of all his future wretchedness. He says: "At one time there were twelve of us as apprentices. Eight of the twelve have died drunkards; one is now in the almshouse in Cincinnati; one in the almshouse at Baltimore; one is keeping a tavern in Baltimore; and here am I." He was prosperous in business for a while, notwithstanding he drank on; and he says he did not expect the appetite to conquer him. "When twenty-two years old," he adds, "in 1818, I went to the West. As soon as I was away from parental care, I gave way; all went by the board, and my sufferings commenced. For six months I had no shoes, and only one shirt and one pair of pantaloons. Then I was a vagabond, indeed. But I returned, ragged and bloated, to my mother's home. When I got to the edge of the town, I was ashamed even to walk on the ground of my nativity. In the dusk of evening I crept along to my mother's, and was soon dressed up decently. My mother only said, 'John, I am afraid you are bloated.' I then drank nothing for

a while; but it was so hard to do without, that at length I took a glass of ale, and all was over with me again; my appetite rushed on like a flood, and carried all before it. And for fifteen years, time after time, I rose and fell, was up and down, would quit all, and then take a little glass. I would earn fifteen dollars a week, be happy and well, and, with my money in hand, start for home, and in some unaccountable way, imperceptibly and irresistibly, fall into a tavern, and think one glass only would do me good. But I found a single glass of ale would conquer all my resolutions."

Mr. Hawkins relates the following of himself: "I would come home late at night, open the door, and fall prostrate on the floor, utterly unable to move. My daughter Hannah, sitting up for me, and watching with her poor, sick mother, would come down with a pillow and blanket; and there, as she could not raise me, and get me up stairs, she would put the pillow under my head, and cover me with the blanket, and then lie down beside me, like a faithful dog. I would feel it to the bottom of my soul; it cut me to the quick, and I would say, 'Hannah, why do you not go up to your poor, sick mother?' She would reply, 'Oh! father, I would rather stay here! I am afraid if I go you will want something.'" He was moved with the kindness of his daughter, and, as he often acknowledged, she had a great deal of influence in bringing about his reformation. Her cries and tears, and the entreaties of a dutiful wife, together with the great Washingtonian movement made in Baltimore, in 1840, have done the work thoroughly, and, we have no doubt, forever.

The following quotation is taken from a sweet little volume, entitled, "Hannah Hawkins, the Reformed Drunkard's Daughter." After his reformation, the writer says of him: "Possessed of a clear, strong, and mellow voice, and having unusually warm affections; being entirely willing to relate the whole of his bitter experience, and doing it, not in a spirit of boasting, but contrition, he soon became a prominent speaker; and, under his addresses, large and intelligent audiences were often in tears. In the course of the ensuing winter, he attended the anniversary of the Maryland State Temperance Society, at Annapolis, and related his experience before the members of the State Legislature with much effect: the House, it is said, were dissolved in tears. In the following March, he, with four other reformed men from Baltimore, came, by invitation, to New York, where, under the relation of their personal experience, before immense crowds, commenced the Washingtonian reform of that city."

From New York Mr. Hawkins went to Boston, and there commenced his labors in Faneuil Hall, where he drew immense audiences. The good people of Boston prevailed on him to go back to Baltimore, and bring his wife and children to Massachusetts, where they engaged to provide for all their wants. Mr. Hawkins is now arduously engaged in his labors of love, and is scattering blessings in rich profusion over the length and breadth of the land. He travels annually a great many thousands of miles, and delivers five or six lectures each week, to crowded halls. He is one of the most eloquent, fearless, and efficient laborers in the cause of Temperance that has ever enlisted under the cold-water banner. He travels, and lectures, and is rapidly wearing out his life, and has no fee or reward, except the pitiful contributions of a dollar or two sometimes bestowed, and the rich enjoyments of the consciousness of having done his duty, and of having been the means of snatching many a brand from the burning, consuming fires of the distillery.

EACH PHRENOLOGICAL FACULTY,

AS ADAPTED TO, AND EXPRESSIVE OF, A GREAT INSTITUTE OF NATURE.

NUMBER II.

Philoprogenitiveness expresses the relations of parents to children. It is adapted, and adapts man to the infantile state, and its need of parental care. Death—Destructiveness—constitutes one of nature's institutes. But unless this dying institute had some counterpart it would, in one generation, sweep all forms of life and function from the face of the earth. Amativeness and Destructiveness are antipodes.

But Amativeness would be of little account without some provision for the *rearing* of its products. All forms of life are feeble in their inception—are easily destroyed, and need special care and protection. Without them, all that is born would inevitably die, and all the provisions of earth for the happiness of her creatures would be forestalled by the infantile death of all her young. But nature *must not* lose her races. Especially must she pre-provide for the perpetuity of the *human* family, and all which can materially contribute to its happiness. She provides for the germination of all seeds by ordaining that they mature in mid-summer by guarding them with scrupulous fidelity during their formation; by ordaining that they be deposited under circumstances most favorable to their growth—usually in the fall, to be kept cool and moist till spring; that they be covered with leaves; that spring rains and sun should still further promote their germination and growth till well established; by every possible precaution, as well as by causing each parent to bring forth, often, millions.

But a *higher* order of protection and pre-provision is requisite in the young animal. And nature has made this provision in and by creating that strong love every parental animal and human being experiences for its own young. Why *own* young? Why not *all* adults care for *all* children? Because nature must *apportion* her work to see that it is done. If adults in general were required to care for children in general, as what is everybody's business is nobody's, children would be but poorly cared for. But to make *sure* work, she specifies that all parents shall take the express and special care of their *own* young. And she ordains and effects this by *parental love;* by creating in all parental souls a *special* love for their *own* young. And this love both specifies who shall care for which particular child, but *pays* for the work done, in and by its very *doing*. Parental love both rears its own children and makes the parent inexpressibly happy in its delightful task.

Still more as to this *own*-children doctrine. Fourier and many socialists and free-lovers argue that the *community* should care for the children of the community in gross. If this were best for man, it would be likewise, and for the same reason, best for animal; would be best for all cows in general to suckle all calves in general, and none in particular; that all hens scratch for and brood over all chickens in general—that they go farther—that all hens scratch and cluck for not only all chickens, but all ducklings, goslings, hawklings, etc.—that lions rear lambs and sheep, the whelps of lions and jackals, and that elephants rear colts, horses, and pigs—that all adults should care for all, and none for none—a pretty state of things indeed!* But as the elephant *can not* nurse the chicken, or the pig, or whelp, but is fitted to rear its *own* young, as by hereditary descent their tastes and habits are alike, so not merely should the human adult rear the human child; but as each special child has the specialties of its particular parents, each is adapted to love and therefore rear its *own* young far better than the child of another differently dispositioned. The very element of *self*-love that loves even our own faults loves also those very faults in our own children also; and this fits us to bear with and care for them much better than those could who were their antipodes in disposition.

How teetotally this principle cuts up Fourierism, Free-loveism, *et id genus omne*, by their very roots. The natural function of Philoprogenitiveness is love of our *own* young. This is proven by the entire natural history of the parental sentiment all throughout the entire animal kingdom. While the maternal hen scratches so assiduously and clucks so steadily all day long, and broods and purrs so tenderly and patiently all night over her *own* brood, yet turn another chicken into her flock and she will peal its pate instantly even if she has but a single chick of her own. This shows why stepmothers are more partial to their own children than those of their husband's first wife And this fondness for our *own* young and requisition for rearing them, implies and requires that we *know* them, and *this* that we *pair*, and are *faithful* in wedlock. And as fathers have this philoprogenitive sentiment, it is their duty to provide for their *own* children. This requires that all their children should be by one woman, and all of every woman's children by one father, so that together they may rear their common children. He should not by her infidelity—her boasted freedom to bestow her own person where she chooses—be required to support the children of other fathers, or let his wife divide her time between his children and those of another man. The fact is, nature has her laws, and they must not be violated. And one of these laws is this *own*-children law. And this implies and requires both mating and fidelity, and interdicts both free-love and amatory promiscuosity in all its forms. Sexual conjunction is proper only when it is proper that it eventuate in its natural product—children—and when *both* parents can *together* bring up *all* their mutual children. And hence the *family* state is nature's institute. Of this the philoprogenitive institute is an absolute proof and requisition. Nor can all the free-love arguments of all the world overthrow or get around this natural law of things.

But it extends somewhat beyond human and

* Those who bend any one of nature's strait lines, must bend a thousand others also.

animal parents and progeny. While it is strongest in them, because their children need the most care—strongest in those delicate parents whose children require the most attention—weaker in monkey than man, and swine than monkey, yet it extends even to seeds. For what does that parental tree labor all summer but to ripen its seeds—its children? For what does that fruit tree bear its fruit but that the fruit pulp may both preserve the seed moist and of even temperature—but that this pulp may enrich the seed of its germination? Or if eaten by man or animal, this seed is quite likely to escape both mastication and digestion, and be voided perhaps far off, and under circumstances peculiarly favorable for growth, thus *spreading* its species to distant localities.

And for what toils that stalk of corn, wheat, that weed, that grass—all vegetables—but to *mature their seed*—produce and establish their young. Till then it clings with desperate tenacity to its children. But once ripe, it lets go its grasp, and fruit, grain, seed falls from its parental stock. All vegetative life, then, as well as human and animal, fowl and fish included, evince the parental sentiment. The ant, her nest disturbed, seizes her egg and bears it to a place of safety; those black beetles rolling that ball in the street have first inclosed within it their egg, their young, and are rolling it to some place where they can bury it a foot deep, there to be hatched; the ostrich that, though neither incubates nor clucks nor scratches, yet lays her sacred egg where sun and rain will hatch, and where, the moment its mouth and eyes are open, it can grasp its ready food. All, all are carrying forward this great natural institute expressed phrenologically by Philoprogenitiveness. And nature's *second* great work is this of parental care. Then honor to the men and animals who have produced and reared large families! especially if good and talented.

But is there no other and broader form assumed by this parental institute? What is earth and its sisterhood of stars—the solar system—but a family of children, bearing the same relation to the sun that children do to parents—warmed, lighted, governed, by solar paternity, authority, and benevolence.

And all the works—the children—of the great Divine Parent, not merely *created* by his all-creative hand, but all protected by his care, fed by his Providence, governed by his laws, and amenable to his august authority. Nor do any of us duly love our father or mother on earth or in heaven for that perpetual solicitude; those ceaseless toils; those watchings by night and caresses by day, bestowed on us by parental affection. Well might the good book command us to honor our father and our mother And if parents but *properly* train up their children, they may be *sure* of filial affection and obedience.

This faculty in its natural history settles the question of whipping or punishing children. It is in direct hostility to that love, tender love, and fondness, which constitutes the only true bond-principle of relationship between parents and children. *Love*—*pure* love, unalloyed—and nothing *but* love, should ever obtain between them. Punishing a child is indeed monstrous—barbarous. No animal is equally barbarous. No brute is ever brutal enough to punish its young but human brutes. And all parents who punish them *are* brutal. The very punitive act is brutality itself. If they are bad, ask *yourself* how they became so, and punish *yourselves* if you would punish the real authors of the sins you would obviate. And the worse they are the more they deserve to be *pitied*, not punished. It is not enough, forsooth, that you have forced them to be bad, and that by hereditary entailment, when they were but the passive *recipients* of the qualities *you* imposed on them, but you must even *chastise* them for being what you compelled them to be!

What could be more unjust! more monstrous, even! And punishment always, and necessarily, *makes them* worse. It but inflames the very faculties you essay to subdue. The plain fact is, pray, parents, do be persuaded to bear in mind that there is one, and *but* one, great center sentiment due from parents to children—AFFECTION. *Love*, O parent, will subdue their badness, govern them at pleasure, mold, and educate them. And nothing *but* love ever *can* do it. Try the experiment. It is nature's divine and universal institute and ordinance.

EXPERIENCE AND SCIENCE.

THERE is probably no greater obstacle to the advancement of the various sciences, and the reformatory measures of the day generally, than what the world erroneously terms experience. Experience is truly said to be the best of teachers; but what is usually termed experience is *not*, I think, the best of teachers. Mankind are wont to consider that wise which has long been sanctioned by their predecessors; or to adopt some habit or course in life which has long been practiced, on the grounds that experience has proved its truth and propriety, and, as a consequence, it is recommended to the rising generations as a course or system suitable for them to follow.

Experience, says Webster, is "a trial or series of trials or experiments, and to try or know by experiments." And science is the demonstrative evidence of fixed truths and principles, or a knowledge of truths and principles gained by actual experiments, or fully authenticated facts and demonstrations.

But there is but little difference between experience and science, when taken in their true signification. That which is popularly termed experience, is not experience at all, but merely a course of habit, or mere indulgence blindly and perhaps ignorantly followed for ages, without an intelligent thought or inquiry relative to the laws and causes at work in the process, or any care to note results good or bad; while real experience is a series of experiments, entered into and watched with careful solicitude for special results, or studied in all their phases, with a view to learn, in general, all that the experiment can teach when subjected to sharp perception or scientific analysis.

Whenever a new science is discovered and presented to the world, the experience of past ages is arraigned against it to show its falsity, because a confliction appears to exist. For who can gainsay what our forefathers have learned by experience? It is indeed looked upon by many as the height of folly to attempt to sustain any science which so-called experience has apparently disproved.

I am inclined to the belief that there are more errors imbibed and justified under this fallacious idea of experience, than from any other single cause; because what is usually termed experience is in reality no experience at all, because never proved by actual experiment and investigation, with a knowledge of the principle involved in the act or operation. There are few, if any, greater obstacles to the physical, intellectual, and moral advancement of the race than the present prevalent custom of disregarding the physical and organic laws of our constitutions, or laws of health, by indulgence in injurious habits; and yet as injurious as they may be found to be by the established demonstrations of science, they can all be justified and recommended by what we are accustomed to hear called experience. And there is no place where the world's experience is more at stake than in physiological violations, or the non-observance of "Hygienic Principles," nor where mankind are more extensively and surely led into error.

There is not a bad habit to which men are addicted that can not be justified or sanctioned by experience, according to the popular definition of the term. Take for example some of the worst and most prevalent habits of the land, such as the use of tobacco, liquor, tea, coffee, etc., and what says science and experience? Science boldly affirms that they are more or less injurious to the physical (and of course mental) functions of the individual who unwisely uses them or any of them. And she speaks from a knowledge of the nature and functions of the human system, and the natural and chemical properties of the different articles, together with the relation existing between them and the system. Without this knowledge a correct conclusion can not be drawn, nor a correct course in reference to their use pursued. No person can arrive at a correct knowledge of the adaptation of the above-named *poisons* to the human system, without a knowledge of the relation existing between them, or the principle involved in the effects resulting from their use, which I regret to say is too little understood. For when we reflect upon the scientific truth, that the recuperative power of the system, as well as remedial power over disease, are invariably confined to the *vital energies* of the organism, and that the different effects resulting from the use, or taking into the system of various kinds of poisonous matter, are but the manifestations of the different modes of the vital powers to remove the article, poison, or enemy, we then learn the inadaptation of the various articles above mentioned to the system; a fact which ordinary experience would be very sow to learn without a knowledge of the principle of *vital action*. It is upon this principle that the apparently different effects of narcotics upon different individuals are explained; there being different degrees of vital resistance, owing to the varied powers of different constitutions.

Now what says experience in regard to the use of tobacco, liquor, tea, coffee, pork, etc., as luxuries and food? According to popular interpretation it says they are not only uninjurious when

moderately used, but apparently beneficial and healthful; for even the two worst articles now in use by fallen man—tobacco and liquor—have often been recommended by medical men as remedial agents for the cure of some malady; and thus the habit of using them has been contracted, which has sent many to untimely and drunkards' graves; and sanctioned by no better authority than so-called experience. Many indeed are the men who are honored with gray hairs on heads of three-score years, who will with candor affirm that they have from boyhood used all the above-named articles, and never experienced any injurious consequences therefrom; and with equal candor recommend their use to the rising generation as beverages, luxuries, and food. And yet in this enlightened age of the world their admonitions are eagerly sought and heeded, because long years of experience have taught them, as they believe, of the truthfulness of their practices and motives. But it is too well known by the enlightened and the investigating, that thousands die annually from the effects of liquor and tobacco, if not from tea, coffee, and pork; while many others learn their injurious qualities, and their inadaptation to the human system, and abandon their use and reap an inestimable reward in restored health and increased mental action and moral tone. It is too true that many justify themselves in the use of poisonous narcotics by some flimsy argument, such as—tobacco being good to preserve the teeth, and to prevent the food from rising on the stomach (and sweeten the breath, I suppose), etc; and liquor being good to strengthen a man and keep him warm when going out in the cold, and keep him cool when too warm, and "good to take" when wet, and also when too dry—and so on to the end of the chapter, of the blessings resulting from the use of these destructive poisons, all of which were gained by experience.

Arguments about equal in weight with the foregoing are usually offered in justification of the use of tea and coffee, because people have unwisely become addicted to their use, and have not moral courage sufficient to abandon them, when convinced of at least their inefficiency for good, a course which true wisdom does not sanction.

Such are the teachings of the world's experience, and such teachings as, according to my judgment, are not good to be imparted to the young as a course suitable for them to follow through life, to secure their improvement or happiness. And still less reliable such teachings appear to be when we consider the important fact that no two men's experience coincides on the same things; but what it has proven to one man it has disproven, or proven directly the opposite, to another.

What shall be done, then, when some men will pass through life in the habitual use of both tobacco and whisky, with apparent safety and good health, and feel justified (from such experience) in recommending their use to others, because not aware they have suffered any injurious consequences therefrom? Shall we rely upon their instructions and follow their examples when we behold on every side men falling victims to the use of the same destructive poisons, and when we are told by the latter that these habits are continually waging war with their constitutions, and destroying their vitals, together with their intellectual capacities and moral feelings? Does experience prove any more in the former than in the latter case? No, it does not as much, because the latter can trace his physical losses and sufferings directly to the above-named habits; but yet we are placed in a dilemma from which science is alone adequate to extricate us; because alone capable of explaining the cause of the apparently different effects of the same habits upon different individuals.

Now the principle involved in these cases (to which reference has already been made) consists in the difference in their organizations or temperaments, instead of the different effects of the articles upon them, whether taken in large or small quantities. The first having greater strength of constitution and greater *resisting power to the vital forces*, which enable the possessor to meet and repel the aggressors (*alial poesons*), and still retain a tolerable degree of health and vigor for years, while the latter, from weaker constitutions being unable to resist the encroachments of such vile enemies to their physical organisms, fall victims, surrendering not only their arms, but what is much worse, their dignity and manhood.

And is not the effect of the articles upon the weaker constitutions much more to be relied on to ascertain the relation between them and the human system than the former? It must be, because the former cases, having so great power to resist the effects of the poisons, disqualify the individuals from judging the degree of their destructive power.

Now do not examples like these abundantly prove the extreme liability of mankind to be deceived, in regard to what they are accustomed to style experience, when they fail to observe the never failing deductions and demonstrations of science, which is the most reliable guide to the physical, intellectual, and moral improvement to which man has recourse? And never will there be an entire abandonment of the various violations of the sense of taste or appetite, which now degrade and debase the human race, until science, with her natural and godly truths, is placed upon the high and moral stand to which she is ever entitled, from the Source from which she emanates.

It will not do for the settlement of the various and important questions of reform, that now interest the present advanced age, as some contend, for all to test the various luxuries, beverages, and food for themselves, because, as I have shown, it is impossible to do so without a knowledge of the principles of physiology and vital action, which I regret to say the masses at least are very ignorant upon, and without this knowledge there would be but a reliance upon misjudged experience, which is so conflicting that the rising generations would have reason to place but little confidence in the teachings of the aged, from whom the unadulterated truth should ever come. Nearly all diseases "which flesh is heir to" are the legitimate consequences of the violations of natural laws, or indulgence in unphysiological habits such as above mentioned, and many others—a fact which all should be aware of who contend for the reliability and safety of popular experience, independent of science; for many a strong and robust man is not unfrequently brought down by disease; but he who indulges in the use of all the articles above mentioned will claim from *experience* that he was never injured by them.

And many more examples can be given to show the deception of mankind in their experience, and the importance of a knowledge of the various sciences. The use of opium as a luxury or food, which is so extensively indulged in by many, affords an excellent example of the doctrine under consideration. For many become so strongly addicted to the ruinous habit, that they consider their existence almost depending upon the use of the poisonous narcotic. We learn from this the extent to which the system will partially adapt itself to such poisons, and thereby deceive the user of the real relation existing between them and the system. Science shows the quality of such drugs, and those who are governed by her teachings will never pollute their systems with such articles as heretofore mentioned.

The same can be said of all the drugs in existence, quack nostrums and patent medicines included, all of which have but a short life, and as one becomes obsolete it is replaced by another, which in turn passes away, leaving mankind worse off than before their *experience* taught them their beneficial qualities, because health and constitution are gone. It was but a few years ago that calomel was looked upon as an almost infallible remedy for various diseases, but now, mark the change! It is generally abhorred, because very unsafe to be administered, from its antagonistic relation to the human system, which science and true experience has demonstrated, popular experience to the contrary notwithstanding.

In adopting and supporting the different medical systems of the past and present, we have developments founded to a great extent upon superficial experience, instead of the scientific basis of VITAL ACTION, or the curative principle of nature. The fallacy of past experience is still further shown in the doctrines of the moon and agriculture, etc., which I will but briefly call attention to.

It is often in this enlightened age of the world unscientifically claimed that the influence of the moon upon vegetation is such, that the observance of its different changes in seeding, etc., is necessary to the success of the agriculturist; such, for instance, as planting potatoes in certain changes of the moon, to prevent them from growing too much to tops; and the killing of hogs "the right time in the moon, to prevent the meat from shrinking;" and also manuring land when the moon points certain directions, or the nourishment will go down or up, as the case may be, and thereby render it useless; and so on to the end of the chapter of moonology, which does not exactly accord with the disclosures of science; but the latter must be repudiated because at variance with the established truths of experience.

Now is it not evident that there is hardly a truth that now blesses the present age of enlightenment and investigation that has not had arraigned against it a tirade of opposition, from so-called experiences, which makes so many oppose, or reluctantly accept, the improvements and reforms of the present day? Need more be said to show the superiority of science over popular experience, and to show that a greater appreciation of it is necessary for the welfare of the rising generations? and also that experience is as liable to lead the young into the wrong path as the

right? If more be required to establish the superior claims of science, we have but to reflect that it is through her developments that we gain a knowledge of many of the unchangeable principles of nature which never conflict, and are the physical demonstrations of the divine principle of the Universe; and that it is science that has thus far removed the darkness of the "dark ages," and is fast removing the mists and clouds of superstition which have for many ages hung so dismally over this Christian land; and caused that degree of bigotry and intolerance to pervade the minds of men, as to prevent them from seeing clearly their duty to their fellow-men, and their destiny in the realms of Infinitude; and that it was enlightenment and the disclosures of science that subsided and quelled that almost unparalleled excitement and drama, "Salem Witchcraft," which the experience of men had taught them was real, because they had seen "persons ride through the air on broomsticks, and what they had seen they knew;" and that it was the glimmering but reliable rays of Science that enabled Galileo to see the truths of that heavenly system, Astronomy, which the enlightened world all recognize as the truth of science, while experience prevented his opposers from receiving his ideas, because they had all their lives seen the sun rise in the morning and set in the evening, which it could not do if it did not go around the earth; and further, they had learned from experience that if the earth turned on its axis the water in the rivers and lakes would all be spilled.

I would not be understood from these views as detracting from or depreciating true and genuine experience, but still, as in the onset, claim that real experience is the best of teachers; but in habits where there is a principle involved that is not understood, mankind are almost sure to be led into error, with prejudices so strong that it is difficult to remove them. N. K.

ATHENS, PA.

EDWARD EVERETT ON THE CABLE.

ONE of the finest things yet spoken on the cable is the following:

"Does it seem all but incredible to you that intelligence should travel two thousand miles along those slender copper wires, far down in the all but fathomless Atlantic, never before penetrated by aught pertaining to humanity, save when some foundering vessel has plunged, with her hapless company, to the eternal silence and darkness of the abyss? Does it seem, I say, all but a miracle of art that the thoughts of living men—the thoughts that we think, up here on the earth's surface, in the cheerful light of day—about the markets, the exchanges, and the seasons, and the elections, and the treaties, and the wars, and all the fond nothings of daily life—should clothe themselves with elemental sparks, and shoot with fiery speed in a moment, in the twinkling of an eye, from hemisphere to hemisphere, far down among the uncouth monsters that wallow in the nether seas, along the wreck-paved floor, through the oozy dungeons of the rayless deep; that the last intelligence of the crops, whose dangling tassels will in a few months be coquetting with the west wind on these boundless prairies, should go flashing along the slimy decks of old sunken galleons, which have been rotting for ages; that messages of friendship and love, from warm, living bosoms, should burn over the cold, green bones of men and women, whose hearts, once as warm as ours, burst as the eternal gulfs closed and roared over them, centuries ago?"

Literary Notices.

THOUGHTS ON DOMESTIC LIFE, OR MARRIAGE VINDICATED AND FREE LOVE EXPOSED. By Nelson Sizer. New York, FOWLER AND WELLS. Price by mail, 15 cents.

This work, based on Phrenology and Physiology, gives a pretty full analysis of all the social organs, shows the application of Phrenology to the selection of life-companions, and proves very conclusively that the modern heresies of Free Love and Polygamy are not merely base, sensual, and immoral, but unnatural, and alike ignored and repudiated by the very nature of man. We have inserted an extract from the work in the present number of the JOURNAL.

THE ILLUSTRATED PHRENOLOGICAL ALMANAC FOR EIGHTEEN HUNDRED AND FIFTY-NINE, FOWLER AND WELLS, Publishers. Price by mail, single, 6 cents.

This is one of the most extensively illustrated and interesting Almanacs of the series. The principles of Phrenology and the analysis of all the organs and the temperaments with spirited Illustrations; Portraits and Biographical Sketches of eminent Personages combine to make this a good work for the family everywhere.

THE LAYING OF THE CABLE, OR THE OCEAN TELEGRAPH; being a Complete and Authentic Narrative of the attempt to lay the Cable across the entrance to the Gulf of St. Lawrence in 1855, and of the THREE ATLANTIC EXPEDITIONS of 1857 and 1858; with a detailed account of the Mechanical and Scientific part of the Work, as well as Biographical Sketches of Cyrus W. Field, Wm. E. Everett, and other prominent persons connected with the enterprise. Illustrated with Portraits, Engravings of the Machinery, and scenes in the progress of the Work. By John Mullaly, Historian of the Enterprise. New York: D. Appleton & Co., octavo, pp. 380. Price by mail, paper covers, 50 cents.

THE STORY OF THE TELEGRAPH, AND A HISTORY OF THE GREAT ATLANTIC CABLE: A Complete Record of the Inception, Progress, and final Success of that Undertaking. A General History of Land and Ocean Telegraphs. Descriptions of Telegraphic Apparatus, and Biographical Sketches of the principal persons connected with the Great Work. By Charles F. Briggs and Augustus Maverick. New York: Rudd & Carlton. 256 pp., 12mo, cloth. Price by mail, $1.

These works, with titles not quite as long as the Cable of which they treat, have just made their timely advent, and should be widely circulated and carefully read. Each has a map of the countries and oceans adjacent, and profiles of the bed where the cable is laid. The first-named work is largely illustrated with cuts of ships, machinery, etc., and its author was on board the Niagara during her successful voyage. The latter is well written and illustrated, and gives a history of telegraphing that can not fail to interest the reader. Either work may be ordered from this office at the price named.

To Correspondents.

SOUTH WALES, ENGLAND.—We write out from daguerreotype, or photographic likenesses, the characters of the persons represented. These pictures are sent to us by mail, and we write a full description of the character of the person and return it by mail, but do not print it in the JOURNAL. Our charge is four dollars in the United States, but to send to England the postage would require the price to be one pound sterling, or five dollars. The likeness should be taken in about the same position as that of Dr. Andrews in this number. The hair should be laid as smoothly as possible, and that side of the head on which the hair is parted should be presented to the instrument, and this gives a good opportunity for the examination.

T. J. C.—1st. I find, on examining the symbolical head in "Self-Instructor," A. Union for Life; C, Human Nature. Then I find in the analyses and combinations of the faculties, A, Vitativeness; C, Bibativeness, etc. Also Human Nature as in the bust. I wish you to explain this difficulty, and tell me where to find Vitativeness and Bibativeness, as they are not marked on the bust or head.

2d. I find on my head that some organs are a good deal larger on the right side. What is the cause, and what the effect or result?

ANS. 1. By some means a mistake was made in using the letters for Human Nature and Vitativeness in the Self-Instructor; but the error was discovered long ago and corrected, so that in the present edition the lettering on the symbolical head and in the body of the book correspond; but those who have the edition in which the error is not corrected, will find the following all right, as

A, Union for Life, is above Amativeness, and behind Combativeness.
B, Sublimity, is behind Ideality.
C, Human Nature, is above Comparison.
D, Agreeableness, is above Causality.
E, Vitativeness, or Love of Life, is behind the ear, below Combativeness.
F, Bibativeness, is just in front of Alimentiveness.

2d. Organs on one side of the head are frequently larger than their fellow on the opposite side, and we suppose the work is done mainly by the large organ. The right arm is generally larger and stronger than the left, because it is more used.

Business Notices.

Our publications may be obtained of L. WILLARD, Troy, N. Y.; W. O. MCCLURE, Utica, N. Y.; PECK & RUDD, Syracuse, N. Y.; D. M. DEWEY, Rochester, N. Y.; T. S. HAWKS, Buffalo, N. Y.; RICKEY, MALLORY & WEBB, Cincinnati, O.; JOEL MCMILLAN, Salem, O.; STEWART & BOWEN, Indianapolis, Ind.; GEORGE C. KIMBALL, Iowa City, Iowa; KEITH & WOODS, St. Louis, Mo.; J. S. TAFFT, Houston, Texas; HOMER, HOLLAND & CO., Oregon City, O. T.; J. W. BOND & CO., Baltimore, Md.; MACLEAR & CO., Toronto, C. W.; THOS. H. PEASE, New Haven, Conn.; GEER & HURLBURT, Hartford, Conn.; M. BESSEY, Springfield, Mass.; SYLVANUS BENNETT, New Bedford, Mass.; WM. HORSELL, 13 Paternoster Row, London, England.

Our list of agents will be continued in subsequent numbers.

THE NEW ENGLAND FEMALE MEDICAL COLLEGE announces its Eleventh Annual Term in our advertising columns.

THE JULY NUMBER commenced the 28th Volume of the AMERICAN PHRENOLOGICAL JOURNAL.

SUBSCRIPTIONS WILL COMMENCE with the month in which the order is received.

SIX MONTHS' SUBSCRIPTIONS will be received at the yearly rates.

CLUBS may be made up of persons receiving their Journals at different post-offices. It often occurs that old subscribers are desirous of making a present of a volume to friends at a distance.

PRESENT SUBSCRIBERS are our main reliance. Those who know the utility of the Journal will work for it, and recommend it to their friends and neighbors, that they too may participate in the benefits of its teachings.

HAVING BEEN a member of a club at some previous time *does not* entitle persons to renew their subscriptions at club rates, except a new club is formed. Our terms are: for 10 copies (ordered at once) one year, $5; 5 copies, $3; single copy, $1.

SUBSCRIPTIONS for either of our publications—the PHRENOLOGICAL JOURNAL, the WATER-CURE JOURNAL, or LIFE ILLUSTRATED—may be ordered at the same time; but care should be taken to specify particularly which is wanted.

HOW TO REMIT.—In sending funds to the Publishers, always write in a very plain hand, at the top of your letter, the Post-office in full, the County and State. When the sum is large, obtain a draft on New York of Philadelphia, if possible, and deduct the cost of exchange. Bank-bills, current in the subscriber's neighborhood, will be taken by us at par; but Eastern bills preferred.

Advertisements.

ADVERTISEMENTS intended for this Journal, to secure insertion, should be sent to the Publishers on or before the 10th of the month previous to that in which they are to appear. Announcements for the next number should be sent in at once.

TERMS.—Twenty-five cents a line each insertion.

"DEVELOPMENT OF THE HUMAN RACE."

MESSRS. FOWLER AND WELLS—*Gentlemen:* A correspondent of yours, under the above heading, in your last PHRENOLOGICAL JOURNAL (the September number), compares the whole existance of the human race on earth with the life of an individual. He says, "It appears to me that humanity, taken as a whole, has its infancy, its childhood, its manhood, and its old age."

So it seems the human race is to sink into imbecility, folly, and imperfection, as its grand end here, the Bible, reason, and observation to the contrary notwithstanding. And in connection with this theory, he asks some questions very singular, indeed, unless this imbecility has with him already commenced.

In your reply, gentlemen, to this correspondent, you point very properly to some objections to his theory, and warn him that "analogies are always captivating, and therefore to be received with caution." Some of his inquiries you seem to turn over to clergymen, as belonging rather to theology.

Now permit me to say that I have been engaged as a clergyman more than twenty-five years out here in the rude West, to be sure, and yet trained at old Yale, and taught to be, *theologically*, deeply interested in the great cause of *human advancement*, both morally and physically, regarding it as truly the cause of God.

And here let me say further, gentlemen, that I have been greatly interested in your JOURNALS, the PHRENOLOGICAL and WATER-CURE, which I have long taken, from the general bearing which I saw they had on the *human advancement*, of the Bible, or, in other words, on the triumph of God's kingdom on earth. I know, truly, that your JOURNALS are designed to refer more particularly to the physical advancement of man, to the perfect development of the *body*, in accordance with its Heaven-appointed laws, and to the perfection of its health, in obedience to those laws. But I know well, also, that the *moral* advancement of mankind, provided for of God, and pointed to in his Word, when purity and holiness shall prevail on earth, can never be reached without the *physical*.

Indeed, to violate the laws of our physical system is itself *sin*, and men must see it, and know it, and avoid it, before "holiness to the Lord" can reign on earth. Is not suicide and murder sin? Can a man draw a dagger on himself and take his own life, when God's will shall be done on earth as it is in heaven? But suicide by the *dagger* is really no worse than suicide by dress, drink, food, tobacco, swallowing poisonous drugs, licentiousness, and so on; and murder also may be committed by drinks, drugs, and poisons, as well as by cold steel. In short, there are few violations of the laws of our physical system, or of the human body, which do not involve sin somewhere; and they need *all* to be exposed, and put away, and the proper development of the body enjoined, as one grand preparative for that prosperity and holiness on earth to which the Bible points. And in your efforts tending to this, gentlemen, I rejoice, and most heartily bid you God speed. May you indeed, through Christ, be rich partakers of the moral benefits.

It is then to such a blessed advancement of the

human race, both physically and morally, that we are to look — not to imbecility and decrepitude. Nor did the race *begin* with the moral imbecility which your correspondent supposes. He asks, "Why did God give no system of religion in the first ages? was it not because he was incapable of understanding it?"

But He did give a most complete system, that of perfect obedience to his commands. And then, when man had disobeyed and fallen, he gave the very system we now have for coming back to him through a Redeemer. God himself preached to Adam and Eve from this text: "The seed of the woman shall bruise the serpent's head." The Bible does not give us, we can not suppose, all God's sermon to our first parents, but he clearly let them into the whole subject of Christ's atonement and of salvation through him. God communicated very freely with men in those early times by voices, visions, dreams, etc.; and those old patriarchs, Adam, and Seth, and Enoch, and others, lived a long time, through many generations, as prophets and teachers, declaring to all around them what they had received from God. In this way mankind had a revelation from God; they had the *Bible*, in all its great truths and teachings, from Adam down to Moses.

Nor was the religion given to the Jews a *different* one, but in all its great essential elements it was the same, only clad in a different drapery of types and sacrifices, pointing down to the Great Sacrifice to come. It was, indeed, aside from this drapery, the same as we have now; and it will continue the same in coming ages, and on through a Millennial Day, adapted to *every stage* of human development; and *always*, and everywhere alike calculated to purify, ennoble, and save mankind, from Adam down to the end of time.

Neither does your correspondent give any satisfactory reason for the shortening of human life from the first ages down. On this I can not dwell; but it is clear that the human body, as it came from the Divine Hand, was constituted to *live*, and not die at all—in any present sense of death. And though man has fallen, bringing death to the body as well as soul, yet it was evidently through great, increasing, and long-continued violations of the original laws of the body, that its life came to be so cut down. And even now, fallen as we are, and with the human constitution so long and so dreadfully abused, yet still, by conforming to its Heaven-appointed laws, life may be greatly extended again, and pain and sickness removed, until "the days of mankind shall be as the days of a tree, and they shall long enjoy the work of their hands;" until, indeed, with the moral renovation of the Gospel included as it must be, mankind and the world shall come back almost to an Eden state!

So go ahead, gentlemen, and may God speed that "good time coming" Yours, truly.

Atlanta, Ill., *Sept. 4th*, 1858. L. Foster.

Science is the interpreter of Nature. It reverently inquires; it listens to know; it seeks; it knocks to obtain communication; and then all that it does is reverently to record nature's processes, and accept them as true. And it demands that religion shall proceed on similar exegetical principles.

THE PRIZE SEWING MACHINE.

Our readers will remember that we offered one of the Wheeler & Wilson sewing machines as a premium to the person who should, in a given time, procure for us the largest number of subscribers. The machine has been awarded and sent to Mr. I. R. Dupree, of Missouri. It gave us great pleasure to make this award, and the only regret in the matter was, that we could not send one of these great Woman-Helpers to every one of our valued friends who entered the lists for the prize, and thus contributed so largely to the good of mankind, by sending our Journals to so many new families.

How to Converse.—Among all the "accomplishments" which our young ladies are expected to acquire, it is to be regretted that the art of conversation is not included. No grace of person or manners can compensate for a lack of this. In youth the conversation of our women is too apt to be trifling and insipid, and in middle age it is too often confined to complaints of health and the scandal of the day Lively conversation upon instructing and elevating topics is but little practiced; but whenever it is found it gives a charm to the society of females which nothing else can. It triumphs over deformity and old age, and makes ugliness itself agreeable. Curran, speaking of Madame de Stael, who was by no means handsome, but a splendid conversationalist, said that she "had the power of talking herself into a beauty." Ladies should think of this. The faculty of language is one of the most wonderful and potent for good or evil of the powers with which we are endowed—hence the importance of sedulously cultivating it.

Between religion and science there must be a necessary harmony; for both came from God, and therefore both are true; and, if true, then they agree. Each is fitted to the other. Truth can never conflict with itself, nor God be the author of contradiction No Work of God can ever come into collision with any Word of God. If, then, there must be an essential and an eternal harmony between all true religion and all true science, how arose that supposed antagonism between them, which, on account of its long continuance, has now become historic? History itself tells us how it came. After the night of the Dark Ages, at the time when science first began to dawn upon the world, the Papal priesthood of that day made war upon it They claimed to be the keepers, not only of the ark which contained all religious knowledge, but of the treasure-house that contained all secular knowledge also. Hence, when Galileo affirmed that the earth moved, the Inquisition commanded him, under pain of torture, imprisonment, and death, to deny the fact. And there remain, to-day, in the library of the Inquisition, the very manuscripts of Galileo which the priesthood seized and sequestrated. There they remain, I say, sequestred, condemned, sealed with the Papal signet, so that the truths they reveal might never more be spoken among men. Yet those truths are now taught to the children in our Common Schools, and at our firesides! What an everlasting monument of the ignorance and bigotry of men when they lift themselves up against the power and knowledge of God! And thus were the glorious attestations which astronomy makes to the power and wisdom of God shrouded for a time from the vision of men by a bigot's decree, and the immense benefits which those truths were able to confer on geography, navigation, commerce, and discovery, postponed to a far later day.—*Demands of the Age on Colleges.*

Phrenology in Literary Societies.—We notice, in a late number of the *Ohio Eagle*, an interesting address on Phrenology, delivered by request before the Lancaster Literary Institute, by J. C. Klotz, Esq. Phrenology has, in many such associations of young men, been discussed, and sometimes it has been introduced by those who were opposed to it, for the purpose of ridiculing it; but in nearly every case the science has been vindicated, either by remarks from those who were informed on the subject, or by reading extracts from standard works on the science; and the result in all cases has been the conversion of many persons to a hearty acceptance of its truths. In some instances the strongest opponents became its most ardent advocates. We hear from these debates often, and are always happy to have the subject agitated, for the development of truth is always the result. Let the example of the Lancaster (Ohio) Literary Institute be followed, first by a discussion, and then by an able address on the subject.

Health of Daughters.—Mothers, is there anything we can do to acquire for our daughters a good constitution? Is there truth in the sentiment sometimes repeated, that our sex is becoming more effeminate? Are we as capable of enduring hardship as our grandmothers? Have our daughters as much stamina of constitution, as much aptitude as we ourselves possess? These questions are not interesting to us simply as individuals. They affect the welfare of the community; for the ability or inability of woman to discharge what the Almighty has committed to her, touches the equilibrium of society, and the hidden springs of existence.

Tenderly interested as we are for the health of our offspring, let us devote peculiar attention to that of our daughters. Their delicate frames require more care in order to become vigorous, and are in more danger through the prevalence of fashion. Frequent and thorough ablutions, a simple and nutritious diet, we should secure for all our children.

But I plead for the little girl, that she may have air and exercise, as well as her brother, that she may not be too much blamed if, in her earnest play, she happens to tear and soil her apron. I plead that she may not be punished as a romp, if she keenly enjoys those active sports which city gentility proscribes. I plead that the ambition to make her accomplished do not chain her to a piano till the spinal column, which should consolidate the frame, starts aside like a broken reed; nor bow her over the book till the vital energy which ought to pervade the whole system, mounts into her brain and kindles the death fever.—*Mrs. Sigourney.*

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Contents.

MUSCULAR EXERCISE.

THERE is no subject more important to mankind than exercise. This, to the day laborer, would seem to be of no consequence, since he has enough already. If laborers understood better than they do the laws of exercise, fewer of them would become broken down by excessive and injudicious labor. It is the *quick start* that breaks the harness, not the steady pulling of the heavy load; and it is the special and often unnecessary strain that lames the young worker for life.

The writer of this article very *boyishly*, at thirteen years of age, carried on his shoulder a two-bushel basket full of apples, and as he raised up on his toes to empty the basket into the cart he strained the small of the back, and from that day to this, now more than a third of a century, this lameness is brought on at every strain or sudden jar. Had he been content to go twice with a bushel, instead of once with two, the labor would have given strength.

But persons of sedentary habits, professional men, women, students, clerks, and children who are growing rapidly, are those who most need to study the laws of physical exercise. For years we have urged upon those who call for phrenological examinations and advice as to health and mental culture, the necessity of judicious exercise as a means, not only of health and life itself, but of building up the body so that the brain could be properly sustained. There is such a thing as taking so much exercise that the muscles are enlarged at the expense of the brain; but where one suffers in this way, ninety-nine suffer from exercising too little, and using the mind too much. The effects of exercise upon growth of muscle, and the increase of power thereby, would hardly be believed by those who have taken no pains to be informed in regard to it. The engraving which we give was taken by daguerreotype from a cast of the arm of Mr. James L. Montgomery, a teacher

J. L. MONTGOMERY'S ARM.

of gymnastics and keeper of a gymnasium at 159 and 161 Crosby Street, New York. This cast, taken in plaster, may be seen hanging in our cabinet. It shows how much increase may be made by exercise after the person has attained his natural growth.

Mr. Montgomery commenced the practice of gymnastics when about 19 years of age—was quite slender—weight 145 lbs.—chest 36 inches, arm around the biceps muscle or upper arm, 12½ inches. At the time the cast was taken he had practiced about four years—weight increased to 160 lbs.—chest 43 inches, *fore*-arm 13½ inches, around the biceps or upper arm 15¾ inches. Of late years Mr. Montgomery has confined himself chiefly to practice with the dumb-bells—when he commenced could with difficulty raise 56 lbs.—has by judicious practice since raised a weight of 115 lbs., and is now practicing to raise a dumb-bell of his, which weighs 130 lbs.

A recapitulation shows the following improvement:

	Weight.	Chest.	Upper arm.	Power.
Now.....	160 lbs....	43 in....	15¾ in....	115 lbs.
Then....	145 "	36 "	12½ "	56 "
Gain....	15 lbs....	7 in....	3¼ in....	59 lbs.

THE ORGAN OF INDUSTRY.

IT is said of some people that they love to work, while others regard labor as a penalty for man's transgression, and the greatest ill flesh is heir to. We believe man was created to be employed—to labor; if not, wherefore his Constructiveness and restless energy—wherefore his mathematical faculties? Are they given to him with which to dream his life away—to build castles in the air, imaginary railways, and phantom ships? Look at the child as soon as it can sit alone. It works busily every wakeful hour, and when it can walk about, is it not continually experimenting upon everything—building and pulling down? The play of children is their work, and do they not work earnestly? They are never so happy as when they have plenty to do.

Most animals show nothing of this sort. They seem intent on procuring their food as they want it. But when the ox has filled himself, he seeks the sequestered shade, and lies down and chews his cud. The pig plows only for roots, insects, and fresh earth; though he sometimes appears to us to tear up the earth for very mischief—to work out the evil spirit which once entered him. It is his nature to find a portion of his food in the ground, therefore he roots, just as a chicken will scratch furiously when feeding from a grain heap on the threshing floor. Hens were not organized to eat from grain heaps, but to find their food, particle by particle, on the surface of the ground, or to scratch for it after it has fallen from stalk or shrub and become covered by the soil, or to

scratch for worms and insects in the ground. But when the chicken is satisfied with food, she rests; and when the pig has obtained his fill he imitates another class of idle gentlemen, and takes a nap in the middle of the day. Industrious, then, as this animal is when hungry, he is not a worker; and ever active as are birds, they are not workers, except temporarily, when they obey the instinct of nest-building, and are feeding and rearing their young.

Industry appears to be coupled with laying up articles of use—and also joined in its action to the faculty of Acquisitiveness. Man would be unhappy indeed, to be endowed with hunger, if he had no means to gratify it—with a love of property, and no ingenuity to construct the things his tastes or his necessity demand; but with ingenuity to construct, and an ardent desire to possess things, he would be unhappy if he had no disposition to work, or a strong aversion to it.

There is certainly a great difference in the industry of men. To some, labor is their very life—they can not live without it. They feel that they must be busy every waking hour, and they are never happy when they have nothing to do, and their industrious tendency seems to bear no relation to their necessities. Rich, they will work; or if they are in the poor-house, they are utterly miserable if they have nothing to do; and they would prefer to dip sand from one tub to another rather than to be idle.

Others, who are miserably poor, and at the same time selfish and perhaps avaricious, dread work so badly that they will do nothing except when hunger and cold pinch them. They will acquire a loaf of bread, or, like the Indian, capture a bear, and lie by it until it is all consumed, and even until they begin to feel the keen demands of appetite. Then they sally forth and reluctantly but fiercely work to mitigate present want.

Is there not, therefore, an organ of industry, as well as an organ that desires the fruits of industry? and should not man be organized so that labor which is absolutely necessary for his subsistence and comfort should be to him a desire and a pleasure, rather than a task and a burden? Why should he be organized with these pressing necessities and with a desire for acquisition, and yet not have a faculty which makes it a pleasure to use the means to gratify acquisitiveness and to supply the wants of the body; and also the means to gratify the love of music, art, and all that goes to make up a high order of civilization?

It may be said that Combativeness and Destructiveness, joined with Constructiveness, are a sufficient stimulus to action and industry. But our idea of industry rises higher than merely a spirit to build and pull down again. When the little boy who is playing work has got half the chairs in the room harnessed into an imaginary team, he is not satisfied until he mounts his chariot and applies his whip to his stationary steeds. He must ride as well as harness—he works for use.

If there be an organ of industry, it should be in the neighborhood of Constructiveness and Acquisitiveness. A correspondent asks us why we leave a place blank on our symbolical head published in the "Self-Instructor," situated forward of Acquisitiveness, above Alimentiveness, and below Constructiveness, which blank is indicated by a star. He inquires of us—what faculty, if any, that portion of the brain manifests? We have for some time suspected it had something to do with the disposition to be industrious, and we would suggest to our correspondent, and to phrenologists generally, to make observations on this point.

We have a friend who has this portion of the head largely developed, in conjunction with the lower part of Acquisitiveness; and although he is by no means grasping or money-making, he is remarkable for his quiet industry; is always busy, even though his time might be made to earn ten times as much. He will be picking up things of little value—such as bits of pack-thread, blank leaves of letters, or be doing something perhaps of little profit, with an apparent feeling of satisfaction when employed, and of uneasiness when unoccupied.

We shall continue to watch the manifestations and note the instances in which this industrious tendency is exhibited by persons who do not show the love of property, as a motive of that industry. We think, however, that man's necessity furnishes a reason why he should have Acquisitiveness, and that Constructiveness and an element of industry follow as a matter of course, to make up a harmonious character. Still, we study faculties often to the best advantage, when they are seen to act without necessity, and even against the law of necessity. We are strongly inclined to think there is an organ which gives the tendency to INDUSTRY. We invite observation and comments on this point.

AGAMOGENESIS:

OFFSPRING WITHOUT UNION.

A LIVING question of this day is the question of Sex, and of the relations growing out of Sex. The issue is not a phantasy of a writer's brain. All through the civilized world—more especially all through this country—this question is now being weighed, examined, debated. According to their several turns of mind, men and women reflect upon it, reason around it, or dogmatize their way through it. Pruriency incites many to this subject, intellectual curiosity not a few, benevolence and conscience at least a "forlorn hope," perhaps an army, of investigators. As the inquiry spreads, and the intricacy of the question increases—for it is not a work for schoolboys to do—it is surely not strange that some wild and pernicious solutions of it are offered. Men find it easy to frame conclusions and to pile up systems; time and experience test their quality and their worth. The truth will be clear by-and-by; and when once clear, it will be like a demonstration in the mathematics, unanswerable to all minds above the grade of idiocy. It is not so now, however much *individual sovereignty* may please, as taught by certain very conspicuous "*individuals*" of our day. Will it not be well to remember that a true individuality entitles the hearers of a doctrine to reject, as fully as it commissions the teachers to promulgate it? There are those among us who prefer the slow analysis of reasoning, the oft-repeated collecting and questioning of all the facts, to the most beautiful and boundless realms of theory to which a swift-footed intuition so often strives to hurry us.

I do not promise that the subjects I am about to present will shed a very strong or correct light on the more important questions mooted at the present day in regard to Sex, its perquisites, and obligations; but I am sure the facts to be offered, and for most of which I acknowledge my indebtedness to papers in the *British and Foreign Medico-Chirurgical Review* and the *London Saturday Review*, will be considered as highly curious, while they at least form part of the grand sum of phenomena that must be amassed and sifted before the questions above alluded to can receive a final and satisfactory answer.

To an observer of nature's processes in the business of generation, the most natural and almost unavoidable generalization is, that certainly in the animal realm, probably in the vegetable, offspring can only be the result of a sexual union, though this union may be either obvious or concealed. And yet, certain curious inquirers among the ancients amused themselves by hunting up cases of what they termed "*lucina sine concubitu*," or offspring without the intervention of this supposedly necessary conjunction of opposite sex-principles. Singularly enough, too, while disproof or doubts have been the final fate of all those ancient instances, it has been reserved for a very modern period to show that, so far as *individual phenomena* go, the old fancy is, in other sets of instances, a fact in positive science.

In plants we find three long-recognized modes of reproduction: 1. The *Phanerogamic* or ordinary bi-sexual production, such as occurs in flowering plants, or those having in some form the appendages known as stamens and pistils, and which produce true *seeds*; 2. The *Cryptogamic*, in which the bi-sexual organisms and relations are not obvious, and which propagate by means of genesic granules or *spores*; 3. The *Fissiparous* and *Gemmiparous* modes of reproduction, which are different forms of the same process, and in which a single individual gives rise to many similar successors, by means of successive cleavings into two, or the formation and casting off of buds. Somewhat similar to the last is propagation by *slips* or *cuttings*, which, taken from some plants, are capable of striking root into the soil, and of becoming complete plants, living longer than the parent plants from which they were taken.

In the animal world we also find three modes: 1. The *Viviparous*, or direct production of young by birth; 2. The *Oviparous*, or indirect production, through eggs; 3. The *Fissiparous* and *Gemmiparous*, or production by spontaneous cleaving, or by buds cast off to form complete animals; and to this also are analogous the cases in which an animal being mutilated or severed in parts, each portion goes on to develop a new and complete individual, as in the Polype.

But a class of phenomena apparently new was first well established by M. Bonnet, about the middle of the past century. His first discovery revealed the fact that the *Aphis* (plant-louse) may produce a numerous offspring, which again shall produce for several generations in succession, without sexual intercourse, or the intervention in any conceivable way of the masculine principle. To this singular result M. de Quatrefages gave the name of *Agamogenesis*, or generation without sexual union. Before coming directly to Bonnet's experiments, however, we will devote a few thoughts to the analogous instances observed

and collected by M. Von Siebold, Professor of Zoology and Comparative Anatomy in the University of Munich, and published by him in a volume translated and issued in London, in the year 1857.

To certain cases of the kind now considered Owen gave the name of *Parthenogenesis*, or generation by virgins. The propriety of the name is doubtful. It implies two things: that the producers are perfect ordinary females of their species, and that the production is that of perfect ordinary offspring. In most cases, as will be seen, both of these conditions fail, and in all cases, at least, one of them. The term before proposed denotes only birth without union, without deciding as to the character of either parent or offspring; hence it is preferable. These cases of what may be called unusual, and in some instances *unisexual* generation, Von Siebold investigates as they present themselves in, 1, certain species of sac-bearing lepidopterous (four-winged) insects; 2, the silk-worm moth; 3, the honey-bee. In the Lepidoptera this mode of production results in furnishing females only; in the silk-worm moth, both sexes. The most complete set of observations he obtained in relation to the honey-bee, in studying which Dzierzon also was engaged.

The queen-bee, it is found, takes a single flight from the hive in youth; and during this, the "wedding flight," the noise of the queen's wings attracts the notice of the males (drones) hovering at the time in the air, the impregnation of the queen-bee takes place once for all, for her period of five or six years of life, and she returns to the hive to deposit at proper periods the germs of successive swarms or colonies of her species, but in each case of at least three different varieties. Examination with the microscope shows that all the eggs destined to become workers (imperfect females), or queens (perfect females), are impregnated in the ordinary manner, by the contact or penetration of spermatozoids; while those that are to become drones (males) undergo no such influence. In spite, therefore, of the union which has taken place, the production of the male bees is agamogenetic, or without aid from the paternal element.

In proof of this conclusion, if the queen-bee have her wings crippled from birth, she takes no flight, and then, producing only drones, ruins the hive. So, by pinching or freezing one side of her body, she becomes barren in respect to that side, and thenceforward produces unisexually, or males only. We are not specially informed whether the result is the same whichever side be affected. A like result occurs in her old age; drones only are produced, because the spermatozoids have become exhausted. But before this date, the queen may produce males or females at will; the result probably being determined by the size and shape of the cells selected to thrust the body into, for the purpose of depositing the eggs. A different degree or point of pressure on the body will thus call different nerves and muscles into action, without any voluntary act on the part of the queen further than that of choosing the kind of cell; and even this apparent volition is doubtless determined in a like manner, or automatically, by the peculiar conditions to which she is subjected at the time. Thus, these results are brought about in the same manner as the choice of particular angles and arrangements in the construction of the cells; not through any intellectual perception on the part of the bee, but by a *reflex* or automatic action of its organs, called into exercise through appropriate stimuli applied from without. It is said, also, that though the workers never experience a sexual union, they sometimes produce eggs, but in such case always those of drones. It is possible that future study may somewhat modify these results.

A wonderful contrast thus holds between the habitudes of bees and those of the higher animate, including the human world. It is entirely safe to say that a contrast so wide and persistent has its foundation in nature. Bees constitute, as was well recognized in early times, a true "feminine monarchie." And in their economy they illustrate a species of *reversed polygamy*, followed by a final and irreversible divorce, that would ill accord with the mental constitution of that species which claims to stand at the head of the animal creation.

We return to Bonnet's experiments. This observer carefully isolated a newly-hatched Aphis, by inserting the twig upon which it was in a vessel of water, and covering the whole with a glass shade. The Aphis gave birth to four-score living offspring, instead of depositing eggs. One of these was at once isolated, and with a like result. And the process went on as long as Bonnet continued to observe, or for nine successive broods.

How are we to account for this singular state of things? The aphides appear early in spring. The number in a brood, and the time they require for arriving at maturity, vary with the temperature and the supply of food. The brood usually averages 100 members, and the propagative capacity is acquired in about two weeks. Hence, in the course of a summer there may be thirteen or fourteen families. Thus myriads of these animals are brought into being, that have, *directly*, no fathers. Kyber confirmed and extended these observations. He found that if warmth and food be bountifully supplied, the agamic or fatherless production will go on for two or three years without diminution. These offspring are either winged or wingless, and the secluded Aphis may give birth to millions of them. But they are seldom, if ever, males; they are almost all females, and imperfect ones, like the worker-bees. But the true females are always *wingless, can only produce after sexual union, and then always lay eggs, never giving birth directly to living offspring*. The true females lay their eggs, and then die. And the true males and females are ordinarily only produced as cold weather approaches, or the supply of food falls short. The eggs which they leave endure through the winter, and in spring hatch out, not true males and oviparous females, but a brood of imperfect or viviparous females.

Thus in this animal there is a cycle of changes. Between two links of ordinary or parental generation there are interposed a large but varying number of links of non-parental or organic generation. The latter, once set up, goes on so long as the vital conditions are abundant—so long as life is luxuriant. When the conditions, and of course the vitality, are lowered, things return to the normal or usual state again; and ordinary animals of the two sexes then appear—the females wingless, the males winged or wingless. The microscopic examination of these animals shows the presence of the organs of reproduction; but that of the imperfect or viviparous females shows the presence of neither *ovaries* nor *testes*. In place of the former, the viviparous Aphis has organs somewhat resembling ovaries, but tubular; and in the ends of these tubes are discovered bodies similar to the ova of the true female, but which are not deposited as eggs, but developed into living insects before their connection is severed.

Hence it follows that, like the millions of buds producible in certain species, from a single vegetable stock, the millions of agamic or imperfect aphides are really but parts of the individual perfect Aphis from which they are all produced. The astonishing phenomena witnessed in this species of insect are, after all, no real exception to the universal law that requires the union of opposite sex-principles in order to the generation of new individuals of any species. The real individual of the Aphis kind is the perfect male or female; yet by a kind of exuberance or freak of the vital processes, the perfect female is endowed with the capability of putting forth a large crop of animal *buds*, which again bud in repeated succession, before the individual is exhausted; then a final bud is modified to the original or individual form, and it must perform the neglected office of that original, or the line runs out. Thus, in this species, nature goes and returns between ordinary bi-sexual generation and *gemmation* (budding), or between the method by eggs and the method of the Polypus; and the organic progeny are not really fatherless, but the successive broods and countless individuals have one paternal and maternal origin—the perfect male and female preceding the first agamic brood in the series.

In almost, if not quite, all animals, a budding process really goes on. The highest organism starts in a cell—the simplest form of animal organization—and buds out, or *differentiates* into a multitude of cotemporaneous structures, which remain associated, forming a *body*, and performing different functions that are made to conduce to common ends. But in lower organisms these buds never differentiate so widely in structure and function. They tend rather to enlarge a homogeneous mass, as in the mushroom or the medusa; or else they are cast off to assume an independent and similarly low form of life. This is the case with the Polype, and with portions of the Liverwort and the bulbiferous Lily. As the Saturday Reviewer well remarks, physiologists can no more tell why, in higher organisms, one part differentiates into a liver, another into brain, one into muscular fiber, another into galvanic or nerve-cell, than they can say why one Aphis-germ is wrought at once into a living fetus, and as such produced, while another stops to be excluded in the condition of an egg, thereafter to be hatched perhaps into a gamic or complete male or female. But according to the view now taken, the drone-bees must be considered as another instance of the entering of production by *buds* into the living economy of animals somewhat elevated in the scale. Among still other cases may be

named the Daphniæ (water-fleas) and some butterflies, the isolated females of which are capable of producing successive broods of imperfect or agamic young.

The vegetable world has been found also to furnish many examples, of which a single one will here be detailed. The *Cœlebogyne Ilicifolia* (literally, *holly-leaved spinster*), discovered at Moreton Bay, Australia, and sent to the Royal Botanic Gardens at Kew, has flourished since that time, flowering and bearing fruit regularly. This tree is diœcious, having the stamens on one plant and the pistils on another. The single specimen found is *pistillate;* and yet not only does the fruit continue to form, but the seed is perfect, and the seedling grown from it shows no marks of being a hybrid (result of intermixture with another species). Further, microscopical examination shows that the seed has been formed without the aid of pollen from a male plant. Until the contrary is proved, however, we must conclude that this is an example of vegetable gemmation in a peculiar form—namely, through fruit and seeds, rather than in shoots or stems simply, as in the ordinary cases—and that here the paternal influence is still propagated through what appear to be successive generations, but are in reality parts of one peculiarly developed individual.

Thus our researches terminate for the present, not as at first appeared probable, in showing that, at least in certain cases, the males of a species are creatures devised for purposes "rather ornamental than useful," nor in showing that under peculiar circumstances the masculine or paternal element can be dispensed with; but simply in the discovery that, in certain species or under peculiar circumstances, propagation by buds enters into and diversifies, in an unexpected manner, the ordinary round of parental generation. The highest being in which this has yet been shown to take place is, it is believed, the honey-bee. L. R.

MARRIAGE VINDICATED, AND FREE LOVE EXPOSED.

[From "Thoughts on Domestic Life: or, Marriage Vindicated, and Free Love Exposed." By Nelson Sizer. Published by Fowler and Wells, New York. Now in Press. Price, by mail, 15 cents.]

SECOND EXTRACT.

We come now to a point requiring the assertion and exposition of another law of nature, viz.: every additional faculty possessed by one species of animals above those of others raises that species above the others in the scale of being. The building faculty of the beaver makes him superior to animals of equal size and strength who do not possess the constructive element. The commonwealth government and building habits of bees raise them vastly above most other insects.

The oyster has two, perhaps three, mental instincts. He feeds, procreates, and shuts his shell when assailed. The shad feeds, procreates, sees, resists aggression, fears danger, and has the power of locomotion. The oyster has three, and the shad not less than seven, powers or faculties. The shad is, therefore, much superior to the oyster, and of course is much nearer to man in the scale of being. Frogs, turtles, shad, and many insects, deposit their eggs where the warmth of the sun, acting on the water or the sand, will hatch them, and this ends their care for their young. It is not Philoprogenitiveness. It does not rise to that dignity. As the little turtle, hatched in the warm sand, on the shore where the egg was buried in the immediate neighborhood of thousands deposited by other turtles than his mother; as the little fellow, with his new-found and untrained legs, finds his way to the contiguous water, his mother does not recognize him as her own from any other one of a thousand who are digging their way out of the sand and seeking the common ocean. Some fishes are said to watch and protect their eggs until their young are hatched. This certainly is a step above the turtle; and some are said to protect their young until they are large enough to shirk for themselves. This is a step above the common run of fish who devour their own young with as much rapacity as they do the progeny of others. The whale suckles its young and protects it until it is old enough to be weaned. This certainly evinces a superiority of mental organization over all others of the finny tribes. As we rise in the scale of being—as we meet with animals having an increased number of faculties, we find them taking better care of their young. The cow, the mare, the hen, show great care for their young. The hen, unlike the turtle, the fish, and the frog, incubates her eggs day and night for weeks, warming them with her own bosom, and when they are hatched, she feeds, protects, and broods her young. Here is Philoprogenitiveness. This is love of young. But where are the fathers, meanwhile? Do they consort with, cheer, and protect the mother during gestation, and help to protect and feed the young when produced, or do they even know or acknowledge them as their own? Not at all; never! They wander forth unshackled by any affectionate ties, like genuine free lovers, seeking new objects and fresh conquests, forgetting the former union, and caring nothing for its fruit. The wild turkey tries to destroy the eggs or the young when hatched, and consequently the hen hides her nest from the male, and keeps her young out of his sight until they are well grown. Since, then, these males do not manifest Philoprogenitiveness, we regard those species of animals as less perfect and elevated than those in which the male as well as the female love the young and help to feed and protect it. But since these animals lack the organ of "Union for Life," and therefore associate promiscuously, the males do not know their own progeny, consequently the organ of Philoprogenitiveness is wanting in them.

But in all classes of animals which choose their mates, the male takes an interest in the young, showing that they possess two more faculties than those which do not mate, viz., Union for Life and Philoprogenitiveness. The gander, who chooses his mate, helps to select the site for the nest, aids his consort in building it, sits by her side during the weary weeks of the long incubation, and when the downy brood is hatched, with what pride and stately gallantry does he lead and protect his family, and woe to the boy or dog who gets too near or becomes too familiar with the goslings!

Some birds and animals choose their mates every year during the breeding and rearing season. In all these cases the male adheres to his mate with fidelity, and also helps to protect, feed, and rear the young. In some cases after the young are reared, as with wolves, the parents divorce themselves and separate, each seeking an individual maintenance, prowling solitary in the mountains. Several species of birds which belong to adhesive or gregarious tribes choose mates for the season, and after their joint effort and care have reared the brood, they dissolve their matrimonial relationship, and fall back as members of the general flock. On the return of "St. Valentine's Day" they again choose mates, perhaps the same as the year before, perhaps not. It is, nevertheless, restricted intercourse, and always connected with the possession by the father of the faculty of Philoprogenitiveness. Those which choose mates yearly are superior to those which associate indiscriminately, and those we regard as noblest and highest which choose the companion for life.

Animals which trust their eggs or young to chance are low in the scale of being—at least in the social scale; those in which the mother shows Philoprogenitiveness, as the hen, are raised a degree higher; those which have the mating propensity, and the male as well as the female shows a love of young, though they mate yearly, occupy one degree higher; and, finally, those which choose mates for life, and both parents help to rear and also remember their young longer than any other class, approximate in their social qualities the true characteristics of the human race, and are thus the highest of all.

We will not claim that each animal which chooses its mate is superior in intellectual sagacity to all classes which do not, but we do assert that they are superior socially. And now we are prepared to remark that the most perfect human being is he who has, in the best and most harmonious development, all the faculties which can be found in all the lower animals, with those faculties superadded which rise above the animal scale and constitute man's special superiority. We refer, of course, to the moral sentiments, imagination, wit, and the higher reason.

The civil law recognizing the Monogamic union is only the written expression of the public sentiment.

No law which did not find in man's nature a sentiment or a feeling in accordance with it-

self ever came into being by public consent and for ages commanded the public respect. For example, selfishness and justice in the human mind, acting in concert, have established the law of property. I work for an object and obtain it, from the bowels of earth or ocean, and by virtue of that labor my selfhood claims that product of labor as its own. My neighbor, endowed with equal or superior ability to labor and achieve, looks on and sees my success, and his sense of justice recognizes in me the right, as lawyers phrase it, "to have and to hold for my own use and behoof" the good thing which my labor has won. Each man having Acquisitiveness desires property, but each also having Conscientiousness, which is the foundation of justice, leads him to respect the right of property in others.

The law of marriage has existed as long as the law of property, and though repudiated by some people, nevertheless we claim that this law originates in the very life and being of man himself. Marriage may have foolish and grotesque ceremonials, as religion, or the element of worship, which is patent in every sane mind, may be loaded with senseless forms and debasing superstitions; yet from man's heart of hearts there flows forth spontaneously a sentiment which seeks companionship, and that for life, with one woman, who shall be not only his other half, but the mother of his children; who will rejoice with him at their birth, and join with him in effort to educate, develop them into mature manhood and perfect womanhood. As this takes a lifetime, marriage, which precludes indiscriminate association, and some form of religious worship, alike, belong to every well-constituted human being, as much and as literally as his backbone, and we hazard nothing in the assertion that the number of those who are so constituted as to feel marriage in itself to be a yoke of bondage is as few as are those unfortunate beings whose spines are too weak to sustain their bodies in an erect position. Those who inveigh against marriage belong to one of three classes—first, the dissolute and base; second, those who are improperly wedded through carelessness, vanity, or selfishness; or third, those who lack a proper development of one of the social organs, called "Union for Life," and are thereby unqualified to manifest the connubial feeling. Such persons should therefore be cautious how they expose their character; at least should they refrain from trying to become teachers of others on a point where they can but show their own weakness. If they are actuated by the first state of facts, mere sensuality, shame should make them silent; if by the second, the fault is their own, not in the institution, and they do but confess their own folly and selfishness when they ignore the marriage relation; but if by the third consideration, viz., a lack of the faculty of Union for Life, they should be taught that those who are idiotic in any sense, as they evidently are in the feeling which makes two hearts one, they are the very last persons on earth who should assume to put forth theories on this subject, in regard to which they, of course, can know nothing. As well might the blind ignore for the entire race all the facts and laws of color, or the deaf decry music, or the intellectual idiot all that pertains to logic and common sense.

That there are partial idiots—those who are destitute of certain faculties, while all their other mental powers are well manifested—needs no argument to prove. In the same family, it may be, one is wholly deficient while another is a genius in figures, or mechanism, or music, in logic, or in language; one is bold and daring to a fault, another is pusillanimous; one is sharp in acquiring and laying up property, another with equal intellect seems to have no idea of, or rather *feeling*, which values property; one is proud, another has no sense of dignity; one is cautious, another is reckless; one is sensitive to praise, and rejoices more in the good-will of his fellows than in anything else, another cares nothing for reputation, and in his rudeness and vulgarity contemns public sentiment; and in morals—one feels keenly the sense of justice, has an active and strong Conscientiousness, another feels little or no compunction; one has the spirit of Veneration and respect, another is impudent to superiors, and feels no reverence for God and things sacred; one is hopeful, another desponding; one is sympathetic and benevolent, another deaf to the cries of the distressed. In respect to the social qualities, also, one loves children, another with a general character equally high and noble lacks Philoprogenitiveness, and regards children and pets as a nuisance; one is adhesive and fraternal, another is unfriendly and solitary in disposition; one is amatory, another is simply Platonic in affection, and is deficient in sexual love; and would it therefore be strange, if, in the organ of *Union for Life*, or the faculty of marriage, some should be found who are defective, idiotic in its development and manifestation? and shall we accept our code of morals from such persons? If those who object to marriage belong to this class, we must regard their teachings as we would the ravings of the madman, the senseless incongruities of the idiot, or the maudlin twaddle of the drunkard, for the simple reason that they are blind guides, not having the faculties requisite to give them any sound judgment on the subject. For be it remembered that taste, ambition, social affection, and moral sentiment arise not from intellect, but from emotional instincts, and from a correct and healthy action of these alone can their respective questions be settled. If those who object to marriage belong to that class who are governed by sensuality, or by an excess or perversion of the amatory element, it requires no argument to repudiate their claims to the position of teachers on this subject, however intellectually wise they may be on other subjects which have intellect, and not a feeling for a basis.

If, again, those who object to marriage belong to the class who are badly mated, the greatest concession we could willingly make to them would be to grant them a separation from each other, but not necessarily the liberty of forming an equally unfortunate alliance with other parties, thus permitting one unmateable man to bring sorrow into a dozen families in his fruitless endeavors to find a counterpart to his eccentricities; much less would we accept as the truth his anathemas of marriage, simply because he is unmateable, or has, in a marriage of "convenience," or of sordidness, or of a baseless fancy, been mismated.

The exceptions must not destroy the rule. Fire badly managed may consume a house. Shall we not, therefore, use fire or build houses? Late frosts sometimes destroy crops; shall we, therefore, plant no more? Shall the race repudiate marriage because one in ten thousand is a corrupt lecher and would break down all the barriers of virtue, so that in universal license his own corruption may be lost; or because one in the ten thousand is unwisely mated, shall we therefore break up all marriages, unmate all, so that those who are now mismated may have company in their misfortunes; or because one in ten thousand is idiotic in social development, and can not appreciate and enjoy connubial unity, shall, therefore, the nine thousand nine hundred and ninety-nine turn their backs upon one of the dearest laws of their being, and descend to the level of this *one* unfortunate being? As well might philosophy succumb to idiocy, or the university bow before the pratings of a clown.

Age and Decision.—A friend mentioned to us this week one of the most remarkable illustrations of decision, in breaking away from a long-continued habit, that we ever heard. It was in the case of a relative of his, a venerable old gentleman, 94 years of age, who had been in the daily habit of using his pipe and tobacco for more than seventy years. As the result of mature deliberation, he suddenly, one day, surrendered the weed and all its accompaniments into the hands of his family, with the very emphatic declaration, "There, take 'em away, I've done, I shan't smoke any more—I won't die with a pipe in my mouth." This determination was not in consequence of any consciousness of impaired vigor by the use of tobacco, for the old hero had never been sick a day in his life, had never been obliged to call a physician, and had never known anything whatever of the depression of disease—but it came from the exercise of a wise, manly resolution. All honor to a veteran of 94 who could conquer a habit that had endured through "three-score and ten!" John Leighton, Esq., of Boston, is the man.—*Clinton Courant.*

EACH PHRENOLOGICAL FACULTY,

AS ADAPTED TO, AND EXPRESSIVE OF, A GREAT INSTITUTE OF NATURE.

NUMBER III.

INHABITIVENESS, another of the phrenological faculties, not only applies to man and animal, but expresses a universal natural institute—a *law of things*. Everything has, must needs have, its home, permanent or movable. The domicil is almost as much a necessity to man as food or breath. Even the wandering Arab has his home for the night, where he spreads his skin and forms his pillow, be it of a bunch of grass even. And every human being *seeks* a home as much as food. Marriage and young render this home requisition still more imperious. Indeed, it is more on account of our *children* that we erect homes than for ourselves. They, more than we, need a *place* to sleep, eat, and live in, and these creature comforts home alone can supply.

Nor does man alone need and build homes. All forms of life follow out this home instinct. All fowls illustrate this home law in the nests they construct; all beasts—the lion in his lair, the fox, woodchuck, and squirrel in the holes they dig, the bear and wolf in their cavern, and thus of all the others. Even the very fish form their domicil of sea-grass, in which to rear their little ones, as shown by Prof. Agassiz The very ant has its habitation. So has every bug and worm in its nest and cocoon. And thus of every form of animal life. And what are the clothes of man, the feathers of birds, the hair and skin of animals, the scales of fish, the shells of snails, etc., but houses carried around *with* them? And what the bodies of man and all animals but abodes—tabernacles for the in-residence of the spirit-principle?

But are there no other instances of this home institute? What, pray, are the shuck and shells of nuts, the beds in which seeds are formed, the hill and hole in which the potato and all tubers grow, the socket in which the kernel of corn forms and fastens to its parent cob, etc., but the home of the child during formation? What, even, the place where each tree has planted roots in the fissures of yon rock, by yon streamlet, on yon fertile plain, but its domicil? Every blade of grass must grow *somewhere*, and that spot of mother earth in which it plants its rootlets is its home. So is that coarse integument that surrounds it. So is the bark on the tree its house. So is the place where the leaf fastens to its parental branch, and the crotch where that limb fastens to its parental trunk, the clasp of each root to its trunk, and even that bed in the sand formed by that stone, and that resting-place in the bowels of the earth where every stone resides, and every bed in every material body where each particle of matter is stationed, the base of each mountain, hillock, and stream, the abode of heart and stomach, of each bone and muscle, but the *home* of these several bodies and organs? And these illustrations but show that whatever is, animate and inanimate, each body, and every part and particle of each—everything above, upon, and within the earth, partakes of this home institute. In fact, nothing can be or exist without it. Even our earth itself, the grand home of all within and upon it, partakes of this home institute, by remaining within its own sphere or territory, never encroaching on that of another planet, and always *at home*. And this illustration applies equally to all other planets, and stars. Behold the universality of this home institute! It is a necessary and a universal condition of every form of life; nor of life merely, but of matter in all its mutations; nor of matter merely, but of existence itself—of entity, of being. And of mind as much as matter; and of each phrenological organ and faculty considered separately and in unity. In short, Inhabitiveness expresses a fact, a law, a necessary condition of things, and entitles that science which has discovered and analyzed it to the name of *Philosophy*.

The ADHESIVE element is quite as universal as the Inhabitive, Parental, and Amatory. It binds man to man in bonds which none of his other faculties could forge or entwine. It is both a necessity and a universality. Without it, man would be scattered up and down over the face of the earth, isolated and alone—his hand, like Ishmael's, against every man, and every man's hand against him—and of course engaging in no work requiring more than one to accomplish; for he could form no more idea of concert than a blind man of colors. But for this element there could be no language, for there would be no desire to communicate anything—could be no books, speeches, history, news, schools, churches, partnerships, governments, railroads, commerce, trade, manufacturing, anything. Only that could be done which one could begin and finish. And this would be but little. But it is a first principle of things that "*union* is strength." Concert of action renders the action of each all the more efficacious, and is a *sine qua non* to all that is important or great. Without it, how could even husband and wife ever join in tilling the farm or rearing their young, for there could be no concert in anything. This concert is as much a law of things as gravity of matter. The world could not exist without it. And, like all other laws, the more extensively applied, the greater the reward. Is there no *concert* of movement among the heavenly bodies? How could they exist if they did not move? and how move but for this *concert* of movement? Concert, as between sun, moon, and earth, between each and all the members of the solar system, between the sun and all that great brotherhood of stars of which it forms a member.

Equator and poles, cold and heat, summer and winter, wet and dry, tree, bough, leaf, and fruit, earth and air, mountain and valley, streamlet, river, and ocean, vegetable, animal, and man, parents and children, individuals and nations, genera, species, and individuals—all and ten thousand like illustrations of this law of this co-working law, both prove the existence and the universality of this law of concert, or embodiment.

Even the mental faculties—phrenological—furnish an additional illustration. Suppose Causality acted alone, Ideality and Color and Form each in and by itself, Amativeness irrespective of parental love, and parental of conjugal, Language of reason, and reason of Language, and so on, how could this *separate* action enjoy or accomplish anything? Two men carrying a load, carry the more and easier by stepping together. Eyes, feet, hands work easily together in attaining many a common course, unattainable by their separate action. The stomach can not say to lungs or heart, I have no need of thee, nor bone to muscle, nor muscle to nerve. On the contrary, they *collectively* form one grand whole, each in his separate department seeking the *common* good. By this bond of *community* of interest and co-workmanship, all that is, is bound together by one great fraternal ligature.

Nor are nations exempt from this fraternal law. The jealous idea that the rise of one is the fall of another, is all wrong; so the downfall of either injures all, as the prosperity of either contributes to the prosperity of all. All are brothers. Sectionalism is sin. Those who wish this union dissolved, "know not what they do." The fanatics and fire-eaters of both sections are equally guilty of conspiring to overthrow this, the only hope for the future of the race. Dissever those fraternal bonds which, consummated in 1776, achieved our ever-glorious independence, and each State sets up for itself, and wars on sister; each destroys itself in attempting to outstride or head-off the other. The true way for any section to promote its *own individual* interests, is to promote that of *all*. All are identified with all. As if heart should say, I work no more for the common good, only my own; and stomach, hereafter, I digest only for my*self;* and lungs, I breathe for number one *only*. How soon this *divided* course will *destroy* all! All these fire-eaters of east and west, north and south, are suicidal to their *own* section. But, thank Heaven, they are only a miserable minority—croakers that would not be satisfied in heaven, if there. But there is no danger of their ever getting there, for *its* motto is, "We are all a band of *brothers*."

Then let all portions of nations and states, of countries and towns, of churches and neighborhoods, of families and individuals, *fraternize*. And the more they fulfill this *fraternizing* law, the more they will prosper in their individual capacity. And always and everywhere the good *do* fraternize, while "those who stir up strife" are *themselves* the wicked ones. And that neighbor who is eternally telling how bad all his neighbors are, is *himself* the wicked one of all; and that woman who scolds and berates all around, thereby proclaims her *own* deviltry. Unity is a natural law. Its scope is *universal*. And those who fulfill its conditions the most perfectly will reap the greatest reward. Brothers in Phrenology and Reform, let us one and all work *together* in behalf of one *common cause*. And this law will crown our brotherly efforts with triumphant success.

Union for Life, or the *pairing* institute, forms another department of nature, illustrated not only by conjugality in man, and the pairing of birds and animals, but, in matter proper, by cerebellum and cerebrum, the corticle and cineritious substances of the brain and nerves; the muscles and nerves always found together, and a thousand like samples of both the existence and the universality of this dual or pairing, or conjugal or male and female order of things. But as both Adhesiveness and Amativeness cover ground quite analogous, the general idea here stated can be easily followed out into its various ramifications throughout Nature's dual economies.

CROMWELL'S HEAD.

THE story some time since current that Cromwell's head was in the possession of some person in England is again revived by a Paris correspondent of the New York *Express*, and the statement bears the marks of truth.

"Before leaving England I had an opportunity of seeing a great curiosity, a relic of antiquity, which few Englishmen have seen. You will be surprised, and perhaps incredulous, when I say I have seen the *head of Oliver Cromwell*—not the mere skull, but the head entire, and in a remarkable state of preservation. Its history is authentic, and there is verbal and historical evidence to place the thing beyond cavil. Cromwell died at Hampton Court in 1658, giving the strongest evidence of his earnest convictions, and of his sincerity as a Christian. After an imposing funeral pageant, the body having been embalmed, he was buried in Westminster Abbey. On the restoration of the Stuarts he was taken up and hung in Tyburn. Afterward his head was cut off, a pike driven up through the neck and skull, and exposed on Westminster Hall. It remained there a long while, until, by some violence, the pike was broken and the head thrown down. It was picked up by a soldier and concealed, and afterward conveyed to some friend, who kept it carefully for years. Through a succession of families, which can easily be traced, it has come into the possession of the daughter of Hon. Mr. Wilkson, ex-member of parliament from Buckingham and Bromley. It was at the residence of this gentleman that I saw the head, and his daughter, a lady of fine manners and great culture, exhibited it to Rev. Mr. Verrill, the pastor of the Bromley Dissenting Chapel, and myself.

This head of Cromwell is almost entire. The flesh is black and sunken, but the features are nearly perfect, the hair still remaining, and even the large wart over one of the eyes—such being a distinctive mark on his face—is yet perfectly visible. The pike which was thrust through the neck still remains, the upper part of iron, nearly rusted off, and the lower wooden portion in splinters, showing that it was broken by some act of violence. It is known historically that Cromwell was embalmed, and no person thus cared for was ever publicly gibbeted, except this illustrious man. In addition to the most authentic records concerning the head possessed by the family, and which I have found sustained by historical works and even an old manuscript in the British Museum, Mr. Flaxman, the distinguished sculptor, once gave it as his opinion that this was none other than the head of Oliver Cromwell. Yet its existence seems almost unknown in England, and only a few years ago a discussion in some of the public journals, which I have seen, alternately denied and advocated it. Such a rumor was in circulation, and as no one had then seen the head, it having been kept concealed, none could speak by authority. Recently the motive for concealment has passed away, and permission to see it was carefully granted. It is a curious keepsake for a lady, but it is carefully preserved under lock and key in a box of great antiquity, wrapped in a number of costly envelopes; and when it is raised from its hiding-place, and held in one's hand, what a world of thought is suggested!"

LONGEVITY AMONG ENGLISH QUAKERS.—For some time past the pages of the London *Lancet* have been enlivened by a controversy on tobacco, its uses, abuses, etc. Among the items which have been developed in the course of this discussion, a correspondent, "D," furnishes the following:

Mr. Niel having asserted "that Quakers, who never smoke, reach a good old age," I was determined to make inquiries on the subject, and find that here and there a smoking Quaker is to be met with, but that the habit is not common with members of the Society of Friends. Of course, there are exceptions to every rule. The following statistics can not fail to prove interesting to general readers. Smoking not only leads to drinking, "but it diminishes the *saccharine* constituents of the blood."

"In the year 1855–56 there died 287 members of the Society of Friends in Great Britain, of whom there died from birth to 5 years old, 37; from 5 to 10, 8; 10 to 15, 5; 15 to 20, 12; 20 to 30, 18; 30 to 40, 17; 40 to 50, 19; 50 to 60, 23; 60 to 70, 46; 70 to 80, 50; 80 to 90, 43; 90 to 100, 9."

From this it will be seen that the *greatest* mortality among Quakers is between the ages of 70 and 80; the next greatest, between 60 and 70; and the third greatest, between the ages of 80 and 90.

THE RELIGION OF MUSCLES.—The New York *Christian Inquirer* says, that the first need, perhaps, of the Church, at the present day, is not so much mind as muscle. The *Inquirer* seems to be of a like opinion with Mr. Kingsley, who describes his ideal Christian as a man who fears God and can walk a thousand miles in a thousand hours, or twist a poker around his thumb.—*Zion's Advocate.*

ROBERT W. GIBBES, M.D.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

R. W. GIBBES was born in the city of Charleston, on the 8th July, 1809. He was the son, by his second marriage, of the late venerable William Hasell Gibbes, from colonial times, until a very modern date, Master in Equity for Charleston District, and also a patriot soldier of the Revolution. His mother was Mary Philips Wilson, sister of Drs. Samuel and Robert Wilson, deceased, formerly and so long known as physicians of extensive practice, and highly esteemed, in the city of Charleston. Dr. Gibbes comes of a stock of ancestry long and honorably identified with his native State, the Hon. Robert Gibbes, the grandfather of his grandfather, William Gibbes, having been one of our Colonial Governors, and our Colonial Chief Justice in 1708. Dr. Gibbes received his school education in Charleston, and was a student at the South Carolina College, having been of the class which graduated in 1827; and of his *alma mater* he has been a trustee for ten years. Having selected the medical profession, he attended a course of lectures at Philadelphia, but took his degree of M.D. in the Medical College of the State of South Carolina, at Charleston. He married a daughter of the late venerable James S. Guignard, Esq., and settled in Columbia, where he has lived some 33 years, and has liberally contributed to, and identified himself with, every work for the advancement of the public interest, in the way of railroad enterprise, manufacturing industry, or general improvement; practised physic successfully and acceptably for 28 years; nobly sustained the hospitality of the city, and proved himself the friend of the widow and the orphan, the patron of youthful genius or merit, and the benefactor of the poor. He has twice worn the honors of the Mayoralty of Columbia, and was Assistant Professor of Chemistry in his own *alma mater*, the South Carolina College, with such reputation that he was tendered the full Professorship, which he declined, preferring to devote himself to his profession. To the medical and scientific journals of the country he has largely contributed, and many of his articles have been republished in France and Germany. His name is honorably mentioned by Humboldt in his "Kosmos," by Audubon, in his great work on Ornithology, and in other scientific journals of Europe. He is a member of as many literary and scientific societies, at home and abroad, as any man in South Carolina; and he is known to the Union as a scientific man. The late Dr. Morton, among the eminent dead, was his intimate friend; and, among the eminent living, Agassiz, Henry, Bache, Fraser, and others, bear toward him the same relation. The Smithsonian Institute has published his researches, as valuable contributions of knowledge to its scientific treasury. He is the author and compiler of several volumes of the Documentary History of South Carolina, and is the author of several other highly esteemed literary and scientific works. He has been recently re-elected President of the Medical Association of the State of South Carolina, and has often been a delegate to represent the medical profession of the State, at the National Medical Convention. Of the mechanic and business interests of Columbia he has been a constant and generous friend, liberally indorsing for their support; and it is in consequence of like liberality to the press, that, to save himself from heavy loss, he was compelled to become a newspaper proprietor and editor, greatly to the disturbance of the literary and scientific pursuits to which he is devoted, and overburdening with labor one engaged in extensive practice as a physician. The poor artist has felt the genial influence of his benevolence, and been fostered by it into fame and eminence; as witness poor Deveaux, whose remains now repose in the Eternal City. The widow and the orphan have been consoled and gladdened by him in their poverty; or, if endowed with either independence or moderate means, seek him as their business agent and counselor.

In his position of editor, his friends claim for him that he has had the distinguished honor of contending for the rights of the press and corporators against the Know Nothing Council of Columbia, who claimed the right to eject him from a public meeting lest he should report their proceedings, and he has been rewarded for his manly resistance to arrogant usurpation by a verdict in his favor. For his noble defense of the liberty of the press he deserves, and receives everywhere, the thanks of his fellow-citizens.

After several years of excessive labor in the editorial chair of the *Daily South Carolinian*, he has recently retired from its management, in which he has been eminently successful, and now

PORTRAIT OF DR. ROBERT W. GIBBES.

devotes himself entirely to his profession and literary and scientific pursuits. He is distinguished particularly in his profession by having revolutionized the treatment of *Pneumonia*, his views of which were first published in the *American Journal of Medical Sciences* in 1842. His treatment is complimented by being incorporated in "Watson's Practice," one of the best text-books of the profession. He enjoys an extensive practice in Columbia, and his reputation is only equaled by his social qualities, which make him welcome in any society. M.

PHRENOLOGICAL CHARACTER.

[It is but just to state that the following examination was made without any idea of its being published, and the examiner had no knowledge of the name, habits, or profession of the subject. We give it here *verbatim* as it fell from the lips of the examiner, and was taken down and written out by the reporter.]

You were born to wield important influence and to mold men. Are adapted to be at the head; not as much in the physical as in the intellectual and the moral world. Are proud-spirited, not in the coxcomb sense, but in pride of blood and pride of character, and of intellect. You never allow anything to compromise your reputation, and nothing will compromise it. Are a man of character, are liked by all. Are exceedingly sensitive to whatever affects your character. Are scrupulous in fulfilling every promise you make. You are a natural gentlemen; polite, cordial, courteous. Are uncommonly well calculated to please and persuade. Are certainly one of the greatest lovers of liberty to be found, Never have been and never can be led or dictated to. You don't follow public opinion, but lead it. Are an out-and-out skeptic in everything farther than you see proof. Even in religion you must know why and how before you believe, and the older you grow the less confidence you put in doctrines, and the more in an upright true life. You are very kind, obliging, and sympathetic; will often do in kindness what you would not do by compulsion or for pay. Are always kind and generous to the poor, and especially you feel it your duty to minister to the sick and despairing.

You care little about dollars to hoard; probably have enough of them because you have the intellect to make them, but you make them as an intellectual art rather than as a natural instinct, and spend freely. You will have what suits your fancy, let it cost what it will. You are a poor collector, and must make your money in some large way.

You are the personification of honor, truth, and justice. Are a candid and undisguised man. No man more so.

You are pre-eminently social; a natural gallant, and a worshiper of the gentler sex. Are always among the ladies and children. Are unusually domestic and generally liked, except by your rivals, who hate you cordially, and you hate back again, not that you have a spirit of revenge, but that you have strong indignation.

Your Cautiousness is very large, but you sometimes appear to lack it. You are very cautious in action but not prudent in expression, and not the most prudent with money. Your very largest organ next to Benevolence is that of Conscientiousness. You are rigidly, scrupulously, and sternly conscientious, not merely in business but in everything else. Are a little too censorious, too apt to blame others who do not come clear up to the top of your high standard. You can not tolerate the least departure from right in anything.

You are a man of commanding talents and of great natural observation, greater in memory, greater yet in induction. You are skillful in putting this and that together and drawing inferences, still more so in scanning and analyzing, and in presenting short pithy sentences to the point in dispute, and condensing more in the same space than most men can do, and hence your remarks often *produce a laugh*, and always carry conviction.

You are one of the best judges of character. You read a man right through at a glance; may always trust your first impressions of men. You are also agreeable, because you know just when and where to take men. You are the personification of Order. Are bound to have every single thing in its own place, so that you could put your hand in the dark upon anything that you alone use, and hence you rarely ever make mistakes.

You ought to be a professional man; were never born for private life. Were born for the world of intellect, and would exert great influence in that sphere. Names you forget. You know a thousand persons by sight, and almost all about them, but can not call them by name; but you never forget facts and principles, never faces or places. Have all the organs requisite for making a classical scholar. Are fair in mathematics, but your mechanism takes an intellectual turn. Are particularly good in telling anecdotes, and setting off things in glowing colors, besides imitating to the very life. Yours is a singular head, strongly marked everywhere, inherited from your mother, who was a good and talented woman, and on that side you inherit great longevity.

You are very tenacious of life. One of the toughest of men that ever lived. Can wear like iron, and can wear out ninety-nine men in every hundred. Need not fear sickness, for your mind beats off disease and noxious influences, when most others would go to their beds or their graves.

You can speak fluently; are more distinguished for pithy remarks than for long speeches. You will make your mark, and no mistake. Could excel as a lawyer. Have just the mind requisite for the bar, only a little too much conscience. Are best adapted to the professor's chair. Would excel in the healing art. Your love for the natural sciences amounts to a passion, and your talent in that department is not often equaled. As much scholarship, as much memory, as much inductive power as you possess is altogether uncommon, and you know how to manage men. Your talents, too, are versatile. You know a little about ten thousand things. I hope your wife is fonder of money than you are, and more saving.

You are reputed to have any quantity of self-esteem, but have really too little of this organ. You are one of the most indomitably persevering men I examine—will not give up anything. I never find memory of shape better, scarcely ever as good. This will enable you to excel in the pursuit of any science or study in which the qualities of things are to be understood. You have the talents and the disposition to write, and can write well. You have apparently exercised your intellectual faculties with unwonted vigor for a few years past.

WILLIAM PAINTER.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

The person from whose portrait we dictate this character has solidity and vigor of bodily development, soundness and hardihood of constitution, which give force, endurance, energy, and practical efficiency. He has harmony of vital development and a plenty of muscular power; hence he ought to be tough, healthy, and hardy. His head is rather wide, showing a full development of Combativeness and Destructiveness, Acquisitiveness, Cautiousness, and Secretiveness. These organs give thoroughness, policy, economy, and prudence. His head rises high from the ears upward to the location of Firmness and Conscientiousness, indicating stability, determination, a strong will, self-reliance, and general integrity, and a tendency to be at the head of affairs. The center of the top-head shows rather large Veneration, which gives him respect for age, wisdom, superiority, and things sacred. His faith is not remarkably strong. He inclines to question and criticise whatever seems new, strange, and wonderful, and he is more likely to settle down on some plain, common-sense platform of faith and doctrine than he is to be carried away by enthusiasm beyond the ordinary summit-level of belief.

He appears to have a full development of the social organs, as shown by a side-view daguerreotype in our possession. He is candid in his friendships, steady in his attachments; is not much inclined to flatter and fawn upon his friends, and is fond of home and its associations. He appears to have large Benevolence, as seen by that elevation above the root of the nose, under the hair. His kindness, however, is shown in a practical way among his acquaintances, not in speculative schemes of philanthropy. His missionary money is all expended within the vicinity of his acquaintance, where he can watch its effect and know that it is properly appropriated. If a person is sick and in trouble, his sympathy and kindness are exercised liberally; and he is much more inclined to exhibit, in his general conduct, the principles of the Christian in acts of justice and neighborly kindness, than he is to accept the form of devotion and the doctrine of a creed.

The features of his character which are most distinct, as seen in the portrait, are those located in the forehead. It will be observed that his head, from the eyes outward through the temples, is broad—so much so as to make the head look rather low and flattened. This development evinces great mechanical talent and mathematical ability, power to invent and use tools, plan business, and work out results practically. He ought to have been educated for a builder or civil engineer. His organs of Calculation and Order are large, evincing system, organization, knowledge of combination and arrangement, and also great talent for reckoning figures, keeping accounts, working out problems, understanding the relations of numbers and the laws of mathematics. The whole brow is prominent—the eyes are widely spread, and every portion of the forehead indicates practical judgment, sound common sense, ability to understand business and to follow out its details thoroughly.

He has fair talking talent, a good memory of what he sees and experiences, power to look ahead and understand the effects of business operations.

He has much in his organization indicative of the pioneer spirit, and he rarely makes a move that is not dictated by sound sense. His judgment is reliable, because not too much swayed by anticipation or a warm imagination, but based upon a careful calculation and estimate of what he can make out of the circumstances or do with the means in his power. He has just the organization to work out his own success without assistance; still he ought to have been educated, at least in the sphere of the sciences, and he would have made his mark among men of culture. Without education he makes his mark among men of business.

He will be known for his sound judgment, mechanical ingenuity, strong affections, thoroughness, and uniformity; for his love of truth and disposition to fulfill his engagements, and to treat other men with justice and proper consideration.

PORTRAIT OF WILLIAM PAINTER.

BIOGRAPHY.

William Painter was born in Greene County, Ohio, April 28th, 1821. His parents were Quakers, and good, honest Ohio farmers. His ancestors were among the original settlers of Greene County, where the subject of our narrative lived, and worked on the farm till his twentieth year, when he was sent to Mount Pleasant Friends' Boarding School, where he remained for about two years, till he was employed on a farm, and a part of the time in doing carpenter work, jobbing, etc., required about the farm, among which was the building a large barn, which he did in a workmanlike manner, without having been taught the trade. He was married in June, 1843, to Caroline Fawcet, with whom he lived in Paintersville, Greene County, Ohio, till June, 1844, when she died.

In 1845 he married Elizabeth Self, when he moved to his farm, near Paintersville, where he continued farming, and, at intervals, threshing grain for the neighboring farmers on an improved machine of his own construction; also superintending the building of houses, barns, etc.

In March, 1847, he obtained an interest in a grist-mill, in Clinton County, Ohio, where, without anything to depend on but his own skill, backed by untiring energy and a strong will, succeeded, without previous apprenticeship, in running the mill himself, and making good work. At the same time he superintended the building of houses, constructing of pumps, and machinery of different kinds. In September, 1847, he took his wife and one child, and in a two-horse wagon started for Wisconsin. He arrived and pitched his tent in Grant County, at the head of Platt River, where he purchased a farm and built a cabin, lived there farming and following those mechanical pursuits for which his genius seemed to be peculiarly adapted.

In March, 1849, he started, in company with ten others, on an exploring expedition to Northern Iowa, then the habitation almost exclusively of the red man. Being struck by the beauty and fertility of the country, he with the rest determined to make it his home. Mr. Painter, with his usual decision of character, made a claim and built a cabin on the Upper Iowa River, on the place where the town of Decorah now stands.

It was here that his character began to be displayed in its true light. He soon commenced the erection of a grist-mill, an arduous task in Northern Iowa at that time for any one, but especially so for one with very limited means, and without a mechanical education. In spite of all difficulties, he succeeded in starting a mill in 1852 with one run of stones, capable of grinding from fifteen to twenty bushels of wheat per hour; this was planned by himself, and built with his own hands. The building of this mill gave a new impetus to the progress of the country, and though farmers were obliged to come here to dispose of their grain, or to get it floured, Mr. Painter was never known to take advantage of their necessities by overcharging or extortion.

He always lends a helping hand to the poor, and has been associated with the benevolent movements of the country, and is a *strict* temperance man.

He is emphatically a people's man, and may be seen about his mills, dressed in his plain clothes and large bone buttons, as he appears in the engraving, in which dress he seems to take pride. He is in favor of all the progressive movements of the age.

In 1853 he laid out the present site of Decorah, in connection with Mr. Day, and under their fostering care she has grown to her present position, as the largest town in Northern Iowa, in the short term of five years. It now contain 2,000 inhabitants, is the county seat of Winneshiek County, and the center of trade in the northern part of the State. This all radiating from the energy of one man, with very limited means, a plain farmer, without the advantages of a good education, shows that self-made men are the ones for new countries, and that well-directed energy in a good cause is almost omnipotent. If Decorah ever occupies the position that her present prospects would seem to indicate, William Painter may well be proud of the appellation of The Father of Decorah, to which he is so justly entitled.

H. K.

TODD AND BOWMAN ON PHRENOLOGY.

THE Physiological Anatomy and Physiology of Man, by R. B. Todd, M.D., F.R.S., etc., etc., and Wm. Bowman, F.R.J., etc. 1 vol., 8vo. Philadelphia: Blanchard & Lea, 1857.

Says Lewes, in his admirable "Biographical History of Philosophy," in speaking of the death of Socrates, "Every reformer has to combat with existing prejudices and deep-rooted passions. To cut his way he must displace the rubbish which encumbers it. He is, therefore, in opposition to his fellow-men, and attacks their interests. Blinded by prejudice, by passion, and by interest, men can not see the excellence of him they oppose, and hence it is, as Heine so admirably says, 'Wherever a great soul gives utterance to his thoughts, there also is Golgotha.'"

The truth of this quotation is most completely illustrated in the past history and the present and future position of Phrenology. When Gall first promulgated his system he was everywhere met by opposition, ridicule, and every annoyance which passion and prejudice could invent, and malevolence and hatred use. Only here and there was there found a man great enough to understand the greatness of the new innovation. It has been wisely and profoundly remarked, "when God sends a great man upon the earth, He raises up other great men to understand and appreciate him." The association of Spurzheim with Gall gave a new impetus to Phrenology, as we have elsewhere shown, but nowhere was it received as true by those "in authority," by those whose opinions were, "dicta probantia" with the masses. Indeed, the reception of this system has been the exact reverse of the mode of reception of every other system of philosophy known. The middle classes of the people, perceiving by instinct how completely the new system was calculated to supply their wants, gave it a hearing, a patient examination, and, at last, a hearty reception, and to day thousands in our land stand up before their fellows better citizens, better in all their relations of life, and made better by Phrenology, a science which but few of the learned recognize as such, and which the majority affect to despise.

There is nothing so interesting to man as the world of mind, and when we reflect that Phrenology is the old system of metaphysical philosophy stripped of their barren verbiage, and made understandable and practicable in "our daily walk and conversation," and that it opens up to us that other world—the world of mind—which is the motive power of the material world about us, can we wonder that the intelligent masses embrace its truths and live them in their lives, even when the educated and erudite few reject and despise?

But a gradual change is observable in the works of the standard physiologists of the day, and we hope to live to see the time—we have seen many as great if not greater changes in opinion—when the text-books on physiology which will be put in the hands of students will advocate the doctrines of Gall and Spurzheim unchanged, except by the improvements which the lapse of years has made and will continue to make therein.

The latest text-book on physiology which is [illegible]rd in the profession in all parts of the world [illegible]e whose title is given in full at the head of this article. In order to appreciate fully its position in regard to Phrenology, let us examine its teachings as to the fundamental principles of that science.

First. The brain is the organ of the mind, or the physical instrument of thought and feeling.

This doctrine, first and scientifically demonstrated by Gall, is now taught by all physiologists, and most empathically by Todd and Bowman.

Second. The mind consists of a plurality of independent faculties or powers, each of which exercises a distinct class of functions.

On this point our author holds the following views, given in their own words: "In considering the truth or falsehood of Phrenology, it is absolutely necessary to separate the metaphysical question—as to the existence of certain faculties of the mind—from what has been admitted as a physiological fact before the foundation of the phrenological school, that the vesicular surface of the brain is the prime physical agent in the working of the intellect. A physiologist may hold the validity of this latter doctrine, and yet think as we do, that many of the so-called faculties of the phrenologists are but phases of other and larger powers of the mind; and that the psychologist must decide what are, and what are not, fundamental faculties of the mind, before the physiologist can venture to assign to each its local habitation."—Op. Citat., p. 824.

In reply to the first of these objections we remark, that if physiologists must wait until psychologists determine what are the mental faculties, they will have an interesting time waiting, since these same psychologists have been attempting to solve this same problem for hundreds of years, and are apparently as many hundreds still from its solution. The truth is, that psychological investigations never moved onward in a direct line toward important and practicable results until physiologists threw the light of their science upon the circular road they had worn into deep ruts by hundreds of years of profitless travel.

You might upon the same principle ask the physician to an insane asylum to desist from his efforts to cure this terrible disease until after the psychologists had settled the question, whether insanity is a disease of the mind alone, or of the brain, or of both. These psychologists are a very particular class of people, and if any venture to assert that insanity has its seat in a diseased condition of the brain, they incontinently begin to throw mud, they call hard names, and cry out "materialist," "infidel," and rise many other choice epithets, which mean—nothing to sensible men.

If, as Messrs. T. and B. state, "many of the so-called faculties of the phrenologists are but phases *of other and larger* POWERS *of the mind*," they are teaching the phrenological doctrine we have just cited, that the mind is composed of a plurality of *faculties* or *powers*, but differ from us as to the number of those powers. This is a great concession, and we propose to rest the matter here for the present, confident that a little more investigation will enable them to increase the number of these "other and larger powers of the mind" from two, four, or eight, as the case may be, to the forty of phrenologists. After the admitting of more than one power of the mind, the addition of thirty odd others is a mere matter of time and phrenology, and phrenologists can *afford to wait.*

ENGRAVING ON METAL, WOOD, AND STONE.

BY JOHN COLLINS.

CHAPTER III.

WOOD ENGRAVING.—For this purpose the wood of the box tree (*Buxus sempervirens*) is exclusively employed. That used for pictorial purposes is imported from Constantinople, Smyrna, Trieste, and the Black Sea, in logs that measure from two to six feet long, and two and a half to fourteen inches diameter. The wood is hard, very fine grained, and often of a rich yellow color. It is sold in this country at prices ranging from $80 to $120 per ton. For use, it is cut across the grain in slices of nearly one inch in thickness, and planed smooth on one side. When a large block is wanted, two or more pieces are fastened together by wooden pins and glue. When this has been imperfectly done, the defect will be shown by a white line in the printed engraving. The prepared blocks are sold at from two to four cents per square inch, according to the quality. Before executing a design on wood, the surface is moistened and rubbed with a little flake white or an enameled card, to show the dark lines more plainly. The drawing is made in lead pencil and India ink, or it may be transferred from the original by tracing. An impression of any other engraving printed in ink may, by pressure, be transferred upon the block.

There are four kinds of tools used upon wood, namely: gravers, tint tools, gouges or scoopers, and flat tints or chisels. The first named differ but little from those used by engravers on metal; the bevel at the point is, however, longer. Eight or nine of these, of different sizes, are necessary. To cut parallel lines forming an even and uniform tint, such as we often see in the representation of a clear sky in wood cuts, tint tools, or very thin chisels, somewhat resembling a morticing chisel, are used. Gouges from the one twenty-fifth to one fifth of an inch in breadth are employed for scraping out the wood toward the center of the block, while flat tools or chisels of various sizes serve for cutting away the wood toward the edges. All the tools are secured in a handle, which is frequently a piece of cork.

There are two modes of engraving in wood, exactly the reverse of each other. For portraits, landscapes, and book illustrations in general, the white parts are cut away, while in xylography (a Greek name for wood engraving) the lines of the drawing are engraved so that, when printed, they are white on a black ground. This plan is well adapted for outlines and mathematical figures, as the effect is more striking and the work is more cheaply executed. A xylographic office was, a few years ago, in successful operation in Philadelphia, for engraving business and advertising cards printed in colors, but this application of the art has been superseded by the facilities of lithography.

In transferring daguerreotypes to wood, a thin, transparent piece of isingla s or fish glue is used to make a tracing, with red-chalk ink and a fine brush, which is then pressed upon the block. In working by lamp or gas light, wood engravers sometimes use a large glass globe filled with water, by which the rays are concentrated upon the engraving, affording a strong and pleasant

light. A single lamp can by this contrivance suffice for three or four workmen, each having his own globe. The block of wood is occasionally engraved on both sides, but this is the case only when copies are to be cut from it in type metal, the original cast not being used. Wood cuts are worn but little in the operation of printing. In careful hands, and under moderate pressure, they will yield from 100,000 to 150,000 good impressions.

CHAPTER IV.

LITHOGRAPHY—or the art of drawing and engraving on stone—was invented by Aloys Senefelder, born at Prague, in 1771. When connected with a theatrical troup at Munich, he devoted himself to literary labor, but met with many reverses and discouragements in the printing of his works. He conceived the idea of executing the latter himself, and first invented stereotyping in sealing wax, which proved too brittle for the purpose. He then wrote in reverse on a copper plate, etching ground of varnish, and then etched the letters into the plate with acid. But this would not answer, as the plates wore away too fast. After repeated trials, his memory recurred to the white stones he had seen on the banks of the Iser, the same that are now used. He tried them and with perfect success. For five years he was accustomed to cover the surface with wax, soap, and turpentine, and etch the stone in the usual way. In 1796, having written a memorandum on a stone with a pencil, for want of paper at the time, intending afterward to copy it, he carelessly dropped it into a slop bucket. Taking it out quickly, he noticed that the writing was covered with a thick coat of grease, while the other parts had not been affected by it. It then occurred to him to try the effect of etching it and charging ti with printer's ink. The result was beyond his expectations, and, thus stimulated, within the short space of three years he discovered or invented pen drawing, chalk drawing, point engraving, autography, transferring of new and old engravings, and every modification of lithography now known. He applied the art to printing cloths and paper hangings, experimented on artificial stones, invented mosaic printing, a new stereotyping process, and a lithographic press.

Senefelder died at Munich, 63 years of age, honored, pensioned, and beloved, and over his grave was placed a monument made of the same stone that now gives employment to thousands, and the enjoyment of the works of art to tens of millions of human beings.

Lithography was established at Munich, in 1800, at Vienna in 1802, and at Rome and London in 1814.

At the time of its invention, Napoleon, who then reigned in France, would not permit its introduction, assigning as a reason, that it might be improperly applied to the counterfeiting of manuscripts, bank notes, and important documents. Consequently, lithography was not introduced until 1814, after the restoration of the Bourbons.

The first lithographic office in the United States was established at Boston by William S. Pendleton, in 1827.

The theory of lithography is at once simple and beautiful. It is based upon the relative adhesion of three materials, viz., oil, water, and lithographic stone. The drawing or ink lines being made with a greasy crayon or fat ink, if water be put upon the stone, it adheres so closely to the latter and so slightly to the greasy parts, that a roller charged with printing ink can be rolled over the surface without passing through the water, while, on the other hand, the ink lines are filled with printing ink. Therefore the artist must draw in reverse on the stone, exactly what is to appear in the print, and protect all the other parts from dust, saliva, finger marks, soap, etc. The printer, on his part, must endeavor to take all the impressions of a uniform depth of color, as near the original drawing as possible. Artists and printers are very apt to accuse each other of careless work, and it is certain that each must do his part perfectly, to produce good results. Crayon drawings will give from 500 to 1,500 perfect impressions, while from ink drawings from 5,000 to 10,000 have been obtained. Transfers from steel or copper yield from 1,000 to 5,000, but transfers from crayon are generally considered impracticable as it is difficult to find two stones of exactly simlar grain.

Lithographic stones, which are all limestone or calcareous, with a mixture of alumina or silex, are obtained almost exclusively from the quarries of Pappenheim and Solnhofen, in Bavaria, near Munich, where the inhabitants use them for paving, steps, and tombstones. They are also procured from several places in France, near Bath in England, and in one or two localities in Scotland—but those from Bavaria are preferred to all others, for their color, grain, and their facilities for working. They are found near the surface, overlying granite, and are quarried in blocks, which are split by wedges or sawed into slabs, being afterward shaped or dressed on one or both sides, and made perfectly plane with stone hammers. Their color varies, from a rich cream to a dark bluish slate—the latter, being the hardest, are mostly used for engraving. The price ranges from five to ten cents per pound, according to the size, the larger ones being the most expensive. The thickness should be proportionate to the area of the surface. Stones five feet in length by four in breadth have occasionally been imported, but their great weight is an objection to their use. When they have been worn down by frequent grindings, so as to be likely to break from heavy pressure, two of the same size are often fastened together with plaster of Paris. To prepare them for crayon or chalk work, two are rubbed together, face to face, on a board over a trough with fine sand and water, until the whole surface, when wiped dry and held obliquely to a strong light, presents a uniform grained appearance. The longer the rubbing is continued, the finer and flatter will be the grain. For ink drawings the face is made perfectly smooth and polished with pumice stone.

[We postpone the remainder of this interesting chapter and will give the conclusion in our next number.]

SCIENCE is the interpreter of Nature. It reverently inquires; it listens to know; it seeks; it knocks to obtain communication; and then, all that it does is reverently to record Nature's processes, and accept them as true.—H. MANN.

EXTRAORDINARY RECOVERY.

WHEN I was forty years old, say in July, 1846, in driving a yoke of oxen with a cart, they ran off with me, upsetting the cart, which rolled over me and left me lying in a helpless condition. A number of ribs were broken in my left side, the left lobe of my lungs was either ruptured by the force of the blow struck by the cart, or cut by the broken points of the ribs. I began to throw up blood immediately, which lasted for a week; the air escaped from my lungs, distending my abdomen into dimensions similar to a toad; the air also came through where my ribs were broken, raising bladders on my side to near the extent of my hand. Being helped home, I lay for some weeks on my back; the weather being hot, I could scarcely be kept alive by the best appliances—bathing and fanning—every breath was a struggle for life, and only breath enough to utter one syllable at a time. The injured parts being in contact, a great adhesion as well as consolidation of the left lobe of the lungs took place. The adhesion will not yet let me ride a horse except on a walk. My breathing is comfortable now, but my wind is too short to run, or climb hills in a hurry. My improvement in strength was slow and but little, and I could hardly keep up, when near two years after, I was thrown from a horse and nearly killed a second time. Persons near ran to my assistance and found me dead to appearances, and say that I did not breathe for some twenty minutes. Life returned, but found me in a state of delirium which continued for a week or ten days, during which time I could walk about the house, but grew weaker when consciousness returned, and I could scarcely walk for some weeks. I have no recollection of *anything* which transpired during my delirium, nor even of the (*beginning* of the) accident by which I was hurt. When the delirium subsided I became conscious of the injuries I had sustained. When thrown from the horse I fell on my shoulders and the back of my head, and was dragged by the stirrup several rods. My skull remained unbroken, but a great injury to my eyes and the intellectual region of my brain was the result, though I fell on the back of my head. I found my eyes distorted, and the whole brain much excited, but the frontal portion particularly.

All things presented a double appearance to my eyes unless I would look hard across my nose to the left; they could not bear the light, nor could they determine the distance of objects; all things are yet double when looking past the center toward the right; my eyes are now otherwise right. In regard to the intellectual functions—while in the state of delirium—I was continually reading and talking; reading without a book, wetting my thumb and making the motion as if turning a leaf with great regularity. I have been told that I was reading Latin, though I know nothing about Latin, but had been reading for some time previous in the theological writings of Swedenborg, which I knew had been written in Latin. After the delirium my intellect was brighter than ever for more than a year. I could invent, propound, and answer many questions of natural philosophy, make numerical calculations mentally, and solve mathematical propositions with greater facility than ever before or since.

The organ of Language being excited among the

rest, as well as Eventuality, kept up the love of talk for a year or more. My language was more fluent than usual. I could relate past events with great accuracy, and the incidents of my childhood returned with the freshness of yesterday.

Now for a fact in Phrenology.

As the excitement subsided, occasionally a word would slip recollection, which I could not recall, though I would know its meaning and force ever so well. In the effort to think up the word, I could feel a moving in the brain immediately over the sockets of my eyes as plainly as the rubbing of my hands together; there was an effort of the organ of Language which I was perfectly sensible of. My brain was in a highly sensitive state.

While lying in the state of delirium I was drugged with calomel, the effects of which for some months seemed to be good—but then subsiding—left me in a miserable condition. I had been dyspeptical for years, but the calomel in its deleterious effects increased the difficulty a thousand-fold. My head grew worse, every effort of thought was painful, the music of the birds in the morning ran through my head like a knife. I lived along miserably for two years after the last hurt. I then tried *water-cure*. I have become a new man compared with what I was, but am still in a very irritable state mentally and bodily. I avoid study, though much inclined to it. My bump of Concentrativeness is enormous, amounting almost to a deformity, and would soon run me into the ground; it always made me study harder than I could bear, and makes me labor mentally when I ought to be asleep.

I avoid mental excitement as far as possible. I use no pork, salt, nor seasoning of any kind. I consider salt worse than useless, and productive of much disease; butter and meats are sweeter and richer to me without than ever they were with it.

It is now ten years since my last hurt, and eight since I began the *water-cure*.

I could write more in detail concerning my present and past condition, but I have given the grand facts upon which scientific men can speculate. Yours, etc., J. C.

MOORE'S SALTWORKS, JEFFERSON CO., O.

UNSUCCESSFUL IN THIS LIFE.—There is truth beautifully expressed, and words of cheer for multitudes, in the following sentiment accredited to George S. Hillard:

"I confess that increasing years bring with them increased respect for those who do not succeed in life, as those words are commonly used. Heaven is said to be a place for those who have not succeeded in life; and it is surely true that celestial graces do not best thrive and bloom in the hot blaze of worldly prosperity. Ill success sometimes rises from superabundance of qualities in themselves good—from a conscience too sensitive, a taste too fastidious, a self-forgetfulness too romantic, a modesty too retiring. I will not go so far as to say, with a living poet, that the world knows nothing of its greatest men; but there are forms of greatness, or at least of excellence, that die and make no sign; there are martyrs that miss [illegible], but not the stake; there are heroes [illegible] laurel, and conquerors without the

TWENTY-FOUR THINGS,

IN which people render themselves very impolite, annoying, or ridiculous:

1. Boisterous laughter.
2. Reading when others are talking.
3. Leaving a stranger without a seat.
4. A want of reverence for superiors.
5. Receiving a present without some manifestation of gratitude.
6. Making yourself the topic of conversation.
7. Laughing at the mistakes of others.
8. Joking others in company.
9. Correcting older persons than yourself, especially parents.
10. To commence talking before others are through.
11. Answering questions when put to others.
12. Commencing to eat as soon as you get to the table.
13. Whispering or talking loudly in church, at a lecture or concert, or leaving before it is closed.
14. Cutting or biting the finger nails in company, or picking the teeth, or the nose, pulling hairs therefrom.
15. Drumming with the feet or fingers, or leaning back in a chair, or putting the feet upon furniture.
16. Gazing at strangers, or listening to the conversation of others when not addressed to you nor intended for your hearing.
17. Reading aloud in company without being asked, or talking, whispering, or doing anything that diverts attention while a person is reading for the edification of the company.
18. Talking of private affairs loudly in cars, ferry-boats, stages, or at a public table, or questioning an acquaintance about his business or his personal and private matters anywhere in company, especially in a loud tone.
19. In not listening to what one is saying, in company—unless you desire to show contempt for the speaker. A well-bred person will not make an observation while another of the company is addressing himself to it.
20. Breaking in upon or interrupting persons when engaged in business. If they are to be long engaged, or you are known to have come from a distance, they will offer to give you attention at the earliest moment.
21. Peeping from private rooms into the hall when persons are passing, coming in or going out; or looking over the banisters to see who is coming when the door-bell rings.
22. When you are in an office or house, or private room of a friend, never handle things, asking their use, price, etc., nor handle or read any written paper; it is a great impertinence, and most intolerable.
23. Never stand talking with a friend in the middle of the sidewalk, making everybody run around you; and never skulk along on the left-hand side, but "take the right" in all cases. Two persons abreast meeting one person on a narrow walk should not sweep him off into the mud, but one should fall back a step and pass in single file.
24. Mind your own business, and let your friend have time, without annoyance, to attend to his.

MUSIC OF LABOR.

THE banging of the hammer,
The whirring of the plane,
The crashingof the bu sy saw,
The creaking of the crane,
The ringing of the anvil,
The grating of the drill,
The clattering of the turning-lathe,
The whirling of the mill,
The buzzing of the spindle,
The rattling of the loom,
The puffing of the engine,
The fan's continued boom,
The clipping of the tailor's shears,
The driving of the awl—
These sounds of honest Industry,
I love—I love them all.

The clicking of the magic type,
The earnest talk of men,
The toiling of the giant press,
The scratching of the pen,
The tapping of the yard-stick,
The tinkling of the scales,
The whistling of the needle
(When no bright cheek it pales),
The humming of the cooking-stove,
The surging of the broom,
The pattering feet of childhood,
The housewife's busy hum,
The buzzing of the scholars,
The teacher's kindly call—
The sounds of active Industry,
I love—I love them all.

I love the plowman's whistle,
The reaper's cheerful song,
The drover's oft-repeated shout,
Spurring his stock along,
The bustle of the market-man,
As he hies him to the town;
The halloa from the tree-top,
As the ripened fruit comes down;
The busy sound of threshers,
As they clean the ripened grain;
The husker's joke and catch of glee,
'Neath the moonlight on the plain,
The kind voice of the drayman,
The shepherd's gentle call—
These pleasant sounds of Industry,
I love—I love them all.

Oh, there's a *good* in labor,
If we labor but aright,
That gives vigor to the day-time,
A sweeter sleep at night;
A good that bringeth pleasure,
Even to the toiling hours;
For duty cheers the spirit,
As dew revives the flowers.
Then say not that Jehovah
Gave labor as a *doom*—
No! 'tis the richest mercy
From the cradle to the tomb.
Then let us still be doing
Whate'er we find to do,
With cheerful, hopeful spirit,
And free hand, strong and true.

HE who studies books, gets the frame of knowledge; but he who studies men, gets the soul.

To Correspondents.

J. S.—What will prevent tremulousness? It occurs whenever I read, hear, or even think of any exciting subject.

Ans. Your nervous system is in an irritable state. If you smoke, chew, drink brandy and coffee, you may not expect relief from tremulousness. Sleep abundantly, live temperately, work enough to give vigor and strength, and if you tremble still you must bear it as best you may.

A. E. D., Ohio.—Why, in matrimony, in some cases, should the temperaments be CROSSED, and in others should not be, and in WHAT cases should they not be?

Ans. Opposite extremes combined produce an equilibrium. This matter is clearly set forth in "Thoughts on Domestic Life; or, Marriage Vindicated and Free Love Exposed." It may be ordered from the JOURNAL office. Price, by mail, 15 cts.

A. J.—Would one be likely to succeed in painting as a profession, with Ideality, Sublimity, Human Nature, and Firmness six to seven—Constructiveness, Form, Size, Comparison, Causality, Mirthfulness, Combativeness, and the lower division of Self-Esteem six; and Destructiveness, Continuity, Color, and Imitation only five, on a scale of seven, and with a fine "quality of structure?"

Ans. Yes.

How long would it be necessary for one possessing a natural taste and tact for the art, to study and practice with diligent application, in order to execute difficult and complicated original designs?

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Mr. M. J. FRISBIE, in another column, calls the attention of the reader to a stove and heater, working on a new principle, and said to be the most economical yet used. Parties will do well to examine this before purchasing other kinds.

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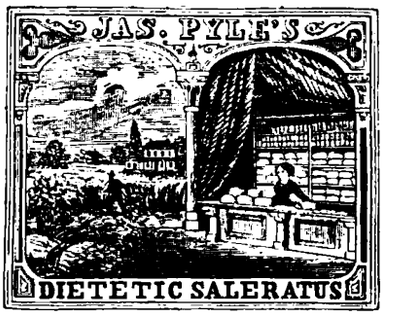

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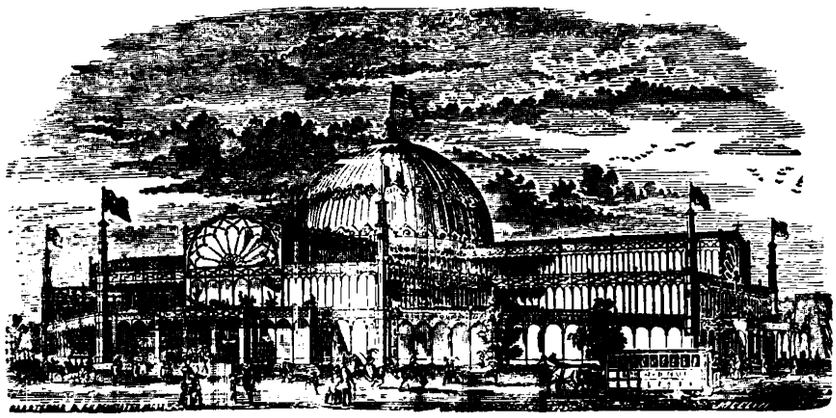
THE CRYSTAL PALACE.

The Crystal Palace is no more! About 5 o'clock in the afternoon of Tuesday, Oct. 5th, a fire was discovered in the North Nave on Forty-second Street, and in fifteen minutes thereafter the dome fell. The whole of the immense and beautiful structure was a heap of smouldering ruins in less than half an hour from the first alarm. The place where the fire originated had been for some time used as a lumber-room, no fire being near. The structure was built on the "cut and try" principle, or by what is known as the "scribe rule," and every part of it had to be more or less sprung, in order to bring the parts into place, so that the moment heat began to expand the metal, the woodwork and directly combustible materials would be separated from the iron, letting in currents of air, and breaking the gas pipes; also immediately commencing to melt the glass, and so soon as the wrought-iron braces began to yield, the whole structure immediately fell in. When first noticed the fire was a small flame, but spread with a rapidity almost unparalleled, circumstances which strongly indicate that the catastrophe was not accidental. The building was occupied by the American Institute Fair, and about two thousand persons were in it when the alarm was given, and it is believed every one escaped. The entrance on Sixth Avenue was the only one by which the crowd could escape. Persons having charge of things in the Palace, in the employ of the American Institute, manifested much presence of mind, looking about in the different and distant parts, to notify people of their danger. So rapid was the destruction, that the exhibitors present were unable to save any of their property, except what they could take with them as they escaped. We give our readers a parting look at the Palace by means of the engraving. Many of them have walked its extended naves in the days of its glory, and will remember the fact with pleasure.



THE NEW YORK CRYSTAL PALACE.

PHRENOLOGY IN HALIFAX, N. S.

We take the following from the Halifax *Evening Express* for Sept. 13:

Professor Fowler's Lectures.—Reasons given in our issue of last Friday for the exclusion of several articles on local subjects, also operated in preventing us from noticing the very interesting and deservedly popular course of lectures on the science of Phrenology, delivered by Prof. Fowler last week at Temperance Hall. We experienced more than ordinary satisfaction in being able to attend these lectures each evening during the course, and we were pleased to observe the growing interest manifested by our most intelligent citizens in the intellectual discourses of the talented professor.

It is impossible to listen to him for an hour and not be convinced of the truth and philosophy of the science in which he is so decided an enthusiast. The listener is not entertained with flights of fancy and figures of rhetoric which, while they please the ear, fail to carry conviction to the mind or convince the understanding; on the contrary, all the multifarious views of the vast field which the science embraces, are enforced in a practical, common-sense manner, and are illustrated with a clearness and simplicity surprisingly intelligible. No person of ordinary perceptions can attend these lectures without receiving much valuable information which may be turned to important account in the occurrences of every-day life. In the hands of Professor Fowler, Phrenology is made to inculcate a morality as lofty, and a degree of human wisdom as exalted, as was ever taught by saint or sage, and the quaint remarks and original ideas to which he gives expression in describing the numerous organs which Phrenology teaches us the human head is composed of, are interestingly instructive. At the close of the discourse on each evening during the course, the phrenological developments of several of our most widely-known citizens were examined and explained, and the qualities of mind for which they were likely to be best known in the community were described with such minute correctness as to elicit the universal approbation of the audiences.

A second course of three lectures (also by request) is to be delivered by the Professor at Temperance Hall, commencing this (Monday) evening, and from the growing interest manifested in the course just terminated, we have no doubt but large audiences will attend on each night.

Brain and Body.—The daughter of a Boston merchant, who applied herself night and day to study, to obtain a medal at the late school exhibitions, and succeeded, has been ever since in a state bordering on insanity in consequence of overtasking the brain, and there is little prospect of her recovery. If her brain could have been maintained in a separate establishment, and worked upon independent volition, probably such a disaster would never have occurred. But as things are constituted, it will not do to forget the connection which exists between mind and body, faculties and muscles, brain and nerves. The system which is deprived of needed physical recreation must break down. It is the height of folly to suppose that we can ignore the demands of Nature in any respect without paying the penalty. It is curious to see the connection between mental and physical faculties. The idea that a man can only get the dyspepsia from high-seasoned provender put upon the stomach is absurd. He is just as likely to secure that luxury by stuffing his head with Greek and Latin, algebra and geometry, in undue proportions, and at improper hours. The shaky, rattling, disordered, jaundiced, bilious, and bloodless systems that go flitting by like ghosts upon every thoroughfare, are standing commentaries upon the false ideas of the day in this respect It is a peculiarity of this age, that two thirds of its living skeletons are epitomes of theoretical knowledge upon almost every subject under the sun. This is not invariably the case, but it is the general rule. The exceptions prove that a person can be something more than a dunce, without being something less than a man or woman, and that, with proper management, it is possible to secure the most valuable mental acquisitions without sacrificing in their pursuit physical capacities, and becoming an especial candidate for a mad-house or a consumption-hospital.—*Troy Times.*

An Incident.—A touching case, says the New Orleans *Delta*, was presented the other day to the consideration and charity of one of the Good Samaritans who now take care of the sick, relieve the destitute, and feed the starving. A boy was discovered in the morning, lying in the grass of Claiborne Street, evidently bright and intelligent, but sick. A man who has the feelings of kindness strongly developed went to him, shook him by the shoulder, and asked him what he was doing there. "Waiting for God to come for me," said he "What do you mean?" said the gentleman, touched by the pathetic tone of the answer, and the condition of the boy, in whose eye and flushed face he saw the evidences of fever. "God sent for mother, father, and little brother," said he, "and took them away to his home, up in the sky; and mother told me, when she was sick, that God would take care of me. I have no home, nobody to give me anything; and so I came out here, and have been looking so long up in the sky for God to come and take care of me, as mother said he would. He will come, won't he? Mother never told me a lie." "Yes, my lad," said the man, overcome with emotion; "he has sent me to take care of you" You should have seen his eyes flash, and the smile of triumph break over his face as he said, "Mother never told me a lie, sir; but you've been so long on the way!" What a lesson of trust, and how this incident shows the effect of never deceiving children with idle tales! As the poor mother expected, when she told her son "God would take care of him," he did, by touching the heart of this benevolent man with compassion and love to the little stranger.

AMERICAN PHRENOLOGICAL JOURNAL.

GALL

A Repository of Science, Literature, General Intelligence.

VOL. XXVIII. NO. 6.] NEW YORK, DECEMBER, 1858. [WHOLE NUMBER, 240.

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AT ONE DOLLAR A YEAR, IN ADVANCE.

Contents.

End of Volume XXVIII.

VALEDICTORY.

With the present number of the Phrenological Journal the volume closes, and with it one of the most interesting years in the history of the world, and of that science which these pages are put forth to unfold Twenty-one years ago, last October, the Phrenological Journal was instituted, and for several years it struggled for existence. Phrenology was then but little understood or believed in by the people of this country, as there had been, with the exception of two months' labor by the immortal Spurzheim in 1832, but about four years' systematic effort devoted to the promulgation and practical application of the science at that time, and for years afterward nearly everybody who listened to lectures, or who read a book on the subject, approached it with skepticism, prejudice, and bigotry. In 1838, as well as previously, when an announcement was made for a course of lectures in a place, the lawyer, the doctor, and the minister, if they attended it, was to quiz the speaker and puzzle him with knotty objections, the public, meanwhile, balancing between doubt and belief respecting Phrenology as the critics questioned and the lecturer expounded the science to them. How many scores of these critics whom we have met in sharp discussion in those days do we now count with pleasure among our most cherished friends, and as cordial supporters of the science which they then opposed and sought to disprove and destroy!

The first year or two in the history of this Journal the entire edition was carried to the post-office on the shoulder of a man at a single load; some, subscribed out of curiosity—others, expecting to find in its teachings the elements of its own speedy destruction. And now, when the regular monthly issues make cart-loads, instead of a single back-load for a man, we find still on our subscription-books a few names which were recorded in 1838, and have been renewed regularly, year by year, to the present time.

The Journal is twenty-one years old! It is no longer an infant! It stands alone, if solitude can be found in the midst of 50,000 cordial friends; or, we might more justly say, five times this number, or a quarter of a million—for each family is supposed to contain five members. In twenty-one years the Journal has called around itself a class of readers great, indeed, in number, but unsurpassed by the readers of any periodical in the world for cordial regard and ardent affection for the subject expounded in its pages. Some periodicals are read as pastime, and their teachings are neither respected nor treasured. Not so with the Phrenological Journal. Its readers have respect for its doctrines and confidence in its precepts; and since it is the only periodical in the world which treats exclusively of the great subject of the human mind and character, its readers cling to it with a tenacity and fidelity which is without a parallel. This wide circulation and this wonderful influence have not been wholly achieved by the editors and publishers. The inherent truth of the subject itself, the intense interest which it awakens in the minds of those who pursue it, and the cordial co-operation of our readers in soliciting subscribers, have aided in extending its circulation from Newfoundland to Oregon, from the frozen North to the Gulf of Mexico, in the populous city, in the frontier settlement, in the busy villages which dot the valleys; among the farmers who live apart from their fellows on the mountain's side, or in the alluvial prairies of the West and South. To these agencies is mainly due the wide diffusion of Phrenology through the circulation of the Phrenological Journal.

Our labor for the present year and for the current volume of the Journal is closed, and it remains with our readers and other friends to say whether its circulation shall be increased with the new volume for 1859, and still go on with a wider

influence and higher results than heretofore. We have no doubt that those who have spent a portion of their time in securing subscriptions heretofore, will not neglect to do so for the forthcoming volume. If each of our subscribers would spend a day or a few evenings among their neighbors in this man-reforming work of mercy, we have no doubt that double the number of persons for the coming year might be brought to an acquaintance with it, and be benefited by its teachings. Shall we have this co-operation? Will each reader endeavor to secure at least one subscriber or a club of five, ten, or twenty? If the teachings of the JOURNAL have benefited you, are you not desirous to extend widely this benefit to others? Unsectarian in its teachings, and therefore unlike publications devoted to politics and religion, the PHRENOLOGICAL JOURNAL goes among all denominations and parties, and is like a welcome messenger to the homes and hearts of tens of thousands who are as diverse as the poles in their belief on other great questions. The JOURNAL is welcomed by the High Churchman, the Quaker, the Methodist, and by persons of every other respectable religious sect. Persons of all shades of politics find nothing in its teachings offensive to their judgments, though they may not always indorse what it may say of the talents or the morals of their party pets. Men of the North and South, the native and the foreigner alike, find the JOURNAL a friend, companion, and guide, and while accepting its teachings, forget their sectional animosities, and remember their fellow-men only as brethren with common sympathies and a common destiny.

Reader! shall we open the new year with your name? and will you resolve, by sending the name of one or more friends, to double the circulation of the PHRENOLOGICAL JOURNAL?

FACTS AND OPINIONS.

IT is amusing to us to listen to the judgments expressed by persons who have been examined, in regard to the truthfulness of our inferences respecting their talents and dispositions. Most men look upon themselves with more favor, morally, than they deserve; and very many under-estimate their talents. If persons have not had experience in the exercise of their talents for science or literature, or in the higher walks of business, they are apt to estimate their capabilities by the leanness of their experience. Hence, when we attribute certain talents to individuals, they often think we flatter, solely from the fact that, not having tried themselves in the various departments of intellectual effort, they are not conscious of possessing as much natural power as we attribute to them. We give a man, for example, good talent for invention; but never having invented anything, he supposes that we are in error. But circumstances may subsequently undeceive the individual, and verify our predictions.

We recorded in the JOURNAL, a year or two ago, a circumstance bearing upon this point. It was substantially this: We wrote the character of a young man in Philadelphia, and after reading it all through, he remarked that we had made but one mistake. When questioned as to this, he said, "You give me inventive talent, which I think I do not possess." We remarked to him that if in all we had said we had made only the mistake of giving him more mechanical talent than he possessed, we thought the examination very correct, and we added: "If you keep your eyes open, and exercise your inventive talent, you may some time learn that we are correct even in this."

Just three months from that day he came in, smiling, and said, "Well, I have got my patent papers." "What patent papers?" we inquired; "we thought you supposed yourself incapable of invention." He replied, "I did as you told me—'kept my eyes open,' and all at once, when a necessity arose for something in my line of business, which did not exist, I let my mind run upon it. And behold the result! I am only a common journeyman mechanic, and had expected to delve at common wages all my life, and I have been offered more for my invention, the fruit of a few odd hours, than I ever expected to be worth." So much for the "only error we made in his examination." We hope the correct statements will prove equally as advantageous to him as this one, which he deemed incorrect.

A man from Connecticut called at our office, not long since, with another man whom he wished to have examined. After this examination was concluded, and pronounced by the subject and his friend to be correct, the friend remarked that he thought we over-rated, some years previously, his own mechanical talent; "For," said he, "I never supposed myself much of a mechanic; still, you marked the organ large." "And so it is," we replied. Seeing that he had lost one hand, we inquired respecting it, and he said it was cut off in a press or punching machine. "If you were not mechanical," we inquired, "how came you to be attending a press whose dies were large enough to cut off a man's hand, as that nice piece of machinery requires a good workman. This rather seemed to stagger him; for, as the sequel proved, he made the dies himself, to use which really requires good mechanical talent. "But," we inquired further, "what do you do now, since you have lost one hand?" "O," he remarked, "I am superintending this gentleman's silk factory.' "And what does he pay you a day, pray?" "Two dollars and a half," was the reply. "What, a man with one hand, and no mechanical talent at that, paid two dollars and a half a day for superintending a silk factory!" We turned to the gentleman, and inquired how the man succeeded in his position "O," said he, "first rate. I have known him for a long time, and we all regard him as a first-rate mechanic, and I never before supposed that he doubted his ability." The man with one hand and "no mechanical talent" saw the box he was in, and smilingly gave up the argument.

Here, then, was a clear instance in which the individual formed an estimate of himself to his own disadvantage, and which all his neighbors knew to be incorrect. Although this man had all his life been doing the nicest kinds of mechanical work, he had all the time carried with him the impression that he had little, if any mechanical talent. The public sentiment, had he but interrogated it, would have set him right—at least would have contradicted his own notions of himself. We may well repeat the lines of Burns—

"O, wad some power the giftie gie us,
To see ourscls as ithers see us;
'Twad frae monie a blunder free us,
An' foolish notion."

INTELLECTUAL PHILOSOPHIES, OLD AND NEW.

BY LEVI REUBEN, M.D.

SINCE the introduction of Phrenology as a system of mental science, the notion has very generally obtained that there is between this system and the old forms of mental philosophy a decided antagonism. The champions arrayed on either side seem generally to have accepted the conclusion that the establishment of one of these systems could come only by the overthrow of the other. Hence, too often, a violent partisanship; and, as a consequence, the ordinary amount of detraction and demerit heaped upon either system by its opponents, with no extraordinary care or study to discover, acknowledge, and use the true discoveries, of which it would be strange if either were wholly destitute. I have not at hand at this moment the writings of Gall and Spurzheim, so as to be enabled to say whether this is a characteristic of their teachings, though the active Combativeness necessarily aroused in the struggle to introduce the new philosophy of mind would lead us to expect that such would be the case. But however this may have been in the times and teachings subsequent to those of the early leaders, we find the idea generally prevalent that the old and new systems are radically and quite universally at variance; so that what is to be desired is not their fusion or combination, wholly or in part, but the vindication and mastery of one or the other as the only true.

And perhaps when we speak of the philosophy of Mind at large, including all its emotions and powers, there is, on one side, much room for this view. In no portion of the mental science of the old schools were blundering, confusion, inconsistency, and absurdity so conspicuous as in its attempts to account for and elementalize the passions or *propensities*, and the *sentiments* of men. The very immethodical division of the sum total of human faculties into the three classes of "Intellect, Sensibilities, and Will," still persevered in in many standard treatises, is proof sufficient of the want of a true comprehension and analysis of these departments of our nature. The old-school philosophers could not comprehend their own passions and feelings—the ordinary motors in human conduct—and hence this part of their systems was, in many respects, vague enough.

But there was another field in which philosophers were, if possible, more active, and in which their path received unusual light. *Intellect has always loved the manifestations of Intellect*, and it has therefore dwelt on those manifestations with peculiar patience, persistency, and delight. Here the philosophers have found a congenial subject, and one which abstract-minded men were better fitted to comprehend and elucidate; one in fact, which, without a good degree of abstract, intellectual action, can not be mastered. The phenomena of the intellect, the "prises and reprises" of thought, are not things so obvious as those physical changes, to observe which we have only to open our eyes and look attentively. Much as we may systematize mental action, and clearly as we may trace its steps in an isolated direction, it is still true that reflective must come to the aid of perceptive power, and the reverse, in nice particulars and junctures which, perhaps, we may never fully understand. Thus, though the work of observing facts in the sciences is quite distinct from that of generalizing these into laws or inferring their causes, yet, as has been well said, none but a good reasoner can ever be a good observer; since it is of the highest importance that the observer shall know *what* and *how* to observe at all. And nowhere is this more true than in those abstract and remote departments of science, like intellectual philosophy, in which our very *facts* seem often to have a shadowy character, and in which *inferences* are too readily mistaken for perceivable certainties.

But if the philosophers have thus labored with so much better qualification in this field, and with so great fidelity, is it conceivable that they have even in this failed to bring out any true or valuable results, or anything like a true system? *A priori*, we are prepared to expect the contrary. And if I mistake not, when we come to examine their systems, we find unquestionable proofs of their success, at least in a considerable degree. One of their great mistakes has been that of supposing Perception, Reflection, Abstraction, Judgment, Conception, etc., to be *elementary faculties* of the mind; whereas these are not faculties, but only particular activities of certain faculties which the old philosophers never learned rightly to name. Another, the idea that mind acts as a unit in all cases, so that there is but one faculty of perception for a variety of unlike entities, and so on; though this idea is readily disproved by the diversity of capacity possessed by different individuals for making different perceptions; by multiplicity or contrariety of the mind's actions in the same instant, and by other like facts.

If, however, we aim to rectify these errors; if we find in Phrenology the true constitution of mind and the true nature and number of its diverse faculties, and then give to many of the so-called faculties of the early philosophy their true position as *modes of action* only, we then find a structure remaining possessed of real, and of the very highest value; that is, we find a tolerably well-connected, correct, and complete system of the *actions* of the knowing and thinking powers—of the simultaneous or successive phenomena of a normal intellection. The grounds on which this result may be asserted will appear more clearly from a comparative view of the two systems.

What has Phrenology thus far aimed to do? Its first and its chief work hitherto has been the endeavor correctly to elementalize the human mind. It has striven to give a correct answer to this question. How many and what are the simple, independent faculties of which the human mind is the aggregate? But suppose this question finally and irreversibly settled, of what would it put us in possession? I answer, simply of a sort of *anatomy* of the mind. It is as much as to say, we find that forty, or forty-four, or more or less, faculties make up the complete mind; these faculties have cerebral organs located thus and so; and their characters and offices are known and set forth. This is informing us how many parts go to make up the most wondrous mechanism in existence; how the parts are adapted; how they are to be put together; and to what sort or set of objects each is specially fitted. But suppose we go farther, and conceive a series of observations to be brought before the mind's notice—that the cause of a class of phenomena is to be sought out, or a train of abstract reasoning to be pursued. So far as I have learned, Phrenology has not yet undertaken to elucidate cases of this kind. Satisfied with her achievements in dissecting mind as a statical or quiescent body of powers, and in rightly naming and classifying those powers—and this is a very great thing, and what philosophy has suffered for lack of during some twenty or more centuries—satisfied with this, I say, *the new mental science does not yet essay to show by what successive steps discoveries are made, propositions proved or disproved, sciences elaborated, or truths found or established.* For it will not do in these cases to say, "Oh, that is the work of Causality, or of Comparison and the perceptions, etc.;" because the question at issue covers more ground than the *what faculties*; it demands to know just how and in what order these faculties work, what are the characters of the several steps they take, and how these are related to the necessities of the mental constitution, to the objects in nature that are studied, and to the principles in science thus obtained.

It is true that Phrenology has done more than to discover and name certain faculties. It has determined their purposes or uses—the objects toward which they tend, and about which they are conversant. It has gone another step still, and has inquired, and in many cases satisfactorily discovered, what would be the effect on the social, moral, or intellectual character produced by certain combinations of largely developed or leading mental traits. But suppose that we were to study the human body only in this manner; we should say that organ is a heart, and its office is to force blood; this is a liver, and its purpose is to secrete bile; the next is a tendon, and its office is to unite a muscle and bone, and so on. We might thus arrive at a very fair anatomy, and such knowledge of functions as anatomy usually contents itself with. We might even ascertain the combined purpose of certain pairs, trios, etc., of organs; but we should still be far from understanding the *physiology* of the body as a whole—the simultaneous and successive steps by which all its products are wrought out, and all its needful or superadded uses subserved.

Now it is safe, I think, to say that, for the intellect especially, Phrenology has as yet furnished us with little more than an anatomy. It has given us a skeleton intellect; or, if you please, a manikin, covered with a due array of parts in their proper places. It has told us of what Causality is capable; what powers Comparison confers; and so on. But a true, complete, and valuable intellectual science can not be made up by a treatise on faculties and their uses. We want the *physiology* of the mind; we want its processes minutely analyzed, tracked out, carried to their culmination in the fruits of logic or scientific research. And this is what in a degree, I believe, the intellectual philosophies of the old school furnish for us. They aim to show us the steps, the mode of operation. The intellectual philosophy of Phrenology is as yet too much a sort of intellectual *statics*; it shows us what there is in intellect, and what, if set agoing, it should be capable of. The old philosophers, although overloaded with contradictions, quibbles, and verbiage; although erroneous in many of their views, and deficient in anatomical basis, nevertheless contain within them a true germ of intellectual *dynamics*, or the science of the thinking and knowing powers as they present themselves in action, and elaborating their priceless products.

If the query be raised at this point, how a correct physiology of mind, even in part, could be obtained while the anatomy was altogether faulty, I answer: Many of the steps taken by the mind in observing, analyzing, and reasoning, are *phenomena*, independent and actual, and as such capable of being seen and taken note of by the "inner eye" of consciousness, and capable, in turn, in the same manner as phenomena observed in the external world, of forming subjects for reflection, analysis, and correct ratiocination. A powerful, self-abstracting mind, like that of Locke, Descartes, Cousin, or Hamilton, could in many particulars correctly observe and follow out the intellectual operations, even though it had not become fitted for its work by learning that the powers which have been named Individuality, Form, Weight, Time, Comparison, Causality, Ideality, and the rest, were the elements of the intellectual mechanism.

Looking upon the subject in the light now presented, it is plain that much would be gained in some of the departments of the science, at least, by combining the fruits of the old and of the new philosophy; or by bringing into the new the correct analyses, generalizations, and laws of intellectual action that, to a certain extent, must be found in the old. It was my intention to have followed out this idea by presenting, in this place, a synopsis or tabular view of the intellectual processes, according to such light as the old systems afford us, accompanying it with a statement of the objects in nature to which the several processes correspond, and of the faculties which may be considered as chiefly operative in each instance. Want of space compels me to postpone the tabular view, with the hope, however, of being able to furnish it for the next number of the JOURNAL.

But a word more before leaving this subject. I have compared the phrenological analysis of mind to a system of Statics, in which we have forces in abeyance, but rightly estimated and measured;

so that although we do not know the chain of functions or of work which they are capable of performing, we do know the direction, the magnitude, and the character of the efforts they can make. I have also compared this analysis to an Anatomy, faithfully and now first skillfully dissected and reduced to system. But if Phrenology do, in fact, give a true *analysis* of mind, would notChemistry afford u sa more just subject for comparison? In Chemistry it is, *par excellence*, that we take compounds asunder, that we search for, and are never satisfied until we find, all the elements to which a compound owes its peculiar characters. My reasons for not instituting such a comparison, I believe to be sound and sufficient. The first is, that such a view would revive the old hue-and-cry against Phrenology, as teaching that Mind is decomposable, hence destructible, hence a thing based in materialism, *et id omne genus;* but the second and weightier reason is that, first and last, such a view is unfounded, contradictory of fact and nature, and false in conception as it is pernicious in its tendencies.

Like a complex chemical compound, the mind contains a large number of distinct, independently acting elements or parts. But while these elementary faculties act independently, can they *exist independently?* Can Tune, or Ideality, or Firmness be separated from out the complex mind, and enjoy a solitary being and action? No, we say unhesitatingly. Individual faculties may be dwarfed, obscured, or their action estranged or apparently extinguished; but no faculty is capable of sole and distinct existence; and none is capable, so long as being lasts, of total and irrecoverable extinction. But again, if mind be a compound of the nature of chemical aggregations, then its elements, if separated, should have qualities wholly unlike those of the compounds; for this is the law of all complex chemical combinations. But such an idea of the mental faculties is simply absurd. What kind of compound, then, is this, in which the elements retain exactly their true character, and from which no element can be isolated so as to exist and be inspected by itself? Simply it is no compound at all; that is, in the chemical sense. Mind is not a separable and destructible combination of spiritual atoms; it is an inseparable and indestructible complication or whole of spiritual energies, no one of which, according to the creative plan, can be spared without abnegation of the entire being; and no one of which, in nature, can tend to cleave off from the complete product, any more than the *redness*, *sweetness*, or *mellowness* of the apple could be expected to isolate itself from its fellow qualities, and take form and being as a separate thing. Hence those who advocate the old philosophies exclusively through fear to admit that the mind is a thing of parts, may quiet their groundless alarms. They must feel, themselves, that it is sacrilege to suppose a man's Amativeness, his Combativeness, and his Veneration to be the exercises of one identical power and faculty. But they have no refuge from this view save in Phrenology. But because mind has in it the separate powers above named, and even many others, is it therefore necessarily a thing of dissolution? No: mind is a realm in which chemical laws do not hold, however much they may, in the physical *substratum* underlying mind, minister to its activities and uses. There may be structures that do not disintegrate, because they are unitary even in their complexity; and such is Mind.

TODD AND BOWMAN ON PHRENOLOGY.

CONCLUDING ARTICLE.

The Physiological Anatomy and Physiology of Man, by R. B. Todd, M.D., etc., and Wm. Bowman, F.R.S. 1 vol., 8vo. Philadelphia: Blanchard & Lee, 1857.

In our first article we considered the objections advanced by Messrs. T. and B. to the first two cardinal doctrines of Phrenology. Doctrines third and fourth are as follows:

Third. The brain consists of as many different organs as the mind does of faculties.

Fourth. These faculties are possessed originally in different degrees of power by different individuals, and also by the same individual. No objections are adduced, while much is presented in support of this doctrine, which it is foreign to our purpose to present at this time.

Fifth. Other conditions being equal, the size of the brain and of each organ is the measure of their power of function.

On this subject our authors are eminently phrenological in their views, differing from many others of equally high authority, as the following extract will show:

"It is impossible to explain the great superiority of the human brain, both in organization and the absolute quantity of nervous matter which it contains, without admitting its connection with the mind and the influence exerted upon its nutrition and growth by that immaterial principle. The men of greatest intellectual power are those who possess the largest brains. Cuvier's brain, as stated by Tiedemann, weighed 4 lbs. 11 oz. 4 dr. 30 gr. Troy weight; and that of Dupuytren, 4 lbs. 10 oz. On the other hand, the brain of the idiot weighs scarcely more than that of the horse, viz., 1 lb. 7 oz. Tiedemann found the brain of an idiot, fifty years old, to weigh 1 lb. 8 oz. 4 dr.; and that of another, fifty years old, 1 lb. 11 oz. 4 dr. In advanced age, when the mental faculties have declined, the brain generally experiences a decrease in size. There are many, however, who preserve their intellectual vigor to a very advanced period of life, and in such persons, doubtless, the brain does not exhibit any evidence of shrinking. It is during the period of greatest mental activity and power that the brain acquires and maintains its highest point of development, that is, between the ages of twenty and sixty."

The points advanced in the above extract were first presented to the scientific world by Gall and Spurzheim, and were very severely criticised by the most eminent men in the profession of that day. Later, we find the authorities still adverse to these doctrines. Even Carpenter gives them a feeble support, but Todd and Bowman give them to the world in their simple truth, and almost in the very words of the phrenologists themselves. *Vide* also Fowler's Phrenology Proved, Illustrated, and Applied, *passim*.

On the doctrine of the temperaments, a doctrine which forms the corner-stone of our system, the following language is used:

"While there is an evident connection between large *quantity* of cerebral matter and a highly developed intellect, the *quality* of the mind and that of the brain substance may also be supposed to have a close relation to each other. For great power of action, a large muscle is needed; but for vigorous and well-adjusted muscular movements, a certain *quality* of fiber is also necessary to give a full scope to the nervous power. It is impossible to determine what this peculiarity in quality is; but some idea of the great influence which it may possess in the exercise of the two great vital forces, the muscular and nervous, may be gained from comparing the energy and action of a well-bred horse with those of one which, in the language of the turf, shows little or no breeding. The actual amount of muscular or nervous fiber may be the same in both, or it may be less in the horse of good breeding than in the other, yet the former does his work and endures his fatigue better."—*Op. Cit.*, pp. 238, 239.

Again, on page 324:

"All observation, both in men and in the lower animals, proves that the energy of any nervous center always bears a direct proportion to its bulk, whether relative or absolute; and that the phrenologists do not err in attaching great and primary importance to the size of those parts with which they associate certain faculties; while the attention which recent writers of that school have paid to the temperaments of the individuals under examination, is a proof of their admission that the *quality* of the nervous matter constitutes a highly important element in the development of nervous power."

The proof of the admission of this fact by recent writers on Phrenology is not a whit stronger or more conclusive than that which can be adduced from the writings of Gall and Spurzheim. Indeed, until the time of these pioneers of a true phreno-physiology, the doctrine of the temperaments was but ill understood, and far from being generally received. Phrenologists have no *admissions* to make in reference to the effect of temperament upon mental manifestations. They were the first to announce in clear arguments, cogent reasonings, and by the presentation of startling facts, that *quality* of organization was as complete a measure of functional power as *quantity* itself. If there are any admissions to be made by any on this point, they must come from those anti-phrenologists who have ever denied the truth of the doctrine of the temperaments.

The remaining objections which Messrs. T. and B. bring againt Phrenology are mainly adduced against the theory which assigns the amative instinct to the cerebellum. We have examined this subject time and time again, and have laid before our readers all the facts and arguments for and against, and we now propose to submit the question to the reader on its merits. Examine the development of this organ in the persons of those whom you know to be alive with lust, and then compare it with the development in persons whom you know to be of an opposite organization, and decide for yourselves.

Some years ago, while visiting the Connecticut State Prison, the writer went through the prison and picked out of the convicts every one who had been sent there for the commission of rape, and he made not a single mistake. He furthermore marked out those who were notorious for the strength and intensity of this passion, and was

assured by the attending officers that he had not made a single error. In every instance there was a great development of the cerebellum, accompanied and, in part, indicated by a large, round, full bull neck. Take this knowledge with you, reader, and apply it, and my word for it, you will find it an accurate and reliable index of the natural intensity and strength of the amatory passion twenty times in every score of men you meet.

PHRENOLOGY WITHOUT A TEACHER.

A LADY reader of the PHRENOLOGICAL JOURNAL, in Pittsburg, Pa., inquires by letter if it is "possible for a person to acquire a good knowledge of Phrenology without the aid of a teacher, and if so, what books will be necessary, and the price for the same?"

Undoubtedly a competent teacher would be as valuable to the phrenological student as to one in any other department of knowledge; still, the oral teacher is not absolutely indispensable. If a person is above the average in mental clearness and strength, he can learn any science or art by practice and the use of well-written text-books and proper illustrations. Geography hardly requires a teacher at all; the same is comparatively true of grammar and mathematics.

In Phrenology, the location of the organs can be learned by a well-marked bust about as readily as the map sets forth the continents, islands, oceans, seas, lakes, and rivers of the earth. The standard works and the published lectures on Phrenology are quite as adequate to teach the nature of each faculty of the mind, their combinations and modes of activity, as are geographical text-books to describe the nature of the soil, the productions, the political divisions, the systems of government and religion of the different portions of the earth.

There is one point in the study of Phrenology, either with or without a teacher, which is more difficult to master, and that is, learning the real and the relative development of the several organs. This requires practice and good judgment. But these difficulties are not insurmountable. In learning to use a musical instrument, we acquire a little at a time, until we find the keys of the piano or the strings and notes of the violin in the dark, or without using the eyes; so practice teaches us to find the phrenological organs, and to estimate their size.

The wool sorter will make sixteen sorts from the wool of a single flock of sheep, and we have often tried the discrimination of these men by taking a handful of wool from any one of the qualities to see if they could readily determine to what quality it belonged, and to our surprise they could uniformly tell instantly, and that without looking. We could see and feel a difference between the fourth and the fourteenth quality, but between the fourteenth and fifteenth we could not be at all certain. A paper-maker will tell, by feeling, the thickness of the paper, as it comes rapidly from the machine, and this he will do to such a degree of accuracy as to know whether the paper would weigh 50 lbs. or 51 lbs. to the ream. Paper is not very thick, but practice will enable one to distinguish the increase or decrease of a fiftieth part of the thickness of the sheet. So, also, persons who buy cattle for the slaughter, learn to judge of their weight by the eye alone, so as to come within a very few pounds on an ox which will weigh fifteen hundred pounds. All this is done by the strength and trained activity of the phrenological organ of Size.

Now if these examples be applied to practical Phrenology, many of the seeming difficulties which loom up before the beginner will be much diminished, or at least he will understand that experience in this, as in other things, will nearly obviate every impediment, and bring about a readiness and accuracy of judgment which at first would seem impossible.

Most persons become discouraged if they can not play a tune the first time they try the instrument, and many who have read, understand, and believe the philosophy of Phrenology, approach examinations expecting at once to recognize all the minute differences in the developments of the organs, and because they can not achieve the results and feel the confidence of an expert, they withdraw from the effort discouraged, and perhaps join in the cry of the uninformed multitude, that Phrenology may be true, but not practicable.

To answer the remaining question of our correspondent as to the proper works, and their price, we would state that the works most necessary for the student are, Fowler's Phrenology; Self-Instructor; Memory; Self-Culture; Physiology, Animal and Mental; Combe's Lectures; and the Phrenological Bust. The bust can not be sent by mail. Its price at our office is one dollar; box and packing, twenty-five cents. If the above books are ordered to go by express or freight, or by mail, their prices will be as follows, respectively:

	Price, by Express.	By Mail.
Fowler's Phrenology	$1 00	$1 25
Self-Instructor, bound	50	62
Memory	75	88
Self-Culture	75	88
Physiology, etc.	75	87
Combe's Lectures	1 00	1 25

Other works are very desirable, and would ultimately be required by the student, viz.:

	Price, by Express.	By Mail.
Defense of Phrenology	$0 75	$0 87
Constitution of Man	75	88
Marriage	75	87
Spurzheim's Education	75	88
Combe's Physiology	75	88
Hereditary Descent	75	87
Natural Laws of Man	25	30
Amativeness	12	15
Phrenological Journal	1 00 a year.	

WM. F. PHELPS.

BIOGRAPHY AND PHRENOLOGICAL CHARACTER.

BIOGRAPHY.

PROF. WILLIAM F. PHELPS, the distinguished head of the New Jersey State Normal School, was born at Auburn, New York, February 15th, 1822, and is now thirty-six years of age. His father was an intelligent farmer, and gave his son such educational advantages as the district schools at that time afforded until his thirteenth year, after which he attended such academies and high schools as were within reach, and which were but little more advanced than the common schools, their chief aim seeming to be to ignore the ordinary branches of education, and to rush their students into the higher branches for the sake of the emoluments they afforded. During the period ending with his sixteenth year, we have often heard Prof. Phelps remark, he had but one really good teacher, a New England gentleman, of polished and refined culture, whose methods of teaching were "eminently enlightened, rational, and philosophical." It was while under the instruction of this excellent man, Mr. Albert Metcalf, that our subject learned the true uses of the blackboard, and received a fresh start in the right direction, which has since been followed with earnest zeal, and been crowned with a rich harvest of valuable and useful practical results; while here the memory was not deemed the only faculty. The understanding was aroused and brought into requisition, and great benefits were imparted in various ways from the wholesome teachings imparted in Mr. Metcalf's school. A portion of his earlier years was passed on his father's farm, where he learned the rudiments of agriculture as practiced at that time, which has had the effect to give his mind a decidedly practical turn.

Being naturally of a delicate constitution, and in indifferent health, the parents of young Phelps, with the usual mistaken kindness of parents in such cases, determined that he should follow some sedentary pursuit, and various attempts were made to procure him a situation in a commercial establishment, but fortunately, as it has since proved, without success. While attending a common school during the winter of his sixteenth year, his teacher suggested to his father the idea of William's fitness to teach school.

From this time there was no peace until our hero was installed as a "Knight of the Birch" in an old school-house in a somewhat retired district, where it had been for a long time fashionable to turn the master out of doors! Here, in a small room, with rough benches, shattered windows, and a crowd of more than sixty ungoverned urchins of both sexes, all ages, and conditions, our subject made his first feeble essay as a teacher. He remained four months, and acquitted himself to the entire satisfaction of all concerned, and by his intelligence, tact, and firmness succeeded in rooting out the old-time fashion of ousting the schoolmaster as a tyrant whose sway it was honorable to abolish. The succeeding summer of 1839 was passed on the home farm, and in the following winter he was again the master of a still more retired rural district school. While acquiring his earliest experiences as a teacher, Prof. Phelps became painfully aware of the defective character of the system of education in which he had himself been instructed, and of the almost worthless routine methods universally practiced in the schools of all grades through which he had passed. This conviction caused him constantly increasing annoyance, as he saw that he was himself the active instrument to perpetuate the same melancholy results in the ductile minds of his own pupils who were looking to him for their instruction. This state of things led him to think much on the nature and true object of education.

He was thus ever aiming to improve upon the absurd and irrational mummeries that characterized the practice of the trustees of the "District School as it was." These efforts, coupled with unbounded energy, industry, and determination, enabled him to secure comparative success.

During the year 1842, at the age of twenty years, Mr. Phelps again entered upon a course of academical study with a view to enter college.

Four years previous to this he had been thrown entirely upon his own resources for support.

He was thus compelled, while pursuing his classical studies, to teach in the winter, to enable him to attend the academy in the summer. At this time there was an urgent demand for teachers, and he was again induced to enter the lists as a teacher without the benefits of a college diploma.

Great interest was at this time felt throughout the State of New York on the subject of common-school education. A system of county supervision had been established, teachers' institutes had been inaugurated, and the *District School Journal*, under the editorial charge of the lamented Francis Dwight, was doing its good work.

His school, during the winter of 1842-3, was highly successful; it being in the district of the County Superintendent of Common Schools, who was visiting the schools of the county, the fame of his labors extended over the entire county. It was visited far and wide by teachers and by entire schools, and it did much to arouse public attention to common schools.

In the spring of 1844 the act for the establishment of the New York State Normal School was passed. We give an extract, by Prof. Phelps, in relation to his own views at this period:

"Having read the glowing accounts of the Normal Schools and other educational establishments of Germany, and other Continental countries, as given by Mr. Horace Mann, in his famous Seventh Annual Report, I felt a great anxiety to enjoy the benefits of the proposed institution. I had formed the idea that its course of study and training would be superior to that of any college in the country.

"I was accordingly the earliest candidate for an appointment from my native county. This appointment was conferred by the Board of Supervisors in November, 1844, and I joined the institution, under the principalship of that accomplished teacher, David P. Page, at its opening on the 18th of December, 1844."

Soon after entering this institution, he was appointed to the responsible post of Superintendent of the Experimental Department, better understood as the school for practice, at that time a position of great difficulty, labor, and responsibility, because an entirely new and untried field in this country, and hence there was no experience to fall back upon. This school for practice was composed of pupils of all grades, who were to be disciplined and instructed by the teachers drawn from the senior class in the Normal School in rotation for one week at a time. The great object of these appendages to our Normal Schools is that of training teachers to the practical duties of their profession. To TRAIN THEM, therefore, was the most difficult task of all.

While occupying this position, more than five hundred different teachers, with their varying methods and capabilities, passed under his review and inspection. The results produced were almost as various as the individual teachers. While one would, during his brief trial of one week, arouse the energies of the children almost to the pitch of enthusiasm, bring order out of chaos, and secure the respect of his pupils, another would in a single day undo the good work of an entire week.

These varying results, and the agents and means by which they were produced, could not but challenge his keenest attention, and put him upon a train of philosophical investigation. Before him was passing a continuous train of *experiments*. The children were the subjects of these experiments; their ever-changing instructors were the experimenters, and he was the patient observer. The inquiry was constantly presenting itself to his mind, Why does this one succeed? and "why does that one fail?" An analysis of the qualifications of each was made, and the results of their efforts were noted. A process of induction and generalization was entered upon, and as a consequence, the general laws of physical, mental, and moral culture were deduced; and henceforth the complicated processes of education began to arrange themselves in his mind under the general principles to which they were referable.

He soon found that the successful teachers invariably carried out certain methods, which methods were all embodiments, in somewhat different forms, of certain well-defined and philosophical principles. Education thus became a positive science, whose principles might be easily taught and intelligently applied.

These principles were unfolded to the pupil-teachers, and the application of them was illustrated by direct resort to the work of the class-room. Thus the true professional spirit was infused into the future teachers who were preparing for the great work of training the young, and the influence of the "experimental department" was felt throughout the entire institution, rendering it most emphatically a school for the *professional training of teachers*.

Prof. Phelps held this important position for nearly eight years, resigning it in May, 1852, for the purpose of recreation and travel for the restoration of his health, which had been greatly impaired by unremitting and arduous toil.

After about three years' respite from professional duty, which period had greatly restored his vigor of body and mind, he was unexpectedly elected, and with entire unanimity, to the responsible position he now occupies, in July, 1855.

Prof. Phelps entered upon his duties as the Principal of the New Jersey State Normal School under the following trying circumstances. On the first of August following there were no buildings erected, no plan of organization was decided upon, and no preparation had been made for the opening of the Normal School, which had been previously advertised to take place on the first of October of the same year.

The Legislature of the preceding winter had passed an act of establishment appropriating ten thousand dollars per year for its support, and providing for the appointment of ten trustees for its care and supervision.

These trustees were wholly unacquainted with the principles and details to be embodied in the institution confided to their supervision. And superadded to these facts was the other stubborn fact, that opposition the most violent and determined was manifested in all quarters of the State to the whole scheme. Many predicted that the next Legislature would repeal the act, and some of the trustees were advised by their friends to have nothing to do with an enterprise so visionary and utopian.

On surveying the field of operations, he at once saw that the salvation of the whole movement would depend entirely upon a *prompt and striking success*. The practicability, utility, and necessity of such an institution must, therefore, be made apparent—must be demonstrated before its enemies could organize their forces for a successful onslaught at the ensuing meeting of the Legislature. The trustees had resolved that it should go into practical operation on the 1st of October, and that the buildings should at once be put under contract, and as far as possible completed before the close of winter.

His first efforts were directed to the plans for the buildings. More than five weeks of unremitting attention were devoted to the perfection of these plans. In order fully to meet the requirements of such an institution as the wants of an entire State demanded, a most thorough and careful scrutiny of all the wants of the school was entered upon, and ample provisions for meeting these were secured. The result was one of the best models of school architecture and arrangements to be found in this country, complete drawings of which will be found in the *American Journal of Education* for December, 1858.

His next object of attention was to make arrangements for the opening of the establishment at the time appointed—October 1, 1855. But three weeks remained in which to accomplish this work. Temporary accommodations had to be secured, furniture, books, and apparatus provided; teachers appointed and even pupils sought out, for as yet no adequate notice had been given of the existence of such a movement, while the entire people were unacquainted with the nature and design of the proposed innovation, its terms of admission, its advantages, and its mode of operation. But all those requirements were speedily met, and on the 1st of October the great movement was fully inaugurated.

The origin and progress of this school most forcibly illustrate how much more potent in the dissipation of prejudice and opposition is an *existing palpable fact* than the most cogent reasoning or the most powerful appeal to the popular understanding. The novelty of the institution, in its name and nature, had aroused curiosity, and once in existence, it did not lack investigation. It was visited and looked at. Seeing was believing, and the operations of the school were of such a character that the *common sense* of the visitor was at once reached, his sympathies enlisted, and his co-operation secured.

The opposition to a truly good cause is more likely to result from a want of information respecting its true character, objects, and operations, than from any other. It was all-important, therefore, that correct information should be scattered among the people, and reach the representatives of the people, who were soon to assemble in their legislative capacity.

This want Prof. Phelps at once set about, supplying, in the preparation of an elaborate report on the origin, history, nature, objects, and results of Normal Schools, both in Europe and America. In this report he says: "I endeavored to develop the true idea of education, and to elucidate the grand principles in accordance with which this idea was to be realized, in the complete develop-

ment of the faculties of man as a material, mental, moral, and social being; and the important—the fundamental part which Normal Schools were designed to play in the great work, was pointed out." This report was published and scattered in every direction, not only throughout the State, but throughout the Union.

The effect of these vigorous and well-timed measures was immediately perceptible. Opposition began to give way to better counsels. Information begat appreciation, and examination cordial co-operation. The crisis was passed. The Legislature of 1856 promptly frowned upon all attempts to cripple the infant institution—its enemies were discomfited, and it was resolved that it should have a fair and impartial trial.

The successive annual reports of the Principal and Trustees to the Legislature, of which there are up to this time three, have fully elucidated the question of Normal Schools, demonstrating their indispensable necessity to the efficiency and even the existence of a proper public school system, assigning them their true rank in the great scheme of public education, and showing their relations to the primary and higher institutions of learning, and hence to the welfare and progress of human society. In the preparation of these reports the Prof. Phelps has brought to bear upon the great subjects discussed a truly philosophic spirit, as well as an earnest and attractive style.

Of the three annual reports and accompanying documents, not less than fifteen thousand copies have been published and distributed throughout the entire Union and in Canada, and have given their author a continental reputation.

It is impossible, in a brief notice, to give anything like an adequate idea of the principles, methods, and details which enter into the conduct of a great representative institution like that of which the subject of this sketch is the moving spirit.

But the views which he is known to entertain, and which most strikingly predominate in the work of his hands, may be briefly summed up as follows, in his own words:

"Education is both a science and an art. As a science, it investigates the laws which govern the harmonious development of man's faculties, as a physical, intellectual, social, and moral being. As an art, it applies these laws to the cultivation, and as far as possible, to the perfection of his threefold nature.

"This development is to be secured only by the systematic, harmonious, and judicious *use* or *exercise* of his manifold powers.

"Every process and appliance of the school should have reference to the nature of man, the part which he is to play in the drama of life, and to his final destiny as an heir of immortality.

"The Creator governs every domain of his universe with immutable and eternal laws. He has placed man on the earth to master these laws and to bring himself in harmony with them, and thus to be prepared at last to ascend to Him. Every school should be made an efficient instrumentality in the fulfillment of this condition.

"Infancy and childhood constitute the eventful seed-time in human life, and therefore these periods should be sedulously devoted to the proper culture and training of the young through the instrumentality of the family and the school.

"The proper education of the teacher is, therefore, an object of the highest concern with every community, inasmuch as he does more to determine the character of the family and the school than any other cause whatever."

The methods of the Normal School of New Jersey are such as heartily to enlist every power and faculty of every pupil, as far as possible, in his own behalf. He is taught to measure his attainments, not so much by *what he thinks he knows*, as by *as what he can actually do*. Whatever subject he studies, he is made to know thoroughly, exactly, its *reasons* and its *applications*.

The applications of knowledge are carried to the employment of the hand in construction of models and in the examination and use of structures and machines.

He is taught to regard books as only helps, and oftentimes poor ones at that. He is taught *how* to investigate a subject, where to begin, and how to proceed in a natural or logical manner. He is taught to generalize from facts to principles and laws.

Personal and social habits are made a subject of careful and particular training; moral and religious character is regarded, and, in short, the whole being is addressed, and the whole heart, mind, and strength are invoked in the radical and momentous task which is imposed upon the pupil.

Words can not adequately convey an idea of the comprehensive plans and methods which are here on every hand operating to produce the well-trained teacher and the true man and woman.

As president of the N. J. Educational Association, and of the American Normal School Association, Prof. P. is making himself powerfully felt in the educational movements of the day. By his writings for the leading educational periodicals; by his speeches and addresses to the public in various parts of the country, he has done much to arouse attention to the transcendent importance of the great cause he serves. Prof. Phelps has, should his life be spared, a useful and brilliant future before him, and the result of his labors will, we feel assured, form an era in the history of popular education in this country. His name has been prominently mentioned in connection with the reorganization of the New York City Normal School, which is now under consideration by the Board of Education.

PHRENOLOGICAL CHARACTER.

[It is but just to state that the following analysis of character was dictated to our reporter as here given, without any knowledge or suspicion on the part of the examiner as to the name, pursuit, or achievements of the subject, who was brought to our office for examination as a stranger.]

YOUR head is too large for your body; and the result is, you are not able to manufacture steam as fast as you can use it through the brain. Anything which is calculated to depress your health undermines your mental power; whatever habit or course of action tends to build up the body, in the same ratio braces up the mind. If I wanted you to do intellectually all that you are capable of doing for twelve months, I would have you set apart a certain number of hours to systematic, well-directed physical exercise. You can do more thinking in six hours, by taking four hours of exercise in each day, than you could by thinking twelve hours without the bodily exercise. This is not true of everybody, but is so of those who are organized with too much nerve for the muscle, too much brain for the vitality. Whatever ministers to the development of your vitality and to the strength of the muscular system, does so much toward the increase of the mental power. You need, also, as much more than eight hours' sleep every day as you can get time to take; for as it is sleep only that rests the nervous system, you need ample sleep to keep your brain from becoming feverish and fatigued. Your head measures 22¾ inches, and your weight being less than 140 pounds, there is a disproportion between the size of your head and body that would be balanced by the acquisition of not less than 30 pounds of bodily weight. You need no stimulants or condiments, but you do need a very nutritious diet, in order to manufacture just as much of life-power as possible, without serious tax upon the constitution to produce it.

Your phrenology indicates uncommon force of character. You are, by nature, brave, and if you are ever thrown into a position where it requires manliness of the Julius Cæsar stamp, you would show yourself to better advantage than anybody would suspect who had never seen you thus brought into straits.

You are modest; you never overrate your abilities, and are rather inclined to overrate other people; it is only by comparison and experiment that you find out your own merit and true position. As a boy, you over-estimated strangers, and until you had tried studying with new scholars, and had found out their capacity, you did not deem yourself their equal. Self-complacency is not one of your characteristics. You have not enough of it to sustain you. You are obliged to accomplish what you have to do by dint of thought-power, of criticism, and real intelligence, joined with hard work. In other words, it is intellect and courage, not self-sufficiency; you never boast until after the battle is won, and, consequently, never gain reputation without an effort.

You are an ambitious man, very solicitous to be favorably regarded, and anything that trenches upon your reputation is like taking a pound of flesh, including the "right eye."

You are firm, thorough, positive, and efficient. You are not very sanguine respecting the future; nearly all your calculations respecting the future are based upon some kind of intellectual demonstration; the wish does not become "the father of the thought" to you, but the thought becomes the foundation of the wish; you reason it all through, and then expect the result. You are a very clear-headed thinker; there is a sharpness, a precision, and persistency to your mind that makes you very successful, and this mental acumen being backed up by great industry and true courage, it makes what you do and say in your department *tell*, and the results that you achieve can be counted on beforehand by your demonstrations. You find it difficult to get other people to do your work satisfactorily. If you had larger Self-Esteem, you would have more power to control others and make them bear responsibility. You feel that you are responsible for everything that in any way relates to your business, and if you were a merchant you would balance the cash-book yourself, and take care of the account at the bank. You

PORTRAIT OF WILLIAM F. PHELPS.

have not as much confidence in other people as many persons, and you would not thrust a son forward as early in life as many fathers would do.

You have natural ingenuity. You would have succeeded well in civil engineering or in the nicer branches of mechanism. Your tendency to think sharply, and to demonstrate everything, joined with your Order, Constructiveness, and Ideality, are just the qualities necessary for the inventor of that which is nice, as mathematical instruments, or anything that must work perfectly, and with precision and harmony.

You have a poetical spirit, but are, perhaps, too much of a practicalist to spend much time in cultivating the acquaintance of the Muses.

You relish wit as well as beauty; are remarkable for your power of repartee, and for appreciation of whatever is brilliant or witty; and you have also a relish for that which is odd, queer, and ridiculous, to such an extent, indeed, that you take extra care not to fall under the lash of ridicule.

You have great power of imitation and decided dramatic talent, and would write well for the stage, if you feel an interest in that department of art. You would make an excellent editor of a monthly magazine, where you would have an opportunity to write when you felt like it, and of polishing and revising after the thought got cold. You would wear yourself out on a daily newspaper, unless you had a department to fill, and devoted yourself to that alone.

You have most of the elements of the orator, and had you been trained to it you would have been an accomplished public speaker. You have remarkable power to think, reason, and analyze, and you bring your mind to a focus on the subject, so that you burn yourself right into it. You work too hard when your mind becomes fully enlisted, and what attracts your attention becomes, for the time, the object of your devotion; and though you have talent for variety, your disposition is to become deeply absorbed in whatever specialty is exciting or difficult. You take your intricate problems to bed with you, and sometimes to church. Your mind is so busy that you find it difficult "to shut down the gate," as they do to a mill, but you think in your sleep and in your recreation.

You like to make money, but you think much more of accomplishing that for which money ought to be made—of triumphing over difficulty, and succeeding in your attempts, than of being well paid for the job—in other words, you think more of the victory than of the spoils. You are very persevering, but you are not obstinate. You are very hard to be driven, because your resisting power becomes aroused, but you are not an obstinate man in any just sense of the term. You are very fierce in opposition, and are persevering in your efforts to accomplish what you wish to do, but you never take the opposite side merely for the sake of opposition. It is more natural for you to agree, and say Yes, than it is to say No and to disagree; but whoever thinks you are a captious man mistakes you, and whoever takes you for a tame opponent mistakes you equally.

You have many of the qualities that the lawyer requires to be pretty actively shown out in his profession. They are clearness and concentration of mind joined to courage and will-power.

You are naturally just in your motives, not very spiritually minded, and not particularly devout. Your Benevolence and Conscientiousness are the largest in the moral group of organs, and you seek first to do right and to do good. Yours is a kind of week-day religion that comports with the duties of common life, and Sunday services come as a resting-place to sharpen the moral instruments with which to go out into the world.

You have a high temper, and it causes you some effort to properly restrain it at all times, especially if your occupation has been one which draws forth enthusiasm and calls out the passions.

You have very strong social impulses; are capable of making friends rapidly, and of retaining them You love woman devotedly, and wherever you are, you have her as a devoted aid in whatever you are engaged, You would succeed well in teaching a female seminary. Your social nature gives you power to sway the mind of woman, and to interest her in your behalf. The female pupil would look upon you as a friend as well as a teacher and governor, and would obey your mandates partly from affection as well as from a sense of duty. You would govern your daughters better than your sons, and could do more toward making a noble woman of your daughter than you could to make a noble man of your son. If you had a wife with a similar organization to your own, she would train up the son, while you would manage the daughter.

Children become interested in you. You enjoy their society, but you are anxious to have them become developed, where you can talk to their higher intelligence. You like to take the young from twelve to sixteen, whose minds are beginning to thirst for higher knowledge, and who would look to you for information. You love to impart information, especially to a hungry mind. You are a great friend to the young, and if you wanted to be promoted to office, you would succeed better in getting votes from young men than most citizens, because you know how to meet a young man's mind; and if you were living in a district where you had an opportunity of becoming acquainted with the boys, they would all be willing to vote for you as soon as they were old enough to do so.

You should be known for clearness of intellect, for sharpness of criticism, for practical judgment, for intuition, and directness of mind, which should give you power to succeed in whatever you may engage. You have the right kind of intellect for science; you have also the elements which give you a love for polite literature and oratory. You would enjoy yourself better in a scientific or literary department than elsewhere. You should be known for undaunted courage and efficiency; for prudence, watchfulness, and guardedness; for reliance on yourself for what you can do; for a tendency to doubt the future, and to fall back upon your own earnest energy without trusting in luck or outside support. You should also be known for modesty, so far as Self-Esteem is concerned, and also for very strong social impulses; for power to turn your attention to almost any department of effort, from building a steam-engine to navigating the ocean, or from raising cattle among the mountains, or fruit upon the hills, to standing behind the money-changer's desk, or occupying a position as merchant. But you would enjoy yourself better to be among thoughts and ideas, either as an editor, as a speaker, or as a teacher.

PORTRAIT OF HIRAM PALMER BURDICK.

HIRAM PALMER BURDICK.

PHRENOLOGICAL CHARACTER AND BIOGRAPHY.

PHRENOLOGICAL CHARACTER.

You have a very remarkable organization, both mentally and physically; not because many of the organs are very small, while others are very large, but because of the great harmony and balance of power which you possess.

Your vital temperament is developed in the highest degree, which, joined with a large brain and an active mental temperament, secures a tone of mind which is particularly favorable to mental manifestation. You can generate vitality sufficient to be constantly employed in some department of intellectual labor. You need much physical labor to keep up a healthy condition of the muscular system, to sustain the brain and the vital power.

Your mental temperament is largely represented, which is favorable to clearness, intensity, and susceptibility of mind. You possess a high degree of excitability, so that you are easily warmed up to your subject, and this disposes you to throw your whole soul into whatever you do.

You have a strong, healthy, and vigorous constitution, and are able to sustain yourself in the midst of much constant labor, both of body and of mind.

Your brain is of rather large size, which gives you a good degree of power and scope of mental action, so that you are equal to those with whom you labor, and in some respects superior, in consequence of the great control you have over your various powers of mind.

Your phrenological developments indicate a very strong social nature. You are particularly warm-hearted, affectionate, social, and companionable; are deeply interested in your female friends, and susceptible to a high degree of domestic pleasure; are fond of children, strongly attached to friends, and much interested in home.

You have Continuity sufficiently large to dwell upon a subject long enough to understand it, but are able to divert your mind from one subject to another, if the occasion requires; besides, your mind is pliable and versatile, and you have such a command of it as enables you to use it in any direction which may claim your attention.

You are disposed to resist encroachments, defend yourself, your rights, interests, and friends, and exhibit a prominent degree of Combativeness in overcoming all the obstacles in the way of life, but are not cruel or revengeful in your disposition. You can be severe, if necessary, but you prefer peace and harmony, quiet and good-will.

You are acquisitive, industrious, and economical; you lose no time, property, or strength, but are disposed to turn all to good account.

You are characterized for frankness, open-heartedness, freedom, and ease of mind; are not suspicious, cunning, or intriguing, but let your whole soul right out.

You are quite ambitious, particularly sensitive to criticism, and very desirous of excelling in everything you take hold of; are also firm, tenacious, persevering, and almost stubborn in maintaining your position, when once taken.

Your moral brain is large; you have a strong sense of moral truth and obligation; are well qualified to sustain yourself in society, because of the influence of your moral feelings. You are conscientious, hopeful, spiritual, and devotional; are strongly inclined to religious exercises, as well as to benevolent and generous impulses. You are desirous of doing good, promoting happiness, and advancing the interests of others, while you are discharging the duties devolving on you as a neighbor, parent, and companion.

You are ingenious, fond of constructing, contriving, and making, and are equal to almost any mechanical task you may take hold of. You are versatile in talent, imitative, can turn your hand to anything, and readily suit yourself to all classes of circumstances and conditions.

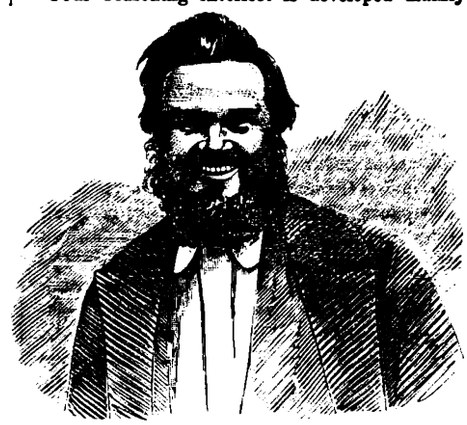
You are imaginative, fond of beauty, and have scope of thought; are fond of the sublime, and particularly gratified with things imposing and grand in nature.

You are mirthful, fond of fun, quite jolly, lively, and disposed to entertain others in a mirthful, sprightly manner. This faculty is rendered much more active and influential because of the favorable influence of other faculties, joined with a happy temperament. You carry sunshine wherever you go, and are well calculated to inspire the desponding with hope and joy.

You also have great intellectual curiosity, and desire to see everything. Your perceptive faculties, as a class, are strongly marked, and have great influence in furnishing practical knowledge and ability to make yourself acquainted with external things, and their relations and uses.

You have large Order; are neat, systematic, methodical, and all you do is done with care. You also remember places accurately, and are very fond of traveling, and of the study of geography and astronomy. Your general memory of events and dates is good; your conversational talent is excellent, and, when animated, are able to sustain yourself well as a speaker.

Your reasoning intellect is developed mainly



"THE LAUGHING DOCTOR," H. P. BURDICK.

through your Comparison, giving ample, copious, and pleasing illustrations; and you are particularly agreeable, playful, and pliable in your disposition. You are well qualified to sustain yourself in all classes of society, because you adapt yourself readily to others.

Taking your whole organization into account, you should be remarkable for healthiness of organization, sociability of mind, desire to excel, perseverance in your undertakings, versatility of talent, scope of imagination, pleasantness of disposition, and strong moral feelings and desire to be useful, and to sustain moral principles by word and by the life. And engaged in whatever you might be, your influence could not be otherwise than beneficial to others. If you were a mechanic or artist, you would acquire popularity among your customers. If you were a teacher, you would secure more pupils than most persons of equal talent, and gain the sympathy and co-operation of every one. If a physician, you would not only have the practice of your neighborhood, but would be called to go far and near to treat patients, because you would be so genial and sympathetic in the sick-room, that your very presence would seem to carry health, hope, and confidence. If a minister of the gospel, you would keep your house full of attentive listeners, because of your wide-awake disposition and ability to enter zealously into the performance of your duty. In fact, in whatever you attempt, you will succeed, because you have the power to throw your whole soul into it, and bring your talent to bear in that direction, and also to carry the people with you.

BIOGRAPHY.

Hiram Palmer Burdick was born Dec. 13th, 1819, in the town of Alfred, Allegany County, New York. He was left fatherless at the early age of six years, and as his father did not leave the family in affluent circumstances, his time was

devoted to assisting his mother to provide for the wants of the family, which consisted of his mother, himself, and two younger sisters.

But Hiram was rather a mischievous boy, or as the saying is, he was "chock-full of Old Nick," as smart boys usually are, yet perfectly honest, until at the age of nine, when he was led into bad habits by adverse circumstances.

His mother being a pious woman, was of course anxious to train up her only son in the "nurture and admonition of the Lord." And as the rod was at that time considered the best, if not the only effectual means of making bad boys good, of course it was as often used as in the mind of an anxious mother necessity seemed to demand.

The following circumstance, from among many that might be enumerated, goes to show that his mother often had occasion to call on "Dr. Birch," and also that Hiram had some skill in avoiding his prescriptions. When Hiram was about ten years old, his mother hired a neighbor to break up about half an acre of greensward for potatoes. One morning, about the first of June, the man came on with a light pair of steers and a wooden mold-board plow, and so disturbed the peace of the virgin soil as to make its surface look somewhat as though pigs had been digging in it for thistle-roots, and as the plowing was done by the job, particular pains had been taken to "haw" all the stumps. The potatoes were planted, however, and in due time were in need of hoeing, and of course Hiram was the boy to do it. He worked at them one day faithfully, but it was hard business, and he, becoming discouraged, gave it as his opinion that it would not pay to hoe potatoes; whereupon a "stent" was given him for the next day: but he failed to finish it. His mother now thought it necessary that he should take a prescription from Dr. Birch before he would be able to finish the hoeing. Accordingly, a thorough dose of the oil of birch was administered forthwith, and another large "stent" given him for the next day. Early in the morning Hiram was in the field with his hoe, and this was a day of marked success, for in a few hours he had cut up every hill of potatoes to be found in the field. Just as he had finished, and sat down to contemplate his work of destruction, the man who had been so particular to "*haw*" all the stumps, came along. "My lad," says he, "what is the reason of all this?" "*Reason*," said Hiram, "*I* reason in this way: If I had kept on hoeing at these potatoes as I commenced, it would take me ten days, and I should get whipped every day until I had finished, and then should not get ten good potatoes in the fall; but now two hours' work and a good whipping ends the whole matter."

"You would be sure of getting the whipping if you were my boy," said the neighbor.

"Well, I am sure of it now," said Hiram, "and I am also sure that in two hours more I could turn back every sod that you have turned over with your miserable plow, and no one would mistrust that this had ever been a potato-patch."

At the age of twelve the burden of maintaining the family devolved upon himself and a sister two years younger. His mother, being confined to her bed by sickness for nearly two years, his advantages in school were six weeks at the age of fourteen, and three weeks at fifteen, and at the age of eighteen, fourteen weeks in Alfred Academy, when he received a county license for teaching district schools, and not without deserving it, for he had, previous to going to the academy, and while "tending sawmills," mastered more branches without a teacher than were at the time taught in the common schools.

At this time he was seldom seen without a book in his hand. Thus early began this noted habit of his of attending to several things at the same time without the least apparent flustration of mind. From this time he teaches district school winters, works the farm, and attends recitations at Alfred Academy during the spring, summer, and fall for several years. His farming operations are governed by the motto—*Plow deep, or not at all*, and he was the first to purchase and introduce the *subsoil plow* in his town.

Having turned his attention to the ministry, he began to preach in 1845. Soon after this he commenced to study medicine, while acting as Town Superintendent of Common Schools, book agent, farmer, and home missionary. In 1850 he began to practice medicine and dentistry. In 1852 he entered the Western College of Homeopathy, graduated March, 1853, with the title of M.D. He returned to his native place and practiced with *marked* success, but not without *much* opposition from the allopaths. When he was assailed by slanders, he merely replied, "If I can keep all the allopaths out of this neighborhood for two years, we shall save money enough to build a meeting-house." (The house was built in 1856.)

In the fall of 1853 he delivered a course of lectures on Physiology and the Science of Living, in his own neighborhood, but the allopaths were not willing to be supplanted by a new mode of practice, and of course they denounced his teachings, though they could not but admire his success in practice, and could find no fault in him as a man. But notwithstanding all the outcry of his opposers, the prevalence of fevers, and the fact that he allowed fever patients all the cold water they wished, gave them no calomel or jalap, and did not bleed them, made him *the* popular doctor; for the people very much preferred the *lien tuch* to blood-letting, and the wet bandage to cupping and blistering.

But finding that he could not keep pace with his increasing "ride," and at the same time properly attend to his ministerial duties, and as he felt a greater interest for the soul than for the body, he left the people to be their *own* doctors.

Having learned something of the power of *vis medicatrix natura*, he built the Alfred Highland Water-Cure, where he became more successful than before in the cure of diseases.

After the completion of his Water-Cure, and in fact for about two years previous, he practiced dentistry in earnest. He has an office in his Cure in which he employs two hands besides himself, and has lately opened an office in Hornellsville.

In his private character he is affectionate toward the members of his family, and this beautiful trait is only equaled by his benevolence and his forgiving disposition toward all, both friends and foes. He never seeks revenge for an injury done him, except by returning "good for evil."

He is fond of good jokes, has an inexhaustible fund of wit and humor.

We have noticed that he began to preach in 1845. From this time he traveled as collecting agent for the Seventh-Day Baptist Publishing Society, preached often, and occasionally lectured on Temperance and other reformatory subjects.

He was ordained to the Gospel ministry in 1848, and immediately entered the field as a home missionary under the direction of the Seventh-Day Baptist Missionary Society, in which capacity he labored for several years, during which time he traveled over a great part of New York and Pennsylvania, preaching from three to eight sermons per week.

His reports, for about a year and a half, show for 348 days' service, upward of 500 family visits, and nearly 400 sermons preached; and so far as the facts can be traced, these labors were attended with marked success, as is everything he undertakes.

One of the leading ministers of his denomination once remarked of Mr. B.: "He is the cause of more conversions than any other three of our missionaries. He seems to clinch right hold of the passions of his hearers, and wrestles like a warrior, till they yield to conversion. The highest success attends him everywhere he preaches; and yet we don't know what to do with him, he is so very singular. I have not known of apostasies among his converts. I think them as stable—yes, perhaps more stable, than those converted under the preaching of any other of our missionaries. He is certainly the most successful missionary we have ever employed."

In his sermons he is inclined to reason by comparisons and parables. He says that he thinks Christ was a *good* preacher, and *knew how to preach*, and yet "without a parable spake he not unto them;" but he is not, and perhaps never can be, a popular sermonizer. His arguments are too sharply pointed; he tells too many home truths; sees too soon, and tells of too many of the people's own faults; holds the mirror too near the face of his people to secure popularity at home; he does not seem to be actuated by the impulse of the moment, but taking the Bible for his chart, he thoroughly convinces himself of the correctness of his position, thus winning the confidence of his hearers, and his earnestness holds their attention. While his magnetic influence over his auditors is such, that however widely their sentiments may have differed from his, they are soon willingly led to embrace his views as correct.

The writer of this has heard him preach when he seemed wholly filled with enthusiastic sympathy for every soul whom he considered as without a hope in Christ, and so deeply impressed with a desire to illuminate the powers of the soul with celestial light that I felt convinced that his professions were not followed for love of gold; that his ministry was his fondest, dearest work; and it would seem that he never ought to come out of the pulpit to handle sharp tools again.

Speaking of tools, reminds me of one of his peculiar figures used in a sermon not many months since, while discoursing on the evils of fault-finding, when he burst out with the following—

"Why, I wonder how any person can consent to lend their mouth to the devil for a howitzer, and their tongue for a bomb-shell with which to bombard their own citadel of hope."

The following is a copy of a letter written by him some years ago in reply to a series of questions propounded by a young man; it gives in his own words a few of his rules of conduct.

ALFRED, *June 24th*, 1851.

DEAR BROTHER—Your kind note was received in due time, and should have been answered before.

You speak of your own experience, and ask how it is that I am able to succeed in winning so many to Christ.

Your first interrogation I can not answer, for I know not how much others pray, though I *do* know that prayer is the most powerful weapon ever used. These are some of my mottoes:

1st. I consider my informant my best friend or worst enemy. It is often easy to judge which they are, but *sometimes* I can not tell without that wisdom promised in James i. 5.

2d. My confidence in a stranger must be tried by summer's heat and winter's frosts before I embrace him.

3d, I never, when among strangers, laugh at their mistakes; and if I make any myself, I will try to profit by them, and rejoice that another of the one thousand rough corners that Prof. W. C. K—— and Bro. J. R. J—— counted on me at the age of eighteen, is gone.

4th. I treat the opinions of others with respect, and never advance any of my own unless I feel that the occasion demands them.

5th. I never contend with very aged and hardened sinners, nor illiterate, selfish, and biased persons.

6th. I always feel that it is time lost to strive with a person with whom the spirit of God is not striving.

7th. I never give advice without attending it with a child-like or brotherly request.

8th. I always keep myself in my own hands.

9th. If any man tries to injure me, I embrace the very first opportunity to give him a *big apple*.

10th. No person ever knows how long I am going to stay, or how many sermons I intend to preach in the place.

11th. I break no promises.

Dear Brother—I make no harnesses for others to work in; and I never used another's harness but once, and although it was a good one, and I had seen *some very* heavy loads drawn with it, *I* could do nothing in it but *back*. Yours truly,

H. P. BURDICK.

To the foregoing sketch, prepared by a friend of the subject, the editors of the PHRENOLOGICAL JOURNAL will simply add, that Dr. Burdick, on account of his geniality and wit, has by some of his friends been called the Laughing Doctor. One of his patients, the editor of the *Free Press*, remarks as follows, which we clip from the columns of that paper:

"We have the pleasure of the doctor's acquaintance. He is one of your downright good fellows—a very model of a disciple of Esculapius. He took the healing art just as did old Doctor Kittredge, the natural way. Did you ever hear Fowler's description of the laughing doctor? If you have, and desire a practical illustration, just visit the Highland Water-Cure. If we are ever sick, or especially if we have teeth to pull, we expect to patronize Dr. Burdick; he is the only man who ever put a pair of tongs into our face *agreeably*. We don't wish to be understood as saying that the doctor can pull teeth and succeed in rendering the process an *agreeable* one. By no means. We would much prefer to have sound teeth—always sound; but if we *must* have the teeth ache, and if they must be extracted,

'Thine be the hand, O Doctor,
To do the bloody deed!'"

Since man is the only being who laughs, we presume honest, kindly, hearty laughter is no sin. We invited the doctor to sit for two portraits, one with thought and feeling, quiet—the other in one of his hearty, mirthful moods; and here we present the two to our readers. The moment the doctor smiles, every surrounding face begins to be wreathed in smiles. We know of no laugh more contagious than that of Dr. Burdick's.

GEOGRAPHY.

THE study of geography is comparatively a modern one. In this day of rapid settlement of new countries, the building of States in a half dozen years, opening of railways in the wilderness, the onward pushing of pioneer life generally, there is such a change in political and civil geography, in this country especially, that the manufacture of maps and geographies has become a great work. In order to keep pace with the growth of the country and the settlement of the wilderness, one is obliged to buy a new geography once in five years, and study it with some care, or civilization will altogether outrun his geographical information. Thirty years ago, when Michigan was a wild territory, Ohio a comparative wilderness, and Wisconsin, Iowa, California, and Kansas unexplored and almost unknown—when to go to Ohio or Illinois was "going out of the world"—the geography of the United States was a very different thing from what it is now. Then there were no railroads, no telegraphs, and but little communication between different parts of the country, especially west of the Atlantic slope, and in that slope not a hundredth part as much as at present.

In order to obtain anything like a correct knowledge of this great subject, the very best facilities are required; and he is a benefactor of the race who can systematize the study, and simplify it, so that the knowledge may be gained with facility and retained easily.

In the June number of the PHRENOLOGICAL JOURNAL we gave the portrait, phrenological character, and biography of Miss Sophia S. Cornell, who stands, probably, first in the world as an author and teacher of geography. Her series of text-books and maps are used in the public schools of New York, Brooklyn, and in those of the principal cities in the Middle and Western States. Her Third, or "High School Geography," has just made its appearance from the press of the well-known publishers, D. Appleton & Co., New York. The series consists of the "Primary," "Intermediate," and the "High School Geographies." The beauty of her system consists in the method of simplifying and classifying the subject in such a way as not to confuse the mind or overburden the memory of the pupil. After a careful examination of Miss Cornell's work, we are led to the conclusion that she has, for the first time, hit upon the true plan for a system of instruction in this important branch of knowledge. If our readers will refer back to the June number, they will find a condensed analysis of the principal merits of the Cornell Geography.

The importance of teaching correctly and philosophically, and saving the time of the pupil, can not be over-estimated; and if all studies taught in our schools could be so systematized and simplified as to save half the time of the pupil, it will be easily seen that the rising generation could receive double the amount of instruction they now do with the same time and the same amount of mental labor. The weakly, also, and the nervous could be instructed with but half the wear and tear which is now the case; and many could then be educated who, for want of strength for study, are now obliged to forego books or go to the tomb. If we could have established a phonetic system of spelling, so that four fifths of all the time now wasted in learning the clumsy and roundabout method of spelling, at least one half of the pupil's time in that way might be saved, and thereby all might become good spellers and readers. We regard the Cornell Geographies as a long step in the right direction, and we hope that those interested in education everywhere will at least examine these works, which, we think, will be sufficient to insure their adoption.

No patriot should fail to study the extent, nature, growth, and productions of his country; and since it does not require good general education in order to the acquisition of a knowledge of geography, it may be profitably studied at home by uneducated men and women, and thereby a new and interesting field of thought and patriotic pleasure opened to their minds.

EACH PHRENOLOGICAL FACULTY,
AS ADAPTED TO, AND EXPRESSIVE OF, A GREAT INSTITUTE OF NATURE.

NUMBER IV.

ADHESIVENESS constitutes another of the phrenological faculties and human powers. It expresses in man the sentiment of friendship and disposition to unite in common effort for accomplishing some common good. Concert, co-operation, joining hands and hearts, bringing about desirable ends, is its especial office. In animals it effects that herding, flocking disposition, which causes vast herds of buffalo, gregarious wild animals of all kinds, etc., to keep together in droves, while pursuing their food; pigeons, ducks, geese, etc., to go in flocks: fish to traverse seas and rivers in shoals, and creates that general congregating spirit found throughout all forms of life.

But find we no analogous arrangement in the world of vegetation? The way the water-cresses propagate, and that most seeds are sown by nature, causes them to spring up in groups, neighborhoods, and communities. One place of yon prairie is preoccupied almost exclusively with this flower, another with that, and so on throughout the whole chapter of vegetable production. And this general congregating result is still further attained by that natural ordinance by which some vegetables thrive best in wet land, and others in dry; some in the fertile vale, others in the sterile highland; some in a tropical, others in a polar climate, and thus throughout the world, and all that grows.

And does not the grouping of the heavenly bodies throughout universal space show universality of this law? and it carries forward some great *end* wherever it is ordained. In the human relations it can be made to subserve great purposes. Then let it be cultivated. And what, pray, are all our churches, all business firms, all

railway and other corporations—what the makers and readers of this JOURNAL—but a practical illustration of this great adhesive institute, and put to the best of uses?

COMBATIVENESS, too, expresses nature's protecting institute. What that is but embodies within itself the means of its own protection. The roots of all that grow protect themselves, and are so formed as to protect the tree or grain they sustain from rocking winds, and hold it up and out to air and sun.

All hard bodies protect themselves by means of their very hardness. Indeed, what is all hardness but natural self-protection?

And what is the bark of all trees and vegetables, the skin of all animals, the bony protection of turtle, oyster, clam, etc., but this very self-protecting contrivance?

We say *self*-protection, for it is a natural law, that unless beings and things protect *their ownselves*, they can not be protected; consequently, all that grows has its self protecting instrumentality in these and ten thousand other like contrivances. They abound in the maternal protection of all seeds, encased, where they can grow securely; and a thousand other like illustrations in all departments of nature.

But animals need a still higher order of protection, and have it in the protection accorded by maternal care and love; to universal infantile life, animal as well as human; and besides the ten thousand protectionary contrivances of Causality and Constructiveness, houses, clothes, shoes, hats—against fires, and dangers of all kinds; above all, in that *self-defense* instinctive in all forms of animal and human life. Some animals protect themselves by flight, others by scales, others by shells, others by stings, and so on throughout the whole chapter of natural means, to escape and ward off danger.

Combativeness is man's great weapon of self-defense; a mental element, it employs whatever means of warding off evil it can command, and they are legion!

And sometimes it staves off danger by *defying* it. It says, practically, "Do your worst; I'll fight you to your teeth;" and thereby puts danger to flight, or, at least, vastly diminishes its power to harm.

It does more; it puts the endangered into that defiant phase which enables him to *suffer* the evil, if suffer he must, with far less pain than if not in this defiant state. He suffers only half of death's pangs who "dies game."

Combativeness appertains to all forms of matter, all forms of growth, all forms of animal life, to all human beings, and the very perpetuity of nature; her endlessness is but the out-workings of this great Combative institute.

THE vivifying light of great thoughts and pure emotions can not long exist in the human mind without permeating and illuminating the tenement that contains it. The pure heat of mental and moral fervor dissipates grossness, or it vitrifies what it can not evaporate, turning opacity into transparence—a transmutation of pottery into porcelain—as the student's glowing love for knowledge smelts off the impurities of the worldling. —*Horace Mann.*

WIT, ITS NATURE AND USES.

BY HORACE MANN.

[Extract from the Baccalaureate Address at Antioch College.]

WHILE I would vehemently condemn all brawling jollities, or sports unworthy the nobler faculties of man, let me advance an earnest plea in behalf of elegant and refined mirthfulness. I I love cheerfulness and hilarity, and wit founded upon the subtile and almost magical relations of things. Wit is an intellectual faculty, and God placed its organ at the outer angle of the forehead so that it may look all ways for subjects of merriment. Kingsley, than whom a more religious man has not written in our day, and whose love of nature is only less than his love of humanity, suggests that there are certain animals whom God created in the spirit of fun. I like the Homeric idea that the gods of Olympus loved a joke. I refuse my approval only because their jokes were unworthy of gods. The element of wit, like that of benevolence or veneration, is within us, and the sources of its legitimate gratification are all around us and inexhaustible. The subtile genius who can discern startling or incongruous relations and thus create delightful surprises, is, next to him who can discern a new truth, a benefactor to mankind. A jocose physician will restore more patients by his jokes than by his physic, and a witticism that hits the mark will disperse a mob quicker than bullets that hit the men.* How exhilarating to think of some masterstroke of wit, started thousands of years ago, descending along the path of time, crackling and coruscating, creating new explosions of laughter before the old echoes have died away, expanding both mouth and heart of all men, until, in our day and time, it flaps and vibrates all living diaphragms, and is then destined, like a *feu de joie*, to run down the line of all future generations. Ignorance and the brutishness of ignorance, crime and the retributions of crime, can alone extinguish this love of mirthfulness in the heart of man. It is bad enough to see a *man* who always looks as Adam may be supposed to have looked the morning after the fall, but a *child* that never laughs is one of the saddest sights in the world.

But mirthfulness should always be associated with the higher faculties. When allied with the lower or animal propensities of men it is as debasing as it is elevating when associated with the higher nature. It should always be employed to adorn benevolence and wisdom, and to increase our scorn for falsehood and our righteous detestation of hypocrisy. To be attracted by one of the most attractive of all things—warm-blooded laughter—and when you expect to see a Hyperion, to behold, instead, only the foul eyes of a Satyr leering out upon you, is one of the sorest and most grievous of moral affronts. There can be no greater misalliance than that of genius and vice; or, what is almost as fatal, that of education and vice.

What is remarkable and most pertinent to our purpose here, is, that almost all those living and enduring treasures which now constitute the world's "*capital stock of wit*," has come from the scholar. In this single department, the true student finds a thousand-fold compensation for all the coarse buffooneries and vulgar jollifications of the world. But let him remember that his wit, in order to be enduring, must be genuine, heart-exhilarating, truth-flashing, virtue-protecting, vice-exposing; not the empty laughter of Bacchus nor the loathsome grimace of Silenus.

Nothing unvails a man's character so suddenly and so surely as what he laughs at. Laughter is so unpremeditated and spontaneous, that it turns the soul inside out before one has time to think. The moral nature of that man needs to be reconstructed who laughs at what is obscene, profane, or wicked. The sardonic grin is painful as the bite of a viper. The hyena laughs, the saint laughs; what an infinitude of moral distance lies between them!

The earnest college student, under proper intellectual and moral illuminations, and however unfortunate may have been his early education and associations, will soon give evidence that he is undergoing a refining process of character. His first change will be to repudiate and spurn all those monkeyisms of "trick," and prank," and "practical joke," as they are called, which descend in college life from one low order of students to another, the legacy of folly to fools. We all know that there are colleges in this country whose vicinity to poultry-yards and hen-roots is more formidable than if every building on the college premises were a burrow for Samson's foxes. The doctrine of the "Golden Rule," as applied to the whole *risible* nature of man, is simply this: "*That is not fun which is not fun for both sides.*"

* After the French Revolution of 1848, which dethroned Louis Philippe, Lamartine, who had been placed at the head of the Provisional Government, and who had enjoyed unbounded popularity, suddenly incurred the vengeance of the Parisian mob, who marched forthwith to the Hotel de Ville, where Lamartine and his colleagues were in council, and demanded the presence of their foredoomed victim. No sooner had he appeared on the balcony than a wild roar, like the noise of many waters, filled the air: "*His head,*" "*His head,*" shouted the angry mob. "*My head,*' said Lamartine, "*would to God you all had it on your shoulders!*" The infinite contrast of ideas between trampling his head under their feet for vengeance, or wearing it on their shoulders for wisdom and guidance, transformed them suddenly as another Pentecost, and he escaped.

TOBACCO.

ITS HISTORY AND QUALITIES.

OF all narcotics, tobacco is in use over the largest area, and among the greatest number of people; it exceeds both opium and the hemp plant.

Tobacco is believed to be a native of tropical America. It was cultivated and used by the Indians long before the discovery of the Western Continent. The aborigines of Central America rolled up the tobacco-leaf, and dreamed away their lives in smoky reveries, ages before Columbus was born, or the colonists of Sir Walter Raleigh brought it within the precincts of the Elizabethan court. In 1492 Columbus found the chiefs of Cuba smoking cigars; and Cortes met with it afterward when he penetrated to Mexico. From America it was introduced into Spain by the Spaniards. In 1560 it was brought to France by Nicot, and in 1586 to England by Sir Francis Drake and the colonists of Sir Walter Raleigh. Into Turkey and Arabia it was introduced about the beginning of the seventeenth century, and in 1601 it is known to have

been carried to Java. Since that time both the cultivation and the use of the plant have spread over a large portion of the habitable globe.

The consumption of tobacco is almost incredible. In Great Britain it amounts to nineteen ounces for each inhabitant, and produces a duty of 3*s*. 4*d*. sterling per head; in France it is about eighteen and a half ounces per head; in Denmark four and a half pounds; in New South Wales fourteen pounds; and in the United States it is said to exceed five pounds. Mr. Crawford estimates the average consumption of the whole human race, of one thousand millions, at seventy ounces a head. Our Southern States produce about two hundred million pounds per annum.

How deleterious are the effects of the use of tobacco, in any shape, the whole world can testify. In habitual smokers, the practice, when moderately indulged, provokes thirst, increases the secretion of saliva, and superinduces sleep. When carried to excess it often produces nausea, vomiting, purging, universal trembling, staggering, convulsive movements, paralysis, torpor, and death. Cases are on record of persons killing themselves by smoking seventeen or eighteen pipes at a sitting. With many constitutions it never agrees. The practice of chewing and snuffing frequently occasions dyspepsia, apoplexy, and consumption of the lungs. The evil effects produced by the excessive use of tobacco may be somewhat explained by its chemical constituents. These are three in number: volatile oil, volatile alkali, and empyreumatic oil. When the leaves of the weed are mixed with water, and submitted to distillation, a volatile oil or fat appears in small quantities. This fatty substance congeals, or becomes solid, and floats on the surface of the water, which distills over along with it. It has the odor of tobacco, and possesses a bitter taste. On the mouth and throat it produces a sensation similar to that caused by tobacco smoke. When applied to the nose it occasions sneezing, and when taken internally, it gives rise to giddiness, nausea, and an inclination to vomit. It is evidently one of the ingredients, therefore, to which the usual effects of tobacco are owing; and yet it is remarkable that from a pound of leaves only two grains of this fatty body are obtained by distillation. Upon such minute quantities of chemical ingredients do the peculiar action and sensible properties of some of our most powerful medical agents depend. The volatile alkali is thus discovered. When tobacco leaves are infused in water made slightly sour by sulphuric acid, and the infusion is subsequently distilled with quicklime, there comes over, mixed with the water, a small quantity of volatile oil, a colorless, alkaline liquid, which is heavier than water, and to which the name of *nicotin* has been given. It has the odor of tobacco, and an acrid, burning, long-continuing tobacco taste, and possesses narcotic and very poisonous qualities. In this latter respect it is scarcely inferior to prussic acid, a single drop being sufficient to kill a dog. Its vapor is so irritating, that it is difficult to breathe in a room in which a single drop has been evaporated. The proportion of this substance is from two to eight per cent. In smoking a quarter of an ounce of tobacco there may be drawn into the mouth two grains or more of one of the most subtile of all the known p isons; for as it boils at 482 degrees Fahrenheit, and rises into a vapor at a temperature considerably below that of burning tobacco, this poisonous substance is constantly present in the smoke. From the smoke of 100 grains of slowly burning Virginia tobacco, Melsens extracted as much as three quarters of a grain of *nicotin*; and the proportion will vary with the variety of tobacco, the rapidity of the burning, the form and length of the pipe, the material of which it is made, and with many other circumstances.

But, besides the two volatile substances which exist ready formed in the tobacco leaf, another substance of an oily nature is produced when tobacco is distilled alone in a retort, or burned as we do in a tobacco-pipe. This oil resembles one which is obtained from the leaf of the poisonous foxglove. It is acrid and disagreeable to the taste, narcotic, and poisonous. One drop applied to the tongue of a cat will bring on convulsions, and in two minutes occasion death. The Hottentots are said to kill snakes by putting a drop of it on their tongues. Under its influence the reptiles die, as if killed by an electric shock. It acts in nearly the same way as prussic acid.

Thus the reader will perceive that three active chemical substances unite their influences to produce the sensible effects which are experienced during the smoking of tobacco. All three are contained in variable proportions in the smoke of burning tobacco. The appetite of the smoker becomes impaired, and the power of digestion gradually weakened. Dr. Prout remarks: "Tobacco disorders the assimilating functions in general, but particularly, as I believe, the assimilations of the saccharine principle. Some poisonous principle, probably of an acid nature, is generated in certain individuals by its abuse, as is evident from their cachectic looks, and from the dark, and often greenish yellow tint of the blood. The severe and peculiar dyspeptic symptoms sometimes produced by inveterate snuff-taking are well known, and I have more than once seen such cases terminate fatally with malignant diseases of the stomach and liver. Great smokers, also, especially those who employ short pipes or cigars, are said to be liable to cancerous affections of the lips. But it happens with tobacco, as with deleterious articles of diet: the strong and healthy suffer but comparatively little, while the weak and predisposed to disease fall victims to its poisonous operations." Surely if the dictates of reason were allowed to prevail, an article so injurious to health, and so offensive in all its modes of enjoyment, would speedily be banished.—*Johnston's Chemistry of Common Life.*

SKULL OF AN INDIAN.—Our thanks are due to Dr. C. C. Porter, of Calais, Maine, for a fine specimen of Indian skull of the Passamaquoddy tribe, presented to Professor Fowler while on a recent lecturing tour through the British Provinces and eastern part of Maine. The skull bears evidence of having been that of a chief, and may be found on exhibition in our cabinet at 308 Broadway, New York.

THE COSMOPOLITAN ART JOURNAL FOR DECEMBER may be cited as a worthy specimen of American workmanship; whether we consider the beautiful steel engravings, those equally well executed on wood from paintings by some of the best artists in our country, or the clear and well-worked letter-press, it will bear comparison with the best foreign publications. Nor are its literary articles to be passed over without notice; being of a various nature, artistic, biographical, historical, and general, it commends itself to the attention of all Its terms are given in our advertising columns.

To Correspondents.

C. T.—In marking charts for children, we mark the relative size of the organs, not only to each other, but to the size of the head compared with the size and age of the child.

T. L.—Can the activity of one's brain be increased? If so, how?

ANS. By thinking, and studying, and by coming in contact with those whose minds are more active than your own.

Business Notices.

THE END AND THE BEGINNING.

THIS number closes the present volume of the JOURNAL, and the January number will open the 29th volume. May we not ask all present readers to solicit a few of their friends and neighbors to become subscribers for the new volume? We hope the prospectus and subscription list which accompany this number will soon be returned filled with names for the coming year. A little effort now, rightly directed, will place the JOURNAL in a commanding position for spreading light and benefit to hundreds of thousands. READER, shall we have your co-operation? Let the early return of your name, with many others, be your answer. We will put forth our best efforts to make the JOURNAL worthy of your support, and rely upon your love for doing good to give it a world-wide circulation.

THE JANUARY NUMBER will commence the 29th Volume of the AMERICAN PHRENOLOGICAL JOURNAL.

SUBSCRIPTIONS WILL COMMENCE with the month in which the order is received.

SIX MONTHS' SUBSCRIPTIONS will be received at the yearly rates.

CLUBS may be made up of persons receiving their Journals at different post-offices. It often occurs that old subscribers are desirous of making a present of a volume to friends at a distance.

PRESENT SUBSCRIBERS are our main reliance. Those who know the utility of the Journal will work for it, and recommend it to their friends and neighbors, that they too may participate in the benefits of its teachings.

HAVING BEEN a member of a club at some previous time *does not* entitle persons to renew their subscriptions at club rates, except a new club is formed. Our terms are: for 10 copies (ordered at once) one year, $5; 5 copies, $3; single copy, $1.

SUBSCRIPTIONS for either of our publications—the PHRENOLOGICAL JOURNAL, the WATER-CURE JOURNAL, or LIFE ILLUSTRATED—may be ordered at the same time; but care should be taken to specify particularly which is wanted.

HOW TO REMIT.—In sending funds to the Publishers, always write in a very plain hand, at the top of your letter, the Post-office in full, the County and State. When the sum is large, obtain a draft on New York or Philadelphia, if possible, and deduct the cost of exchange. Bank-bills, current in the subscriber's neighborhood, will be taken by us at par; but Eastern bills preferred.

CANADIAN SUBSCRIBERS will send, in addition to the above, six cents with each subscription, to pay American postage to the lines.

Advertisements.

ADVERTISEMENTS intended for this Journal, to secure insertion, should be sent to the Publishers on or before the 10th of the month previous to that in which they are to appear. Announcements for the next number should be sent in at once.

TERMS.—Twenty-five cents a line each insertion.

ENGRAVING ON METAL, WOOD, AND STONE.

BY JOHN COLLINS.

CHAPTER IV.

LITHOGRAPHIC chalk is sometimes made at the respective offices where it is used, or it is imported from Paris, principally from the well-known establishment of Lemercier. The following proportion of the ingredients are recommended, viz., 1¾ oz. white soap, 2 oz. tallow, 2½ oz. white wax, 1 oz. shellac, and enough lampblack to make the composition a strong black. The whole is melted together, poured into molds, and pressed to expel the air. The ink should have a larger proportion of tallow in its composition.

The stone having been carefully grained and cleansed, is ready for the artist, who places it on an inclined plane, with raised edges, to support a rest-board for his hand. He then makes, with a moderately soft lead pencil, a correct tracing of the picture to be copied on semi-transparent paper, and then laying a piece of tissue paper rubbed with powdered red chalk or Conté crayon on the stone, with the reddened or blackened side touching it, he secures the tracing to the stone with wafers or gum, the tracing being placed face downward. When the gum or wafers are dry, he goes over the same lines with a hard and fine point, and thus makes an outline on the stone, free from grease. The chalk or crayon being now inserted in a handle or porte-crayon, the artist proceeds at once with his work, generally drawing the outlines so that the shading afterward shall not efface them. The crayon is used precisely in the same manner as on paper, except that it is the practice to go over the same place a number of times, with cross shadings, until the requisite depth is obtained. A fine point to the soft crayon may be made by sharpening it, when slightly blunt, on the surface of the prepared stone; and in drawing architectural subjects, it is sometimes made wedge-shaped, to secure more strength when ruling the straight lines. All portions that break off in drawing should be carefully removed with a soft brush. Black dots can be picked out by moderately pressing the crayon upon them and lifting it perpendicularly, or they may be removed with a fine steel point. This instrument also serves to scratch white lines in the drawing. Those parts intended to be perfectly black may be touched with a fine sable brush dipped in lithographic ink, which should be rubbed with pure warm water in a saucer.

The drawing being finished, the stone passes into the hands of the printer, who places it on a horizontal board and pours on it a mixture of nitric acid, pure water, and a strong solution of gum-arabic. The effect of the acid is to take away the alkali in the chalk or ink, which would render the drawing likely to be affected by the water, and also to make the parts of the stone *not* draw upon refuse to take any grease. The gum assists likewise in the latter purpose, and is absolutely essential to the perfect preparation of the stone for printing. Chalk drawings require less etching than those made with ink, but experience alone can guide the printer in this department of the art. The stone, after the preparation has stood upon it a sufficient time, is carefully

washed and then placed upon the press. Being still wet, a soft rag dipped in spirits of turpentine is rubbed gently over the drawing, which, to an unpracticed eye, entirely disappears. The roller having been evenly charged with printing-ink on a slab near by, is rolled with an equal motion and pressure in various directions over the drawing, which gradually receives the ink, until the picture appears again as dark as before. Should the stone inadvertently become dry, the whole surface would soon be covered with ink. A sheet of soft dampened paper is now laid upon the drawing, another sheet placed upon it, and lastly the tympan or frame of stretched leather is turned down on its hinges upon the whole. A lever then is brought into action which presses the stone, etc., upon a scraper or piece of hard wood with a beveled edge, fixed firmly in the frame of the press, and the stone, together with the bed of the press, is rolled along under the scraper which presses the leather and the sheets of paper under it closely upon the drawing. The lever is moved to its first position, the bed with the stone on it pulled back, and the tympan raised up so as to take off the printed sheet, which must be removed slowly on account of the adhesion of the inked drawing to the paper. The stone is wet again with the sponge, the drawing inked, and the process is repeated.

As a change of temperature affects all the materials used in lithography, there should be less fat or oil used in the chalks, drawing ink, and printing ink in summer than in winter. With regard to the paper, it may be remarked that, as lithography is a chemical operation, if it has been bleached with oxy-muriatic acid, the drawing will soon be materially injured. Sand or grittiness, plaster, alum, and sizing, are also detrimental to the perfection of the printing.

In the preparation of stones for engraving, after the face has been well polished with pumice-stone, it is then covered with a thin and even coat of very strong gum water with a little nitric acid, put on with a rag. This, when dry, is rubbed with powdered red chalk or black crayon, and the lines or letters are engraved through the gum coating with hard steel points. The engraving being finished, oil or soft ink is rubbed into the lines, and the stone, being well washed, is placed in charge of the printer, who inks it with a roller or dauber, and prints it in the same manner as a chalk drawing. For pen and ink work, the gum coating is dispensed with, and the artist makes the lines exactly as upon paper, except that he is provided with an oily ink. Engravings with the point are generally considered superior to lines made with the pen, as the latter instrument requires more ability and practice. The pens are made from very thin sheets of steel, by cutting it with sharp and delicate scissors. Machine made pens have been sometimes used, but the others are preferred. Engraving on stone is used for maps, plans, mechanical, architectural, botanical, and other outline drawings. They can never be made equal in fineness to the best steel engravings. As, however, impressions can be readily transferred to other stones and printed, there is hardly any limit to the number that can be obtained from a good engraving. The ruling machine, above mentioned, is occasionally resorted to. Engraving on stone for maps is in great demand in Germany and France, as its cost is only about one third of that on copper. It is very common at the present time to transfer to stone impressions of bill heads, bills of lading, blank checks, and copies for writing books that have been engraved on metal, and, although the printing is rarely as good as that from the original plate, it answers every purpose.

By the autographic process, a drawing or writing made on paper is transferred to stone and printed in the ordinary manner. To prepare the paper, which should be thin, strong, and without sizing, it is necessary to spread over one side of it, with a large, flat hair pencil, a size made of 120 parts of starch, 40 of gum arabic, 21 of alum, and 10 of French berries or gamboge, after which the sheets are dried and smoothed on a stone under the press. Autographic ink, composed of soap, white wax, mutton suet, shellac, gum mastic, and lampblack melted together, is rubbed with warm rain water to the consistency of cream. Care must be taken not to touch the surface of the prepared paper with the hand. The sheet with the writing upon it is carefully placed upon a well-polished stone slightly warm, and rolled under the press, as in taking an impression. The paper is then saturated with water, and very slowly taken off, leaving the marks of the writing on the stone. It is then covered with the usual etching fluid, after which it is printed by the common process. Fresh impressions of any engraving may by this method be transferred to stone, but hitherto it has been found to be almost impossible to do the same with old prints, although various ingenious experiments have been tried. Perhaps at some future day this desideratum may be accomplished.

Impressions are not unfrequently taken upon India paper, which is prepared for printing by spreading upon one side of the sheet a paste made of wheat flour, and when thoroughly dry cutting it into pieces of the proper size. These are placed between the dampened white sheets, and when ready, are laid on the inked drawing with the pasted side uppermost—the white paper is then placed upon it, and the pressure of the scraper not only makes the ink of the drawing adhere to the India paper, but secures the latter to the white sheet. A more favorite plan is now adopted, called printing in tint, the effect of which is often superior to the other. In this method, an impression of the drawing is pressed upon a grained stone, and the draughtsman covers those parts which, in the tint, are to be white with gum-arabic water, while the half-lights are partially shaded with a crayon. The margin being also gummed, the parts not covered by gum are greased, and an ink of the proper color is selected for a tint. The drawing is usually printed first, care being taken to place the impression in black upon the tint-stone, so that the lights shall fall where they were intended to be. This is accomplished by thrusting fine needles through two corners of the drawing and making their points touch corresponding corners of the tint-plate.

Chromo-Lithography is a name applied by an English printer to the process for printing in colored inks from several stones in succession. The great difficulty consists in securing an exact register or super-position in the different printings. As each color requires a separate stone, tracings of the parts for each stone must be made, and the effects of their combinations or contrasts carefully studied. The largest work of this kind executed in this country is an emblematical engraving of America, the center being occupied by a portrait of Washington, surrounded by various devices. It is printed in sixteen colors. Chromo-lithography is at present very popular for show-cards, for which it is well adapted, as well as for ornamental title-pages and illustrations of poetical and other publications. For this style of printing the paper should be glossy and dry.

A favorite style of French artists, and more particularly of Jullien, Lassalle, and a few others, is named *a deux crayons*, or, *in crayons of two colors*. For this, the stone is prepared so as to print a uniformly colored ground, on which the dark crayon drawing is impressed, and the white crayon lines and lights are made by scraping away the ground tint—sometimes even hollowing out the high lights.

Zincography, or the lithographic art applied to zinc, is of recent date. It originated in England, and was generally employed for the anastatic or transferring process. Chalk and ink drawings can be readily made upon it, when treated in the same manner as lithographic stone, but the shading with the crayon has a more indistinct and blurred appearance, on account of what is called the flat grain of the zinc, which it is almost impossible to avoid in preparing the metal. An advantage in using zinc is, that it may be procured of any size, and is not as liable as stone to fracture under heavy pressure. The mode of printing is essentially the same.

It will be readily perceived, from what has been said, that a lithographic drawing can not be printed at the same time with type, upon a common printing-press. Consequently, we seldom or never find it upon the same page with typography. It is, however, often applied to illustrations separate from the text, and for botanical, medical, and occasionally juvenile works, the impressions are often sized and colored, for which the peculiarity of chalk drawing is well adapted.

While it must be admitted that lithography has, from its facility of execution, been universally adopted for the coarsest work, such as caricatures and common cheap prints, smeared with bright colors, on the other hand, it is but justice to say that, in the hands of good artists and good printers, it can produce effects nearly equal to any upon wood or metal. The cost is also less, and from these two facts we may infer that this branch, so generally applied to card-engraving and color-printing, will, at no distant day, become more appreciated than is now the case. The exquisite drawings of the French artists, and the elaborate prints of the Germans, issued by Lemercier and Ackerman, and, lastly, the variety and accuracy of our own publications are sufficient evidence that this beautiful art is capable of the highest excellence. We have in our own country many well-conducted establishments for drawing and printing on stone, and it remains only for an enlightened community to extend to these such encouragement as will raise lithography to its true level among the kindred arts.

The undeveloped nature of childhood is always trusting. Like the callow brood, it opens its mind, whether the mother brings poison or nourishment.

Index to Volume 27, for 1858.

ILLUSTRATIONS FOR VOLUME 27.

Index to Volume 28, for 1858.

ILLUSTRATIONS FOR VOLUME 28.

PROSPECTUS OF

FOR 1859.

THE only publication in the world devoted to the science of human nature, mentally and physically, opens with the present number its Twenty-ninth Volume, and appeals confidently to the lovers of progress and of mankind to continue that support which has hitherto given it so wide a field of influence and such a vast power for good.

The Objects of the Journal

are, to teach man his own nature; his capabilities, and how to use them to the best possible advantage; his defects, and how to correct them.

Errors of Habit and Education

will be clearly set forth in the light of Phrenology and Physiology, and the true remedy expounded.

Phrenology,

in its application to home education, domestic government, self-culture, selection of pursuits, choice of apprentices, clerks, partners in business, or companions for life, will be, as heretofore, the leading feature of the work.

Young Men Ambitious to Develop

their powers and qualify themselves, by Self-Culture, for USEFULNESS and SUCCESS IN LIFE;

Teachers who would Learn

by a simple method how to draw out the intellect and cultivate the dispositions of their pupils;

Mothers Desiring a Guide

to the best means of forming the character and preserving the health and morals of their children;

Merchants Anxious to Select

wisely, manage judiciously, and educate properly, their clerks and confidential assistants;

Mechanics wishing to Choose

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