

5761151

BUCHANAN'S Journal of Man

\$1.00 PER ANNUM.

[Published Monthly.]

SINGLE COPIES, 10 CENTS.

\$1.25 to subscribers in Europe, India, and Japan.

\$1.50 to subscribers in Australia.

Vol. 1.

BOSTON, JUNE, 1887.

No. 5.

CONTENTS.

X

THE MOST MARVELLOUS TRIUMPH OF EDUCATIONAL SCIENCE 1

THE GRAND SYMPOSIUM OF THE WISE MEN 18

THE BURNING QUESTION IN EDUCATION 19

MISCELLANEOUS INTELLIGENCE 21

Bigotry and Liberality; Religious News; Abolishing Slavery; Old Foggy Biography; Legal Responsibility in Hypnotism; Pasteur's Cure for Hydrophobia; Lulu Hurst; Land Monopoly; Marriage in Mexico; The Grand Symposium; A New Mussulman Empire; Psychometric Imposture; Our Tobacco Bill; Extinct Animals; Education.

GENESIS OF THE BRAIN (Concluded) 27-32

The July number will contain an Exposition of Craniology.

Introduction to the Journal of Man.

As the JOURNAL OF MAN is designed to occupy the highest realm of knowledge attainable by man, it cannot be a magazine for the millions who have no aspiration toward such knowledge. Its pages will not be devoted to the elementary lessons that such persons need to attract them to the science of the soul and the brain, and the philosophy of reform. They must be given to the illustration of science that is essentially new, which would be instructive to those who already have some elementary knowledge of the subject. That knowledge which readers of the Journal will be presumed to have is briefly presented in the following sketch of

THE SCIENCE OF ANTHROPOLOGY.

1. The brain is the seat of conscious life, the organ of all the powers of the soul, the controlling organ of the body in all its functions, and is therefore a psycho-physiological apparatus, psychical its relation to the soul, physiological in its relation to the body.

2. The anatomy of the brain, which is wonderfully complex, was first rationally explored and understood by Dr. Gall, the greatest philosopher of the eighteenth century. The first and only successful investigation of its psychic functions was also made by him, and his doctrines were for many years admired by the ablest scientists of Europe, but after his death fell into unmerited neglect, for three sufficient reasons: First, his method of investigation by studying comparative development was entirely neglected. Phrenology decayed when the fountain of the science was thus closed, as geology would have declined under similar treatment. But no student of comparative development has ever repudiated the discoveries of Gall. It was unfortunate that Gall and Spurzheim did not give lessons in craniology. Secondly, the intense materialism of the scientific class has made them profoundly averse to all investigation of a psychic nature and to all profound philosophy. Thirdly, the inaccuracy of Gall's incomplete discoveries, especially in reference to the cerebellum, furnished some valid objections to his opponents, who paid no attention to evidence, but condemned without investigation.

3. The cranial investigations of Dr. Buchanan, from 1835 to 1841, confirmed nearly all the discoveries of Gall, and corrected their inaccuracies as to anatomical location and psychic definition. He also discovered the locations of the external senses, and found the science thus corrected entirely reliable in the study of character. In these results he had the substantial concurrence of Dr. W. Byrd Powell, a gentleman of brilliant talents, the only efficient American cultivator of the science.

4. In 1841, Dr. Buchanan (having previously discovered the organ of sensibility) investigated the phenomena of sensitive constitutions, and found that they were easily affected by contact with any substance, and especially by contact with the human hand, so that the organic action of the brain was modified by the nervura from the fingers, and every convulsion could be made to manifest its functions, whether psychic or physiological, and whether intellectual, emotional, volitional, or passionable, so as to make the subject of experiment amiable, irritable, intellectual, stupid, drowsy, hungry, restless, entranced, timid, courageous, sensitive, hardy, morbid, insane, idiotic, or whatever might be elicited from any region of the brain, and also to control the physiological functions, modifying the strength, sensibility, temperature, circulation, and pulse.

5. These experiments have been continually repeated from 1841 to 1887, and have commanded unanimous assent to their truth from many committees of investigation, and have during sixteen years been regularly presented and accepted in medical colleges; hence it is not improper to treat this demonstrated science of the brain as an established science, since the establishment of science depends not upon the opinions of the ignorant, but upon the unanimous assent of its investigators or students.

6. As the brain contains all the elements of humanity, their revelation constitutes a complete ANTHROPOLOGY, the first that has ever been presented, and this science necessarily has its physiological, psychic or social, and supernal or spiritual departments. In its physiological department it constitutes a vast addition to the medical sciences, and essentially changes all the philosophy of medical science, while it initiates many fundamental changes in practice, which have been adopted by Dr. Buchanan's pupils. Hence it deserves the profound attention of all medical schools.

7. In its psychic or social relations, anthropology enables us to form correct estimates from development of all vertebrate animals, of persons and of nations, showing their merits and deficiencies, and consequently the EDUCATION or legislation that is needed. By showing the laws of correlation between persons, it establishes the scientific principles of SOCIAL SCIENCE, and the possibilities of human society. By explaining all the elements of character and their operation, it establishes the true MORAL PHILOSOPHY. By giving the laws of development it formulates the true EDUCATION, and by giving the laws of expression it establishes the science of ORATORY and the PHILOSOPHY OF ART, making a more complete and scientific expression of what was empirically observed by Descartes with remarkable success.

8. In its spiritual department, anthropology shows the relation of human life to the divine, of terrestrial to supernal existence, and the laws of their intercourse; hence establishing scientific religion and destroying superstition. It gives the scientific principles of animal magnetism, spiritualism, trance, dreaming, insanity, and all extraordinary conditions of human nature.

9. In the department of SARCOGNOMY, anthropology fully explains the triune constitution of man, the relations of soul, brain, and body, thus modifying medical and psychic philosophy, and establishing a new system of external therapeutics for electric and nervanic practice, which have been heretofore superficially empirical. It also gives us

new views of animal development and an entirely new conception of statuesque conformation and expression.

10. The magnitude and complexity of the new science thus introduced give an air of romance and incredibility to the whole subject, for *nothing so comprehensive has ever before been scientifically attempted*, and its magnitude is repulsive to conservative minds, to those who tolerate only slow advances; but the marvellous character of anthropology has not prevented its acceptance by all before whom it has been distinctly and fully presented, for the singular ease and facility of the demonstration is almost as marvellous as the all-embracing character of the science, and the revolutionary effects of its adoption upon every sphere of human life. This marvellous character is most extraordinary in its department of PSYCHOMETRY, which teaches the existence of divine elements in man, powers which may be developed in millions, by means of which mankind may hold the key to all knowledge, to the knowledge of the individual characters of persons in any locality or any age, of the history of nations and the geological history of the globe, the characters of all animals, the properties of all substances, the nature of all diseases and mental conditions, the mysteries of physiology, the hidden truths of astronomy, and the hidden truths of the spirit world. Marvellous as it is, psychometry is one of the most demonstrable of sciences, and the evidence of its truth is fully presented in the "Manual of Psychometry," while the statement and illustration of the doctrines of anthropology were presented in the "System of Anthropology," published in 1854, and will be again presented in the forthcoming work, "Cerebral Psychology," which will show how the doctrines of anthropology are corroborated by the labors of a score of the most eminent physiologists and vivisection anatomists of the present time.

If but one tenth part of the foregoing cautious and exact statements were true in reference to anthropology, its claims upon the attention of all clear, honest thinkers, and all philanthropists, would be stronger than those of any doctrine, science, or philanthropy now under investigation; and as those claims are well-ensured and have ever challenged investigation, their consideration is an imperative duty for all who recognize moral and religious responsibility, and do not confess themselves helplessly enthralled by habit and prejudice. Collegiate faculties may do themselves honor by following the example of the Indiana State University in investigating and honoring this science before the public, and thoughtful scholars may do themselves honor by following the examples of Denton, Pierpont, Caldwell, Gatchell, Forry, and Robert Dale Owen.

The discoverer has ever been ready to co-operate with honorable inquirers, and has satisfied all who have met him as seekers of truth; a fact which justifies the tone of confidence with which he speaks. The only serious obstacles he has ever encountered have been the mental inertia which shuns investigation, the cunning cowardice which avoids new and not yet popular truths, and the moral torpor which is indifferent to the claims of truth and duty when not enforced by public opinion. When standing at the head of the leading medical college of Cincinnati, he taught, demonstrated, and proclaimed, during ten years, with collegiate sanction, for the medical profession, the doctrines which he now brings before the American people by scientific volumes (the "Manual of Psychometry," "Therapeutic Sarcognomy," and the "New Education"), and by the JOURNAL OF MAN, which, being devoted chiefly to the introduction of anthropology as the most effective form of philanthropy, may justly claim the active co-operation of the wise and good in promoting its circulation as the herald of the grandest reforms that have ever been proposed in the name and by the authority of positive science.

BUCHANAN'S JOURNAL OF MAN.

VOL. I.

MAY, 1887.

No. 4.

The Prophetic Faculty: War and Peace.

IN our last issue, the psychometric faculty of prophecy was illustrated by predictions of peace, while generals, statesmen, and editors were promising a gigantic war. In this number the reader will find a grand prediction of war, while statesmen and states were anticipating peace, and a southern statesman, even upon the brink of war, offered to drink all the blood that would be shed.

The strength of the warlike spirit and prediction at the time psychometry was prophesying peace was conspicuous even as late as the ninth of March, when the London correspondent of the *Sun* wrote as follows :

“An eminent Russian general with whom I have talked believes the plan of Russian attack on Austria is fully developed. Galicia is to be the battleground between the two countries. Russia will enter the province without trouble, as there is nothing to hinder her. Then she will make a dash to secure the important strategic railroad which runs parallel with the Galician frontier, and seek to drive the Austrians over the Carpathians.

“That Galicia will witness the first fighting is generally admitted, as also that the possession of the strategic railroad, running as it does just at the rear of the Austrian positions, would be the most vital question. It may be interesting to say that military men of whatever nationality look upon an early war as a certain thing. They are not content to say they believe war is coming; they are absolutely positive of it, and each little officer has his own personal way of conclusively proving that this sort of peace cannot go on any longer.

“Meanwhile there are lots of straws floating about this week, which indicate that international winds are still blowing toward war. From Russian Poland there is reported an interruption in all kinds of business, owing to the war scare. Manufacturers refuse to accept orders from private persons, and financial institutions have still further weakened business by reducing their credit to a minimum: A letter from St. Petersburg tells of the tremendous enthusiasm of the troops at the review by the Czar on last Saturday, of the wild cheering for his imperial Majesty, of the loud and strident whistles audible above the roar of the cannon with which the officers command their men, and of the general blending of barbaric fierceness and courage with modern discipline and fighting improvements.

progressive minds, the number of which increases as we travel westward, and San Francisco called for more copies than the leading cities of the East.

The time has now arrived (when this JOURNAL is hailed cordially throughout the country) that I may venture to announce the most remarkable feature of the art and science of education. There is an additional reason, too, for speaking out at this time, which should mortify the pride of an American citizen. The philanthropic science which I thought it imprudent to mention then in this free country, is beginning to be studied in France, where such themes are not suppressed by the sturdy dogmatism which is so prevalent and so powerful in the Anglo-Saxon race.

THE NEW METHOD IN FRANCE.

As the French National Scientific Association, in their meeting at Grenoble, two years ago, recognized in their most startling form the phenomena of human impressibility which are illustrated in the "Manual of Psychometry," and reported the most marvellous experiments in medicines, — an act of liberality which has no parallel in English-speaking nations, — so at the late meeting of their Scientific Congress, as I learn from the German magazine, the *Sphinx*, the new principle of education was broached which I feared to present in the "New Education," and was received with general approbation by that learned body.

Of course there was not a complete presentation of the subject, for that would require a complete knowledge of the brain, which no scientific association claims at present, and which will have its first presentation to the readers of the JOURNAL OF MAN, but the process of educational development was studied by the French *savants* from the standpoint of mesmeric science and its leading methods, which are now (freed from the name of an individual) styled *hypnotism*; or, the sleep-producing process.

In that passive and impressionable condition which is called hypnotic, mesmeric, somnambolic, or somniloquent, it has long been known that the subject may be absolutely controlled by the operator, or by a simple command or suggestion, or by his own imagination. This has been so often demonstrated before many hundred thousands of spectators, that it is a matter of general knowledge everywhere among intelligent people, — everywhere except, perhaps, in the thick darkness of medical colleges, where ignorance upon such subjects has long been made the criterion of respectability, and perhaps among a few very orthodox congregations, where such things have been associated with the idea of witchcraft, and considered very offensive to the Lord. Such was the doctrine of my old contemporary at Cincinnati, Dr. Wilson, at the head of the leading orthodox congregation; and it was equally offensive to the champion debater of Presbyterian orthodoxy, the Rev. N. L. Rice, whom I arraigned before a vast audience for his antiquated falsehoods. If the church and the college are getting a *little* more enlightened now, I cannot forget the condition in which I found them, of stubborn

hostility to scientific progress, and these things *should not be forgotten* until they have repented, reformed, and ceased to be a stationary obstruction.

We are not accustomed to look to a Catholic country like France for advanced thought, yet, in these instances just mentioned, we find French scientists entertaining advanced ideas which the leaders of American science treat with either indifference or hostility. The *Popular Science Monthly* and medical journals generally treat all such matters with stubborn aversion and injustice. The learned collaborators of Johnson's *Cyclopedia* were unwilling even to have the science of psychometry mentioned in it, and it was introduced by the publisher against their protest. These things I mention now, that the great public to which I appeal may better understand the real value of the opinions of those who stand in positions of authority and influence.

I would not wish to diminish by harsh criticism the sentiment of reverence which is already too feeble in the American mind. We cannot be too reverent to real intellectual and moral greatness, but to reverence beyond their worth the teachers of old inherited falsehoods, is to be a traitor to truth. The literature of to-day is controlled by ancient or mediæval errors, and the fresh science seeking expression in the *JOURNAL OF MAN* could not have found expression in periodical literature. Our leading periodicals would not have opened their pages to the exposition of educational methods which is to be given in this essay. *Intolerance* is the inheritance which the generation of to-day has received from ancestors who two or three centuries ago delighted in hanging or even burning the exponents of opinions contrary to their own; and where intolerance is not in the way, the energy of literary cliques is exerted to hold exclusive possession of the field.

With this exordium, which the occasion seemed to require, let us proceed to consider the most powerful and radical measure, which belongs to the science of education, and which has been developed by the science of anthropology.

DEFINITION OF EDUCATION.

Education, rightly understood, signifies the development of all the faculties or capacities of the soul, and, as a necessary consequence, of the brain, in which that soul is lodged, and of the body, which is as essential to the brain as the brain is to the soul. For without the brain there is no soul expression, and in proportion to the condition and development of the brain is the expression of all the soul faculties. A soft and watery brain is always accompanied by feebleness of character and mind. In like manner the manifestations of the brain depend for their strength upon the body, when the lungs and heart fail to send a vigorous current of arterial blood to the brain, its power declines proportionally; and when the current ceases entirely, the action of the brain itself ceases, and with its cessation all manifestations of the soul cease also. Or when the disordered viscera fail to supply a healthy blood, as in fevers of a low type, the brain, like

all other organs, is brought down to the level of the depraved blood, and shows by its utter feebleness and by the incoherent expressions of the patient that brain and soul depend upon the body for their power and all their action in this life.*

FOUR EDUCATIONAL METHODS.

The process of education by a teacher consists chiefly in establishing the control of his stronger mind over that of the pupil, by placing the latter in the most passive and receptive condition, in which the pupil not only receives the intelligence he gives, but also feels the influence of his will and principles.

There are four methods by which the influence of the teacher is made effective: 1st, the power of conviction or reason; 2d, the spirit of obedience; 3d, the spirit of imitation; and 4th, the spirit of passive sympathy.

In the first method he addresses the understanding, enabling the pupil to understand what is best for him. If Socrates had been right in maintaining that knowledge was the one thing needful to overcome practical errors, and that men sinned only through ignorance (which was a very grave mistake), this would be the most effective method of teaching. But it is effective only with those who are conscientious and thoughtful, who are seeking to do right, and need only to be instructed. It is entirely ineffective with the great majority of wrong doers, whose moral nature and self-control are insufficient to curb their animalism.

The second method, the spirit of obedience, is the method of religion, which is far more effective. Jesus and other religious teachers impress their followers that there is a great and benevolent power, the power to which we are indebted for our present lives and our hope of unlimited future happiness,—to which we owe a profound gratitude, with an unhesitating love and obedience. Our love should not be withheld from our grand benefactor; and if his wisdom transcends our own, the wisest thing that we can do is to ascertain what that wisdom dictates, and obey it implicitly. That which we supremely love and reverence we delight in obeying.

OBEDIENCE AND IMITATION.

The teacher or parent, therefore, should endeavor to hold something like the Divine relation to the child,—should show a superiority of knowledge, an inflexible firmness, an unvarying love, and irresistible attraction, ever endeavoring to win love, while enforcing the supremacy of his will, so that obedience may be a pleasure. Thus may a woman with a masculine strength of will, or a man with feminine strength of love, develop that willing obedience which insures the moral elevation of the pupil. But whenever the teacher fails to elicit both respect and love, his power for good is lost. In

*The insane folly which assumes, without a particle of evidence, that everything depends upon mind, and that the brain, the body, and their environment, which is continually acting upon the entire man, are of no importance whatever, would not be worthy even of mere mention if it were not for the fact that this form of delusion has of late become so common, under the deceptive names of metaphysics, Christian science, and mind-cure, when the theory is simply an attempt to get rid of science and common sense.

this evolution of good the power of the teacher is vastly enhanced by that of music, especially in the form of song, when the pupil is made to sing songs of exalted sentiment; and there are very few natures so depraved as to resist long the combined power of exalted music and a superior teacher, to which should be added the social influence of numbers already elevated by such influences.

In such schools, the power of the third element, *imitation*, is very great, for the pupil is generally more influenced by the example of his numerous associates in the school and family, with whom he is continually in contact, than by that of his teacher.

To get the full benefit of imitation requires not only the influence of well-trained schoolmates, but systematic exercises in reading, singing, declamation, and deportment, the teaching being given by example.

When a boy or girl is taught by example to express a noble sentiment in a natural manner, he is thereby compelled to feel the sentiment in some degree with sincerity. When he is required to imitate and practice certain forms of politeness which express the best sentiments, those sentiments must gradually become a part of his nature. The acts of respect, of kindness and courtesy to which he may be naturally averse, cannot be daily practised without rousing in his nature the sentiments to which they correspond.

VALUE OF DANCING.

Among the many disciplinary methods which have been neglected in our educational systems, I would give a high rank to *dancing*. Rightly conducted, it embodies so much of grace, dignity, cheerfulness, playfulness, health, and the desire of pleasing, as to entitle it to a high rank in the promotion of health and virtue. Dancing is one of the imitative arts, and involves the amiable influence of imitation, as well as the more lively sentiments. The hostility of the orthodox churches to this refining exercise is probably the effect of the infernalism of their theology, which places mankind upon the brink of hell, in full view of the infinite agony of their friends, relatives, and ancestors, so as to render every sentiment but that of gloom and terror inappropriate. How bitter their hostility to all gaiety! "Yes, dance, young woman," said a famous Methodist preacher about twenty years ago, "dance down to hell!" At the same time, his own private record did not indicate any deep sincerity in his fear of hell. The same hostility is still kept up, and overflows in the popular harangues of Rev. Sam Jones, and many others.

Popular Christianity, in the majority of the churches, is therefore one of the greatest hindrances to a normal educational system, and to social refinement, notwithstanding its support of some of the essential virtues.

THE REVOLUTIONARY METHOD.

The fourth method, of *passive sympathy*, is the most scientific, the most novel and the most powerful of all,—the most competent to grasp the helpless, hopeless, half idiotic, and half criminal classes and restore them to normal intelligence and virtue. It was not men-

tioned in the "New Education," for fear of alarming the orthodox stolidity of the medical college and the church, but it will appear in future editions. It is the method of bringing the subject into absolute sympathy and absolute subordination under the operator.

It has been known throughout this century that certain persons can be brought under the control of those of stronger wills, so as to realize the thoughts, and even sensations of the operator, feeling what he feels, tasting what he tastes, apparently more familiar with his body than their own, and passively subject to his will. They are said to be *en rapport* with him, and with no one else. In this condition his will is substituted for their own, which is entirely passive, and he is able to fix impressions on their minds and produce changes in their feelings and sentiments which may remain after his control is removed.

It is self-evident that in this process we have the most powerful lever ever discovered for uplifting the fallen, and doing more in an hour than can be done by the usual methods in many months. Why, then, have we not had the benefit of this potent method throughout the century? The answer is one word, *Stolidity!* These proceedings, which are called magnetic, or named after Mesmer, mesmeric, have had to battle for recognition, for existence even, against the college and the church. The medical and clerical professions have been everywhere educated to deny, despise, and resist this species of science, and would, if they had the power, suppress it by law, their education having made them ignorant of its merits and ignorant of its deeply interesting literature. Prejudice and ignorance are inculcated as easily as science, and they are inculcated in all colleges.

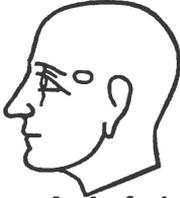
But all who are acquainted with the history of animal magnetism during the present century know that it has nobly fulfilled its mission as a system of therapeutics, by alleviating or curing all forms of disease of both body and mind. That which cures bodily diseases and sometimes overcomes insanity has certainly power enough to modify the action of the brain; and if the large number of magnetic physicians who have been successfully occupied in conquering disease had been employed in modifying the action of the brain in the young, we might have had as satisfactory reports of their success, which neither the medical nor the clerical profession would have been so much moved by jealousy to oppose.

In the light of anthropology, however, it is not necessary to adhere to the old formulæ of the followers of Mesmer. The hypnotic or mesmeric state is simply a condition arising from the exercise and predominance of a faculty belonging to all human beings,—a faculty which may be evoked by other methods, or by the voluntary action of the subject, or by the spontaneous action of the brain, as in those who in sleep pass into the state of somnambulism, and go forth in the night, walking in dangerous places with perfect safety, but in an unconscious state.

This condition is also produced by gentle manipulations over the head toward the eyes, or upon the chest down to the epigastrium (pit of the stomach). The reason of these processes was entirely

unknown until my discovery of the organ of Somnolence in the temples, and the corresponding region in the body showed that the results were produced by manipulations which concentrated the nervous action to those two locations.

The entranced or mesmeric state, in which the subject is in a dreamy condition with but little power of will and with extreme susceptibility, which is also a state of great mental clearness, may be produced by directly stimulating the proper organs with the fingers, which should be placed upon the organ of Somnolence on each side



of the head, in the temples, about an inch horizontally behind the brow. In persons who are impressible this produces a quiet dreamy feeling, and a disposition to close the eyes. If carried further, the eyes become closed so that it is difficult to open them, and the unconscious state soon follows. The same effect may be produced by placing the hand

on the body just below the breastbone (sternum). In this condition, the character, or action of the brain, is under the control of the operator, and by gently applying his hand over any portion of the brain, its organs may be brought into predominant activity, while other organs may be quelled or quieted by gentle dispersive manipulations. Thus, placing the hand gently on the top of the head, touching very lightly, all the amiable or moral organs will be brought into play, producing the most admirable and pleasing disposition; or if the operator has the necessary knowledge of the locations he may bring out each faculty separately, such as Love, Hope, Religion, Kindness, Conscientiousness, Firmness, Cheerfulness, Imitation, etc.

At the same time, if there be any evil propensities, such as a quarrelsome, irritable temper, a love of turbulence and cruelty, selfishness, avarice, jealousy, etc., all of which lie at the base of the brain, they may be for the time entirely suppressed by gentle dispersive manipulations from the organs of such propensities either down toward the chest or upward.

What I state thus of the moral and selfish tendencies or faculties is equally applicable to all the faculties and their organs. We may stimulate all forms of intelligence, observation, memory, or reason, or check excessive intellectual activity when it disturbs sleep and exhausts the brain. We may thus cultivate modesty, obedience, prudence, industry, application, imagination, refinement, truthfulness, faith, spirituality, originality, invention, literary capacity, patience, perseverance, fortitude, hardihood, health, temperance, and, in short, every good quality that we desire to see developed, if we understand cerebral science; and if we understand only its general outlines we can at least improve the character by giving a predominance to the superior regions of the brain.

But while this may be done more effectively in the somnolized condition, it is not absolutely necessary to induce that condition. Speaking of the entire fourteen hundred millions now on the globe, we may say that a large majority are susceptible, in various degrees,

of feeling such influences without any previous somnolizing. Nearly all the inhabitants of the torrid zone are subject to such influences in their habitual condition, and actually require no medicine, because their treatment by the hand of an enlightened anthropologist familiar with therapeutic sarcognomy will control all their diseases. The greatest triumphs of sarcognomy are yet to be realized in such climates.

In the United States, the susceptibility increases as we go South. The majority of the southern population are impressible, and there are some who would even maintain that a majority are, in the North; and certainly magnetic healers have been very successful in New England.

But whatever may be the case with adults, I believe that a majority of the young everywhere possess a considerable degree of impressibility, and that the mother's hand, gently applied upon the upper surface of the head, will generally quiet the evil passions and promote good humor.

This is more especially true of girls. It is rare to find one who does not show in her youth, especially from ten to twenty years of age, a degree of susceptibility which makes her a good subject for the manual treatment of disease, and also for improving the action of the brain, by the scientific use of the hand upon the head, by which despondent, restless, fretful, hysterical, or other evil conditions may be quickly overcome. The speedy relief of headache is especially remarkable.

My own experiments upon the brain have been made for the development and cultivation of science, or the assistance of the sick. I have not had time to undertake the systematic cultivation and change of character by such processes in the young; but when I see how quickly and completely the condition of a patient may be changed, and all cloudy, depressed conditions of the brain removed, — how easily I can produce a state of insanity, idiocy, or pugnacity, and as quickly remove it entirely, — I cannot doubt that a little perseverance in cultivating the nobler qualities until they become by habit a second nature will change even the most depraved, if the process be begun in childhood or youth and steadily maintained, unless there be a great organic deficiency in the brain, which cannot be remedied.

The teacher of the future, duly educated in anthropology, will lay aside the rod, and will find in the scientific application of his hands the means of overcoming acquired or even hereditary evils; and special asylums will be established, in which the most degenerate youth may be restored to honor, not by cerebral treatment alone, but by all the appliances of industry, music, religion, and love, which have already reformed so many youthful criminals at Lancaster, Ohio, and given them to society as good citizens.

The method of direct operation on the brain, which was introduced by my discovery in 1841, is that with which I am more familiar, but the mesmeric method has long been known, and the modification of this, which might be called the imaginative method,

has been made familiar during the last fifty years under the popular name of psychology, and sometimes under the absurd name of electro-biology.

This method is simply that of assuming control of the subject when he is in the passive state, and making him believe anything he is told, as, for example, that a handkerchief is a snake, that a piece of money is burning hot, or that he is a king, a hero, an orator, an auctioneer, or anything else suggested by the fancy of the operator, which is at once carried into personation by the subject. This is a familiar, popular exhibition, which never fails to attract and amuse, but has unfortunately not been applied to its philanthropic uses in healing disease and elevating the character. If disease can be overcome by making the subject believe a glass of pure water a powerful restorative medicine, or by believing himself marvellously well and vigorous; or if his vicious or idole habits can be overcome by making him for a time believe himself a religious saint or an energetic business man,—such experiments should be made a powerful adjunct in education, and in the reformation of criminals; and this application has recently been made in France, which has the honor of leading in this important philanthropy.

The passive state required may be produced by fixing the gaze intently for a few minutes upon some object near the eyes which requires them to be turned inward, or by gazing at the eyes of the operator. The operator tells him if his eyes are shut that he cannot open them, or that he cannot lift his foot, or cannot step across a certain mark, and he seems unable to do so, but does readily whatever his operator suggests, and believes himself to be whatever his operator says—experiments which have been made a source of infinite amusement to public audiences.

For example, about forty-five years ago a Mr. Keeley was making such exhibitions in Louisville, and found an old lawyer named Dozier a good subject. He informed Mr. Dozier on the platform that he was Mr. Polk, President of the United States, whereupon he attempted to assume a corresponding dignity. Then, bringing up Mr. Geo. D. Prentice, the witty editor of the *Louisville Journal*, he informed the quasi-President Polk that this was his wife, Mrs. Polk, just arrived, whereupon an amusingly cordial reception of the quasi-wife occurred.

The utilization of these principles by the French is shown in the following translation from the German.

HYPNOTISM AND EDUCATION.

BY EDGAR BERILLON.

[Translated from the German in *Sphinx*, for the JOURNAL OF MAN.]

The careful study which the school of the medical faculty of Nancy has devoted to the phenomena of suggestion, and their actual progress in that department, present the question whether the time has not arrived for teachers to participate in this scientific movement.

The numerous observations by Dr. August Voisin of the Salpetriere have positively proved in his own practice not only the curability of mental diseases, but the great assistance which may be given to moral culture, so that we might successfully introduce hypnotism in educational schools. Dr. Voisin with great ease cured his first patient in the trial of hypnotic suggestion — a girl by the name of Johanna Schaaf, who was not only a thief, but dissolute, lazy, and unclean. He transformed her into an honest industrious, neat, and obedient person. For several years she could not be induced to read a line. Under the control of Dr. Voisin she was made to read several pages of a moral work, which she repeated before the class. Then with great facility he roused her feelings of sympathy, which appeared to have become extinct. This cure was so thorough that she has since been appointed a nurse in the hospital, and has given complete satisfaction, showing herself quite conscientious.

Many other experiments were made quite satisfactorily, and similar results were produced in his city practice. In one case, by hypnotic suggestion treatment Dr. Voisin transformed the character of a quarrelsome woman, making her a mild affectionate wife to her husband. Voisin's experiments related principally to adults, but Dr. Liebeault of Nancy made experiments with children, of which he has mentioned two cases. Once a child was brought to his clinic with great suffering from a nervous affection, but would not submit to a hypnotic treatment till her little brother present offered himself, not being afraid. When he was put to sleep his mother told the physician that the boy in school was always in the lower grades, without making any progress. While in the sleep he was strongly impressed for diligence and zeal, and the subsequent result was perfect; within six weeks he became an example of diligence and perseverance, and soon got promoted. The second case was that of a young idiot. He was incapable of intellectual culture, and could not be taught reading or arithmetic. Dr. Liebeault submitted him to many hypnotic sittings, making a very great effort to rouse his attention, though he seemed to have no capacity for being instructed. Finally he succeeded so well that after two months he could read, and could cipher in the four rules of arithmetic. A great number of similar cases were treated by Dr. Dumont at Nancy with decided success.

In one of his clinics Prof. Bernheim maintained that all children are receptive of hypnotic suggestion or transference of thought, and even more so when they enter the age of reasoning. Not only in sleep, but also in the waking condition, they may be affected; and the school of Nancy deserves great credit for presenting this important matter to the world in its true light.

One of the signs of the hypnotic sleep or state is the automatic condition of the individual. In consequence of having for the time an enfeebled will, the individual will yield to all impressions upon it; and this weakness of will may take place in a wakeful state, when, if there is no opposition, the individual will accept all assurances in good faith. In case there is no exertion of influence by others, the subject will act by his or her own imagination. Such auto-suggestion is the result of a tendency to imitation which seems to be developed in children particularly, and develops in the waking state in undisciplined minds or in a fatigued and passive state.

These important principles and facts render it the duty of every educator to study the efficacy of suggestion and imitation in children. The experiments made thus far, authorize us to establish the following rules for practice:

If we have to deal with children of lazy, unintelligent, and indifferent character, we should confine ourselves to practicing verbal suggestion in

their waking state, and to be effective it would be best to follow the experiments at Nancy, especially of Dr. Liebeault, and make great effort to gain the implicit confidence of the child. Seat it by itself on a chair, place your hand on its forehead, and enforce the suggestions by a mild voice and patient manner, but with firm determination.

When, however, our treatment is to ameliorate the future destiny of the children, — when their faculty of observation is deficient, when they have no diligence whatever, and are full of vicious, headstrong, evil inclinations, it is our opinion that by all means we should apply hypnotism fully to these degenerate creatures. The suggestions in the hypnotic sleep are of greater efficacy, more durable and profound, and probably in many cases it will be necessary to repeat these procedures frequently, until the imperfect intellectual faculties are developed, and the evil inclinations suppressed. Thus may we guide these young souls to a better and purer future.

In conclusion, I do not hesitate to assert the importance of hypnotism; in spite of all objections in its application to the mental and physical faculties of healthy persons. Its application as an educational method will be of vast importance to sick and depraved subjects.

The train of thought in the above essay, which Dr. Berillon has published in the September number of his *Revue de l'Hypnotisme*, inspired the contents of a lecture presented at the Scientific Congress at Nancy (August, 1886), out of which arose a discussion in which Dr. Liebeault observed that the facts mentioned by Dr. Berillon are entirely true. "My long practice," said he, "has permitted me to gather a great number of other cases, which will sustain the doctrines of the speaker. I have never seen a child continue entirely unresponsive of suggestion treatment. In the persons, children, and adults, with whom I have experimented, counting by thousands, I have never observed the least injurious consequences whatever."

The report of the discussion given us above in *Sphinx* shows that these important suggestions met with only one unfriendly criticism, and that of little force. M. Desjardins, Esq., suggested that it was highly important that other honorable gentlemen, like Dr. Liebeault, Dr. Voisin, and Dr. Dumont, should be officially appointed to carry on such experiments. He expressed his desire that the Congress should recommend that hypnotic suggestion for the purpose of moral improvement should be tried upon the worst class of pupils in the public schools. The suggestion was seconded with energy by Dr. Leclerc, who expressed his surprise that any one should object. It may be said to have met with the general approbation of the Congress.

The *Public Ledger* of Philadelphia published last year the following sketch of the progress of the marvellous in France:

MARVELS OF MIND AND BODY.

For several years past a number of French physicians have been experimenting on hypnotised or mesmeric subjects and on hysterical patients, with results of the most extraordinary character. It is our purpose to very briefly describe some of these remarkable experiments, from which, we may

say, the standing of the doctors engaged in them, and the critical care with which they were conducted, seem to remove all questions of fraud or inaccuracy.

In these hypnotic experiments as practised by Dr. Charcot, of the Salpêtrière; by Dr. Bernheim, Professors Beaunis and Liegeois and other persons of high professional standing, the most striking feature is that the influence exerted upon the patient does not vanish with the conclusion of the experiment, but may produce its effects days, weeks or even months afterwards, when the patient is seemingly in a normal state and controlled solely by his own thoughts. For instance, a sensitive person may be hypnotised, or mesmerized, to use the better known word, and it be suggested to him by the experimenter to go at a certain hour of the next or some succeeding day and shoot some person and then deliver himself up to justice. On being brought back to the normal state no recollection of this suggestion is present in his mind. And yet, if the experiment work as truly as it often seemingly has worked, he will endeavor at the time fixed to perform the action indicated, with the full belief that the impulse to do so is his own. We may quote some instances in corroboration of this seemingly improbable statement.

CASES OF HYPNOTIC SUGGESTION.—Among minor instances of this result, Frederick Myers relates that he suggested to a hypnotised subject, who was engaged in coloring a sketch, that it would be a good idea to paint the bricks blue. He repeated his suggestion several times, and then brought the subject to the normal state. She had no recollection of what had passed, yet on resuming her painting some time afterwards she hesitated, and then said to a lady companion, "I suppose it would never do to paint these bricks blue." "Why blue?" "Oh, it only occurred to me that it would look rather nice." She acknowledged that the idea of blue bricks had been persistently in her mind, with the notion that the color would look well.

In another instance, Dr. Bernheim, of Nancy, suggested to a hypnotised person to take Dr. X.'s umbrella when awake, open it, and walk twice up and down the gallery. On being awakened he did so, but with the umbrella *shut*. When asked why he acted so, he replied: "It is an idea. I take a walk sometimes." "But why have you taken Dr. X.'s umbrella?" "Oh, I thought it was my own. I will replace it."

These are harmless instances of this strange power. There are others the reverse of harmless in this significance. One or two of these we may quote: Prof. Liegeois, in his recently published pamphlet, "Of Hypnotism in its relations to Civil and Criminal Law," describes experiments with the subjects of M. Liebault, a well-known hypnotiser. In these experiments he took pains to induce the patients to commit crimes. As he relates, Mdlle. A. E. (a very amiable young lady) was made to fire at her own mother with a pistol, which she had no means of knowing was unloaded. The same lady was made to accuse herself before a judge of having assassinated an intimate friend with a knife. Yet in both these instances she was wide awake at the time and supposed that she was acting from her own impulse.

Many other instances might be given, but these will suffice for illustration. As to the length of time in which such a suggestion may remain operative, Prof. Beaunis relates a case in which he suggested to a hypnotised subject that he would call on her on the next New Year's day (172 days after the date of the experiment). On that date, being perfectly conscious, she seemed to see him walk into the room where she was, pay his compliments, and retire. She insisted that this had really happened, and

could not be convinced to the contrary. A striking feature of this incident was that he seemed to be dressed in summer attire (as at the date of experiment), though it was now the dead of winter.

A natural conclusion from the facts above detailed is, that the strange power here indicated might prove a very dangerous weapon in the hands of an unscrupulous man. If a person can suggest to a subject in the hypnotic sleep that, at a certain future day, he or she shall kill a person obnoxious to the experimenter, or perform some other criminal act, and if the act be duly performed, the subject being in a seemingly normal state, and fully convinced that he acted solely through an impulse originating in his own mind, it might appear as if there was little safety left for honest people, and that a villain might carry out his murderous schemes with perfect impunity. In such a case as we have said, the mind of the patient would cease to be his own, but would partly belong to the person whose deadly thoughts it contained, and whose involuntary agent it had become. Will the judisprudence of the future have to take account of such possibilities as this? Yet it must be remembered that the great majority of people are not susceptible to hypnotic influence, and that those whose will can be so completely subjected to that of another are comparatively few. Very few such have yet been found in France. In America, the realm of a less excitable people, still fewer could be found.

It may be said, moreover, that this influence in several cases has been exerted for the good of the patient. One instance is given in which the patient was a great smoker and drinker, and voluntarily gave up both under the influence of hypnotic suggestion. Several other cases of the same kind are related, while a humorous instance is given of an idle school boy who, impelled by a hypnotic suggestion, became a very ardent student. After working off that spell, however, he obstinately refused to be hypnotised again, apparently with the impression that there was something uncanny in his unusual fit of devotion to study.

The Grand Symposium of the Wise Men of the Nineteenth Century.

The question of our future destiny is paramount to all others in dignity and importance. Upon this subject all wise men must have clear and positive views. The editor of the *Christian Register* of Boston, according to the very common idea that men in prominent positions as professors and decorated with college honors must be the wisest, thought it well to ask them if science could take cognizance of the question of immortality, and if its verdict was for or against a future life. Such questions he addressed to twenty-three professors, presidents, doctors of laws, etc. But he did not reflect that there were several hundred gentlemen in Boston who had more knowledge on this subject, and who could give him positive and reliable information, and he entirely forgot that the only scientist who has examined this question from the physiological standpoint resides in Boston.

The editor did not obtain what he was ostensibly seeking, but he did obtain an amount of evidence of ignorance, in high places, which I should be happy to record, but for the fact that it would occupy

more than half of one number of the *JOURNAL OF MAN*. Nevertheless, I cannot deprive my readers of the pleasure and amusement derived from this correspondence. I have condensed the responses into a readable compass leaving out their useless verbiage, and putting them in a poetic form, as poetry best expresses the essence and spirit of an author's thought. I think the learned gentlemen, if they could peruse these doggerel rhymes, would acknowledge that their meaning has been expressed even more plainly and forcibly than in their own prose. The reader will observe that of the whole twenty-three only two appear to have any knowledge on the subject, the famous A. R. Wallace and the brilliant Dr. Coues. The following is the essence or rather quintessence of the voluminous responses in the order in which they were published. The learned gentlemen ought to feel grateful for the increased candor, brevity and explicitness of their replies, when boiled down into the rhyming form, bringing out new beauties which were not apparent in the original nebulous condition of vagueness in which some of them disclaim opposition to immortality, while their only immortality is that of atoms and force.

While there is something amusing in these responses (which I shall carefully file away for the future), which may furnish matter for surprise and laughter in a more enlightened age, and which may cause the writers, if they live long enough, to realize a feeling of shame for the wilful ignorance or affectation of ignorance displayed, we cannot overlook the very serious fact that the educational leadership of our country is in the hands of men of whom a large proportion are destitute of the very foundation of the sentiment of religion, while another large portion are so utterly regardless of scientific truth as to ignore the best attested facts, which are continually in progress within their reach — a degree of bigotry which is not surpassed in the history of the "Dark Ages." Verily the shadow of those ages rests upon the leading institutions of to-day.

1. Response of PROF. CHARLES A. YOUNG, LL.D., of Princeton College.

I must confess this creed of Immortality
Hath not in the light of science much reality;
But all such questions are beyond our science,
And revelation is our sole reliance.

2. PROF. JAMES D. DANA, LL.D., of Yale College.

Though very much hurried — not to say flurried,
I will venture to say, as my answer to-day,
There is nothing in science to prevent our reliance
On the solemn reality of life's immortality.

3. PROF. ASA GRAY, LL.D., Harvard University.

Were the gospel light out, we should all be in doubt,
For science looks on, astride of the fence,
And never can tell us the whither or whence;
But I shrewdly suspect it is slightly inclined
To harmonize now with the Orthodox mind.

Upon this subject the voice of science
 Has ne'er been ought but stern defiance.
 Mythology and magic belong to "*limbus fatuorum*"
 If fools believe them, we scientists deplore 'em
 But, nevertheless, the immortal can't be lost,
 For every atom has its bright eternal ghost.

8. EDWARD MORSE, Ph. D., of Salem.

That immortality which Science denies
 Cannot be admitted by those who are wise,
 For if we give up and concede Immortality,
 There's nothing to check its wide Universality.
 The toad-stool and thistle, the donkey and bear
 Must live on forever, — the Lord knows where.
 I tell you, dear sir, that Science must wake up
 And grapple these spooks to crush them, and break up
 This world of delusion of Phil. D's and D.D's,
 Who are all in the dark, as dear Huxley agrees,
 Proud Huxley's "The Prince of Agnostics," you see,
 And Huxley and I do sweetly agree.

9. PROF. JOSIAH PARSONS COOKE, LL.D. of Harvard University.

I freely confess that the life of the dead
 Is a mystery alike to the heart and the head
 Of all the mortals that dwell on earth,
 Although revealed since our Saviour's birth,
 And I fully believe in the old-fashioned God,
 Who, walking in Eden, made man of a clod;
 And I fully believe the same Deity still
 Controls all things, here by the fiat of will.

10. EDWARD D. COPE, A.M., Ph.D., author of "Theology of Evolution." Dr. Cope answers in a very voluminous and intricate manner, but the following is the essence of his answer.

Of life eternal little can we know,
 And yet we hope some glimmerings may grow,
 By patient inference as facts appear.
 I hope there's something coming near.
 Science but sees extinction in our death,
 And life the incident of fleeting breath.
 We travel round the ologies to see
 Naught but a grand revolving mystery;
 But then if we have a controlling mind,
 Why should not God have the same kind?
 "Kinetogenesis" was ruled by will,
 The conscious thought goes with it still,
 And as conscious thought erst "ruled the roast,"
 Why may it not become a ghost?
 But as ghosts are like a vapor mixed,
 All speculation is lost betwixt
 The possible this, and the possible that,
 And so philosophy falls flat.

11. SIR JOHN WILLIAM DAWSON, LL.D., F.R.S., Principal of McGill University, Montreal.

We are bound to believe in eternal life,
 'Tis an instinct which in humanity's rife,
 Of savages, some have been found so low,
 As neither a God or a heaven to know;
 If civilized men sink down to their level,
 They are on the highway to the realms of the Devil.

12. J. STERRY HUNT, LL.D., F.R.S.

In a terrible hurry, I cannot say much,
 But Science, I think, opposes all such
 Belief in the future. But God is so great,
 I accept what he gives as my future state.

13. WILLIAM JAMES, M.D., Prof. Philosophy, Harvard University.

I can only say my philosophy floats
 In the German life-boat of Prof. Lotze,
 At one opinion we both arrive,
 That all who ought to will survive.

14. BENJAMIN APTHORP GOULD, LL.D., Astronomer, Cambridge.

My faith is firm, but I have no time
 To explain it all in this tuneful rhyme.
 Science cannot say much, I fear,
 But must admit that God is here,
 And if the priests would let us alone,
 Perhaps a little more might be known.
 Spirit is fact, and this I assume,
 For Matter is nothing but solid Gloom.

15. ALFRED R. WALLACE, the compeer of Darwin.

Spiritual science has told the whole story
 Of the claims of mankind to realms of glory.
 Our facts are abundant, harmonious and true,
 They satisfy me and should satisfy you.
 No baseless hypothesis shapes our knowledge,
 No dogmatic rule derived from a college,
 As we fearless explore the worlds unseen,
 And learn what all their mysteries mean.
 The science we study is truly Divine,
 They only reject it who are mentally blind.

16. THOMAS HILL, D.D., LL.D., Ex-President of Harvard.

As for life after death, a life without breath,
 Though science says no, I don't think it's so,
 For 'tis well understood our God is too good
 To create us and cherish, and then let us perish.

17. Prof. ASAPH HALL, LL.D., of the National Observatory, Washington.

Metaphysics and science are still our reliance,
 Taking them for our guide, we can't quite decide,
 But as we incline, a doctrine we find.

18. Prof. ELLIOTT COUES, M.D., Ph. D., Scientist and Theosophist.

I think that science is bound to answer
 Every question that comes to hand, sir.
 Then why do some scientists fail to acknowledge
 Discoveries made outside of their college?
 There's a reason for all things that come to pass,
 And no man likes to be proved an ass ;
 And hence they refuse to agree with St. Paul,
 The spiritual body is all in all.

19. HERBERT SPENCER, British Philosopher, as reported by
 Rev. M. J. Savage.

'Tis all in a muddle we cannot make out,
 Nor does evolution diminish the doubt ;
 The facts that we get prove very refractory,
 And I cannot find anything quite satisfactory.

20. Prof. Charles S. Pierce, A. M., of Johns Hopkins University,
 (a voluminous reply).

I've looked this question through and through,
 But for future life the prospect's blue.
 Psychic Researchers have gathered up much,
 But it crumbles to dust beneath my touch.
 'Tis nothing but rubbish that Society brings,
 For the ghosts they have found are the stupidest things,
 Poor "starveling" idiots, all of that ilk,
 Who are coming back here to cry over "spilled milk."
 Serenely we smile at "the lamp of Aladdin,"
 And stories of ghosts about this world gadding.
 Yet after all, I don't believe in Spencer,
 In Kant or in Comte, or in any of them, sir ;
 Nor in Christendom's sacred and reverend creed,
 Though weaklings adopt it because they have need ;
 But I believe in this world's events,
 And a life regulated by common sense.

21. DANIEL COIT GILMAN, LL.D., President of Johns Hopkins
 University.

Man hath soul-freedom here on earth,
 And from Almighty God hath birth ;
 Therefore, should stand in faith sublime,
 And fear no science of our time.

22. F. A. P. BARNARD, President of Columbia College, New York.

Your question stands outside of science,
 Of any science that is mine,
 The only doctrine worth reliance,
 Comes from the old Bible — Still Divine.

23. Prof. T. HUXLEY, British Philosopher, etc.

If a soul works with brains, can it work without ?
 Would seem to be a matter somewhat in doubt.
 If you know that it can, pray tell me why ?
 If you know that it can't, you know more than I.
 You may answer such questions if you know how,
 But I'll not wait a moment to hear you now !

The Burning Question in Education.

IF our left hand had been mangled, and continued to be an inflamed, ulcerating mass, though carried in a sling and treated by all the surgeons of repute around us,— never through a long life giving any promise of restoration or even relief,— would not its restoration be the most prominent question in our minds?

Society has a crushed, ulcerous, and painful hand upon which the doctors of the college and church have expended such skill as they have in their occasional perfunctory visits, and the hand grows no better, but rather worse, during the whole existence of the American Republic.

The existence of an increasing mass of crime, pauperism, and insanity is the crushed and diseased hand of civilized society, to which and to its obvious, natural method of healing I have vainly endeavored, in the "New Education," to call the attention of our clergy and our teachers. It is true that three editions of that book have been disposed of to the delight of progressive thinkers, but it has made little impression on those who control public institutions and public opinion. Why is this?

There are sounds in nature too finely delicate to be heard by the average ear, and rays beyond the violet too fine for the average human eye, though visible to those of superior nervous endowments. So in the world of thought there are ethical conceptions too high and pure for the multitude, — conceptions so far away from their habitual life that they cannot appreciate or sympathize with them. Such conceptions constitute the ethical system of education, which is competent to banish crime, and to introduce a higher social condition, as has been amply proved by its imperfect introduction in the Lancaster, Ohio, and other reformatory schools.

Why is not this made the prominent theme in every religious society, as prominent as temperance? True, intemperance supplies us the majority of criminals, but when the criminal is prepared in the hot-bed of alcohol, society transplants him into a richer soil, impregnated with a greater amount of filth than the saloon, and cultivates him into the full-blown, hardened villain, for whom there is nothing but a career of crime, very costly indeed to society.

Why is this insane course pursued? Because society has not the Christianity which it professes, and the pulpit has not learned how to instil the Divine law of love, while the college cares nothing about it.

Society itself is *criminally indifferent*, and barbarously cruel. Its only thought in reference to its debased members is not their lost condition, and how to redeem them, but how to punish them revengefully for their evil deeds, in imitation of the Divine Demon whom orthodox theology recognizes as its model. Until society has enough of benevolence or enough of practical sagacity to get rid of this common impulse of brute life, we shall continue to have an energetic,

skilful, and formidable army of criminals, spread all over the land, levying an immense tax upon respectable citizens, and requiring an increasing army of police to restrain them.

The best discourse that has yet been preached in a Boston pulpit was once delivered in Trinity Church by the assistant minister, Mr. Allen, a few weeks since, which was made the basis of an admirable article on "our prisoners" in the *Banner of Light* of April 2. Mr. Allen treated this subject in the spirit of the "New Education," showing that our penal system, instead of reforming criminals, educates and perfects them in crime, under which system crime is continually and alarmingly increasing, the statistics which he gives being of the same terrible character as those presented in the "New Education," showing that our demoralization is progressing beyond that of any other country. His statistics, which I have not examined in detail, show that there were more than eight times as many prisoners in this country in 1880 as there were in 1850. In Massachusetts, and especially in Boston, the proportion of criminal population was still greater.

England, having adopted a reformatory system, has kept the criminal population in check,—brought it down to one in 18,000, while we have one to every 837, because our prisons are colleges of crime instead of houses of reformation. A criminal population of 5,000 in Massachusetts is kept under this debasing system, excepting about 700 in the reformatory at Concord and the women's prison at Sherburne. Our criminals are held for punishment amid evil influences, and turned out only qualified to prey upon society again, since they have the brand of shame upon them.

The only proper and wholesome view of this subject, the only view compatible with ethical or religious principles, is that our unfortunate criminal brethren need our loving care instead of vindictive hate. They should never be sent to prison for any definite term of confinement, as a punishment, but, like lunatics and pauper patients, should be placed under care and control until they are cured. Every criminal who will not obey the law in freedom should be sent to prison for life, under a kind and humane system, there to earn his own support and in some cases to repay the damage he has done, and in all cases to remain there until he has, beyond all doubt, become so thoroughly reformed that he may be safely entrusted with freedom. To encourage in the work of reformation, he should be from time to time rewarded by enlargement of his privileges and enjoyments, just in proportion as he proves himself worthy; and after enjoying partial freedom for years, with faithful and exemplary deportment, he should be granted full liberty, on the sole condition of reporting himself at certain regular periods, that a supervision may be retained over his conduct, and confinement renewed if ever he should prove unworthy of entire freedom.

This system has been tried with entire success, and travellers speak of seeing prisoners in Ireland half emancipated, working in the fields, whom they should not have distinguished from the common laborers. That courageous philanthropist, the late Burn-

ham Wardwell, adopted a system of moral government in the Virginia penitentiary, under which punishment was almost abolished ; and he was able to send out convicts in the city, under paroles, without any doubt that they would faithfully return. Under a similar system at Lancaster, Ohio, walls and locks were made unnecessary, and the youthful convicts went out freely, when permitted to mingle with the neighboring youth. When their reformation was completed, which did not require over three years, they went forth to lead an honest life ; and subsequent reports showed that they walked in the path of respectability and honor.

The mother's love never abandons the idiot and criminal ; but, alas ! society is neither mother nor father nor brother to its unfortunate members, and hence society suffers, as we ever suffer from violation of the Divine law.

Miscellaneous Intelligence.

BIGOTRY AND LIBERALITY, THEOLOGY AND RELIGION. — Upon these subjects it is customary to find a mingling of contradictions. Leading New England literati, who inherit all the narrowness and self-sufficiency of British conservatism, are frequently impelled to utter expressions which would lead the reader to think them persons of liberal and progressive minds. Such expressions we find in the writings of Dr. Holmes, a thorough medical bigot and sceptic ; R. W. Emerson, who closed his eyes against modern spiritual science, and adored the ignorance of Greece ; Col. Higginson, the most intolerant and scornful opponent of psychic science ; Dr. F. H. Hedge and President Elliot, who represent the status of Harvard College. This was recently brought to mind by seeing the admirable expressions of Dr. Hedge at the 150th anniversary of West Church, Boston, now under the ministry of Rev. C. A. Bartol. For this church Dr. Hedge claims an unsectarian character.

Dr. Hedge says, "Let there be schools of dogmatic theology, as many as you please, but the church should not be a school of dogmatic theology. It should be a school of practical Christianity, inspired, expounded, and enforced by the pulpit. I can conceive of a church which should be so undogmatic, so unpolemic, as to command the respect, engage the interest, and secure the co-operation of all who care less for the prevalence of their speciality than they do for the maintenance of public worship." There is one Boston pulpit at present conducted in this spirit, but it is very feebly sustained. There was another, and it was occupied with brilliant ability, but Boston would not sustain it. It is vacant now. Boston prefers theology to religion, but it is growing slowly, and there are pulpits that are slowly approaching the unsectarian position — very slowly ; while the Rev. Mr. J. Savage displays a refreshing freedom of thought, and has been more successful than any other clergyman in carrying a large congregation with him, a solitary specimen of a successful though unsectarian teacher in Boston.

RELIGIOUS NEWS. — “During the past few months, the Chinese authorities in various parts of the empire have issued proclamations to the people, calling on them to live at peace with Christian missionaries and converts, and explaining that the Christian religion teaches men to do right, and should therefore be respected. These documents have been published in so many parts of China that it is probable that every viceroy in the eighteen provinces has received instructions on the subject, and that there is a concerted movement throughout the empire to bring all classes of the population to a knowledge of the dangers of persecuting missionaries and native Christians, and to remove popular delusions respecting the objects and teachings of Christian missionaries.”

“The Jesuits appear to meet with little toleration anywhere but in Great Britain. The sultan has now issued a decree enacting that henceforth they are not to open any new schools in the Ottoman empire, that they are not to teach except in schools placed under the authority of the Porte, and that all the schools now conducted by them are placed under the supervision of the State, and must be subjected to a rigorous supervision.”

“Divine worship is a somewhat costly affair in Great Britain, says the *World*. The one hour's service in Westminster Abbey on the 21st of June, when the great personages of the realm are to assemble for the purpose of prayer, is to cost the moderate sum of \$100,000. Commoners and ordinary people will not be admitted within the portals of the sacred edifice, yet it is their pockets which will be taxed for the purpose of enabling the princes and lords to pray in due state for the preservation of the Queen.”

“The monument to the memory of Giordano Bruno in Rome, is completed, but permission to erect it has been refused by the Municipal Council of that holy city. This denial is easily explained when it is learned that a majority of the council are clergymen, or under their influence.”

Governor Marmaduke has signed the bill recently passed by the Missouri legislature, making Sunday virtually a Puritanical Sabbath. A powerful protest was presented to the Governor, respectfully requesting him not to sign the obnoxious bill, but it seems he yielded, says the *Jewish Times*, to the wishes of a few fanatics, backed by scheming politicians.

ABOLISHING SLAVERY. — It is pleasant to learn that the movement in favor of abolishing slavery in Brazil is making excellent progress, despite some discouragements. Long ago the Legislature fixed the date by which every slave in the empire must be freed; but the chamber of deputies, acting in opposition to the senate, has lately put a strange interpretation upon certain of the clauses of the most recent law upon the subject, which will have the effect of delaying the latest day of enfranchisement a further 18 months. The Brazilian public has expressed great indignation at this ill-advised action; and, by way of protest, the recent progress of the emperor throughout the province of San Paulo was made the occasion of lib-

erating many slaves at the cost of the local municipalities. When a prominent abolitionist, Senator Bonifacio, of Santos, died, recently, his native town honored his memory by enfranchising the whole of the slaves within its jurisdiction. Herein Santos was but following the example of the provinces of Ceara and the Amazons, in both of which the last slave was freed some years ago. It is, perhaps, wise to add that the slave-owners are being quite fairly treated in the way of compensation. — *St. James Gazette*.

Bokhara the noble, the richest, most enlightened, and most holy of all Mahommedan nations in Central Asia, and beyond it, has just officially declared the complete abolition of slavery. Up to the present this curse had not altogether disappeared, although it was generally assumed that, since Russia secured control over the Ameer's country, it had quite ceased to exist.

Fourteen years ago, M. Eugene Schuyler, the author of "Turkestan," in order to demonstrate to the Russian government that its prestige had not put a stop to the slave trade, as was then alleged, purchased a young boy slave for one hundred roubles, the average price of the human article in Bokhara, and brought him to St. Petersburg. The boy was subsequently apprenticed to a Tartar watchmaker, and later became a convert to the Russian church. According to a letter in the Russian *Official Gazette*, the young Ameer's decree, finally freeing all the bondmen within his dominion, was promulgated Nov. 19, 1886.

OLD FOGY BIOGRAPHY.—It seems that biography as well as history will have to be re-written in the light of modern progress. *Appleton's Cyclopaedia of American Biography* has sent out its first volume, edited by Gen. Wilson and Prof. John Fiske. The sources of this volume do not promise much liberality, and the first volume does not show it. While professing to record the lives of all who are eminent or noteworthy, it fulfils this promise by recording many who are not very eminent or noteworthy; indeed, Mr. Lowell says, by way of commendation, that he has hunted for obscure names and found them. What then is the reason of the omission of the Hon. Cassius M. Clay, our former minister to Russia, one of the most conspicuous figures for many years in American politics and *par excellence*, the lion of the struggle which ended in negro emancipation? His life, recently published is a volume of fascinating and romantic interest. Mr. Clay might treat this omission as the old Roman said of having a statue in the forum—that he would rather men should ask why he had *no* statue there, than to ask why his statue was there. Dr. Joseph Rodes Buchanan is briefly noticed, his name incorrectly spelled, a catalogue of his publications given, and a volume attributed to him which was written by the notorious Dr. John Buchanan of Philadelphia. But nothing is said of the new school of philosophy, or of the new sciences, established by Dr. Buchanan. Evidently this is old fogy biography. The editors have gathered their material with a scoop, unable to distinguish between dirt, pebbles and jewels. Nevertheless they have made a valuable record if not a fair one.

LEGAL RESPONSIBILITY IN SOMNOLENT CONDITIONS.— In the Academy of Medicine at Paris, Dr. Mesnet made a report of his experience in hypnotism, showing that somnambulic or mesmeric subjects were not accountable for their acts in that condition. In this case, the patient, a youth of nineteen years, had been subject to somnambulic attacks in which he acted strangely, and, on one occasion, had openly taken several articles of furniture from a shop, for which he was arrested, when he fell again into somnolence and was sent to the Hotel Dieu. Dr. Mesnet, for an experiment, gazed firmly at him, and got him in magnetic rapport and then ordered him to steal the watch of one of the students the next day. He manifested a great deal of repugnance to this command, but yielded, and the next day came with the student, with whom he talked. After a time he fixed his eyes on the student's watch and appeared mentally agitated, his breathing hurried, and his limbs trembling, his face red in one part and pallid in another. In this condition, he put forth his hand in an indecisive manner, stole the watch, put it in his pantaloons pocket, and ran down the stairs, where he was arrested and wakened up. He indignantly denied the theft, and fell into such agitation it required a number to hold him. He fell again into the hypnotic state from which they could not rouse him then, as it was owing to a mental cause. Dr. M. concluded by showing the importance of this matter being understood by magistrates that they may not punish irresponsible parties.

PASTEUR'S CURE FOR HYDROPHOBIA — I am by no means convinced that M. Pasteur has really discovered a remedy for hydrophobia, says Labouchère in the *London Truth*. The Anti-Vivisection Society has published a tabular statement, which shows that from March, 1885, to the present date, 63 persons who have been treated by his system have died. Against this, I should like to know how many persons really suffering from hydrophobia have been cured by it.

The immense interest of the medical profession and the public in Pasteur's method of inoculation with hydrophobic virus is due mainly to the *Stolid Skepticism* of the medical profession. Other methods of cure have been far more successful, but they have been shamefully neglected, for medical colleges are always indifferent, if not hostile to improvements not originating in their own clique. The cures that have been effected by the use of Scutellaria (Skull-cap), and of Xanthium are far beyond anything achieved by inoculation. I recollect many reports published by farmers, about sixty years ago, of their cures of hydrophobia by skull-cap.

The latest statement concerning Pasteurism is that of Miss Frances Power Cobbe, who writes to the *London Globe*:

“Ramon was not the forty-fifth, but the seventy-sixth patient who had died after receiving the Pasteurian treatment for hydrophobia. Of these seventy-six victims thirty-nine were inoculated in Paris under the first method, seventeen in Russia and twenty in Paris under the second or “intensive” method. For the verification of this

statement I beg to enclose a complete list of all the patients, with dates of death, and authority for each record. Your readers who may be interested in the bursting of this huge medical bubble of Pasteurism will do well to procure the book just published in Paris, "M. Pasteur et la Rage," by M. Zutand, editor of the *Journal de Medecine*. It proves pretty clearly that M. Pasteur does not cure rabies, but gives it by his inoculation in a new and no less deadly form, bearing the ominous title of "Rage de Laboratoire."

LULU HURST. — This wonderful medium who displayed such astonishing muscular powers has changed her name. Mrs. Buchanan psychometrically described and explained her wonderful powers, and predicted that they would soon cease. A Southern newspaper says: "Paul M. Atkinson, of Chattanooga, Tenn., who achieved quite a reputation as manager of Lulu Hurst, the young lady who possessed such marvellous magnetic powers, was married to that lady a few days ago at her home near Cedartown, Ga. Miss Hurst, since her wonderful power deserted her, has been attending school, and graduated in December last. It is reported that the fortune of \$200,000 she amassed while on the stage has been trebled since by lucky investments."

LAND MONOPOLY. — *The Kansas City Times* publishes a list of the leading foreign corporations that own lands in the United States, showing an aggregate of 20,740,000 acres, equal to more than one-half of England. Well, Americans may as well work to support foreign as home idlers; but a generation is nearing the voting age that will object to doing either.

MARRIAGE IN MEXICO. — A newspaper correspondent from California, writes:

"You may not be aware, as I was not till recently, that Juarez, the native-blood President of Mexico acting, I presume, under authority of Congress, decreed that all children born, or that should be born in Mexico, should be legitimate, regardless of all laws of the Church or State. So rigorous, expensive, and despotic had become the control of the clergy that not one in ten of the children of Mexico were born "legitimate," the people did not marry. This stroke of the State at the Church was the "holy terror" that broke its back; but it liberated the people, and settled the differences between the "higher" and lower classes in a manner that has left marriage in Mexico in the hands of the contracting parties where it properly belongs.

THE GRAND SYMPOSIUM. — The wise (?) men express themselves in our symposium upon immortality. Their utter blindness to the grand displays of immortality, which have long challenged attention, and their reference to every obscure and blind path for its search, remind one of Carlyle's expression in reference to Comte. "I found him to be one of those men who go up in a balloon and take a lighted candle to look at the stars." What a deep shadow upon the intellec-

tual landscape of America is seen in this picture of collegiate ignorance in contrast with foreign enlightenment. While the sovereigns of England, France, and Russia have been communing with the higher world, our college presidents have their heads and eyes covered with the cowl of monkish superstition and ignorance.

Surely the search for truth is the most imperative of duties for those who are chosen to lead the rising generation. They who fail in this duty are as guilty as the sentinels who sleep or carouse upon their posts. The eloquent words of Rev. J. K. Applebee are appropriate to such offences: "The man who is not true to the highest thing within him, does a treble wrong. He wrongs himself; he wrongs all whom he might have influenced for good; he wrongs all the willing workers for humanity by heaping on their shoulders extra toils and extra responsibilities." What is the difference between the Barnard, Hill, Gilman, Elliott, Newcomb, Youmans, and their sympathizers to-day, and the old time opponents of Galileo, Columbus, and Harvey. The men who rely upon learning or memory represent the past, while those who rely upon investigation and intuition represent the future. They are ever in conflict, and ever illustrate the truth of Goethe's remark that "Error belongs to the libraries, truth to the human mind."

A NEW MUSSULMAN EMPIRE has been established on the Red Sea, east of the territory occupied by the followers of the Mahdi. Mohammed Abu is the Sultan, and Kassala is his residence. His army has 8000 men.

PSYCHOMETRIC IMPOSTURE.—Those who wish to understand and practice psychometry should avoid being duped by an *ignorant* pretender who professes to *develop* their psychometric faculties — a pretence which is a self-evident imposition.

OUR TOBACCO BILL.—The *American Grocer* estimates the total annual expenditure for tobacco in the United States, at \$256,500,000. The estimates of cost are as follows: Liquor, \$700,000,000; tobacco, \$256,500,000; sugar, \$187,000,000; coffee, tea, and cocoa, \$130,000,000; schools, \$110,000,000.

EXTINCT ANIMALS.—Wonderful bones have been dug up in Spokane County, Washington Territory—nine mammoths, a cave bear, hyenas, extinct birds, and a sea turtle. One of the tusks measured twelve feet nine inches long, and twenty-seven inches round, weighing 295 pounds. Some of the ribs were eight feet long. The molar teeth weighed eighteen pounds each. The pelvic arch was six feet across; a man could walk through it erect. The monster was estimated to be eighteen and one-half feet high, and to weigh twenty tons.

EDUCATION is making great progress in France. The number of colleges and the number of children at school are greatly increased. There are now five and a quarter millions attending primary schools. Politicians claim that whenever the people in a department are well educated they become republicans.

(Continued from page 32.)

Is there anything miraculous or extravagant in believing that this invisible potentiality, which has such magical transforming and developing power, but which has never been known to arise from combinations of matter, has an origin which is, like itself, spiritual? For we can obtain matter from matter, and spirit from spirit, but never obtain spirit or life from dead matter.

The genesis of the human brain is therefore a microcosmic epitome of the macrocosmic evolution, controlled by the "over-soul" — the Divine power, of which we know so little.

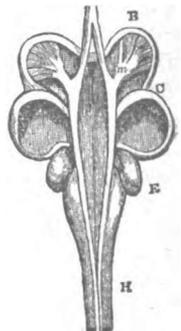
To return to the embryo brain, which gives us visibly the epitome of the evolution of vertebrated animals,— why is it not also an epitome of the entire animal kingdom, from the radiata, articulata, and mollusca to the vertebrata, instead of representing the evolution of vertebrates alone? It may be so. It may be that man and other animals in germination pass through *all* stages, from the lowest to the highest; but the microscope cannot reveal the fact, for the jelly-like or fluid conditions of the nervous system during the first month after conception do not enable us to discover any organization or outline from which anything can be learned. And yet, from certain interesting experiments in sarcognomy which have never been performed except by myself or my pupils, I am disposed to believe that the germinal process of man goes beyond the beginning of the animal kingdom, and that he retains in his constitution spiritual elements which might not improperly be called, not a photograph, but a psychograph of the entire animal kingdom,— yea, of everything that lives, and even of the mineral elements that have no life.

These things are wonderful and grand indeed, but the self-sufficient powers that rule the world of human society have no desire to know them, and hence I have been content to enjoy them alone, or with a few enlightened friends.

It is in the second month of life in the womb that the fish form of brain is distinctly apparent, as shown by Tiedemann. The fish form is that in which we have only a rudiment of the cerebrum, which is so large in man. Behind the little cerebrum, which is smaller than the bulb of the olfactory nerve, we have the middle brain or optic lobes, which give origin to the optic nerves, and behind them the cerebellum.

Let it be understood that the cerebrum is the psychic brain, the cerebellum the physiological brain, and the optic lobes the intermediate or psycho-physiological brain, not sufficient to give the animal its character and propensities, but sufficient to guide it in swimming about.

What the cerebrum is when fully developed in man has already been shown; what it is in the fishy stage of development, when it is the smaller portion of the brain, may be understood by a dissection given in Serres "Anatomie Comparée du Cerveau," representing the brain of the codfish dissected or opened from above. In this figure H is the spinal cord, E the



cerebellum, C the optic lobes divided, and B the cerebrum divided, showing the radiating fibres of the corpus striatum, m, from which the cerebrum begins its development.

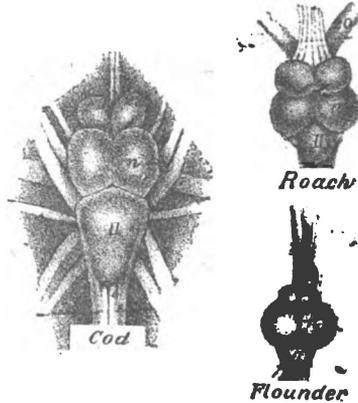
When animal life reaches a high development, the functions which are diffused become concentrated into special organs. Intelligence or psychic life is concentrated in the cerebrum, and entirely removed from the spinal cord. The physiological energy apart from the psychic, is concentrated in the cerebellum, and thus the intermediate psycho-physiological organ, the optic lobes or quadrigemina, being no longer important, dwindles to become the smallest part of the brain.

If the reader will look at the sketch of the brains of the codfish, flounder, and roach, as figured by Spurzheim, he will see in each a very small cerebrum, a larger cerebellum, and still larger middle brain or optic lobes. This is the model on which the human brain is first developed, when in the second month it becomes possible to study it with the microscope. It presents to view in the third month three vesicles of soft neurine, the one which is to form the cerebellum being larger than that which is to become the cerebrum.

These are three brains of different grades, formed alike on the same vesicular plan. The resemblance of the optic lobes to the cerebrum is very striking, and when we open them we see what corresponds to the lateral ventricles of the cerebrum, with a structure at the bottom corresponding in position and character with the inferior ganglion of the cerebrum. The subdivision of function is similar to that of the cerebrum, the anterior portion of these lobes being of an intellectual, perceptive character, and the posterior the seat of the impulses. This has been demonstrated also in the experiments of vivisection, in which the irritation of the posterior part has produced a vocal utterance or bark. Spurzheim gives a view of the brain of the pike with an optic lobe partially opened, to show the ventricle.

The cerebellum or physiological brain is formed on the same general plan, having its energetic or forcible functions in the posterior inferior regions, and its more sensitive functions located anteriorly.

In the embryo of twelve weeks a great advance has taken place; the optic lobes or quadrigemina are still large, but the cerebrum is larger than all the remainder. Still, it has not yet developed what might be called frontal and occipital lobes. The basis of the middle lobe, which is the most physiological portion of the cerebrum, being



EXPLANATION.—In the codfish, roach, and flounder, II is the cerebellum, n the optic lobes, in front of which is the cerebrum, from which the olfactory nerve extends forward. Behind the cerebellum is the superior end of the spinal cord. The letter c is placed on the restiform bodies or posterior part of the medulla oblongata of the cod. The engravings show the upper surfaces of the brains, as we look down upon them.

devoted to the sensibility, appetites, and muscular impulses, is that which first presents itself, being the first outgrowth from the great inferior ganglion or summit of the spinal system. As human brains degenerate to a lower type they approximate this form. The frontal and occipital lobes dwindle and the principal mass remaining is that in the basis of the skull between the ears. We see this form distinctly in congenital idiots. The embryo cerebrum here represented measures but three lines vertically, four lines in length, and five lines in thickness. (The line is the twelfth of an inch.) The nerve membrane of this hollow cerebrum is barely a fourth of a line thick. The cerebellum, formed in the same way by projection from the summit of the spinal cord, making two leaves that come together on the median line, has also a cavity contained between them, and just behind the medulla oblongata, which is finally reduced to the little space called the fourth ventricle, when the cerebellum grows to become a solid body.



12 Weeks

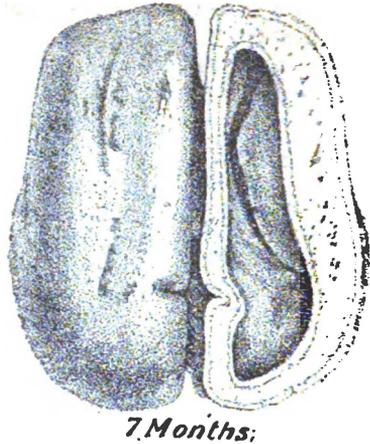
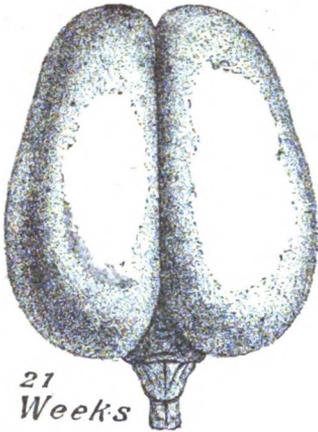
The growth of the cerebrum and cerebellum into solid bodies instead of vesicles is effected by the folding together of the primitive membrane as furrows appear upon its surface, by which it is changed into folds or convolutions, each of which (like the fold of a ruffle) may be cut out from its neighbors and opened from its inner side, like a book. It resembles a book also in the fact that it contains innumerable ideas or psychic elements, and the psychometer might read from each convolution as a book the impressions recorded in it. In its place in the brain it is like a book in a library; and as the book offers on its back a title expressive of its contents, so we label each convolution with its proper title.

In addition to the folding process, a complex growth of fibres uniting in the corpus callosum completes the solidification, but not so thoroughly as to prevent our reopening and spreading out the convolutions by exercising a little dexterity. This was a puzzle to some of the anatomists in the time of Gall, but I have found no difficulty in opening out the convolutions to the extent of five or six inches square. The cerebellum, too, though its ventricle is obliterated, is susceptible also of a manipulation, showing that it has some traces of its original formation.

From the twelve weeks embryo to those of twenty-one weeks and of seven months we trace a progressive development and a commencement of the furrows that form the convolutions.

Thus we perceive in the essential plan of the brain its two organs, cerebrum and cerebellum, are hollow spheres which grow gradually into solid bodies, filling their interior cavities, of which the lateral ventricles in the cerebrum, which have been explained, are the remnants.

The great importance of these anatomical details arises from the fact that they show us the true central region of the brain from which its development must be determined; and although this work, designed for the general reader, cannot say much of the brain, it is necessary to show its true conformation to enable us to estimate the living brain correctly, so as to describe accurately



In the brain of seven months, the right hemisphere is cut open horizontally, showing the ventricles.

living men, study the forms of crania, and derive some profit in ethnological studies from the forms of crania which to the ethnologists of the present time are of very little value or significance, since they neither have nor claim a knowledge of the psychic functions of the brain. I trust, therefore, my readers will not neglect these anatomical memoranda, which they will find very valuable.

I am not aware that any anatomical, physiological, or phrenological writer has given the exposition of the principles of cerebral development which I have been presenting for nearly half a century, although the anatomical facts are patent to all who choose to examine cerebral embryology, and think of what dissection reveals, instead of being thoughtlessly occupied in the mere details of dissection without rising to a comprehension of the Divine plan. Indeed, the phrenological school have positively misconceived and misstated the principles of cerebral development. We can hardly be said to have had any phrenological anatomists since the time of Gall and Spurzheim sufficiently interested in comparative human development to trace its basis in anatomy, for the able work of Solly presented the brain solely as seen by the science of dissection, and not by the science of development and psychic function.

Gall and Spurzheim, understanding cerebral structure themselves, failed to state certain principles which were necessary to guard against misconception; and they did not realize its necessity, because their methods did not include the functions of the base of the brain. Mr. George Combe, who has been the great popular exponent of their system, for which he was well qualified by his clear, philosophic mind, adopted the erroneous idea, in which he has been followed by all subsequent writers on the subject, that the cerebral organs were to be regarded as so many cones, starting from their apex at the medulla oblongata and extending to their base at the surface of the skull. Hence their development was to be estimated by measuring the distance (with a pair of callipers) from the cavity

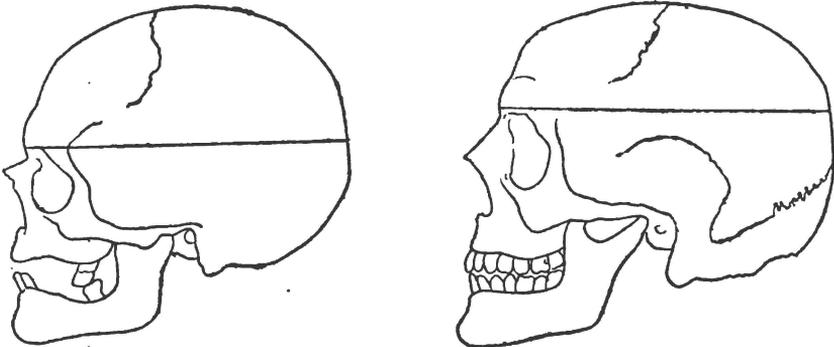
of the ear (which corresponds very nearly to the medulla oblongata) to the locations of the organs on the frontal superior and posterior surfaces of the head.

In my first study of phrenology over fifty years ago, I adopted this method, and diligently measured heads with callipers, relying on the results, until I found them decidedly erroneous. I came upon the astounding fact that the head of a prominent citizen of New Orleans, when measured in this way, indicated by the height of the upper region a character entitling him to rank among the saints, when in fact he was notorious for the unrestrained energy of his violent and vicious propensities. Engaging then in more careful study and dissection of the brain, I found why the rule was so deceptive; as the basilar region is developed below the ventricles, giving depth, while the coronal region developed above gives height, and the measurement from the ear to the top of the head included both depth and height, it might be a very large measurement from animal predominance or basilar depth alone, as it was in the case that first revealed the error of Mr. Combe.

In such cases of animal predominance we find that the moral region does not rise above the forehead, but runs back flat without elevation, while the depth of the ear below the level of the brain and the massiveness of the base of the brain running into a large neck show plainly that the animal organs rule.

In the more noble characters, the rounded elevation of the coronal region, combined with the moderate depth and thickness of the base of the brain, make it easy to see that their vertical measurement is due to height and not to depth. The great error of the phrenological school has been in estimating moral development by the total vertical measurement, and estimating animal development without regard to depth, which is its chief indication.

In a profile view, a line drawn from the middle of the forehead backward, horizontally, is sufficiently near the line of the lateral ventricles to enable us to compare the upward and downward development of the brain. In the two profiles here presented we see



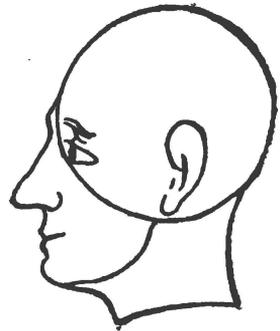
a marked difference of character illustrated by drawing a line back horizontally from the brow. The head in front, which is that of a private citizen of excellent character, named Smith, I obtained in

Florida nearly fifty years ago. At the same time I obtained the other, which is that of a French count who lost his life on the coast of Florida by wreck when engaged in a contraband slave trade with Cuba. In the count we observe much less elevation and much greater depth. He is especially deficient in Benevolence.

In proportion as men or animals rise in the scale of virtue the brain is developed above the level of the face, and in proportion as they incline to gross brutality the development falls behind the face; and there is no exception to this law, either in quadrupeds, birds, or reptiles. Indeed, notwithstanding the smallness of the brains of fishes, their portraits show that this law applies also to them — as if nature had determined to warn mankind of the character of every animal. Alas for the dulness of human observers! Our naturalists and anatomists have said not one word of the most conspicuous fact that may be seen in the general survey of the animal kingdom.*

To return to the theory of cerebral development: The reader will understand by referring to the last chapter that the summit of the spinal system or great inferior ganglion of the brain, bearing the names of optic thalami and corpora striata, is the true beginning of the cerebrum, instead of the medulla oblongata, which *does not* contain the fibres of the cerebral organs. And as this beginning is a little in front of the ear and its first radiating fibres are nearly on the horizontal line just mentioned, it follows that we may locate accordingly a centre from which cerebral development may be estimated; and when we take this true centre we may describe around it a circle, and find that the circle singularly coincides with the outline of the cranium, so that if we add to that circle the outlines of the nose, mouth, and chin, we have sketched a well-developed head of strong character, and ascertained the method of studying the development of the brain, which has so remarkably been overlooked.

No one can begin the study of brain development in men and animals guided by a correct system without being delighted with the uniform accuracy of the science; for even the incomplete and inaccurate science of Gall and Spurzheim, marred in its application by misconceptions of anatomy, has proved sufficiently correct and instructive to maintain its hold upon the minds of all students of nature, by giving them more truth than error, and *sometimes* giving the truth with marvellous accuracy. The errors they did not attempt to investigate. †



*The reader may naturally ask why have I not demonstrated this assertion before the scientific world. The reason is, that dogmatism rules in the sphere of natural science, and no communication would receive fair treatment which contravened the opinions of editors or the mass of prevalent opinion in colleges and scientific societies. It would be peremptorily rejected from our leading scientific magazine, the *Popular Science Monthly*.

† I would merely mention, as a familiar example of such errors, that an enlightened student of phrenology called upon me yesterday, to whom phrenologists had given the character of avaricious selfishness and an incapacity for friendship, which indeed was the correct application of the old system, but was the reverse of his true character. The old system did not explain friendship correctly, and entirely mislocated the organ of avarice by placing it in the temples. The gentlemen had never before received a correct description from phrenologists he had visited.

BUSINESS DEPARTMENT.

The establishment of a new Journal is a hazardous and expensive undertaking. Every reader of this volume receives what has cost more than he pays for it, and in addition receives the product of months of editorial, and many years of scientific labor. May I not therefore ask his aid in relieving me of this burden by increasing the circulation of the Journal among his friends?

The establishment of the Journal was a duty. There was no other way effectively to reach the people with its new sphere of knowledge. Buckle has well said in his "History of Civilization," that "No great political improvement, no great reform, either legislative or executive, has ever been originated in any country by its ruling class. The first suggestors of such steps have invariably been bold and able thinkers, who discern the abuse, denounce it, and point out the remedy."

This is equally true in science, philanthropy, and religion. When the advance of knowledge and enlightenment of conscience render reform or revolution necessary, the ruling powers of college, church, government, capital, and the press, present a solid combined resistance which the teachers of novel truth cannot overcome without an appeal to the people. The grandly revolutionary science of Anthropology, which offers in one department (Psychometry) "the dawn of a new civilization," and in other departments an entire revolution in social, ethical, educational, and medical philosophy, has experienced the same fate as all other great scientific and philanthropic innovations, in being compelled to sustain itself against the mountain mass of established error by the power of truth alone. The investigator whose life is devoted to the evolution of the truth cannot become its propagandist. A whole century would be necessary to the full development of these sciences to which I can give but a portion of one life. Upon those to whom these truths are given, who can intuitively perceive their value, rests the task of sustaining and diffusing the truth.

The circulation of the Journal is necessarily limited to the sphere of liberal minds and advanced thinkers, but among these it has had a more warm and enthusiastic reception than was ever before given to any periodical. There must be in the United States twenty or thirty thousand of the class who would warmly appreciate the Journal, but they are scattered so widely it will be years before half of them can be reached without the active co-operation of my readers, which I most earnestly request.

Prospectuses and specimen numbers will be furnished to those who will use them, and those who have liberal friends not in their own vicinity may confer a favor by sending their names that a prospectus or specimen may be sent them. A liberal commission will be allowed to those who canvass for subscribers.

Enlargement of the Journal.

The requests of readers for the enlargement of the Journal are already coming in. It is a great disappointment to the editor to be compelled each month to exclude so much of interesting matter, important to human welfare, which would be gratifying to its readers. The second volume therefore will be enlarged to 64 pages at \$2 per annum.

"Irene, or the road to Freedom." 612 pages, \$1; published by H. N. Fowler, 1123 Arch street, Philadelphia; called the "Uncle Tom's Cabin of Woman Slavery." Ostensibly a novel, it is a *doctrinaire* book, presenting a series of almost impossible incidents to enable the characters to present their ideas of woman's rights and wrongs and conjugal relations. The full development of the writer's doctrines (who is a woman) is postponed to another volume. The ideas in this would please only the most extreme radicals. The Journal is over-loaded with its special themes, and has not room for discussions of such subjects.

COLLEGE OF THERAPEUTICS.

The eighth session is now in progress with an intelligent class. The ninth session will begin next November. I do not approve of medical legislation, but if it could be considered just to prohibit medical practice without a college education, it would be much more just to prohibit magnetic and electric practice without such practical instruction as is given in the College of Therapeutics and at present nowhere else.

LIGHT ON THE WAY.

GEO. A. FULLER, Editor and Publisher.

MRS. G. DAVENPORT STEVENS, Asst. Editor.

TERMS OF SUBSCRIPTION:

Twelve Numbers, 60 cts. Single Copies, 5 cts.
Remittances should be made by United States Postal Money Order, payable at Boston.

ADVERTISING RATES:—A few unobjectionable advertisements not of a sensational character, will be received.

TERMS:—30 cents per agate line each insertion.

Our columns will ever remain absolutely free from invidious personalities, for we emulate the good in humanity and shall seek to find it in all.

All communications and remittances should be sent to Geo. A. Fuller, Dover, Mass.

THE CREDIT FONCIER OF SINALOA.

PUBLISHED AT HAMMONTON, N. J.

MARIE HOWLAND }
AND } EDITORS.
EDWARD HOWLAND }

F. L. Browne and T. M. Burger, Printers.

This paper is especially devoted to the interests of our colonization enterprise, THE CREDIT FONCIER of Sinaloa, and generally to the practical solution of the problem of Integral Co-operation.

PRICE: \$1.00 a Year; 50 cents for Six Months; 25 cents for Three Months.

Mayo's Vegetable Anæsthetic.

A perfectly safe and pleasant substitute for chloroform, ether, nitrous oxide gas, and all other anæsthetics. Discovered by Dr. U. K. Mayo, April, 1883, and since administered by him and others in over 300,000 cases successfully. The youngest child, the most sensitive lady, and those having heart disease, and lung complaint, inhale this vapor with impunity. It stimulates the circulation of the blood and builds up the tissues. Indorsed by the highest authority in the professions, recommended in midwifery and all cases of nervous prostration. Physicians, surgeons, dentists and private families supplied with this vapor, liquefied, in cylinders of various capacities. It should be administered the same as Nitrous Oxide, but it does not produce headache and nausea as that sometimes does. For further information pamphlets, testimonials, etc., apply to DR. U. K. MAYO, Dentist,
378 Tremont St., Boston, Mass.

hostility of the old medical profession. Then came the nitrous oxide, introduced by Dr. Wells, of Hartford, and promptly discontinued by the enlightened (?) medical profession of Boston, and set aside for the next candidate, ether, discovered in the United States also, but far inferior to the nitrous oxide as a safe and pleasant agent. This was largely superseded by chloroform, discovered much earlier by Liebig and others, but introduced as an anæsthetic in 1847, by Prof. Simpson. This proved to be the most powerful and dangerous of all. Thus the whole policy of the medical profession was to discourage the safe, and encourage the more dangerous agents. The magnetic sleep, the most perfect of all anæsthetic agents, was expelled from the realm of college authority; ether was substituted for nitrous oxide, and chloroform preferred to ether, until frequent deaths gave warning.

Nitrous oxide, much the safest of the three, has not been the favorite, but has held its ground, especially with dentists. But even nitrous oxide is not perfect. It is not equal to the magnetic sleep, when the latter is practicable, but fortunately it is applicable to all. To perfect the nitrous oxide, making it universally safe and pleasant, Dr. U. K. Mayo, of Boston, has combined it with certain harmless vegetable nervines, which appear to control the fatal tendency which belongs to all anæsthetics when carried too far. The success of Dr. Mayo, in perfecting our best anæsthetic, is amply attested by those who have used it. Dr. Thorndike, than whom, Boston had no better surgeon, pronounced it "the safest the world has yet seen." It has been administered to children and to patients in extreme debility. Drs. Frizell and Williams, say they have given it "repeatedly in heart disease, severe lung diseases, Bright's disease, etc., where the patients were so feeble as to require assistance in walking, many of them under medical treatment, and the results have been all that we could ask—no irritation, suffocation, nor depression. We heartily commend it to all as the anæsthetic of the age." Dr. Morrill, of Boston, administered Mayo's anæsthetic to his wife with delightful results when "her lungs were so badly disorganized, that the administration of ether or gas would be entirely unsafe." The reputation of this anæsthetic is now well established; in fact, it is not only safe and harmless, but has great medical virtue for daily use in many diseases, and is coming into use for such purposes. In a paper before the Georgia State Dental Society, Dr. E. Farsons testified strongly to its superiority. "The nitrous oxide, (says Dr. F.) causes the patient when fully under its influence to have very like the appearance of a corpse," but under this new anæsthetic "the patient appears like one in a natural sleep." The language of the press, generally has been highly commendatory, and if Dr. Mayo had occupied so conspicuous a rank as Prof. Simpson, of Edinburgh, his new anæsthetic would have been adopted at once in every college of America and Europe.

Mayo's Vegetable Anæsthetic.

A perfectly safe and pleasant substitute for chloroform, ether, nitrous oxide gas, and all other anæsthetics. Discovered by Dr. U. K. Mayo, April, 1883, and since administered by him and others in over 300,000 cases successfully. The youngest child, the most sensitive lady, and those having heart disease, and lung complaint, inhale this vapor with impunity. It stimulates the circulation of the blood and builds up the tissues. Indorsed by the highest authority in the professions, recommended in midwifery and all cases of nervous prostration. Physicians, surgeons, dentists and private families supplied with this vapor, liquefied, in cylinders of various capacities. It should be administered the same as Nitrous Oxide, but it does not produce headache and nausea as that sometimes does. For further information pamphlets, testimonials, etc., apply to

DR. U. K. MAYO, Dentist,
378 Tremont St., Boston, Mass.

Religio-Philosophical Journal.

ESTABLISHED 1865.

PUBLISHED WEEKLY AT

92 La Salle Street, Chicago,
By JOHN C. BUNDY,

TERMS OF SUBSCRIPTION IN ADVANCE:

One copy, one year \$2.50
Single copies, 5 cents. Specimen copy free.
All letters and communications should be addressed, and all remittances made payable to

JOHN C. BUNDY, Chicago, Ill.

A Paper for all who Sincerely and Intelligently
Seek Truth without regard to Sect or Party.

Press, Pulpit, and People Proclaim its Merits.

Concurrent Commendations from Widely Opposite
Sources.

Is the ablest Spiritualist paper in America. . . .
Mr. Bundy has earned the respect of all lovers of the truth, by his sincerity and courage.—*Boston Evening Transcript.*

I have a most thorough respect for the JOURNAL, and believe its editor and proprietor is disposed to treat the whole subject of spiritualism fairly.—*Rev. M. J. Savage (Unitarian) Boston.*

I wish you the fullest success in your courageous course.—*R. Heber Newton, D. D.*

Your course has made spiritualism respected by the secular press as it never has been before, and compelled an honorable recognition.—*Hudson Tuttle, Author and Lecturer.*

I read your paper every week with great interest.—*H. W. Thomas, D. D., Chicago.*

I congratulate you on the management of the paper. . . . I indorse your position as to the investigation of the phenomena.—*Samuel Watson, D. D., Memphis, Tenn.*

FACTS,

A MONTHLY MAGAZINE,

DEVOTED TO

Mental and Spiritual Phenomena,

INCLUDING

Dreams, Mesmerism, Psychometry, Clairvoyance, Clairaudience, Inspiration, Trance, and Physical Mediumship; Prayer, Mind, and Magnetic Healing; and all classes of Psychical Effects.

Single Copies, 10 Cents; \$1.00 per year.

PUBLISHED BY

Facts Publishing Company,

(Drawer 5323), BOSTON, MASS.

L. L. WHITLOCK, Editor.

For Sale by COLBY & RICH, 9 Bowditch Street.

B. O. & G. C. WILSON,

WHOLESALE

BOTANIC DRUGGISTS,

28 MERCHANTS ROW, BOSTON,

DEALERS IN

Medicinal Roots, Herbs, Barks, Seeds, Flowers, Leaves, Chemicals, Essential Oils, Resinoids, Sugar and Gelatine coated Pills, Solid and Fluid Extracts, Tinctures, Elixirs, Spices,

Choice Foreign and Domestic Wines and Liquors for Medicinal Purposes, SYRINGES OF ALL KINDS, GLASSWARE, DRUGGISTS' SUNDRIES, etc., etc.

Including everything required by the Physician in his practice.

For forty years we have devoted ourselves to the selection and preparation of a superior class of Botanic Medicines, and we enjoy the satisfaction of having secured the confidence of all dealers and physicians who require articles of the best quality.

Our stock comprises the largest variety to be found in the country; and, with improved steam presses and drug mills, we are able to fill the largest orders with promptness.

We are New England Agents for the celebrated preparations of the Wm. S. Merrell Chemical Co. of Cincinnati, Ohio.

BANNER OF LIGHT,

THE OLDEST JOURNAL IN THE WORLD DEVOTED TO THE

SPIRITUAL PHILOSOPHY.

ISSUED WEEKLY

At 9 Bosworth Street (formerly Montgomery Place), corner Province Street, Boston, Mass.

COLBY & RICH,

Publishers and Proprietors

ISAAC B. RICH . . . BUSINESS MANAGER. LUTHER COLBY . . . EDITOR. JOHN W. DAY . . . ASSISTANT EDITOR.

Aided by a large corps of able writers.

THE BANNER is a first-class Family Newspaper of EIGHT PAGES—containing FORTY COLUMNS OF INTERESTING AND INSTRUCTIVE READING—embracing

A LITERARY DEPARTMENT. REPORTS OF SPIRITUAL LECTURES. ORIGINAL ESSAYS—Upon Spiritual, Philosophical and Scientific Subjects. EDITORIAL DEPARTMENT. SPIRIT-MESSAGE DEPARTMENT and CONTRIBUTIONS by the most talented writers in the world, etc., etc.

TERMS OF SUBSCRIPTION, IN ADVANCE:

Per Year \$3.00 Six Months 1.50 Three Months75 Postage Free.

In remitting by mail, a post-office money order on Boston, or a draft on a bank or banking house in Boston or New York City, payable to the order of

COLBY & RICH, is preferable to bank notes. Our patrons can remit us the fractional part of a dollar in postage stamps—ones and twos preferred.

ADVERTISEMENTS published at twenty cents per line for the first, and fifteen cents per line for each subsequent insertion.

Subscriptions discontinued at the expiration of the time paid for.

Specimen copies sent free.

CREDIT FONCIER OF SINALOA.

PUBLISHED AT HAMMONTON, N. J.

MARIE HOWLAND } EDITORS. AND EDWARD HOWLAND, }

F. L. Browne and T. M. Burger, Printers.

This paper is especially devoted to the interests of our colonization enterprise, THE CREDIT FONCIER of Sinaloa, and generally to the practical solution of the problem of Integral Co-operation.

PRICE: \$1.00 a Year; 50 cents for Six Months; 25 cents for Three Months.

OPIUM and MORPHINE HABITS EASILY CURED BY A NEW METHOD.

DR. J. C. HOFFMAN, JEFFERSON . . WISCONSIN.

DR. R. C. FLOWER'S

MAGNETIC

PLASTER

FOR LIVER, STOMACH, LUNG AND KIDNEY DIFFICULTIES THIS PLASTER HAS NO EQUAL.

It removes most speedily ulcers and tumors from the liver and other internal organs, all impurities and inflammation from the kidneys, all bile and ulcerous matter from the stomach, tuberculous and scrofulous matter from the bronchials and lungs.

For a weak back, this plaster is a speedy, effective, and permanent cure.

The beneficial effect of this plaster is so apparent that it has only to be tried to be appreciated. Thousands who have used it testify to its wonderful remedial power. There has never been a plaster that for positive virtue can be compared with this, either for the immediate relief it affords or the curative effects that follow its use.

Sent by mail, postpaid, on receipt of price, —

FIFTY CENTS.

Remittances can be made by postal-note or two-cent stamps.

THE

R. C. FLOWER MEDICAL CO.,

1762 Washington St., BOSTON, MASS.

A VALUABLE BOOK.

Below we give a partial table of contents of the fourth edition of the Flower Family Formula Book: —

- | | |
|-----------------------------------|--|
| I. Formulas for the Toilet. | IX. Miscellaneous Receipts. |
| II. The Care of the Hair. | X. A Word to the Women. |
| III. The Care of the Teeth. | XI. Contagious Diseases. |
| IV. The Treatment of Consumption. | XII. Diarrhœa, Cholera Morbus, Bilious Colic. |
| V. Sore Throat. | XIII. Burns. |
| VI. Croup. | XIV. Pneumonia. |
| VII. Headache. | XV. Erysipelas. |
| VIII. Hints and Helps. | |

This little encyclopædia of useful household information, with its great number of most valuable formulas, will be sent free, post-paid, to every reader of this paper who forwards his or her name and address to the

R. C. FLOWER MEDICAL CO., BOSTON, MASS.