

GEM OF SCIENCE.

No. 1.

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Vol. I.

ARTICLE I.
 OPPOSITION TO TRUTH—FINAL TRIUMPH OF SCIENCE.

TRUTH has never been without opposition. In all ages, in all countries it has been subject to attacks from its blind and inconsiderate enemies.

The doctrine of "good news;" the benign and holy teachings of a Saviour that came into the world to break down the partition walls between Jews and Gentiles; to bring life and immortality to light, and to bring about a great and glorious reform in the world—was met with all the combined opposition that man could secure. The apostle, Paul was imprisoned at Rome by Nero. Under the dictations of the same Tyrant, St. Mark was dragged from the pulpit and drawn through the streets by the hairs of his head till he expired! Our Saviour was reviled and persecuted beyond exaggeration—treated with the utmost cruelty—crowned with thorns—nailed to the cross; then hoisted between the heavens and the earth, as an object of torture and ridicule for a barbarous multitude, and treated with more contempt than if he were a thief and a robber until he struggled away his dy-

ing breath, and his God-like spirit winged its way from the hands of Tyrants to sit at the right hand of the Most High.

On the other hand, and while Science was lending her aid to religion, the Church, the Pope, and his cardinals, denounced the theory of Galillio, that the globe revolved upon its axis, with all the stern rigidity that wicked superstition could devise.

After the first appearance of Galileo before the Inquisition in 1616, he was publicly and falsely charged by his enemies as then having abjured his opinions, and he was taunted as a criminal who had been actually punished for his offences. But after paying proper attention to previous malicious charges, he was on the 22d of June again arraigned before the Inquisition—was clothed in a penitential dress, and conducted to the convent of Minerva, where the Inquisition was assembled to give judgment. A long and elaborate sentence was pronounced, detailing the former proceedings of the Inquisition, and specifying the offences which he had committed in teaching heretical doctrines, and in obtaining a license for printing his dialogues.

Galileo, however, rather than be put

to death, recalled what he had said and printed—subjected himself to the prison of the Inquisition during their pleasure, and was required for the first three years to recite once a week the seven penitential psalms!

We conclude respecting Galileo with the remarks of Sir David Brewster, who writes thus :

"The ceremony of Galileo's abjuration was one of exciting interest and of awful formality. Clothed in the sack-cloth of a repentant criminal, the venerable sage fell upon his knees before the assembled cardinals; and, laying his hands upon the Holy Evangelists, he invoked the Divine aid in abjuring and detesting, and vowing never again to teach, the doctrine of the earth's motion and of the sun's stability. He pledged himself that he would never again, either in words or in writing, propagate such heresies; and he swore that he would fulfil and observe the penances which had been inflicted upon him.* At the conclusion of this ceremony, in which he recited his abjuration word for word, and then signed it, he was conveyed in conformity with his sentence, to the prison of the Inquisition.

"The account which we have now given of the trial and sentence of Galileo is pregnant with the deepest interest and instruction. Human nature is here drawn in its darkest colouring; and in surveying the melancholy picture, it is difficult to decide whether religion or philosophy has been most degraded.—While we witness the presumptuous priest pronouncing infallible the decrees of his own erring judgment, we see the high-minded philosopher abjuring the eternal and immutable truths which he had himself the glory of establishing. In the ignorance and prejudice of the age —

*It has been said, but upon what authority we cannot state, that when Galileo rose from his knees, he stamped on the ground, and said in a whisper to one of his friends, '*E pur si muove.*' 'It does move though.'—*Life of Galileo, Lib. Useful Knowledge, part ii, p. 63,*

in a too literal interpretation of the language of Scripture—in a mistaken respect for the errors that had become venerable from their antiquity—and in the peculiar position which Galileo had taken among the avowed enemies of the Church, we may find the elements of an apology, poor though it be, for the conduct of the Inquisition. But what excuse can we devise for the humiliating confession and abjuration of Galileo?—Why did this master spirit of the age—this high priest of the stars—this representative of science—this hoary sage, whose career of glory was near its consummation—why did he reject the crown of martyrdom which he had himself coveted, and which, plaited with immortal laurels, was about to descend upon his head? If, in place of disavowing the laws of Nature, and surrendering in his own person the intellectual dignity of his species, he had boldly asserted the truth of his opinions, and confided his character to posterity, and his cause to an all-ruling Providence, he would have strung up the hair-suspended sabre and disarmed forever the hostility which threatened to overwhelm him. The philosopher, however, was supported only in philosophy; and in the love of truth he found a miserable substitute for the hopes of the martyr. Galileo cowered under the fear of man, and his submission was the salvation of the Church. The sword of the Inquisition descended upon his prostrate neck; and though its stroke was not physical, yet it fell with a moral influence fatal to the character of its victim and to the dignity of science."

Newton was likewise treated with contumely. A host of enemies arose against him after he asserted the discovery of the law of gravitation, and announced his conviction that the laws of nature were capable of further development. When Hervey discovered the course of the circulation of blood and endorsed the theory of Michael Sorvetus, he was treated as an enthusiast—a fanatic, and deprived of his

practice! And not a single man in England, who was over fifty years of age, when the great truth was promulgated, ever would believe it, and even in twenty five years after the discovery, medical students, in order to obtain their diplomas, were obliged to swear they did not believe the *heresy* (as they called it!)—Whereas, if a man should now doubt Hervey's discovery they could obtain a diploma from no Medical Institution.

Even Robert Fulton, whose genius has covered our Lakes and our Rivers, and even the Ocean, with steamboats, and rendered inhabitable the western wilderness, died in poverty, the laughing stock of short-sighted and *professedly* intelligent men!

Gall, the discoverer of Phrenology, and Spurzheim, his assistant, were driven from city to city, opposed, rebuked and calumniated, treated as traitors against God and man; and so strong was the opposition, even the Austrian government resorted to legislative enactments to prevent their delivering public lectures.

While other sciences have been thus opposed, it is not strange that magnetism, which has its separate office to perform in benefiting and reforming the world, should suffer the fate of all other truths. And though the public mind generally, has not, been sufficiently informed of the real truth and importance of human magnetism to decide from *ocular* demonstrations of the real merit of the principles, yet we rely upon the future to develop the truth of our remark, when we say, that we know of no other principles that will contribute so largely to reform, improve and perfect man.

But in order that science may have a general influence upon the mind of the

public, the prejudices that have been handed down to us must be eradicated. The history of the past, as we briefly hinted shows plainly, that there has been too much repulsive influence in the world. In one case the "world" is opposing religion, imprisoning and taking the lives of its advocates with exterminating barbarity; while, in an other, the church has arraigned before the Inquisition, the sages of science for proclaiming sentiments that were *equally true*.—The church feared that new discoveries like Phrenology and Geology, would overthrow, or at least, appear in contact with the Bible, that those new discoveries must be untrue, because they had never been discovered before. And thus, people hastily conclude, that nature must be opposed to religion.

And so sanguine are all, they would be almost willing to yield to martyrdom rather than renounce their opinions.—And, like the seven brothers mentioned by Josephus, they would suffer the tortures of death, or be thrown into the fiery furnace, before they would be compelled to renounce the truth of their sentiments. The true lover of science and reform would sacrifice his reputation and his all, and ride with fearless resolution through opposition, and either drink the hemlock with a Socrates, or be burned by the church at the stake with a Servetus, would it perpetuate his principles, or hand the blessings of science to posterity. One hangs with tenacity to the volume of revelation, while another clings to the great and wide-spread book of nature,—one appears positive that nature is opposed to revelation—the other supposes revelation, if not opposed to, is sufficient without the study of nature's

PHRENOLOGICAL.

ARTICLE II.

THE BRAIN THE ORGAN OF THE MIND.

MR. Locke says in the introduction of his essay : "Since it is the *understanding* that sets man above the rest of sensible beings, it is a subject even for its nobleness, worth our while to inquire into.

Some intelligent men believe, even at the present advanced state of mental philosophy, that mind is dependent upon the heart, as its organ through which to manifest itself. Others have supposed the seat of the mind to be in the spinal marrow; while the doctrine that argued it to depend upon the medulla oblongata (which connects the spinal marrow with the brain.) has not existed without its supporters. But Phrenology teaches plainly, that it depends upon the brain for its manifestation in this world. This doctrine however, is supposed by some to be refuted by the cry of "materialism"; while more are content with the thought that it is merely a "new idea," opposed to the ancient philosophies—at variance with their preconceived opinions and conclude, that it therefore must be untrue.

The first objection is met by applying it to their own principles; for a philosophy teaching that the mind operates through the medium of, or that its manifestation here is dependent upon, the heart, liver, lungs, or the brain, is the same in all respects, so far as materialism, or the connexion of mind with matter is concerned. And though matter may be acted upon and effected by mind, Phrenology is far from teaching that the brain or matter perceptible to us, and mind, are one and the same thing.

The last objection hardly demands an

laws; and so it goes. Now, until there can be more unity and reconciliation in this matter, our anticipations will be limited. Let the theologian pay more attention to nature, and the naturalist have more regard for revelation.—the former would be no longer opposing Science, which walks hand in hand with, is an ally of, or a ministering servant to, revealed religion: i. e., in God's name, he will no longer be opposing God's truths; and the latter will stop his fault-finding about religion; and, by regarding the teachings of *both*, he would no longer doubt his obligations to respect nature's God.

Now we can see plainly, that all have gone out of the way. This is an error in the world which should be eradicated. It is not confined to one class of men only; it is general—universal; and demands a general effort,—a united one to repair the injuries which they have done. Union is power—concert of action is necessary; and when the enlivened rays of science pour forth upon the world, unshadowed by death-like prejudice, and the holy influence of morality and religion supported by nature and nature's God, shed their benign and unlimited power upon the mind, we shall look with confidence, for a change. Did we say a change? Yes; a change for the better; a reform in the world; the dawning of a glorious era; the triumph of science, morality and religion; and peace and harmony, friendship, love and truth, shall pervade the minds of all rational intelligencies.

A WISE REPLY.—Aristotle, on being censured for bestowing alms on a bad man, made the following noble reply: "I did not give it to the man, I gave it to humanity."

answer. Suffice it to say, in connexion with what we have said in a preceding article, that, at the present period, error should not be shielded by previous impressions and blind indifference to the light of science.

Now all metaphysicians, and every person that has bestowed thought upon this subject believe in the union of mind with matter, in some form, and to a certain extent. Phrenology demonstrates, that it is with, and that the matter is, the brain—the organ of the mind.

This conclusion is grounded in the following self-evident facts :

1. When there is no brain there is no mental phenomina.

2. Mind appears in exact proportion to the size of the brain, other things being equal, viz : activity, education, diet, &c.

3. We are conscious of mental operation in the brain.

4. When the brain is diseased the mind is impaired directly, and not indirectly.

5. When organs of the brain sink, or decay, those faculties lose their strength.

We have now only to add the following quotations from Drs. Wayland and Abercrombie to satisfy the public mind upon this fundamental doctrine of Phrenology. "If a picture of a visible object be formed upon the retina, and the impressions be communicated by the nerves to the BRAIN, the result will be an act of perception."— *Wayland's Elements of moral Science*, Ch. 1, Sec. 1.

"The brain, it is true, is the centre of that influence on which depend sensation and motion. There is a remarkable connexion between the organ and the manifestations of the mind ; and by vari-

ous diseases of the brain, these manifestations of the mind are often modified, impaired, or suspended."—*Abercrombie on the Intellectual Powers*, p. 38.

Again he remarks, "That he feels a power within totally distinct from any function of the body. What other conception than this can we form of that power, by which he recalls the past, and provides for the future ; by which he ranges uncontrolled from world to world, and from system to system ; surveys the works of all-creating power, and rises to the contemplation of the Eternal Cause ?"—*Id.*

ARTICLE III.

ANALYSIS OF THE FACULTIES. No. 1.

I. AMATIVENESS.

[This is the first organ in the order of our arrangement. We shall treat of, and analyze it, as we shall each succeeding organ in the course of this series of articles.]

OF ITS FUNCTION.

The function of this organ, is reciprocal attachment and love for the opposite sex.

ACTIVITY AND SIZE.

While its activity depends much upon the temperament and quality of the brain, its size, which is the measure of strength and power, will be described under three heads.

Small.—The person will manifest coldness and indifference to the other sex ; will be unqualified for, and but little benefited by society.

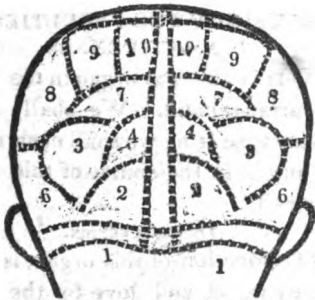
Full.—Will have some ardor, and generally be uniform in his regard but will possess no great strength of this passion, which, if the moral and intellectual powers be fully developed, will be properly directed ; and yet he may

be with, or without the company of the opposite sex and adapt himself to surrounding circumstances.

Large.—This size will give ardor, strong and warm social feelings and impulses; and the person will be alive to the charms of, and can never be content when deprived of the company of his choice, and would join with Byron in singing,

"No friend like unto woman, earth discovers,
So that ye have not been, or will not be lovers."

ITS NATURAL LANGUAGE, is shown when the action of the organ throws the head backward, and sometimes partly to one side.



LOCATION.—This organ is located in, and is supposed by some writers to be *only* a part of the *cerebellum*, or small brain, which is separated from the cerebrum, or brain proper, by a small membrane. It is marked No. 1 in the above cut.

Facts collected by Drs. Gall, Spurzheim, and others have long since, established beyond controversy, the truth of its functions, and the correctness of its location. For other interesting facts upon this subject, see also Dr. Stokes' *Theory and Practice* p. 264, 265 and 266; "Case of arachnitis Cerebelli, by Robley Dunglison;" "London Medical Repository" for October, 1822; see, also, "Fowler's work on Amativeness" or

"*Love and Parentage*," and though we have never been favored with its perusal, from the nature of the subject, Mr. F's mode of writing, and the notices we have seen of it, we strongly recommend it to the perusal of all.

GENERAL REMARKS.

Laying aside all sickly and uncalled-for delicacy upon this point, we may with propriety remark, that, its bestowment by an All-Wise Creator, is intended for man's happiness and enjoyment. It, when controlled by judgment and the moral sentiments, prompts to kind acts and proper mutual affection. It softens down the coarser features of human nature, and, instead of deterring moral acts and intellectual investigations, it assists and adds new charms to man's life.

But when it is large or very large, and acts in concert with the propensities and selfish sentiments, it throws the mind from its balance—dispossesses reason of her throne—the individual is left to buffet with the storms of life and to drag out a miserable existence, and by blind impulses, hurries himself from the world! And if any philanthropist could bring about a reform in the world, in this respect, he would be entitled to the warmest gratitude of a people whose object is moral and intellectual progression.

☞ The law of storms, as developed by Prof. Espy, is that they move from West to East, varying towards the North, and that their motion is at the rate of about 2000 miles in 24 hours.

As storm following storm, and wave succeeding wave give additional hardness to the shell that encloses pearl, so do the storms and waves of life add force to the character of man.

ARTICLE IV.

"THE FALL OF MAN."

Know then thy self

The proper study of mankind is man,
Pope.—

If we were to act upon this sentiment from the importance attached to its truth, in all its bearings, we would not only consider man originally, the "Noblest work of God," and naturally, a moral and religious being, but we would be inclined to make all due allowances for his defects and imperfections: Because

1. As it was only in the year 1553 that Michael Servetus first made public the circulation of the blood through the lungs, which was fully confirmed by Harvey's physiological researches in 1628. Man was previously destitute of a knowledge of the laws governing his physical nature, and consequently left subject to frequent violations of those laws, and a long train of abuses of his own constitution. The lamentable result of which has been handed down to, and is stamped upon, the present generation.

2. Previous to the discoveries of Gall man was without a correct philosophy of mind and an adequate knowledge of his nervous system. Whence resulted a continual aggravation of the animal and selfish passions. Wherefore, the cultivation of his moral nature was too long neglected, and its evil consequences are felt more or less by the great body of mankind.

3. Ever since a correct philosophy of mind, (which is indirectly if not directly connected with the whole organization of man) has been zealously advocated by Spherzeheim, Combe, Fowler and others, who have labored long and hard, and spent their time and their money,

anxiously and willingly for the benefit of man, many intellectual and seemingly well-meaning men, have been remiss in the discharge of, and in many instances, have cast their influence in opposition to what was their duty; and which, not only has an effect upon society at the present period, but its blasting influence may continue to the remotest generation!

In the absence of an adequate knowledge therefore, man has fallen from his once exalted station, and is deserving our pity rather than hatred.

But while "I rejoice that the great truths begin at last, to find a deep utterance in the heart of mankind, earnest and clear," it may be profitable to inquire: When will that period arrive which will *entirely* relieve us from the irrevocable effects of our past transgressions? A desponding thought answers—*never!* Reason concurs, and affirms, they will continue while there is the same immutable law to govern mind or matter.

REASONABLE INFERENCES.

1. No reform has ever been wrought in the world, that has not been the result of protracted efforts.

2. The strongest opposition to any principles is never evidence against the truth of such principles.

3. God's word and works, can never be *properly* considered in opposition to each other.

4. Whenever the moral and religious man places himself in opposition to science, he interferes with his own welfare, and endangers that of others; injures the cause of religion, and sends out into the community, an unhealthy impression and influence, destructive to the virtue, improvement and happiness of those influenced thereby.

ARTICLE V.
THE CONTRAST.

There is something truly ennobling in woman, when all the faculties of the mind are directed to proper uses. The decided traits which should always distinguish her, result from her philoprogenitiveness, adhesiveness, inhabitiveness, cautiousness, approbateness, conscientiousness, hope, marvellousness, veneration, benevolence and ideality.

Man is in possession of larger combativeness, destructiveness, acquisitiveness, self-esteem, firmness, sublimity, comparison and casuality.

The latter by his strong physical organs, harshly expressed outlines, strong and vigorous constitution, and a deeper and broader forehead—is bold, rigid, stern, and correct. He leaves his fire-side, and dashes out into the wilderness, hushes the shrill howling of the giddy wolf; and, at hearing the rude crashing of the moss-grown sticks is half affrighted, (for but a moment,) when, on looking, sees he has routed the wild-deer from her lair at the sound of his axe; while, with a strong and muscular arm he strikes down the sturdy oak. Then raises up villages; builds magnificent towns; erects stately edifices; creates resources, and provides for the defence of his soil. He leads armies on to the battle field, amid the clangor of arms—makes inroads into the enemies camp—strikes down the foe, and conquers nations.

He rises from a stammering tongue & feeble voice to the eloquence of a Demosthenes; wields an overwhelming argument, & tho' he may be charged with a conspiracy and thrust from the councils of state, and banished from his home and country, yet through his untiring ambition and unconquerable zeal, returns, and

the fascinating voice of a Cicero is again heard either in a plea for self, or in defence of his country's rights.

With invincible determination, he crosses the wide ocean and rides upon its waves, in search of new worlds, then plunges anxiously into the profoundest depths of philosophy, while he gazes with sublime rapture upon, and unfolds the mysteries connected with the movements of the heavenly bodies, and discovers the laws which regulate the universe.

He catches and tames at his will the lightnings from the clouds, and holds the procuring cause of thunder within the grasp of his own will!—thus powerfully exhibiting his mental and physical nature.

Woman attends to the duties incumbent upon her sphere. She remains at her, and welcomes man to his home, and domestic circle. She rears the children, with her fostering care, and enjoys the pleasures, & is discontented when deprived of the felicities of domestic tranquillity. She inspires him with the holy principles of morality and religion, by her precept and examples cheers man onward with her hopes in his desponding moments; congratulates him in his prosperity, and throws the mantle of charity over his mis-haps.

She cultivates the flowers of eden and renders the paths of life pleasant—rules the world in part by her unassuming modesty, is man's helpmate in life, and his companion till he takes his exit to the world of spirits, when a stronger evidence, (if possible,) of her devotion and unbroken friendship are seen, when her bosom moves with a deep and mournful sigh, and when the silent tear drops secretly from her eye, as she beholds her companion in death!

BIOGRAPHICAL.

ARTICLE VI.

THE PHRENOLOGICAL CHARACTER AND BIOGRAPHY OF



MASSANIELLO.

The above cut was drawn by Mr. William Church, of this village, from an original painting procured by him while travelling in Italy. The cut shows some strongly marked and decided features and developements, with a strongly expressed outline of person, a motive or Billious, combined with the Vital or Sanguine, and Nervous or Mental Temperaments. He must have possessed marked powers of endurance with an iron constitution, much vitality, and great mental energy. His head has much width, just above, and before the ears, giving him great energy, zeal and ardor, much sagacity, tact and management, large acquisitiveness and alimentiveness, and therefore, not only, a fondness for possession or property and a disposition to defend his own pecuniary interests from heavy and oppressive taxes, but, he had a strong desire for something to stimulate and satisfy.

His head is high in the region of benevolence, wide in the regions of combativeness and destructiveness, combined with large firmness and (doubtless) large social powers. This would incline him to take sides with the oppressed and those of his own class; and, with energy and invincible determinations, he would resist and endeavor to evade oppression at all hazards.

The bassilar regions of the brain, and in short, all the developements of the head will show a marked coincidence between his phrenological character and the following Biography from the *Encyclopaedia Americana*, vol. VIII, p. 336 '7.

'MASSANIELLO, properly THOMAS ANIELLO, born at Amalfi gained a livelihood, in Naples, as a fisherman, and a dealer in fish and fruit. Although very poor, he

had a proud and enterprising spirit—His love of freedom, and the boldness with which he expressed himself respecting the oppression which the kingdom of Naples had long endured from Spain, procured him a large faction among the common people, who admired his boldness. As he was destitute neither of eloquence nor courage, nothing but opportunity was wanting for him to appear as the head of the populace. Such an opportunity offered in 1647. Massaniello had brought a basket of fruit to the city, for which the collectors demanded the tax. He refused, and, they using force, he threw himself on the earth, and implored the people to aid him against their violence. An insurgent multitude immediately assembled, at the head of which he advanced to the tax-office, with the cry—"Long live the king, but down with the bad government." Thence the insurgents repaired to the castle of the vicaroy, the duke of Arcos, and demanded that he should receive Massaniello as a colleague. In vain did the cardinal Filmorino, archbishop of Naples, seek to appease their fury; in vain did John of Austria, a natural son of Philip IV, appear in the harbor with 22 galleys; the insurrection only increased the more and the nobility became the object of its rage. Massaniello, who had become governor of the city, caused 60 of the principal palaces to be reduced to ashes, without the least thing being saved. All marks of the royal government disappeared. Every body was suspected by Massaniello, and death followed immediately his slightest apprehension.—Seven days elapsed amid these horrors, and men began to talk of capitulation. It was agreed that the taxes on fruit should be abolished, and the ancient liberties restored. The assent of the king of Spain was promised within a certain time. Massaniello, on this assurance, laid down his arms, and returned, without demanding any recompense or distinction, to his former station. But the great party, which he still possessed, making him appear dangerous to the vice-

roy, who was no ways disposed to fulfil his promises, this ruler resolved to get rid of him. He invited Masniello to his own house, and probably mingled poison with his wine. This did not indeed kill him, but made him delirious, to which his passion for heating liquors may also have contributed. In this state the unfortunate man ran through the streets of Naples, shooting his best friends, and committing the greatest excesses. The people, who now regarded their deliverer as a new oppressor, and were excited against him by his enemies, poured forth in crowds against him, shouted applause to the viceroy, and demanded Massaniello's death. He fled for safety to a Carmelite convent; but four conspirators, formerly his friends, shot him dead, with several balls, July 16 1647. His body was shamefully maltreated by the populace. But the true sentiments of the viceroy were soon manifested: and the people, fearing a renewal of the former oppression, again became turbulent.—The martyr of liberty was now remembered; Massaniello's murderers became victims to the popular rage, his body was buried with the highest marks of respect, and even, for some time, held as sacred. Naples remained still convulsed, but nothing further was effected by the people."

PHYSIOLOGICAL.

ARTICLE VII.

ALL animal bodies are composed of textures or *tissues*. These tissues are combined together and form different organs, and each of these organs is adapted to the operation of some action or function. There is the *cellular tissue*, which fastens and contracts nearly all of the organs of the body. The flesh or *muscular (contractile fibre)*, which is possessed of the power of shortening itself, and therefore moves different parts to which it is attached. *Membranes* generally invests or lines internal parts,—and

the *nerve*, is capable of receiving and transmitting sensations.

The heart is bound together by cellular tissues, and is composed principally of muscular fibres, lined with membrane, and furnished with nerves; and the action performed by the heart of transmitting the blood through all the different parts of the body, will illustrate its *functions*. The sciences, then, which treat of man, properly and systematically, are *General Anatomy, Special Anatomy and Physiology*. General Anatomy treats of the nature and properties of tissues.

Special or Descriptive Anatomy, makes us acquainted with the formation and relative position of organs, and Physiology investigates the functions of those organs.

Now if the reader keeps this explanation of the terms in his mind's eye, as we proceed with a series of articles on this subject. (though not wholly original,) he will not consider us ambiguous in our language, and he can the better get a correct idea of the principles, about which there is generally too little known, and much less regarded, as it unfolds the law of health—a condition of great importance to all who regard time, happiness, mind and morals.

MESMERIC SURGERY.—Several cases of surgical operations performed during the mesmeric sleep, without the patient's consciousness, are multiplying. Doct. Kimball, of Lowell, has cut from the breast of a lady of the name of North, a cancer, the patient having been previously put in the magnetic sleep. The operation, though always a very painful one, did not wake her; and when afterwards aroused she did not know that the operation had been performed.

MAGNETISM.

☞ We shall commence a regular series of articles on magnetism in our next number.

ARTICLE VIII.

LETTER FROM H. H. GRAVES.

E. H. SANEORD, SIR:—I take pleasure in putting into your hands the following, which is at your disposal:

In the month of June, 1842, my wife was seriously poisoned on the fore part of the left shoulder, by the bite of a spider. This occurred in the evening. After retiring the pain had increased so much she was deprived of her usual rest. The next morning a singular and painful sensation proceeded from the shoulder to the back part of the head and the mind became very much deranged. The poison settled in different locations. A blister plaster was resorted to and applied to the part mostly affected, which remained on for twenty four hours. This served as a partial relief. But at the place where the swelling originated the flesh became dead and occupied a space on the surface of the shoulder, one inch and a half in diameter. The next day red spots were discovered on both shoulders—were in circular form and others in half circles. A few days ensued. She lost the use of her hands and her arms. Dr. C. was called to prescribe in the case, who ordered a dose of calomel and the parts affected to be bathed in brandy. The red spots were removed, and the hands and arms partially restored, but they soon returned to their former inactive state, in which they remained for nearly three months; meanwhile the pain increased moderately and extending through the muscles of the neck, the muscles and bones of the shoulders, arms, hands, and jaws, while it was with much difficulty that she ate enough to sustain life.

The pain would increase and diminish periodically, (once in two weeks,) during this time. Her condition was thus painful for five months, when on the 27th of Novembr, by an experiment of Human magnetism, her hands, and her arms, which had so long been fastened to her side were immediately restored to their natural state, and equilibrium was likewise restored

throughout the system; and what is more strange, the debility returned no more, and her health, and her limbs have remained since that time, unimpaired.

Yours,

H. H. GRAVES.

Hartland, Mich., April 15th, 1846.

ARTICLE IX.

From the American Phrenological Jour.

MASSILLON, Nov. 1st, 1845.

“For nearly two years I have been investigating the Water Treatment of disease, and for the last year I have practiced it with good success. I have cured several cases of consumption. In our bilious and other fevers it supplies the place of both calomel, blisters and opiates; saves the strength of the patients, and makes them much more comfortable than I was ever able to do with medicine. No case of fever has lasted over five days, nor did I loose a single patient. I have been a regular practitioner since 1828, and have some knowledge of the use of medicine of course; and I must unhesitatingly aver that Water, as a remedial agent, is preferable to any or all the articles known to the materia medica. I am happy to find you its friend and advocate. I have delivered several lectures upon this subject, and uniformly challenge the profession to meet me, or take exceptions to it. So far; I am happy to say, I have been able to sustain all we claim for Water. Were I able, I would devote a year to lecturing upon this subject, and the overthrow of the poisonous systems of the present day.—The philosophy of disease, as well as the philosophy of its cure, is not well understood by the profession generally. *From mesmeric patients I have obtained some of the best solutions upon difficult points which I have ever obtained*; viz., the philosophy of the water's action when applied cold to the surface, &c. Physiology, Phrenology, and Magnetism, are the keys that unlocking the great mysteries of nature and mind, and letting us in (as it were) to the inner temple, where the sun-beams of light and truth are filling the minds and understandings of all the truly devout worshippers of the Eternal principles which govern all things. Excuse this intrusion upon your time and believe me the friend of all friends of science.

A. UNDERHILL.

LADIES' DEPARTMENT.

ARTICLE X.
SELFISHNESS.

BY MISS R. M. GILES.

WHILE great heads connected with noble minds, are employed investigating mighty subjects, and are busied in lofty thought, I venture, with my feeble pen to glance lightly at that person whose expanded, yet narrow mind rules what moral sentiments he may possess; who is entirely wrapped up in, and over-whelmed with, the garb of self; whose thoughts never rise higher than his own statue, and who never thinks for what purpose he was created, or by whom.

In what a condition is such an one, in *this* world; who has never reflected for a moment upon the end for which he was created! Trace him through all his life and see if he has been guided by any other purpose, than that of gratifying his own selfish (though abused) propensities. Look with a critical eye, through his *affected* grace, while, like Richard 2d he

"Can smile, and murder while he smiles," and yet living, and acting, as if he were to live on forever,—still entertaining false notions of the way to happiness—blasting, like the chilling frosts, the flowers of eden, and rendering everything desolate by his withering thoughts, as he moves through the world, and drags out a miserable existence.

We may observe him in all his wanderings, through this transitory world; and we shall find no time when, he has consoled his fellows in sickness, or administered to their wants in adversity, or attempted to raise a benevolent arm, to break a single link, in the chain that binds

his fellow down to slavery and cruel bondage.

Thus he leads a suffering and wretched life, with all the abundant means of living happy himself, the power of doing much good,—of being a blessing to community,—of causing the widow's and orphan's hearts to leap for joy, and to heat high with gratitude—of restoring to the enjoyment of life, liberty and happiness, many human beings who are groaning beneath the galling yoke of bondage—of being, in short, the *earnest* promoter of virtue, and the supporter of every heavenly and benevolent enterprise.—But, alas! his whole life is like a *blank* that will remain forever unfilled! He has gone to another world! where he stands condemned by his own conscience and accountable to his creator, for not having properly cultivated those faculties, which were benevolently bestowed upon him for his own, and the endless happiness of others.

BROOKFIELD, N. Y.

MISCELLANEOUS.

MORALS.

MORALS IN CINCINNATI.—During the year ending 31st Oct. last, 873 persons have been in confinement at the jail in Hamilton county, Cincinnati. Of these 39 have been sent to the State prison, 61 to the county Chain Gang, and 3 to the dungeons. Escaped 6, discharged 578. Of the whole number committed, 599 were native born, 574 foreigners, and 74 were females; 41 were confined for debt, 790 were of *intemperate habits*. The chain gang had earned \$21,153 50, at the rate of 50 cents per day for their labor.

CRIME IN NEW YORK.—A correspondent in the *Courier & Enquirer* writes as follows:

The report of the inspectors of the State Prison at Sing Sing has been laid on the tables of the Assembly. There are statistics in these Reports which I always lay before your readers, as exhibiting pages in human character, which only thus are we enabled to see.

They were confined at the date of the Report, 30th Sept, 1845, at that prison:

Males, 797	
White, 696	}
Colored, 201	
Their ages. Under 17!	26
Between 17 and 21	159
“ 21 and 30	359
“ 30 and 40	175
Over 40	58

Americans, 583

Foreigners, 201

But it seems to me that the table which I give below is a record of extraordinary facts. It is the causes assigned by the convicts themselves for the commission of the offences with which they are charged.

Want of protection in early life.	9
Intemperance of their parents,	2
Destitution,	84
No Conscience,	2
Innate Depravity,	8
Insanity,	9
Weak principles,	31
Sudden temptation,	24
Anger,	12
For gain,	64
Self defence,	9
Imbecility of mind,	6
Jealousy,	3
Intemperance,	150
Evil Associating,	195

There are those who say they know no cause, and 14 refused to answer any questions, and 165 declared that they were innocent.

By the Report it will be seen, as every close observer would testify, that evil associations connected with *Intemperance* are the prominent ground work for crime and misery, while the above report speaks the same general language in reference to the predominating faculties of the mind in persons disposed to an inferior course

of conduct, as do phrenological observations. But whence have resulted the crime and misery above reported?—Phrenology answers in positive terms: From the absence of a proper knowledge of our mental and physical constitutions and the laws which control them.

Then those who would labor to prevent crime and shed tears of sorrow over fallen humanity, can in no way do good so effectually as by giving general circulation to physiological and phrenological information.

Every man's success and happiness in life depends upon his own conduct

A WORTHY EXAMPLE — A Clergyman in Livingston Co. has sent us in thirty-four names.

WORK WITH THY MIGHT.

BY D. C. COLESWORTHY.

Awake! O man! put on thy strength,

And work with all thy might,

A feeble arm becomes thee not,
When battling for the right.

Dark, proud oppression, raises high
His arm to crush thee down;
Fear not his giant form—nor dare
To writhe beneath his frown.

Give to the wind thy coward fears,
Press onward and be brave,
And every foe to God and truth
Shall find a tyrant's grave.

Take not thine ease—rest not by day,
Nor slumber in the night;
For virtue's triumph will be sure,
O'er error and O'er might.

Great souls who conquer never fear,
Or lag a step behind;
Still onward is the watch word of
The high and noble mind.

Then be it thine to battle strong,
With Error, old and hoar,
Till to the vitals he is stung,
To perish in his gore.

MICHIGAN UNIVERSITY.

THIS INSTITUTION has been in successful operation since 1841, and now numbers with its branches, four hundred and sixty six students. The facilities it affords to the young men of our country, in acquiring a literary and scientific education at a trifling expense, cannot be surpassed by any similar institution in the West. With a well selected Library of near five thousand volumes, it presents a vast mine of intellectual wealth for the enquiring mind of the industrious student: and with a cabinet illustrative of the various branches of Natural History, unsurpassed in value, by few in the United States, it opens a rich view to the admirer of the beauties and wonders of nature. The following is a list of the faculty. Rev. Andrew Ten Brook, A. M. Pres. of the faculty, and Prof. of moral and intellectual Philosophy. George P. Williams, A. M. Prof. of natural Philosophy and Mathematics. Abram Sagar, M. D. Prof. of Zoology and Botany. Rev. Daniel D. Whedon, A. M. Prof. of Logic, Rhetoric and Philosophy of History. John H. Agnew, Prof. of the Greek and Latin Languages. B. A. Smith, A. B. Tutor in Latin and Greek. Silas H. Douglass, M. D. Lecturer in Chemistry and Geology. With such a faculty, and with all its corresponding advantages this institution bids fair to take a high stand among the colleges of the New World.

☞ The velocity of sound, in the air has been found by experiment to be 1130 feet in a second; in water, 4900 feet; and along a lead rod 17, 400 feet.

A gallon of water weighs seventy thousand grains.

Mr. HYDE.—This distinguished Temperance lecturer has put forth some strong efforts, for the cause in many counties of this State. In a recent tour to some of the Northern and Western counties, we noticed a marked change in favor of temperance.

☞ We have been induced to send the first number of the Gem to some individuals, being solicited by their friends to do so. Should they feel interested in the cause which it advocates and conclude to subscribe, they will confer a favor by acting as agents. And should they not subscribe, they can inform us by sending back this number through the Post Office.

TO SUBSCRIBERS.

Our first number has been delayed a few days, for new materials from the east; but we believe our subscribers will be better pleased, than if it had went immediately to press. They have our best wishes for their *willingness* to subscribe, before the issue of the first number, as well as for the regard which they manifest for science and the improvement of society.

In answer to some Inquiries about the time when subscribers should send in to be regarded as paying in advance we would say, that, we shall consider payments in advance, if they are sent within a reasonable time after receiving the first number.

And while they can pay for the Gem in one day by their ordinary business, by a bushel or two of wheat, or by a part of the avails of a common plea, an ordinary sermon, or a third of a day's legislating, we shall serve *them a year*, in return.

OUR PROSPECTS

Are by no means flattering. Our list of subscribers will not now exceed 650, but should each subscriber send us in one more name each, we should anticipate a better remuneration and a better result from our labors. But our list is increasing daily, and the Gem is now permanently established,—our labors are forever hereafter dedicated to the cause of human improvement, and we earnestly desire the co-operation of the generous and philanthropic.

EDITOR'S TABLE.

We shall cheerfully notice from time to time, all such papers as are devoted to the great cause of science and reform.

American Phrenological Journal, edited by O. S. Fowler, New York, is a work which has improvement inscribed on its every page; its every line. Mr. F. appears to be laboring for the good of the present and future generations.—The Journal contains 32 pages, and is published monthly at \$1 in advance.

The Michigan Temperance Journal and Washingtonian, published and edited monthly, at Jackson, by F. and K. K. Jones, under the advisement of the State Executive Committee, is 50 cents, in advance. The good of the whole country would seem to require such a paper to be well sustained in the State.

Washingtonian News, is the title of a weekly paper issued at Utica N. Y., devoted to the cause of Temperance and general intelligence. Mat-teson Baker, editor and proprietor.—Terms one dollar in advance.

From the acquaintance we have had with the editor and the present improved appearance of his sheet, we do not hesitate to recommend it to the reading public.

TO CORRESPONDENTS.

The poetry from J. H. S. is inserted in this number; for which he has our thanks. We should be pleased to hear from him again. An article on the "Benefits of Phrenology," was received; but too late for this number. All such articles, showing the practical benefits of science, well written, will always find room in our columns.

Mrs. J.'s communication is good: it breathes the right sentiment, and will probably appear in our next number. The fact relating to magnetism, as a remedial agent we cheerfully publish. Facts always speak for themselves: the more we have of them the better.

The articles spoken of, by Mr. H. and Dr. S., judging from what we know of the heads of the writers, would doubtless be appropriate. The Poetic article from W. L. J., is under consideration.

Dr. B., of Clarkville, Dr. C., of Brockport, and Dr. G., of W. Edmeston, N. Y., have our thanks for the interesting facts, with which they have favored us. They will be laid before our readers.

Shall we hear from M. C. F. B., of Sanquoit? The article from the pen of Mrs. B., of Freedom N. Y., is very good, but was received too late for this number. The correspondents she speaks of, would be gladly welcomed to our columns, while the articles she refers to, would be very acceptable.

Having shown the union of mind with matter, and that this matter is the brain; in our next number, we shall endeavor to establish a third principle, viz: that the brain is a congeries of organs, or more organs than one.

We are obliged to defer several scientific articles for future publication.

TRAVELLING AGENTS.

Mr. Geo. Dell, Agent for Michigan.
Dr. C. H. Chase, " " New-York.
Mr. Jeremiah Williams jr.—Ohio.

NOTICE.

The editor will give an address at the Court House, on Monday evening, the 4th of May next. Subject:—Theology of Nature.

* * Editors and Clergy in the village please notice.

For the Gem of Science.

ACCROSTIC.

G o on thou flower in embryo;
E nter the heart that's dark with wo—
M ay thy fair leaves unfold in bloom;—
O scatter wide a sweet perfume.
F ill all the air with odors sweet,
S uch as we all delight to meet:
C alm breezes waft thee on thy way
I n one long pleasant summer day.
E ver in dews and sunshine stand;—
N ever may frost with with'ring hand
C ome near thy petals; nor may death
E nd thy career, or stop thy breath.

DETROIT, April, 1846.

J. H. S.