

ETHEROLOGY, AND THE PHRENO-PHILOSOPHY

OF
MESMERISM AND MAGIC ELOQUENCE:

INCLUDING A NEW
PHILOSOPHY OF SLEEP AND OF CONSCIOUSNESS,
WITH A REVIEW OF
THE PRETENSIONS OF PHRENO-MAGNETISM,
ELECTRO-BIOLOGY, &c.

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PHRENOLOGY."

All the known phenomena of the universe may be referred to three general
principles, viz., *Matter, Motion, and Consciousness.*

REVISED AND EDITED

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LOAN STACK

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P R E F A C E .

WHILE hundreds, and perhaps thousands, are engaged in repeating old experiments, and trying new ones in Mesmerism and Clairvoyance, no successful attempt has hitherto been made to explain the phenomena upon scientific principles, and to show their consistency with previously known truth.

In philosophy, *facts* are useful only as far as they lead to a true *theory*; and a *theory* is only a method of showing the true *relation* which exists among the facts.

When a theory is, or seems to be, well established, any fact which appears to militate against it is apt to be disputed, or received with caution and incredulity. For this reason, mankind have been disposed to oppose new discoveries and innovations, which render a change necessary in their theories, creeds, opinions, or habits. It is not because they are unfriendly to improvement, but because they doubt the reality of the discovery, or the real practical importance and utility of the proposed change. It rather demonstrates their love of truth, for they, like St. Paul, verily believe that they are doing their duty by resisting the introduction of error. But if the new truth can be made to harmonize with the old opinions, it is then cordially received into the family of

admitted facts, which go to constitute our favorite theories. The facts of a science may be compared to the scattered and broken bones of a skeleton, while a theory is the method by which they can be put together, and proved to belong all of them to one animal.

The facts in Mesmerism call to mind a collection of strange bones once found in England, which apparently belonged to animals of a different kind from any that had ever been known to exist on earth. Some very learned and sagacious men at first denied the existence of the bones; but when they were dragged to light, and protruded before them, so that they could no longer avoid acknowledging their existence, they declared that such enormous limbs must have a supernatural origin, and that they were undoubtedly the bones of fallen angels! Upon further examination by scientific men, it was found that they were bones of whales and other marine animals, that had been ages ago "in the deep bosom of the ocean buried," and that the place had been afterwards raised to eminence, like classic Delos, upon the shoulders of an ambitious and aspiring volcano.

The facts in Mesmerism are exceedingly numerous, and some of them of a most wonderful and monstrous character. They have been denied again and again, even by those who have witnessed them; and when admitted to be true, they have also been accounted for by referring them to a supernatural origin; but the time has come when these facts should, like the facts in Geology, Chemistry, and Astronomy, be

wrested from the hands of superstition, mystery, and quackery, and moulded into symmetrical forms of scientific beauty. This is a most difficult and laborious task, and any one who undertakes it may fairly claim some indulgence for the imperfections of his performance. I am desirous to do for Mesmerism what my friends claim that I have done for Phrenology — to reduce it to a scientific system.

When the doctrines of Phreno-Magnetism and Neurology were announced, and were making converts by thousands, and multitudes of new organs were daily discovered by these means, so that my favorite science was threatened with an overwhelming inundation, I was forced to take up this subject in earnest. Almost every friend I met asked my opinion of the new doctrines and new organs, and seemed surprised at my scepticism. This has led me to the determination of publishing this volume, that I may thus at once justify myself, and vindicate what seem to me the true principles of Phrenology. If I am mistaken in any of the positions which I have assumed, there will doubtless be enough to correct me, and I shall acknowledge the correction with gratitude. I have several times given the substance of this work in public lectures, and the approbation with which it has been received, especially at West Point and at Union College,* far surpassed my most sanguine hopes.

The plan which I have adopted for this work is, to present first a brief outline or summary of the whole,

* See Appendix to Phreno-Philosophy.

comprised in a few pages, and then to take up each important topic, and treat it separately. It appears to me that this method will assist both the understanding and the memory of the reader.

In regard to other authors, I have made use of their language wherever I adopted their ideas, provided I found them suitably expressed ; and in such cases I have given all due credit. Wherever I differ from others, I have quoted their expressions sufficiently to do justice to their real meaning, and then freely and frankly given my own opinion, and exposed what appeared to me to be their errors. There have been so many new doctrines advanced within a short time, both on the subject of Phrenology and Mesmerism, that I must necessarily assume the office of a critic in speaking of the performances of others. I am aware that I shall be liable to the charge of arrogance ; but at the present time, scarcely two Phrenologists, or Mesmerologists, can be found who agree ; any one, therefore, who treats upon both these subjects at once, with the design of producing an harmonious system, must seem to assume that he is wiser than all others, and capable of filling the chair of grand master of the fraternity. No modesty of expression, nor respectfulness of style, can shield him from this imputation. Under these circumstances, I have deemed it best to "speak right straight on," regardless of the apparent egotism, and to "utter my thoughts" with entire independence of every thing but truth and justice.

J. STANLEY GRIMES.

INTRODUCTION

TO THE SECOND EDITION.

THE lively excitement awakened in all the principal cities of the United States, during the past winter, by lectures upon Mesmerism, and its offshoots, Pathetism and Electro-Biology, renders necessary the republication of a book the very existence of which is unknown to most persons; and yet it seems to be the only philosophic explanation of that series of wonderful facts which have been accumulating in the world's history, since the Pythian priestess raved upon her tripod. Physical and mental phenomena have been presented, which have astonished thousands of intelligent witnesses, and even staggered their confidence in the evidence of their own senses. These phenomena are so out of the course of our ordinary experiences, that scepticism is not only to be expected, but is allowable; especially when we know that the deceptive jugglery practised by many public lecturers, who are more desirous to amuse an audience than to establish the truth, has led the public to regard with suspicion and contempt both the science and its advocates. But, apart from Mesmerism in its different phases, we have a record of facts, observed by physicians and recorded by historians, which come fairly under the title of Etheropathic

phenomena. Salem witchcraft can scarcely be mentioned without a pitying smile at what we think the absurd folly of our ancestors; and yet there was a truth in Salem witchcraft, and of fearful import to the pious and devil-hating Puritans. But with a susceptible subject, every wonder of Salem witchcraft can be actually reproduced; and what is better, understood by any one who admits Professor Grimes's system of the Phreno organs. Phrenologists familiar with the facts of Mesmerism will be likely to have their faith in the old Phreno systems weakened when they find that their phenomena can be explained by his system, and by no other. I think that every attentive reader must rise from the perusal of this book feeling, that, even if Professor Grimes has not explored *all* the minutiae of his subject, he has at least done for the Philosophy of Mesmerism what Columbus did for America; he has shown where the land lies.

Critics may be disposed to object to the nomenclature introduced by the author. His object was to obtain the most comprehensive term possible. Mesmerism is, by far, the most generally used and understood, but is objected to, by nearly every writer on the subject, as insignificant and inappropriate. Every word in the Greek lexicon that could be dragged into service, has been altered, amended, and compounded, but without as yet arriving at any all-embracing term. Every experimenter who deviates somewhat from the common method, or observes some new results, forthwith invents a new name for what is in reality to be attributed to the same general influence. Hence we have the Neurology of Buchanan, the Pathetism of Sunderland, the Electro-

Biology and Electro-Psychology of Dodd and Fiske. *Mental Influence*, if it could be condensed into a single euphonious word, would seem to be a more appropriate and genuine term than any yet suggested ; but the author, in consideration of the universality of the Etherium by which he explains these phenomena, includes all classes of these effects under the general term Etherology ; though he is by no means tenacious of names — new names do not constitute new things. Claims to new discoveries have been preferred by those who have only relabelled old experiments. All that is now claimed under the name of Electro-Biology was practised years ago, and its principles explained in this very book. Coins and other substances were placed in the hands of subjects, but it was found that the very same effects could be produced without as with them, and they were abandoned as useless. It is evident to any one at all acquainted with electricity, that the zinc and copper coins now used cannot have the least appreciable effect, except as they may serve to delude the ignorant, by throwing an air of mystery around the process.

The object of the author in writing this book was primarily to defend the peculiar system of Phrenology which he had discovered, from the implied attacks of Neurology and Phreno-Magnetism, as practised by Buchanan, Fowler, and others. For if the new organs which they claimed to have discovered with such ease and certainty had real existence, the system of Phrenology, which, in opposition to others, he maintained to be the true one, was unfounded. An examination of Neurology and Phreno-Magnetism not only showed

him the errors into which their supporters had fallen, but afforded strong evidence of the truth of his own system. Hence the book was in many respects of a controversial character. The publishers of the first edition had issued only 1,500 copies, when they failed, and the work, which was not stereotyped, was abandoned. During the past winter, the book has been industriously sought after with but little success. Copies are so rarely to be met with, that one in this city was sold for \$5.00, and one in Philadelphia for \$10.00.

These considerations have induced the author to issue another edition; but having his time wholly occupied in delivering an extended course of lectures in this city, he has been obliged to intrust the necessary revisions and corrections to another, which, without doubt, would have been much better performed by himself. I have accepted this task, with permission to alter and amend as I might think proper, and the request to omit all controversial matter not necessary to a full understanding of the subject.

The alterations made are mostly verbal corrections, and, in some few cases, changes in the structure of sentences. The omissions have been numerous, and have abridged the original volume more than 150 pages. The absence of this controversial matter, which had an interest when first published that does not attach to it now, is more than compensated, by binding up with the *Philosophy of Mesmerism* the author's recent work entitled the *Compend of Phreno-Philosophy*.

The reader will perceive, as he progresses through the work, that Professor Grimes has introduced several important and original views, by means of which he is able to explain

some phenomena which had hitherto been considered utterly inexplicable. The idea that Mesmeric phenomena depended upon the presence of a universal Etherium was advanced by Mesmer himself, and adopted by all his followers. This is, in fact, a favorite notion with most philosophers at the present day. Our author has made free use of it in explaining mental and physiological phenomena. I cannot but think, however, that, in many instances, effects, which he considers as referable to the motions of Etherium, would be more philosophically explained by attributing them to the disturbance of the molecular forces of the nerve itself. In the same manner, Electricity passes along a wire, not by the motion of Etherium in the wire, but by the disturbance of the polar forces which Faraday has proved to exist in the molecules of matter which compose the wire.*

The insulation of the nerves is an idea obscurely suggested by Cuvier in his lecture on Physiology; but no use was made of it, until the author, in his investigations, found that it afforded means of explaining the fact that some persons were very susceptible, while others were wholly unaffected. He shows that this difference may be accounted for by the perfection or imperfection of the nervous insulation. By the introduction of this new principle, the reader will observe that he is enabled to explain Salem witchcraft, clairvoyance, and trance with great plausibility. Next, he introduces a

* In justice to the learned Professor of Chemistry of Kenyon College, Dr. Thrall, I will take the liberty to state, that the theory of molecular forces, as now generally understood, was advanced and taught by him some time previous to the publications of Faraday and others upon this subject.

new philosophy of sleep, attributing it to the overpowering influence of the ganglionic system inducting the brain. But there is no part of this work which will be read with more interest than his explanation of Credencive Induction and Magic Eloquence, in which he shows the necessity of a correct philosophy of mind and an understanding of the structure of the brain — its converging fibres and conscious centre — and the stimuli by which one organ is enabled to overmaster all others.

That this volume may be the means of solving the doubts of some and awakening the attention of others to this important subject, is the earnest expectation of the editor.

W. G. LE DUC.

Boston, February 25, 1859.

ETHEROLOGY;

OR

THE PHILOSOPHY OF MESMERISM.

SECTION I.

SYNOPSIS OF ETHEROLOGY.

1. ALL the known phenomena of the universe may be referred to three general principles, viz. : *matter*, *motion*, and *consciousness*. Every thing that we know is a modification of one or all of these three.

2. One portion of matter cannot influence another, nor can one mind influence another, but through the instrumentality of motion.

3. One thing cannot influence another with which it is not in contact, unless there is some material substance existing or passing between every portion of the space which separates them;—that is, no motion can be communicated from one body, nor from one mind to another, unless there is a material connection;—therefore, when one *does* influence another, there is necessarily a material connection, through the medium of which motion is communicated.

4. *Fact.* The planets influence each other and the earth.

2*

Fact. Philosophers agree that the (so called) *ponderable* matter of the atmosphere does not extend more than eighty miles above the earth's surface.

Fact. Heat, light, electricity, magnetism, and gravitation, operate in an exhausted receiver, as well as elsewhere.

Fact. One mind sometimes influences another independently of ordinary sensation or muscular motion, without contact or perceptible connection.

Inference. There is a material substance occupying space, which connects the planets and the earth, and which communicates light, heat, electricity, gravitation, and mental emotion, from one body to another, and from one mind to another.

Name. I shall denominate this substance *Etherium*.

5. MOTION has but two attributes, viz: *quantity* and *direction*. The origin of motion, like the origin of matter, is beyond the sphere of human knowledge. We see motion communicated from one thing to another, but we know not "whence it cometh nor whither it goeth;" and we can never know, unless we can "by searching find out God." We can only know motion by its effects upon matter; and, from observing these effects, philosophers have discovered certain general rules which they denominate the *laws of motion*.

6. There are two equal and antagonistic forces in nature, the origin of both of which is unknown. They are sometimes denominated centripetal and centrifugal forces, sometimes attraction and repulsion,

and sometimes positive and negative forces. These two forces being equal, balance each other continually, except when other forces interfere to destroy the balance ; — then both these forces move, though in opposite directions, until both are again antagonized and balanced.

These two forces are communicated by means of etherium, and all the positive and negative phenomena are produced by the disturbance of the balance of antagonistic forces. There are many reasons for concluding that even muscular motion and sensation are referable to this cause.

7. The phenomena of sensation and muscular motion, both voluntary and involuntary, are produced by the motions of etherium, communicated from certain external objects to certain internal organs or points in the nervous system, and from these points back again to the external objects.

8. There are two distinct classes of functions in man and all other animals, viz. : Voluntary and Involuntary. The involuntary are produced by motions of etherium communicated from the surfaces of the heart, stomach, and other involuntary muscular organs, to certain different points in the nervous system, denominated *ganglions*, and from these ganglionic points back again to the heart, stomach, etc. ; thus completing a circuit which exactly resembles that of a galvanic apparatus.

9. The voluntary motions are produced by motions of etherium communicated from different exter-

nal objects to *one* point in the medulla oblongata, which point may be denominated *the organ of Consciousness*; and, from that conscious point, back again, through the nerves, to external objects, completing another circuit, which, in every essential, is precisely like those of the involuntary system, with this exception, that the central point of the voluntary system is endowed with consciousness, but the central points of the involuntary system are not so endowed.

10. The external senses are avenues through which motions of etherium are permitted,* constitutional-ly, to pass to the phreno-organs of the brain; and the phreno-organs are avenues through which the motions of the etherium from the senses and from the blood are modified and transmitted to the organ of consciousness, and from thence through the motor nerves to the muscles.

* In the first edition of this work there was some ambiguity in the use of the terms "etherium" and "currents of etherium," which may have led to a misunderstanding of the author's ideas. I have endeavored to render his meaning more accurately in many places, by the substitution of *motions of etherium* for *etherium*, and the word *force* when he refers to the influence which is communicated by means of etherium. Lest I should have overlooked some expressions which may not be understood by the unscientific reader, I will say that the author holds (in common with philosophers generally) that there is a universal etherium, or elastic fluid, pervading all space and permeating all things; by means of which *motion is communicated*. Not that the etherium is itself active, flowing in currents, but that currents, or, more properly, lines, of force are transmitted by means of this fluid. — *Ed.*

11. The organ of consciousness is thus the central head-quarters, where all external impressions terminate, and whence all voluntary movements emanate. It is the starting point and termination of the circuit.

12. In performing this circuit, the motions of the etherium are peculiarly modified in each successive avenue or stage through which they are obliged to pass, and this modification is undoubtedly regulated by the laws of motion already mentioned.

First. Ethereal force is modified by each external object from which it emanates.

Second. Ethereal force is modified again by the intervening medium through which it passes from external objects to the external organs of sense; thus, *light* is refracted and otherwise modified, in passing through air, vapor, water, glass, &c.; so also is *sound* modified by the varying density, rarity, or elasticity of the medium through which it is propagated; and the same is true of odors and savors.

Third. It is modified also by the structure and condition of the external organs of the senses through which it enters, — as the external eye, ear, and nose.

Fourth. It is modified by the structure, size, and condition of the *nerves* through which it passes from the external organs of sense to the phreno-organs, — as the optic, the auditory, the gustatory, etc.

Fifth. It is modified by the phreno-organs;

Sixth. By the organ of consciousness;

Seventh. By the nerves of motion through which it passes from consciousness to the muscles;

Eighth. By the muscles ;

Ninth. By the surrounding objects to which it passes after it has been expended upon the muscles. All these different and successive avenues constitute the circuit.

13. The modification of motion, which each phreno-organ produces, is peculiar to itself, and different, in each one from that of every other. This is proved by the fact that the consciousness produced by each organ is peculiar to itself, so that we can distinguish between the consciousness produced by any one organ, and that produced by any other. Thus, Destructiveness and Cautiousness, and Kindness and Color, produce greatly different states of consciousness, and such as are easily distinguished from each other.

14. Consciousness is produced in the same manner, in all other animals, as in man. All animals have a central organ of consciousness, but some classes of animals have a greater number of modifying avenues ; that is, they have a greater number of senses and phreno-organs, through which consciousness is affected. Some classes of animals, also, have a greater number of avenues, (nerves of motion,) through which ethereal motion passes from the central organ of consciousness. It is this difference, in the number and kind of avenues to and from consciousness, which is at the foundation of the difference between men and other animals.

15. In animals of the same class,—in man, for

instance,—the number and kind of avenues to and from consciousness are the same in every individual, except in cases of deformity. But even in the same class, whether we compare different men, or different avenues in the same man, there is an essential difference in the size, the capacity, the calibre, the condition, the strength, and perfection, of the avenues to and from consciousness. It is the difference in these respects, which is the basis of Practical Phrenology, as applied to mankind.

17. There is a class of organs or fibres, which may be denominated *inter-phreno senses*; the office of which is to convey motions of etherium from the organ of consciousness to the several phreno-organs; so that each phreno-organ may act or not, in any given case, according to the condition of consciousness.

When any phreno-organ acts, it necessarily produces consciousness, before it produces muscular motion; and, as every phreno-organ is in communication with consciousness, by means of the inter-phreno senses, each organ will, of course, be excited according to the impression it receives from consciousness. The idea may be expressed thus: Whenever consciousness is impressed by one phreno-organ, it radiates the impression to all the other phreno-organs.

18. The quantity of force evolved from the blood to carry on the operations of the constitution, is in proportion to the quantity of oxygen which combines in the lungs with the food from the stomach. The

quantity of the action of any animal is in proportion to the amount of oxygen consumed.

19. As a general proposition, the larger the lungs, compared with the stomach, in man, or any animal, *cæteris paribus*, the more concentrated is the food chosen, and the more rapid is the digestion and secretion. On the contrary, the smaller the lungs, compared with the stomach, the coarser and less concentrated is the food, and the slower it is digested. The reason is this: the oxygen unites with the food in definite proportions, so that when the lungs are small and the stomach large, the lungs must work rapidly to supply oxygen to the food, or else the digestion will be slow. When the lungs are large and the stomach small, the stomach must work rapidly to supply food to the oxygen.

20. If an ordinary sized stomach and lungs be supplied with a moderate quantity of rather coarse and unconcentrated food, the ethereal force* will be generated slowly, and the operations of mind and body will be moderate. But if, with the same lungs and stomach, a concentrated and stimulating kind of food be used which saturates all the oxygen which the lungs can supply, the quantity of ethereal force† generated in a given time will be much greater, and

* I do not understand the author to mean properly an ethereal force, viz., a force *residing in the ætherium*, but a force *transmitted through the ætherium*.

† A force by which all the functions of our bodies are performed. — *Ed.*

the operations of body and mind will be proportionably vigorous and energetic.

21. The blood goes from the lungs to the heart charged with oxygen, and from the heart to the innumerable arterial extremities or capillaries ; and it is in passing through these minute capillary tubes that the chemical process takes place, which produces the motions on which life and thought depend.

22. The perfection and energy with which ethereal force is evolved from the blood in the capillaries, and imparted to the nerves, depend upon the health and condition of the minute structure of the capillaries in which the operation is performed. This again depends upon the climate, habits, food, health, and appetite of the individual. These are circumstances difficult to define, and still more difficult to estimate.

23. All the ethereal force evolved by the blood is divided between the voluntary and involuntary organs ; or, in other words, it is divided between the brain and its dependencies, and the ganglions and their dependencies. The share allotted to each is in proportion to their relative quantities of muscular motion and functional action.

24. The involuntary motions are continued without interruption from the commencement of life until its termination ; in fact, they constitute life. But the voluntary motions are suspended in man about one third of the time ; in some classes of animals more, in others less. During this regular suspension of voluntary motion, we are said to *sleep*.

25. The reason of this suspension, or sleep, is founded upon economy. It is not necessary for us to keep awake twenty-four hours, for we can perform all our duties in less time; accordingly, there is not sufficient force evolved during twenty-four hours to supply both the voluntary and involuntary systems during the whole of that time.

26. If the involuntary motions are suspended, we die; if the voluntary, we sleep. If both continue till the ethereal force is exhausted, we die; as there is not sufficient generated to supply both systems continually.

27. The material (carbon and hydrogen) which combines with oxygen to produce motions, is all generated and secreted by the involuntary organs, and as much is used by them as they need; the surplus is expended through the voluntary organs, the intercommunication which exists between the voluntary and involuntary systems allowing of this arrangement.

28. The predominant influence of the involuntary system, which enables it thus to monopolize all the ethereal force during sleep, doubtless depends upon the superior energy of the *impressions* upon the involuntary senses, compared with those of the voluntary senses; or, in other words, upon the superior force which the involuntary senses send to the *ganglions*, to excite them to send motions in return. For if the voluntary senses are impressed in an extraordinary manner, sleep is delayed and the voluntary system gains a temporary triumph.

29. There is an accumulation of nutritious substance in certain reservoirs during sleep, which is ready to combine with oxygen, and evolve force when we wake. This surplus, accumulated during sleep, is generally equal to the deficit produced while awake.

30. The knowledge of etherium, in all its manifestations, I shall venture to denominate *Etherology*. The doctrines concerning the *agency* of etherium in transmitting the motions of body and mind, in the healthful and normal state, I shall denominate *Ethero-physiology*. ETHEROPATHY is a term which I shall use to include all the phenomena which are known to the public under the various names of Mesmerism, Animal Magnetism, Neurology, Pathetism, Hypnotism, Catalepsy, Somnambulism,* Clairvoyance.

31. The organs of man may be in a normal or in an abnormal condition. When their operations are healthful and regular, they are said to be *normal*; when deranged or irregular, they are said to be *abnormal*. This is more precise and correct than to use the words *natural* and *unnatural*, or healthful and diseased, to express the same ideas.

32. Etheropathy is the result of an abnormal condition of the constitution, a degenerated or morbid state which is inconsistent with a constitution sound

* And in the same category may be included Electro-Biology and Electro-Psychology, which are but new modes of manifesting the same influence, all of which were explained by the author, years ago, under the name of Etheropathy.

and perfect in all its parts. Any rational explanation of Etheropathy or Mesmerism must be based upon this principle, that it is in every case a departure from, and violation of, the ordinary laws of man and the designs of the Creator. In this explanation, the distinction between the normal and abnormal conditions must be borne in mind continually; the two states must not be confounded; for to explain any extraordinary pathological phenomena, we must first know what is the normal or physiological operation, the derangement of which constitutes the abnormal operation.

33. The diversion of ethereal force from its normal and constitutional avenues, is the cause of all the phenomena of Etheropathy, or Mesmerism; in explaining each case, therefore, we may consider, —

First. From what point is this force normally evolved?

Second. Through what avenues does it normally pass, and what is the state of their insulation?

Third. To what point does it normally tend?

Fourth. With what force is it normally evolved?

Fifth. With what counter force does it normally contend?

Sixth. When diverted from its legitimate avenues by abnormal forces, what other avenues does it find?

Seventh. What extraordinary effects are produced by the derangement?

34. Etheropathy may be divided into Spontaneous and Artificial.

SPONTANEOUS ETHEROPATHY is of frequent occurrence in medical practice, and many interesting cases of this kind are recorded in medical books, in which somnambulism, trance, clairvoyance, and, in short, all the mesmeric phenomena, have been produced by disease, and without the design of any human operator.

The case of Jane C. Rider, of Springfield, in Massachusetts, occurred while I was a temporary resident in that place. She spontaneously manifested all the powers of clairvoyance, in a community where no such thing had ever been witnessed before, and where mesmerism was unknown. There are many other similar cases, which establish the fact that no human operator is necessary, but that the subject contains within himself all the essential elements required to produce the result. Those, therefore, who attribute so much potency to the *will* of the operator, or to sympathy with him, are obviously mistaken, since the same effects may be produced without any human operator. All that is necessary is, that currents of ethereal force should enter and pass through abnormal avenues; but whether those currents proceed from a human operator, or from inanimate objects, is evidently immaterial.

35. There are many instances of spontaneous Etheropathy, in which the peculiar condition of the subject predisposed him to be thus affected, in such a way that he became inducted when in the company of some person who was utterly ignorant of his own

power and agency in the operation. The extraordinary cases of witchcraft which occurred in Salem were undoubtedly of this character.

36. Many of the phenomena of Etheropathy have been produced by design, after the spontaneous predisposition had been discovered and manifested accidentally, though neither the operator nor the subject was aware of the real agency used. This was the case of some of the Salem witches, and the priestesses of some of the ancient oracles; it was true, also, of some of the ancient modes of healing the sick; and perhaps we may, under this enumeration, include the cases (if they may be believed) of one animal charming another by this agency.

37. Since the time of Van Helmont and Mesmer, the operator and subject have both generally understood that a natural and controllable agent was employed, though they have not been able to explain its nature. It is from these modern operators that it has received the names of Mesmerism, Animal Magnetism, Neurology, and Pathetism. There are many of these persons at present in this country, who believe, though I think without reason, that there is something supernatural in many of the phenomena.

38. **ARTIFICIAL ETHEROPATHY** is caused by the ethereal force being artificially and intentionally brought by the operator to act in opposition to the normal forces of the subject: this process has been called Mesmerizing, Magnetizing, Willing, Charming, &c. I call it *inducting*.

39. The constitution of the organs of man is such as to insulate them from the influence of external currents of etherium, and to prevent impressions being made upon them, excepting through certain avenues denominated *senses*; and even through these avenues the ethereal force can pass normally only in a prescribed manner, which is different and peculiar in each of the different senses. This is somewhat analogous to the insulation which is necessary in electric machinery.

Etheropathy is always in opposition to this organic insulation, and can only be produced by an induction sufficiently powerful to break through the barrier which was intended by the Creator to protect the internal organs and functions from improper external influences.

40. SUSCEPTIBILITY to mesmeric induction depends upon three causes.

First. The imperfect condition of that peculiar structure of the organs which constitutes their insulation and protection from the influence of external motions of etherium.

Second. The imperfect manner in which the ethereal force is evolved from the organs of the subject, especially from the capillaries of minute blood-vessels.

Third. The conformity of the subject, and the development of the conforming social organs of the brain, particularly the organ of Credenciveness.

41. One of the causes of susceptibility may exist in a subject when the others do not, and some of the

numberless organs in the constitution may be in a susceptible condition, and others not. This enables us to understand why there is such a variety among subjects that scarcely two can be found who are affected alike. And when we consider that the organs are, from various causes, in a different condition at different times, we can perceive why subjects are more susceptible at one time than at another, and why they exhibit different results at different times.

42. The inducing power of the operator depends upon a sound and vigorous body and mind, with a good development of the governing organs, and good judgment. Some have asserted that a full development of the organ of Concentrativeness is necessary ; but although concentrated attention is useful, it is not necessary ; and, besides, I deny that there is any especial organ of concentration. This notion is exploded.

It requires no more exertion of the will nor concentrated attention to induct a subject, than it does to do any thing else ; and it is questionable whether it is more exhausting than any other labor in which continued attention is required.

43. Sometimes one organ of man breaks through the insulating barriers, inducts other organs, and subjects them unduly to its influence. Monomania is generally produced in this manner, by one phreno-organ being excited to such a degree as to overcome the insulating boundaries, and inducing and modifying the functions of the other organs in an abnormal

degree. Just as one man may induct another, so may one organ induct another organ in the same man ; but in order to do this, it must first overcome the insulation by the intensity of its own operations.

44. An operator, when he attempts to induct a subject, will, of course, be likely to induct first those organs which are most susceptible ; that is, those organs that are least insulated ; and as he proceeds, he will induct others ; but it seldom or never happens that he succeeds in inducting all the voluntary organs, and he never succeeds in inducting the involuntary.

45. The involuntary organs are so perfectly insulated as to be very little affected ; though, in some extraordinary cases, the motion of the heart has been temporarily suspended. In most cases, the circulation is accelerated or retarded ; but it is doubtful whether this is not an indirect effect, produced in consequence of the induction of the voluntary organs.

46. The insulation being overcome by the operator, and the subject being inducted, the effects produced are various. The normal currents are accelerated or retarded ; the functions excited to a wonderful degree, producing astonishing and incredible effects ; or else are depressed, and almost, or even quite, suspended. The motions of the operator's etherium unite with those of the subject, and add to their intensity, power, and energy ; (and if the currents of the operator are uncommonly vigorous, while those of the subject are weak, the effect of the induction may be such as to greatly invigorate the powers of the subject, and

rouse his nearly dormant energies to a high degree ;) or, on the other hand, the motion of etherium from the operator may oppose the currents in the organs of the subject, and neutralize their effects, so as to cause sleep, paralysis, and insensibility.

47. There are certain organs of man which naturally tend, and were designed, to make him conform to others, and submit to their influence. As a general fact, the first effects of induction are upon those conforming social organs, to accelerate their action, and to cause them to act as auxiliaries in inducing the other susceptible organs. The conforming, social impulsives (Submissiveness, Kindness, Imitativeness, and Credenciveness) perform a part in producing Etheropathic phenomena, which has never heretofore been understood, even by phrenologists themselves. In truth, they do not seem to have understood the real nature of these important organs.

48. Among the conforming socials, *Credenciveness* is the one which is most concerned and involved in producing Etheropathic effects.

It is because this organ has been so little understood, that experimenters have made so many ridiculous errors, while they asserted, and believed, that they were making important discoveries.

49. Not only has man certain organs which cause him to be influenced by others, but there is a kind of influence, or stimulus, by which those organs are specifically affected. Every man has in his possession this stimulating influence, by means of which to

excite the conforming socials. The specific stimulus which naturally influences Credenciveness, is *assertion*; and accordingly, when a subject is inducted, an assertion has an influence upon him which is almost incredible. He is generally disposed to oblige, to submit, to imitate, and sympathize; and to believe any thing, however absurd, even against the evidence of his senses. Tell him that he cannot move or speak, and he cannot; tell him that ice will burn him, and it will do so. The *assertion* will excite the *organ* of Credenciveness, and that will induct, or aid in inducting, the other organs.

These experiments may be performed when the subject is inducted in the lowest degree.

50. *Sympathy* is when an active organ in the operator communicates its own motions to the corresponding organ in the subject, so as to make it act in a similar manner.

51. *Will*, in this science, is the voluntary effort of the operator, which causes a motion of the etherium, and thus produces an effect upon the subject.

52. *Normal or natural sleep* is caused by the motions of etherium between the brain and the muscles being stopped by the involuntary ganglionic influence from the body.

53. *Dreaming, or partial sleep*, is caused by motions of etherium passing in the usual way from *some* of the phreno-organs to Consciousness, while in others it is prevented by sleep.

54. *Somnambulism, or sleep walking*, is the same

as dreaming, with this addition—that the ethereal motion which passes to Consciousness continues onward to the muscles, (particularly those of locomotion,) with force sufficient to cause them to contract, and produce walking. This is often the result of disease, and is sometimes (as in the case of Jane Rider) accompanied with clairvoyance.

55. *Etheropathic or mesmeric sleep* is caused by the normal motion of etherium on its way from external objects to Consciousness, being obstructed by the counter motion originating with the operator; and thus consciousness is prevented, except at the pleasure of the operator.

56. *Paralysis* may be partial or general. It is caused by normal motions of etherium from Consciousness to the muscles being diverted or obstructed.

57. *Trance* is paralysis accompanied with sensation, and sometimes with clairvoyance. It is a suspension of the powers of voluntary motion, without a suspension of sensation.

58. *Clairvoyance, or vicarious sensation*, is caused by impressions forcing their way from external objects to Consciousness, through extraordinary and vicarious avenues, in opposition to the insulating preventives.

59. *Sympathetic clairvoyance* is a perception, by the subject, of the state of the operator's mind, caused by impressions communicated from the Consciousness of the operator to the Consciousness of the subject.

60. *The transfer* of communication, and of power, from one operator to another, is accomplished at the

pleasure of the first operator, and afterwards at the pleasure of any other person who has been put into communication with the subject. If the subject is sympathetically clairvoyant, the transfer can be made by the mere will of the operator; if not, then it must be done by his language, or some sign which the subject would understand in his ordinary condition. In the latter case, the will of the subject aids the will of the operator, and the conforming organs of the subject act as auxiliaries to the will of the operator.

61. *Induction* is the communication of motion, or influence, from one thing to another by means of etherium.

62. *Self-induction* is the induction of organs, which is produced by other organs, in the same individual. It is when one organ inducts another in the self-same person. This happens spontaneously in many cases of monomania; but it is easily produced artificially, thus: Let the operator, by will, overcome the insulation, and then, by *assertion*, excite Credenciveness to an abnormal degree, and Credenciveness will induct any part which the operator pleases, or even any part which the subject believes or suspects that the operator desires to induct. This principle of self-induction has never before, to my knowledge, been announced.

63. Most of the pretended wonderful discoveries, published under the names of Neurology, Phreno-Mesmerism, and Biology, have originated in the ignorance of the operators concerning this important principle of self-induction, or rather of Credence induc-

tion ; and while they have supposed that the fingers of the operators communicated excitement to the phreno-organs, it was in reality the organ of Credenciveness,* in the subject himself, which communicated the excitement to the other phreno-organs of his own brain, and thus produced any effect, however ludicrous, which the honest but misguided operator expected, and supposed to proceed from his fingers.

* The same is true of the coins or metallic substances used by some operators at present.—*Ed.*

SECTION II.

HISTORY OF ETHEROPATHY.

VAN HELMONT, a German philosopher, born in 1577,* was the first to advance distinctly the ideas,

* The following extract is from the History of Mesmerism in the Mesmeric Magazine.

"Among the Oriental Asiatics, mesmerism seems never to have been totally forgotten, and even yet there lingers among them a faint and dubious perception of its existence and use.

"The Jesuit missionaries relate that in the empire of China, mesmerism has been practised for many centuries; but they communicate no particulars of the mode or of the extent of its employment.

"It is a fact, long and well known in India, that many of the fanatic devotees with whom that country abounds, are accustomed to obtain what they consider an ecstatic communion with the Deity, by fixing themselves in a particular position, and steadfastly gazing at the end of the nose. They assert that if they persevere for a considerable time in this singular practice, they will suddenly perceive a beatific light, and be favored with direct and colloquial intercourse with God, though their conversation is tacit and inaudible to any but themselves. Mesmerizees, when clairvoyant, almost invariably mention a bright light, which they perceive before their foreheads, just above the eyebrows; and a very singular discovery made in the year 1841 by a surgeon named Braid, of Manchester, England, affords convincing proof of the possibility of somnambulism being voluntarily induced, even in the manner of the Hindoo fakirs.

"This man found that by making a person in a sitting posture gaze steadfastly upon an object situated at an angle of forty-five degrees above the common axis of vision, congestion of the nerves and vessels of the eye was produced, which extended to the brain,

and introduce the practice, the discovery of which has since been attributed to Mesmer. He taught that there is a universal fluid which pervades all bodies,

and threw the subject into the mesmeric condition, so far at least that total insensibility to external impressions was induced. We have repeatedly tried this experiment with perfect success, but could never cause clairvoyance in this manner, except in our habitual mesmerizees.

"In Europe, however, after the overthrow of the Western Empire, we perceive but few traces of mesmerism, until the dawn of the new civilization in the fifteenth and sixteenth centuries. Two or three remarkable cases seem nevertheless to have occurred during the dark ages, some of which fell under the observation of the learned and pious St. Augustine, who, in his 'City of God,' mentions a man who could perspire when he wished, and also a priest who, whenever he pleased, could throw himself into a peculiar kind of trance, during which he was as insensible as a corpse.

"The famous Arabian philosopher and physician, Ebn-Sina, or Avi-cenna, who lived in the tenth and eleventh centuries, relates the case of a man who could at pleasure, by an exertion of his will, paralyze his whole frame, or throw it into what we should now term a mesmeric condition.

"Jerome Cardan, of the sixteenth century, a man of genius and discrimination, and one of the first scholars of his day, states of himself that he possessed a capacity of abandoning his body in a sort of ecstasy whenever he pleased. He felt, in these cases, a sort of splitting of the heart, as if his soul was about to withdraw, the sensation spreading over his whole frame, like the opening of a door for the dismissal of its guest. His apprehension was that he was out of his body, and that, by an energetic exertion, he still retained a small hold of his corporeal figure. He also could see, when he pleased, whatever he desired to see, not through the force of imagination, but with his material organs: he saw groves, animals, and orbs, as he willed. When he was a child, he saw these things as they occurred, without any previous volition or anticipa-

and by means of which certain effects can be produced by the will of one person upon the organization and mind of another ; but he combined this doctrine with others relating to magic, alchemy, and astrology,

tion that such a thing was about to happen. But after he had arrived at years of maturity, he saw them only when he desired, and such things as he desired. These images were in perpetual succession, one after another.

“ It is, however, in the sixteenth and seventeenth centuries, that we find the existence of mesmerism first acknowledged and distinctly announced. Many writers, the most eminent of whom were Kircher, Pomponatius, Van Helmont, and Sir Kenelm Digby, assumed the existence of a universal magnetic power, by which they attempted to explain the dependence and reciprocal action of bodies, in general, upon each other, and, in particular, the phenomena of the vital organization. They also broadly and distinctly maintained the proposition that the will or imagination of man, when energetically called into action, is capable of producing certain perceptible effects upon the organism of other living beings, even at a considerable distance.

“ Pomponatius, a native of Mantua, and professor of philosophy at the celebrated university of Padua, assumes it as a fact generally acknowledged, that there are men endowed with the faculty of curing certain diseases, by means of an effluence or emanation, which the force of their imagination directs towards the patient. ‘ When those,’ says he, ‘ who are endowed with this faculty, operate by employing the force of the imagination and the will, this force affects their blood and their spirits, which produce the intended effects by means of an evaporation thrown outwards.’ He afterwards observes, that it is by no means inconceivable, that health may be communicated to a sick person, by the force of the imagination and the will so directed ; and he compares this susceptibility of health to the opposite susceptibility of the infection of disease.

“ In another passage, he enumerates the conditions of the exercise of this faculty, in nearly the same terms as are employed by

which had the effect to bring both himself and his opinions, on this subject, into discredit with philosophers.

The following brief glance at the history of mes-

the modern mesmerizers; and he adds, that the confidence of the patient contributes to the efficacy of the remedy. 'It is necessary,' says he, 'that he who exercises this sort of enchantment should have great faith, a strong imagination, and a firm desire to cure the sickness. But these dispositions are not to be found equally in all men.'

"Henry Cornelius Agrippa, the famous astrologer, chemist, and magician, asserted that it is possible for a man to communicate his thoughts to another, even at a great distance, and appeals to his own experience, as well as to that of others, for the truth of the fact.

"But there is no author of that age, observes Colquhoun, in treating of this subject, who appears to have so fully anticipated the modern discovery of mesmerism, as Van Helmont.

"He defines mesmerism, or, as he styles it, magnetism, to be 'that occult influence, which bodies exert over each other at a distance, whether by attraction or by impulsion.' The medium or vehicle of this influence he designates by the name of the *magnale magnum*, which he seems to consider as a universal fluid pervading all nature. It is not, he continues, a corporeal substance, capable of being condensed, measured, or weighed; but an ethereal, pure, vital spirit, or essence, which penetrates all bodies, and acts upon the mass of the universe. With regard to the human frame, he conceives that the seat of the magnetic force is in the blood, and that it is called forth and directed by the will. Van Helmont occasionally gives to this influence the epithets of ecstatic and magical, using the latter word in its more favorable signification.

"In the same treatise, the author proceeds to say that there resides in man a peculiar energy, which enables him, by the mere force of his will and imagination, to act at a distance, and to

merism is principally derived from the recent work of Lang.

About the middle of the seventeenth century, there appeared in England a certain gardener of the name

impress a virtue, to exercise an influence upon a very remote object. This power, he admits, is incomprehensible; but there are other powers and agents in nature, which we are equally incapable of comprehending — such as the power of volition over the corporeal organs. The union of the soul and the body, too, and their reciprocal influence upon each other, depend upon causes which we are unable to discover.

“But one of the most remarkable passages in this treatise is that in which the author explains the conditions necessary to the success of the magnetic treatment. ‘We have already observed,’ says he, ‘that all magical power lies dormant in man, and that it requires to be excited. This is invariably the case, if the subject upon whom we wish to operate is not in the most favorable disposition; if his internal imagination does not abandon itself entirely to the impression which we wish to produce upon him; or if he, towards whom the action is directed, possesses more energy than he who operates. But when the patient is well disposed, or weak, he readily yields to the magnetic influence of him who operates upon him through the medium of his imagination. In order to operate powerfully, it is necessary to employ some medium; but this medium is nothing, unless accompanied by the internal action.’ All this — at least in its essential points — is quite coincident with the modern doctrine of animal magnetism, introduced by Mesmer, and established by the numerous experiments and observations of his successors.

“Van Helmont, and indeed most of the early writers on the subject of magnetism, ascribed a vast and mysterious influence to the power of energetic and concentrated volition.

“The will, according to Van Helmont, is the first of powers. It was by the will of the Almighty that the universe was created; it was by volition that motion was originally impressed upon all

of Levret, an Irish gentleman, Valentine Greatrakes, and a Dr. Streper, who professed to cure various diseases by stroking with the hand. The cures performed in this manner by Greatrakes are authenticated

objects; it is the will existing in man which is the principle of all his actions. Volition belongs to all spiritual beings; it is the more active and powerful in them in proportion as they are disengaged from matter; and the energy with which it operates without the assistance of organs, is the essential characteristic of pure spirits. He also remarks, that those who exert the magnetic influence operate more or less powerfully, according to the energy of the will; and that the effects of their operation may be impeded by the resistance of that which is operated upon.

"It is quite evident, indeed, from the whole works of Van Helmont, that he was not only perfectly well acquainted with the magnetic influence, but that he made use of it professionally, and placed great confidence in its effects. He himself, indeed, informs us, that when the plague was raging in the town of Brussels, he thought it his duty to seize the opportunity of instructing himself, and of being useful to others. He accordingly offered his services to attend the sick; neither the fatigue, nor the fear of infection, could abate his zeal, or extinguish his charity. 'Perceiving,' says he, 'that most of the physicians deserted the sick, I devoted myself to their service, and God preserved me from the contagion. All, when they saw me, seemed to be refreshed with hope and joy; whilst I, supported by faith and confidence, persuaded myself that God would at length confer upon me the science of an adept.'

"There appeared in England, about the middle of the seventeenth century, three persons, who seem to have possessed considerable mesmeric power, which they employed, however, only for the cure of diseases. These were a gardener named Levret, an Irish gentleman, Valentine Greatrakes, and a Dr. Streper. Their method of cure was altogether by manipulations, and their success was wonderful, and indeed almost incredible.

"In the course of the next century, there appeared, in Germany,

by the Lord Bishop of Derry, and many other highly respectable individuals. The Royal Society accounted for them by the supposition, that there existed a "sanative contagion in Mr. Greatrakes's body, which had an antipathy to some particular diseases, and not to others." At a still later period, Gassner, a Catholic minister, a native of Suabia, having taken up a notion that many diseases arose from demoniacal possession, and could be cured by exorcism, performed a number of astonishing cures, especially among patients affected with spasmodic and epileptic complaints. Many other instances of a like character might be adduced, exhibiting traces of this curious agency; but we come, without further preface, to the individual who, in modern times, was the reviver of the science to which his name has been given.

Frederic Anthony Mesmer was born in Switzerland, on the 23d day of May, 1734. He studied medicine at Vienna, where he obtained the degree of

a still more extraordinary character than either of the three who performed such wonders in England. This was John Joseph Gassner, who was born at Bratz, in Suabia, in 1727, and who became a Catholic priest. His curative powers were most amazing, especially in spasmodic and epileptic complaints, and were authenticated in the most ample and irrefragable manner, by persons of high rank and irreproachable character.

"But it was reserved for Mesmer, one of the most remarkable men on record, to deduce and form from these scattered facts and instances, and from his own personal experience, the rudiments of that mighty and marvellous science which now bears his name, and will perpetuate his remembrance to the latest ages."

doctor, and settled as a physician. A marriage with a lady of fortune soon afterwards raised him above some of the cares which attach to the young medical practitioner.

From an early age, Mesmer is said to have manifested a love of the marvellous; and, in the year 1776, he published a dissertation, *On the Influence of the Planets upon the Human Body*. He assumed that the influence operated by electricity; but finding that agent inadequate to the solution of all the phenomena, he afterwards abandoned it for magnetism. In 1773, upon the suggestion of Maximilian Hell, professor of astronomy at Vienna, he resorted to the use of the magnet, which he applied in the cure of various diseases. Ultimately he discovered that the magnetic rods employed by him were powerless, and that the healing power, whatever it might be, was resident in himself. The rods were accordingly abandoned, the effects being produced by certain passes.

Mesmer now began to assume a mysterious demeanor; and, in no small degree through his own folly, so great a prejudice was created against him, that in 1777 he departed from Vienna, and early in the following year made his appearance in Paris. There, besides making a convert of Dr. D'Eslon, he performed many remarkable cures in the class of distinguished persons; and his fame accordingly spread with great rapidity throughout the gay circles of that city. The members of the medical profession, how-

ever, set themselves in resolute opposition to Mesmer, and for a time he retired to Spa, but afterwards, upon the persuasion of his friends, returned to Paris.

A negotiation was attempted for the purchase of Mesmer's secret by the French government ; but this having failed, the sale was carried on to private individuals at the rate of one hundred louis a head. It was a condition of each sale that secrecy should be maintained ; but this was broken through, and the knowledge of the facts propagated by Mesmer was soon widely diffused, with the disadvantage of having many corruptions grafted upon them, according to the fancies of various individuals. The practice of Mesmer savored in itself sufficiently of quackery, and some of his disciples seem to have followed it up in a still more foolish manner.

In 1784, the French government issued a royal mandate to the medical faculty of Paris, requiring them to investigate the facts and the pretensions of the new doctrine. The bulk of the members of this famous commission had prejudged the question, and, like too many of the medical men of our own time, were resolved that they would not be convinced. The name of the celebrated Franklin is attached to the unfavorable report that was issued, although it should not have been there, as he is said to have been indisposed at the time, and to have given little attention to what took place.

There was one commissioner who refused to concur in the report adopted by his brethren. Jussieu,

a physician of the highest eminence, who devoted great attention to the investigation, published a special report of his own, presenting an entirely different view, and conveying an infinitely more favorable impression of the subject.

The blow struck by the French commissioners did not entirely answer the expected purpose. The question still continued to excite a high degree of interest in that country; but the breaking out of the revolution, and the wars which followed that event, turned the public attention in other directions.

The Marquis de Puysegur, one of the most intelligent of Mesmer's disciples, to whom the science is under deep obligations, was the first to describe the state of somnambulism.* The marquis, both at Paris and on his estate in the country, devoted himself with the utmost zeal to the propagation of the science; and the system, as improved by him, was introduced into Germany in 1787, through the instrumentality of the celebrated physiognomist Lavater. Journals devoted to animal magnetism were established in France and Germany; and in those countries, as well as in Switzerland, the magnetic treatment has prevailed, more or less, for the last fifty years.

Meanwhile, Mesmer had retired to his native country, Switzerland, and his death took place on the 5th of March, 1815, at Meersburg, on the Lake of Con-

* I believe that he was the first who discovered clairvoyance.

stance. His last years were devoted to the practice of the magnetic treatment for the benefit of the poor, and he exhibited his own belief in its efficacy as a remedy, by submitting to the treatment in his last illness, and is said to have derived from it great relief.

Many men of the highest eminence on the continent of Europe, despite the din of war around them, devoted a considerable degree of attention to mesmerism; and in progress of time it began to be heard of in the works of the great German physiologists, Sprengel, Reil, Authenrieth, and others — names as well known on the continent as those of Harvey or Hunter in Britain. In 1817, the practice of mesmerism was by law ordered to be confined to the medical profession in the Prussian dominions; and in 1818, the Academy of Sciences at Berlin offered a prize of 3340 francs for the best treatise on mesmerism. In Denmark, and even in Russia, about the same period, the subject was brought under investigation, and in the latter country a committee, appointed by the emperor, declared it to be a most important agent. Those things could not go on without challenging investigation in France, from whence the first report of a commission had emanated.

In 1825, M. Foissac proposed to the Académie de Médecine, to produce a somnambulist, in whom the members of that body might witness the extraordinary phenomena caused by animal magnetism. The proposition gave rise to violent debates, which terminated in the appointment of a committee, to deter-

mine as to whether the Académie ought or ought not to take cognizance in the subject. The committee decided in the affirmative, upon the following grounds: First, that the judgment pronounced by the Académie, in 1784, was not founded upon reasons sufficiently conclusive; and secondly, that the magnetism now proposed for examination, differed from the mesmerian magnetism, inasmuch as its effects were producible without actual contact between the magnetizer and the magnetized, and without the employment of metallic rods, magnetic chairs, and other similar means. After strong opposition, a commission was appointed, composed of twelve members, to examine into and report upon the experiments about to be made. The commission pursued its investigations till 1831, when it presented a report to the Académie, containing an exposition of its labors, with the inferences deduced from them, arranged under the following heads: —

1. The effects ascribed to magnetism are null in most healthy individuals, and in some invalids.
2. They are but little apparent in others.
3. They are often produced by ennui, monotony, and the power of the imagination.
4. Lastly, they are developed, independently of these causes, very probably by the influence of magnetism alone.

I omit the report itself, but give their “conclusions” in their own language.

“1. Contact of the thumbs or the hands, frictions

or certain gestures, termed *passes*, made at a little distance from the body, are the means employed to place in relation, or, in other words, to transmit the action from the magnetizer to the magnetized.

“2. The actions, which are external and visible, are not always necessary, since on many occasions the will, the fixed look of the magnetizer, have sufficed to produce magnetic phenomena, even when unknown to the magnetized.

“3. Magnetism has acted on persons of different sex and age.

“4. Magnetism does not generally act upon healthy persons, nor does it act upon all invalids.

“5. Whilst persons are being magnetized, insignificant and transient effects sometimes occur, which we do not ascribe to magnetism alone, but which may be accounted for without the intervention of a particular agent, viz., by hope or fear, expectation from a something new and unknown, the ennui resulting from the monotony of the gestures, the silence and repose observed in the experiments; lastly, by the imagination, which exercises so powerful an influence over some minds.

“6. A certain number of the effects observed have appeared to us to result from magnetism alone, and were not reproduced without it. These are well-authenticated physiological and therapeutical phenomena.

“7. The real effects produced by magnetism are very varied; it agitates some, calms others; it usually

accelerates the respiration and circulation; causes transient convulsive movements similar to electric shocks, a lassitude and torpor more or less profound, somnolency, and, in a small number of instances, what the magnetizers term somnambulism.

“ 8. The existence of a special character proper to make known in all cases the reality of the state of somnambulism, has not been proved.

“ 9. It may, however, be inferred with certainty, that this state exists, when it gives rise to the development of new faculties, which have been designated by the name of *Clairvoyance*, Intuition, Internal Prevision; or when it produces great changes in the physiological state, as *insensibility, a sudden and considerable increase of strength*, and when this state cannot be referred to another cause.

“ 10. As among the effects ascribed to somnambulism there are some which may be simulated, so may somnambulism itself be simulated, and furnish charlatanism with means of deception.

“ 11. Sleep, produced more or less speedily, and established in a degree more or less profound, is a real, but not a constant, effect of magnetism.

“ 12. It has been demonstrated to us, that sleep may be produced under circumstances in which the magnetized have not been able to perceive, and have been ignorant of, the means employed to occasion it.

“ 13. When a person has been already magnetized, it is not always necessary to have recourse to contact, or to the passes, in order to magnetize afresh.

The look of the magnetizer, his will alone, has often the same influence. In this case, one cannot only act upon the magnetized, but throw him completely into somnambulism, and awaken him from this state without his being aware of it, out of his sight, at a certain distance, and through closed doors.

“ 14. There usually take place changes more or less remarkable in the perceptions and the faculties of individuals in whom somnambulism is produced by magnetism.

“ 15. We have not seen any person fall into somnambulism on being magnetized for the first time. It has sometimes been not until the eighth or tenth sitting that somnambulism has become manifest.

“ 16. We have constantly seen ordinary sleep, which is the repose of the organs of the senses, of the intellectual faculties and voluntary movements, precede and terminate the state of somnambulism.

“ 17. When awakened, somnambulists declare that they do not recollect any of the circumstances of the state of somnambulism.*

“ 18. We have seen two somnambulists distinguish with closed eyes the objects placed before them ; they have designated, without touching them, the color and name of cards ; they have read words written, or lines from a book. This phenomenon has occurred even when the eyelids were kept closed by the fingers.

* They will recollect, if requested to do so before they are awakened.

“19. We have met with two somnambulists, with the faculty of foreseeing acts of the organism, more or less distinct, more or less complicated.

“20. We have only met with one somnambulist who could indicate the symptoms of the disease of three persons with whom she was placed in relation. We had, however, made researches on a considerable number.

“21. In order to determine with justness the relation of magnetism with therapeutics,* the effects must have been observed on a great number of individuals, and experiments should have been made for a long period, and daily, on the same diseases. This not having been done, the commission must restrict itself to saying that it has seen too few cases to be able to pronounce an opinion on this point.

“22. Some of the patients magnetized have derived no advantage, others have experienced more or less marked benefit; viz.: one patient, the relief of habitual pains; another, the return of strength; a third, a suspension of several months of epileptic attacks; and a fourth, the complete cure of serious and long-standing paralysis.

“23. Considered as an agent of physiological phenomena, or as a therapeutical means, magnetism ought to find a place within the sphere of medical knowledge, and consequently only medical practitioners ought to employ it, or to superintend its em-

* The cure of diseases.

ployment, as is practised in the countries of the north.

"24. The commission could not verify, because it had no opportunity, the other faculties which magnetism had stated to exist in somnambulists. But it has collected, and communicates to the Académie, facts sufficiently important to induce it to think that the Académie ought to encourage researches on magnetism as a very curious branch of psychology and natural history.

"Certainly we dare not flatter ourselves that we shall make you share entirely our conviction of the reality of the phenomena which we have observed, and which you have neither seen, nor followed, nor studied with or in opposition to us. We do not, therefore, exact from you a blind belief in all which we have reported. We conceive that a great part of the facts are so extraordinary, that you cannot grant it to us: perhaps we ourselves should have refused you our belief, if, changing places, you had come to announce them before this tribunal to us, who, like you at present, had seen nothing, observed nothing, studied nothing, followed nothing of them.

"We only require that you judge us as we should have judged you; that is to say, that you remain perfectly convinced that neither the love of the wonderful, nor the desire of celebrity, nor any interest whatever, has influenced us in our labors. We were animated by motives more elevated, more worthy of you—by the love of science, and by the wish

to justify the hopes which the Académie had conceived of our zeal and devotedness.

“(Signed) BOURDOIS DE LA MOTTE, President ;
FOUQUIER, GUENEAU DE MUSSY,
GUERSENT ITARD, LEROUX, MARC,
THILLAYE, HUSSON, Reporter.”

Various theories have been from time to time promulgated in explanation of the extraordinary phenomena of mesmerism. It was assumed by Mesmer that there was a reciprocal influence continually subsisting between the heavenly bodies, the earth and animated nature, through the medium of a certain very subtile fluid pervading the whole universe, and capable of receiving, propagating, and communicating every impulse of motion.

“The properties of matter, and of organized bodies,” says Mesmer, “depend upon this operative principle. The animal body experiences the alternative effects of this agent, which, by insinuating itself into the substance of the nerves, affects them immediately. The human body exhibits properties analogous to those of the magnet, such as polarity and inclination. The property of the animal body, which renders it susceptible of this influence, occasioned its denomination of Animal Magnetism.”

Mr. Colquhoun, after remarking that the profound and interesting researches of those eminent physiologists, Reil, Authenreith, and Humboldt, have gone far, not only to demonstrate the existence of a

nervous circulation, but even to render probable the external expansion of this circulating fluid, goes on to say, —

“Were we, then, to admit the existence of this nervous fluid, of its sensible atmosphere, and its analogy in other respects to electricity, it does not seem to be a very violent or unphilosophical hypothesis to presume that, in certain circumstances, and under certain conditions, it may be capable of being directed outwards, by the volition of one individual, with such energy as to produce a peculiar effect upon the organization of another. This hypothesis, too, appears to be supported by the fact, that individuals possessing sound health and great nervous energy operate, in general, most effectually in the magnetic treatment; and that weak and diseased persons are most susceptible of the magnetic influence, and manifest the most extraordinary phenomena.* Almost all the practitioners of Animal Magnetism, indeed, seem to agree in this, that the magnetic treatment operates principally, if not entirely, upon the nervous system, and particularly upon those nerves which are situated in the abdominal region.”

The decision of the French commissioners of 1784, which is generally supposed to have been utterly hostile to mesmerism, was, in reality, principally directed against Mesmer's theory of a fluid. The facts, or at least a numerous portion of them, were

* I have frequently succeeded with persons of great strength and vigor.

admitted, the theory being the main point of attack. The commissioners tell us, —

“That which we have learned, or at least that which has been proved to us, in a clear and satisfactory manner, by our inquiry into the phenomena of mesmerism, is, that man can act upon man at all times, and almost at will, by striking his imagination; that signs and gestures the most simple may produce the most powerful effects; that the action of man upon the imagination may be reduced to an art, and conducted after a certain method, when exercised upon patients who have faith in the proceedings.”

The French commissioners explained the whole phenomena by attributing them to the power of imagination.* The celebrated Cuvier, who fully admits the truth of mesmerism, writes on this point, as quoted by Dr. Elliotson in his *Human Physiology*, —

“We must confess that it is very difficult, in the experiments which have for their object the action which the nervous systems of two different individuals can exercise one upon another, to distinguish the effects of the imagination of the individual upon whom the experiment is tried, from the physical result produced by the person who acts for him. The effects, however, on persons ignorant of the agency, and upon individuals whom the operation itself has deprived of consciousness, and those which animals present, do not permit us to doubt that the

* In another part of this work I have shown that even credence imagination is the result of physical causes.

proximity of two animated bodies in certain positions, combined with certain movements, have a real effect, independently of all participation of the fancy. It appears also clearly, that these effects arise from some nervous communication which is established between their nervous systems."

Dr. Gall admits this power, and even does not reject the hypothesis of its connection with a fluid.

"How often," says he, "in intoxication, hysterical and hypochondriacal attacks, convulsions, fever, and insanity, under violent emotions, after long fasting, through the effect of such poisons as opium, hemlock, or belladonna, are we not, in some measure, transferred into perfectly different beings,—for instance, into poets, actors, etc.,—just as, in dreaming, the thoughts frequently have more delicacy, and the sensations are more acute, and we can hear and answer; just as, in ordinary somnambulism, we can rise, walk, see, touch with the hands, etc.; so we allow that similar phenomena may take place in artificial somnambulism, and even in a higher degree. We acknowledge a fluid which has an especial affinity with the nervous system, which can emanate from an individual, pass into another, and accumulate, in virtue of particular affinities, more in certain parts than in others. We admit the existence of a fluid, the subtraction of which lessens, and the accumulation augments, the power of the nerves; which places one part of the nervous system in repose, and heightens the activity of another; which, therefore, may produce an artificial somnambulism."

A rigid mathematician, La Place, observes, that,

"Of all the instruments which we can employ, in order to enable us to discover the imperceptible agents of nature, the nerves are the most sensible, especially when their sensibility is exalted by particular causes. It is by means of them that we have discovered the slight electricity which is developed by the contact of two heterogeneous metals. The singular phenomena which result from the external sensibility of the nerves in particular individuals, have given birth to various opinions relative to the existence of a new agent, which has been denominated animal magnetism — to the action of the common magnetism; to the influence of the sun and moon in some nervous affections; and, lastly, to the impressions which may be experienced from the proximity of the metals, or of a running water. It is natural to suppose that the action of these causes is very feeble, and that it may be easily disturbed by accidental circumstances; but because, in some cases, it has not been manifested at all, we are not to conclude it has no existence. We are so far from being acquainted with all the agents of nature, and their different modes of action, that it would be quite unphilosophical to deny the existence of the phenomena, merely because they are inexplicable in the present state of our knowledge."

Dr. Elliotson gives his own opinion in these words :—

"I have no hesitation in declaring my conviction

that the facts of mesmerism which I admit, because they are not contrary to established morbid phenomena, result from a specific power. Even they are sometimes unreal and feigned, and, when real, are sometimes the result of emotion, — of imagination, to use common language; but that they may be real and independent of all imagination, I have seen quite sufficient to convince me."

And after giving the particulars of some cases, he thus proceeds: —

"These are the phenomena which I have witnessed. To ascribe them to emotion and fancy, to suppose collusion and deception, would be absurd. They must be ascribed to a peculiar power; to a power acting, as I have no doubt, constantly in all living things, vegetable and animal, but shown in a peculiar manner by the processes of mesmerism."

The history of mesmerism in this country is essentially similar to that in Europe, the principal difference being in the names of the persons concerned. There has been the same enthusiasm, credulity, and superstition in its favor, and the same haughty contempt or sneering scepticism opposed to its pretensions; while those best qualified for its investigation have deemed it unworthy of their serious and continued attention.

SECTION III.

NATURE OF ETHERIUM.

HAVING given a general and brief view of the history of Etherium, as manifested in the form of mesmerism, it will be perceived that the doctrine of a universal fluid, as the agent concerned in producing the effects, is supported by every distinguished operator and author from the time of Van Helmont to the present.

The received THEORY OF LIGHT is, that it depends upon the undulations of a universal fluid : it is found impossible otherwise to account for the facts which are known upon the subject. The theory of Newton, that "light is an emanation of particles moving in straight lines with incredible velocity," is now exploded ; and the undulatory theory of Huygens receives the sanction of modern philosophers with very few exceptions. Light is not, by the greatest philosophers, now considered a material substance in itself, but the vibration — the pulsation — the undulation — the peculiar wave-like *motion* of a material ocean of universal etherium, just as sound is a motion of the air. If you suspend a ball in the centre of a pool of water, and then cause the ball to revolve so as to disturb the surface, there will be a regular succession of waves, which will, one after the other, reach the shore, and each make an impression

upon the various objects which constitute the bounds of the pool. In a similar manner, the sun, and every other body from which light emanates, disturbs the ocean of etherium, and produces a regular succession of waves, which, on striking the optic nerve, communicates or inducts its own peculiar motions, which motions are continued along the nerve to the phrenorgan of Color, and from that organ to the organ of Consciousness, thus producing the consciousness which we acquire of the color of different objects.

The different colors of objects are owing to the different degrees of rapidity with which the waves of etherium are propagated.

To prevent my unscientific readers from suspecting the accuracy of these statements in regard to the received theory of light, I will take the liberty to quote, from the Lectures of Dr. Lardner, a few extracts relating to this subject :—

“The sun, or a lamp, acting on this ether, as it is called, puts it into a state of pulsation; the vibrations passing through it as those of sound through the air. This pulsation is propagated to the eye, reaches the retina, and puts that delicate membrane into a state of tremulous motion, which is the proximate cause of the impression of light produced in the mind. It has been, moreover, discovered by modern science, that the varying rapidity of these vibrations is the cause of the difference in the colors of the spectrum; and what is still more remarkable, these vibrations have been subjected to admeasurement.

The various colors, blue, green, etc., are nothing more than the effects of the different rates of pulsation imparted to the retina at the back of the eyeball. A ray of vibration enters the chamber of the eye through the pupil, — a small black spot in the centre of every eye, which is merely an aperture through which a rod might be thrust, — and causes the retina to vibrate at different rates. Science has discovered a method of computing the rate at which this membrane pulsates; and the number of vibrations per second, when the sensation of redness is produced, and so for the other colors. There would be nothing extraordinary in this if this was any ordinary rate, as, for instance, fifty times in a second. But when I tell you that the number of vibrations for one color is six hundred millions per second, seven hundred millions each second for another, and that it is never less than six nor more than nine hundred millions, — when I tell you that modern science has estimated this with close accuracy, — you will admit that it has accomplished what approaches very near to the miraculous.

“These observations have been suggested by reference to the fallacies into which we are led by the senses; and this is especially applicable to the impressions of the different colors, for the truth is, that probably no two persons receive precisely the same impression from the same color. There are numberless instances of different impressions made upon different individuals, and nothing is more common

than an inability to distinguish between green and blue. There are hundreds of persons who are never able to distinguish by their colors the cherries upon a tree from its leaves. The celebrated DUGALD STEWART, the well-known chemist DALTON, and many other names, probably familiar to you all, might be mentioned of persons who were unable to distinguish the different colors.

“By a little management we may be able to see bodies that do not exist; and if we take the evidence of the senses on these points, we should be led to believe in all sorts of spectres — the effect of factitious vibrations produced by various causes. It would require weeks to enumerate all the exhibitions of this deception; but I will mention one or two which may amuse, and at the same time be instructive. Take a stick of red sealing-wax and place it between the eye and a sheet of white paper; after keeping the eye steadily fixed upon the wax for a short time, look beside it, and you will see a stick of blue wax as distinctly as you perceive the real wax. In this way a succession of spectra may be produced. Thus, by looking steadily at a red wafer for a short time, you will be able to see beside it the *ghost* of a blue wafer; and conversely a blue wafer will give birth to the ghost of a red one — these two colors being correlative to each other; the retina, by the action of the one, is put into a state of morbid vibration, by which the effect is produced. It is explicable by supposing that when the retina is put into a state of

pulsation, its motions continue for a short time, just as a bell continues to ring for some seconds after it is struck.

“A wish has been expressed that I should explain more fully a circumstance to which I alluded, briefly, in a former lecture; namely, the effect produced on the retina of the eye by light. I explained the principle of light, as established by modern physics, and the impression of the different colors upon the retina. The physical principle on which light depends, was, for a long while, and is still, in dispute among philosophers. One sect maintains that light is a physical emanation from a luminous body, which passes through space at the rate of 200,000 miles in a second, reaches the eye, affects the retina, and produces an impression in the mind. They hold that the white light of the sun is composed of particles of different kinds, each producing the notion of a different color. This theory has been in dispute, and is found to be insufficient for the explanation of certain phenomena, discovered by modern science. This theory, however, was maintained by NEWTON.

“Another theory, which is now generally received, is this: It supposes that the whole universe is filled with a fluid called *ether*, extremely subtile and elastic; and that the luminous body produces the effect, by imparting to this ether a certain pulsation, precisely similar to that of sound, to which I have already referred. These vibrations are supposed to be transmitted to the eye, with the velocity already

mentioned. Having entered the eye, it causes the retina to vibrate, just as does the ear-drum in hearing, only these pulsations are infinitely more rapid and delicate than those of sound. This theory maintains that the colors of the spectrum — as red, orange, blue, etc. — are nothing more than the effects of greater or less rapidity of vibration. If the retina pulsates at one rate, red will be seen ; if at another, blue, etc. This is the general outline of the theory now generally received, in reference to the *Corpuscular* theory, which was held by NEWTON, but which is insufficient to explain many of the phenomena observed, which the undulating theory perfectly accounts for. What all these phenomena are, I cannot explain in full ; I will, however, mention one of them, which is among the most remarkable.

“ If two beams of light be admitted through small apertures in a screen, and be made to cross each other, under certain circumstances, so that they fall upon the same point, you would naturally expect that that point would be twice as light as if but one beam fell upon it. According to the *Corpuscular* theory, which holds light to be a material substance, the more of it there was accumulated upon any point, the greater would be its illumination. But it has been shown by modern science, that, instead of this result, the two beams destroy each other, and a *black spot* is observed at the point of intersection. If either of the beams be intercepted, the spot becomes luminous ; but if both be allowed to fall upon it together,

it becomes black : either of the two will illuminate it — both together produce darkness. Now, the Corpuscular theory fails to account for this phenomenon ; but it is clearly explained by the theory of an undulating medium. I can only give the explanation in a general way, as thus : It is necessary to show that it is possible for two systems of waves to obliterate each other, in order to the explanation ; for if the presence of waves is essential to illumination, any thing which destroys them must produce darkness. Now, if we suppose two systems of waves propagated along the surface of a pond, we may easily imagine that the crests of one system shall fall directly in the hollows of the other ; and we should thus have a surface perfectly smooth. This is what happens in this case. The two beams, every time they come together, cause two systems of waves, of which the crests of one fall into the hollows of the other, and the ether is in the same state as if there were no waves at all. Of course, according to this theory, there can be no light. But if we make the slightest change in the beams, so that the crests of one system of waves shall be out of the hollows, the spot will be instantly illuminated.

“ Now, it is known that light moves at the rate of 200,000 miles in a second of time. During every second, then, a beam of light 200,000 miles in length enters the eye. And, as has just been shown, for every inch of that beam there are 40,000 waves, or pulsations, for red light, and a certain known number

for the other colors. And now can you not see how we are able to determine the number of vibrations on the retina? All that is necessary is, to find how many inches there are in the beam which enters the eye in a single second; multiply that number by the number of waves in a single inch for each color, and you have at once the number of vibrations."

HEAT. The received theory of heat is, that it is but another peculiar motion of the same ethereal ocean, the undulations of which produce light.

ELECTRICITY is also explained, by philosophers, on the hypothesis of a universal fluid, which, when in equilibrium, produces no phenomena; but when the equilibrium is disturbed, by friction of the glass cylinder of an electric machine, or by other means, certain electric phenomena follow.

GALVANIC ELECTRICITY is that which is produced by chemical action, and the apparatus commonly used is called a *Galvanic Battery*. It is supposed that every chemical change is accompanied with a movement of electricity; and a Galvanic Battery is so contrived, as to cause the electro-chemical motion of etherium to take place in a circuit, thus: Put into a glass vessel a piece of zinc and a piece of copper, so placed as not to touch each other; pour some water containing acid into the glass, so that the two metals will be corroded, and there will immediately be a current of electricity passing through the liquid from the zinc to the copper. Now, connect the copper with the zinc by means of wire, and thus constitute a

circuit, and there will be a continual current from the zinc to the copper through the water, and from the copper to the zinc through the wire. This is a Galvanic Battery in its simplest form. Any metals may be used, provided one corrodes more rapidly than the other ; even two pieces of the same metal will answer, provided one piece is hammered, and the other porous, so that one shall be corroded more rapidly than the other.

There is an important distinction between the *quantity* of electricity obtained, and its *intensity*. That which is obtained from one pair of metallic plates, however large, is of very low intensity, so that it is easily insulated ; and, however great the *quantity* may be, any number of wires may lie side by side, with nothing but a coating of varnish between them, and each wire may convey a separate current, while its nearest neighbor conveys an opposite current, without any apparent interference.

But when there is a great number of plates, even if they are small ones, the force acquires such intensity that it becomes difficult to insulate it, so as to prevent it from being communicated to surrounding bodies.

I am inclined to think, that the forces of human etherium are deficient, both in quantity and intensity, when compared with that produced by the artificial apparatuses ; and this is one reason why it does not overcome its insulation more frequently.

THERMO-ELECTRICITY is that which is brought into

action through the agency of heat. This mode of producing electric currents was discovered by Professor Seebeck, of Berlin, in 1822. He discovered that if two different kinds of metal are joined, and heated at the place of junction, a current of electricity will flow from one to the other; and if the ends of the metals which are not joined are connected by a wire, so as to constitute a circuit, a current of electricity will pass around the circuit, just as it does around the Galvanic Battery. The conclusion is, that any thing which can disturb the equilibrium of the great mass of etherium, produces phenomena; and these phenomena have received different names, according to the modes in which the equilibrium has been disturbed.

MAGNETISM is but another mode in which currents of electricity are produced.

Terrestrial Magnetism, which causes the compass needle to point nearly north and south, is found to be caused by Thermo-Electric currents, produced by the heat of the sun upon the continually revolving earth. The most powerful magnets are made by causing a current of electricity to pass along a wire which is wound spirally around a piece of iron. All the phenomena of magnetism are but modes in which electricity is manifested; and all the phenomena of electricity can be produced by heat, and also by chemical action.

GRAVITATION has never been satisfactorily explained by any hypothesis; but the only attempts that have been made to give even a conjectural explanation of

it, have been based upon the assumption of a universal fluid or etherium. The following is Newton's language upon the subject : —

“ Is not this medium (ether) much rarer within the dense bodies of the sun, stars, planets, and comets, than in the empty celestial spaces between them ? And in passing from them to greater distances, does it not grow denser and denser perpetually, and thereby cause the gravity of those great bodies towards one another, and of their parts towards the bodies ; every body endeavoring to recede from the denser parts of the medium towards the rarer ?

“ For if this medium be supposed to be rarer within the sun's body than at its surface, and rarer there than at the hundredth part of an inch from his body, and rarer there than at the fiftieth part of an inch from his body, and rarer there than at the orb of Saturn, I see no reason why the increase of density should stop any where, and not rather be continued through all distances from the Sun to Saturn and beyond.

“ And though this increase of density may at great distances be exceeding slow, yet, if the elastic force of this medium be exceeding great, it may suffice to impel bodies from the denser parts of the medium towards the rarer with all that power which we call gravity.

“ And that the elastic force of this medium is exceeding great, may be gathered from the swiftness of its vibrations.

“ Light moves from the sun to us in about seven

or eight minutes of time, which distance is about 70,000,000 of miles.

“As magnetism is stronger in small loadstones than in great ones, in proportion to their bulk ; and gravity is stronger on the surface of small planets than those of great ones, in proportion to their bulk ; and small bodies are agitated more by electric attraction than great ones ; so the smallness of the rays of light may contribute very much to the power of the object by which they are refracted ; and if any one should suppose that ether (like our air) may contain particles which endeavor to recede from one another, (for I do not know what ether is,) and that its particles are exceedingly smaller than those of air, or even than those of light, the exceeding smallness of such particles may contribute to the greatness of the force by which they recede from one another, and thereby make that medium exceedingly more rare and elastic than air, and of consequence exceedingly less able to resist the motions of projectiles, and exceedingly more able to press upon gross bodies by endeavoring to expand therein.”

Admitting the doctrine of a universal Etherium to explain gravitation, (and I cannot see how it can be avoided, whatever hypothesis be adopted,) we are furnished with a powerful argument in favor of the most marvellous pretensions of clairvoyance at a distance, and by this admission we are estopped from denying the possibility of clairvoyance from any want of a medium sufficiently potent, or subtile, or extensive, or

rapid in its movements; for the force of gravity is transmitted from planet to planet with a degree of rapidity which far surpasses all other motions with which we are acquainted. In 1773, La Place “demonstrated that the attractive force of gravity must be transmitted fifty million times faster than light, which travels at the rate of two hundred thousand miles in a second.” If, in addition to this fact, we consider that all bodies, however distant, or however solid, are reached and penetrated by gravitation — that no force can impede it, no insulation can exclude it, and no other velocity can rival it, since it has been demonstrated, by the greatest mathematicians, to move as much faster than lightning, as lightning moves faster than a snail, — I say, considering all this, the marvels of clairvoyance sink into a comparatively common and insignificant affair.

It seems to me much more reasonable to suppose that there is but one universal Etherium, the different motions and combinations of which, with other and grosser matter, produce all the different phenomena of gravitation, heat, electricity, light, animal motions, etc., than that there are several independent and distinct universal fluids operating through the same space, at the same time, upon the same bodies. It may be, that, although there is but one Etherium, this one is compounded of different kinds of matter or elements, each element possessing different properties peculiar to itself, and that when the compound Etherium comes into combination with some kinds of

ponderable matter, it becomes decomposed, one element producing one class of effects, and another producing very different effects.

Again, it may be that the universal Etherium is simple and uncompounded, but that, when it comes into contact with the ponderable materials of the earth, or other planets, it enters into combination with atoms of ponderable matter, so exceedingly minute, that it is impossible, with our finite powers of perception and invention, to detect them. By entering into these combinations, it may produce different classes of effects, which seem to proceed from different fluids. By adopting this hypothesis, we can understand why one modification of Ethereal motion (light) will readily pass through transparent substances, but not through those which are opaque; while another modification of Ethereal motion (magnetism) will pass with equal facility through both; and yet, by a certain process, electricity may be changed into magnetism, or magnetism into electricity; and both may be made to produce light. We can also understand why electricity, which will not pass through glass, can be changed to magnetism, or made to produce light, either of which will pass through without difficulty. Again, light may be made to produce magnetism, and heat to produce electricity and magnetism, while they both in turn produce heat; and, finally, chemical combinations produce heat, light, electricity, magnetism, galvanism, attraction, vegetation, digestion, respiration, muscular motion and sensation, and numberless other phenomena.

It is evident, from a review of all these facts, and many others, with which we are furnished by natural science, that we are at no loss for analogical proof of the reality of an ethereal agent in nature, the motions of which are capable of producing all the effects ascribed to etheropathy or mesmerism.

ANIMAL ELECTRICITY. — In order still further to exhibit the analogy between electricity and the agent which produces animal motions and etheropathic phenomena, I will give a few instances of the application of electricity to the bodies of animals and men. I do not wish to be understood as insisting that animal and human motions are produced by electricity, but that they are produced by a power which bears a very close *resemblance* to it in every essential quality. I consider the *effects* of human Etherium, magnetic Etherium, and caloric Etherium, as but modified *motions* of one and the same substance, just as the different colors of light are but modified motions of one substance; and as the different kinds of heat, recognized by Prof. Faraday, are but modifications of one general principle of *caloric*.

I have no doubt that there are many different motions or modifications of human Etherium; indeed, reasoning from analogy, there must be. It would also seem that those ponderable substances which are conductors of one kind of ethereal motion are non-conductors, or *insulators*, of some other kinds. The whole subject is rich in material for philosophical inquiry and reflection. The following extracts will serve to illustrate these views: —

The Rev. Mr. Townsend, in his *Facts in Mesmerism*, p. 330, says, —

“I think, then, at present, that the most striking fact of which I have heard, relative to the identity of the nervous and electric agencies, is the discovery of Desmoulins, that the transmission of sensation and motion is made by the *surface* of the spinal marrow, and not by its central parts. This is exactly parallel to the action of electricity, which is developed only, and transmitted, along the surfaces of bodies. That nerves really do conduct a ~~matter~~, similar, at least, to the electric, has been also proved by the fact, that a magnet, held between the two sections of a recently divided nerve, was observed to be deflected, as by an electric current.

“But the kind of electricity which is in the human frame, is, probably, a modification of the original principle. In many particulars it bears more resemblance to galvanism, and it is really ascertained, by experiments on dead animals, that the nervous fibre has a property of being galvanically affected, which (though varying, of course, like other properties, with the condition of the substance in which it resides) may be called inherent. Some most interesting specimens, by Dr. Elliotson, in which patients, by a reinforcement of mesmeric power, were shown capable of swinging round large weights, impossible to be even lifted by them in their ordinary condition, prove again the intimate connection between the mesmeric medium and the muscular force, which, as every

one knows, is dependent on the state of the nerves, and by them conducted from the brain. If personal evidence may be allowed to have importance, I may add, that I am of an electric temperament ; so much so, that long ago, when a child, I used to amaze and even alarm my young companions, by combing my hair before them in the dark, and exhibiting to them the electric coruscations. Of course, also, this phenomenon takes place most remarkably in a dry, and, therefore, non-conducting atmosphere. Now, between this electric endowment and whatever mesmeric properties I may possess, there is a perfect relationship and parallelism. Whatever state of the atmosphere tends to carry off electricity from the body, hinders in so far my capacity for mesmerizing ; and whatever state of the atmosphere tends to accumulate and insulate electricity in the body, promotes greatly the power and facility with which I influence others mesmerically.

“My feelings of bodily health also vary with the plus or minus of electricity ; and, perhaps, did persons oftener attend to such things, a similar phenomenon might not uncommonly be remarked. This, at least, we may admit, that the welfare of the human body depends on the equilibrium or proper distribution of its forces, and that the electric is one of these, just as much as heat or oxygen. The mesmeric force has, more than any other, been shown to be inherent in man ; and, taking all the above facts into consideration, it is by no means a strained conclusion, that

it actually is that particular modification of electricity which is appropriate to the human constitution. When, then, after having mesmerized a person, I have a peculiar feeling of loss of strength and general uneasiness; which can by no means be traced to the usual causes, I am compelled to consider this as a proof that I have suffered by a temporary destruction of equilibrium in that medium wherewith I have charged another person; that medium, namely, which we have agreed to call mesmeric. That which greatly adds to the presumption is the fact, that there is gain in the patient as there is loss in the mesmerizer. The tendency of mesmeric influence to restore equilibrium to the bodily forces is manifest. Under its beneficial action, I have seen headaches cured, fatigue dissipated, and trifling bodily ailments removed in a short time."

Muller, the celebrated physiologist, says, —

"The stimulus of galvanism *excites, in all the organs of sense, different sensations in each organ*, namely, the sensation proper to it. In the eye, a feeble galvanic current excites the special sensation of the optic nerve, namely, that of *light*. In the auditory nerve, electricity produces the sensation of sound. It has not, at present, been much observed, whether peculiar smells are produced by the application of galvanism to the organs of smell. Ritter, however, has perceived them; and it is a known fact, that the electricity excited by friction gives rise to the smell of phosphorus.

"A steel needle, plunged into a nerve, becomes *magnetic*; and on being withdrawn, it is found to have the power of attracting light substances.

"The rapidity with which sensation and volition are communicated along the nerves, could not fail to suggest a resemblance to the mode in which the electric and galvanic fluids fly along conducting wires. Yet the great support of the opinion was in the experiments instituted by Dr. Wilson Philip and others, from which it appeared, that if the nerve proceeding to a part be destroyed, and the secretion, which ordinarily takes place in the part be thus arrested, the secretion may be restored by causing the galvanic fluid to pass from one divided extremity of the nerve to the other.

"The experiments connected with secretion will be noticed more at length hereafter. It will likewise be shown, that in the effect of galvanism upon the muscles there is the same analogy; that the muscles may be made to contract for a length of time after the death of the animal, even when a limb has been removed from the body, on the application of the galvanic stimulus; and comparative anatomy exhibits to us great development of nervous structure in those electrical animals, which surprise us by the intensity of the electric shocks they are capable of communicating.

"Physiologists of the present day generally, we think, accord with the electrical hypothesis. The late Dr. Young, so celebrated for his knowledge in

numerous departments of science, adopted it prior to the interesting experiments of Dr. Philip; and Mr. Abernethy, whilst he is strongly opposing the doctrines of materialism, goes so far as to consider some subtile fluid, not merely as the agent of nervous transmission, but as forming the essence of life itself. Dr. Bostock, however, has remarked, that before the electric hypothesis can be considered proved, two points must be demonstrated; first, that *every* function of the nervous system may be performed by the substitution of electricity for the action of the nerves; and secondly, that *all* the nerves admit of this substitution. This is true, as concerns the belief in the *identity* of the nervous and electrical fluids; but we have, even now, evidence sufficient to show their similarity, and that we are justified in considering the nervous fluid as electroid or galvanoid in its nature, emanating from the brain by some action unknown to us, and distributed to the different parts of the system to supply the expenditure, which must be constantly going on." — *Dunghlison's Physiology*, p. 87.

The idea that the will of man can direct ethereal force, or electricity, in such a manner as to produce etheropathy, or mesmerism, has been considered as inconsistent with the nature of electricity, and also of the *will*; but in the case of the electric eel, we have an instance of the will discharging the electric fluid with such force as to paralyze the limbs of animals at a great distance, and even of their producing death by this power. Some very honest persons

argue that the Deity would never bestow upon man such a wonderful power as that which some experiments in etheropathy indicate; but the power possessed by the gymnotus is far greater than that possessed by man. The most wonderful feats that any mesmerizer ever pretended to perform, are unequal to those which are habitually and instinctively performed by one of the very lowest and least intellectual of the vertebrated animals. Many objections that are urged against the doctrines which I am advancing, are entirely put to rest by the simple facts connected with the natural history of these interesting animals. Here we see electricity actually generated in the animal body, accumulated in an insulated reservoir, the outlet of which is perfectly under the control of the will, so that the fluid can be reserved or expended at pleasure. We see the intellect directing the electric bolt with all the precision of an accomplished engineer, and projecting it with the most fatal effect upon its adversary. Like a skilful ethereal operator or mesmerizer, he ascertains the degree of susceptibility which is possessed by different bodies with which he comes in contact, so as not to exhaust his energies upon non-conductors. In short, you see in one of the most stupid and insignificant animals a realization of all the fabled powers of Olympian Jove. The exploits of Mesmer, Peysegur, or Elliotson, sink into mere trifles compared with those of the electric eel; and yet you will hear gentlemen who are renowned throughout the

wide world for "learned ignorance," talk in the most oracular style of the utter improbability that the Deity would give one of his creatures *such power* over another. The following is from Rees's Encyclopædia : —

"From the observations of Condamine, and others engaged about the same time in a series of experiments on the electric properties of the electricus gymnotus, it is clearly demonstrated that the power of this animal consists in a kind of genuine electricity, being equally capable of being conducted or intercepted by the same means as electricity. Thus, on touching the fish with the fingers, the same sensation is perceived as on touching the charged vial.

"This electric faculty of the gymnotus is apparently designed by nature to assist in the support of its existence ; the smaller fishes, and other animals which happen to approach it, being instantly struck motionless, and, dropping to the bottom of the water, become an easy prey. The shock this fish is capable of exerting, is so great as to deprive almost of sense and motion those who are exposed to its influence, and is therefore much dreaded by those who bathe in the rivers it inhabits. Some writers affirm, even, that the violence of the shock given by those of a larger size, is so great as to occasion instant death. Their average length is about three feet, but they are sometimes found in the River Surinam upwards of twenty feet in length ; and the shock of one of these is said to prove instant death to the person who

receives it. Electrical fishes are capable of repeating the shocks very frequently in a short space of time.

“Mr. Jno. Wash, in a letter to Dr. Franklin, says, that he reckoned fifty shocks in a minute and a half, given by a *torpedo*; and upon another occasion, he calculated that one hundred were delivered in about five minutes. Much of the force of the shock depends upon the natural strength and vigor of the animal at the moment of the experiment. It is said to have very little electric power in the winter. It is much diminished if the fish remain for any time out of water. The shocks do not appear to be lessened in strength by repetition, unless the animal be otherwise exhausted. When the torpedo administers a shock, it is always observed to depress the eyes, and to make some movements of the lateral fins. The other electric fishes do not accompany these shocks by any visible muscular effort. However strong the shock of fishes may be, it has never been seen to produce the least noise, nor luminous appearance, and it will not pass through the smallest portion of air; it must, therefore, be greatly deficient in intensity. The electricity of fishes has not the power of attracting floating substances. When a person is insulated, and touches the fish, he receives a shock as at other times, but gives no appearance of excess of electricity, however long he may keep up his communication with the animal. A Leyden phial, also, being put into contact with an electric eel, never becomes charged. It would appear that the electric

phenomena of fishes are produced in a manner different from every species of physical electricity.* All

* From the Penny Cyclopædia : —

“When the battery is applied to the nerve of a person recently dead, and the circuit is completed, several violent motions ensue, dependent on the relative position of the nerve and muscle; thus, when the wire communicates with the phrenic nerve, the muscles of respiration are set in motion; when from the ulnar nerve to the spinal marrow is included in the circuit, the fingers are set in quick motion, and so on. Fishes are still more susceptible of this electric action than animals, and strong convulsive motions will be exhibited by a live flounder placed on a zinc dish and having a piece of copper or silver on its back, as soon as the two metals come in contact: similar effects take place with leeches, worms, and amphibious animals.

“It was thought by Volta, that the involuntary muscles, such as the heart, could not be thus excited; but experiment has decided against him.

“When the secretion was suspended by cutting the eighth pair of nerves, Dr. Philip and several French anatomists have restored it by establishing a galvanic current through the divided part of the nerves next the stomach.

“Intermittent currents have been employed in the experiments of Masson, Peltier, and Delarive. To effect this, M. Masson used a toothed wheel rotating by a cord round it; its axis, supporter, and itself being all metallic; a communication is formed between this wheel and a battery in the form of a helix: the object of the teeth of the wheel is occasionally to suspend the action of the current by making the connecting rod of too great a length; hence, when the wheel is made to revolve, the galvanic current acts and is suspended alternately. By a series of intermitted discharges produced in this manner, M. Masson had the cruel pleasure of killing a cat.

“P. Santi Linari drew the electric spark from the gymnotus in the following manner: he took a glass tube of the shape of a capital U, which he partly filled with mercury; at each end was

experimentalists agree that they regulate the strength and frequency of the shocks at pleasure.

fixed an iron wire through a wooden button, and which reached very near the mercury. The apparatus being fixed with mastic on varnished wood, the end of the wires were made to touch short platina wires terminated by laminæ of the same metal, intended to make a good communication with the different parts of the electric fish. When the circuit was formed, a spark, visible even in the daylight, appeared at the place where the conductors were interrupted. This experiment he has repeated in different forms." — *Biblioth. Univ. de Genève.*

"Galvanism, in its action on the human system, resembles electricity; yet it is distinguished by certain peculiarities. In its application it can be rendered more continuous and uniform, and may, like electricity, be administered either in shocks or in a regular flow of galvanic influence through the body. It possesses more power over the chemical actions of the body than electricity, and promotes more completely those processes of decomposition and recomposition which take place in the living frame, as well as the functions of organic life, than common electricity. But the chief distinction consists in the difference of action of the two poles. Each pole excites a peculiar phenomenon in the organs to which it is applied. This difference is less perceptible when mere shocks are administered, than when a continuous stream of galvanic influence is transmitted from one point to another of the body. The positive pole more particularly influences the muscular and vascular system, while the negative pole more especially affects the nervous system. At the positive pole there is felt the shock, strong movements, a feeling of concentration and contraction, increased warmth and mobility of the part, with gradual diminution of the secretion and sensibility. At the negative pole, the pain and sensibility are stronger and more acute, the organ expands, is more irritable, while the muscular action and mobility are lessened. The difference of their action on the secreting powers is best seen by applying the respective poles to a surface which has been recently

“Dr. Williamson relates, that some small fishes, being thrown into the same water where an electric eel was swimming, it immediately killed and swallowed them; but a larger fish being thrown in, it was also killed, although it was too large for the eel to swallow. Another fish was thrown into the water, at some distance from the eel; it swam up to the fish, but pres-

deprived of its cuticle, such as where a blister has been. The positive pole changes the serous secretion into that of lymph, which at last becomes thready; the part dries and is inflamed. The negative pole causes an abundant secretion of a dark-colored, highly acrid fluid, which excoriates the skin over which it flows; the part also experiences an enduring irritation. Atonic swellings are rendered harder, should they not become inflamed by the positive pole, while frequently by the negative pole they are dispersed and resolved. Notwithstanding the possession of such powerful properties, galvanism has not produced so valuable results in medicine as might have been anticipated. This comparative failure is, no doubt, to be attributed to errors in the mode of applying it. It may be proper, however, to remark, that it was urgently recommended during the prevalence of the Asiatic cholera; but the results were not satisfactory. Like many other powerful agents, it was not used till a very late stage in the complaint, when recovery was almost impossible. It is also to be doubted whether galvanism be at all applicable to cholera, since it appears that the continued application of it causes death, by inducing inflammation of the lungs, in cases of animals where the eighth pair of nerves have been divided, more speedily than where the same nerves have been divided in animals to which the galvanic power was not applied as a substitute for the nervous. Inflammation is the invariable consequence of the application of the positive pole; while the negative pole would cause a flow of acrid secretion which could not benefit the patient. The identity of electricity, whether common or galvanic, with the nervous power, is much to be questioned.”

ently turned away without offering it any violence ; after some time, it returned, when, seeming to view it for a few seconds, it gave the fish a shock, upon which it instantly turned up its belly and continued motionless. A third fish was thrown into the water, to which the eel gave such a shock, that it turned on its side, but continued to give signs of life ; the eel, seeming to observe this, as it was turning away, immediately returned and struck it quite motionless."

SECTION IV.

OXYGEN.

HAVING shown the nature of Etherium, I proceed to inquire how its motion is generated in the human constitution, through the agency of oxygen. •

In 1774, Dr. Priestley discovered that the atmospheric air is composed of two different substances — one of which has since received the name of oxygen; and it has been found to perform a more important part in chemical combinations than any other ponderable substance with which we are acquainted. The burning of fuel and other substances is caused by the combination of oxygen with some of their component elements. The rusting and tarnishing of metals is caused by their surfaces forming a chemical union with oxygen. Most of the substances which are commonly called *earths*, are, in reality, but a combination of oxygen with some metal; this is true of soda, potash, lime, magnesia, etc. Water is a combination of oxygen with hydrogen. Paints are all composed of some metal combined with oxygen. The common galvanic battery derives its power from the union of oxygen with its metallic plates. The blood of all animals is stimulating and nourishing in proportion to the amount of oxygen which it contains — no animal can live a moment without oxygen: and, finally, the number and force — that is, the

quantity — of animal motions is in proportion to the amount of oxygen which they require. The motions of animals are undoubtedly produced by the agency of Etherium; this is the settled opinion of those physiologists who are most capable, from their knowledge and experience, of forming a correct judgment upon this subject. It is also admitted, that oxygen is directly related to animal motions. Now, the question to be determined is, what relation has oxygen to Etherium? and what relation has it to the animal motions which Etherium propagates?

The following seems to me the most reasonable explanation, and one which will receive the approbation of philosophic minds:—

Every chemical change or combination is accompanied with a motion of Etherium, whether we perceive it or not. Some motions, thus produced, are more powerful than others; and the more powerful neutralize the weaker, or cause them to conform. The motions of animals are produced in a manner so very analogous to those produced by galvanism, as to excite a suspicion in the minds of all scientific men, that they are produced in a similar manner in both cases. We examine to see what there is in common, and the first and most striking fact that arrests our attention, in both operations, is, the agency of oxygen. In both instances we find oxygen drawn from the atmosphere to combine with a liquid; in both instances the liquid comes in contact with a substance which has a greater affinity for oxygen;

this substance, whatever it may be, unites with the oxygen and forms an oxide; instantly a motion of Etherium is produced, which in one case is adapted to move an *iron* machine, and in the other, a *muscular* machine.

The conclusion is irresistible, that oxygen, by its chemical combinations, produces the motions of Etherium in both machines.

It is the office of the stomach to furnish the materials of nourishment, (carbon and hydrogen,) and of the lungs to furnish oxygen, the material of motion. This is the reason why vegetables, which have little or no occasion to move, use so little oxygen; and why animals use an amount of oxygen exactly in proportion to their motions. It is the reason why the predominance of the digestive functions causes fat (which is composed of carbon and hydrogen) to accumulate; while the preponderance of the lungs and brain is generally accompanied with leanness; as the fat (carbon and hydrogen) is used up in combining with oxygen to produce motion.

This explains why sleep is useful, as it enables fat to accumulate for the supply of the oxygen needed to sustain motion when awake.

During sleep there is just oxygen enough furnished to supply motion to the involuntary organs; during waking, enough to supply both voluntary and involuntary. Oxygen is used immediately after it is received; carbon and hydrogen may (in the form of fat) be reserved until needed. There is generally

more carbon and hydrogen secreted, than used, during sleep, and the surplus is reserved to be used while awake.

The conclusion is, that the quantity of motion of Etherium generated in a man, is in proportion to the quantity of oxygen which combines with his food; and the quantity of oxygen which combines with food in a given time, depends upon the size and perfection of the lungs and stomach, the proportion which they bear to each other, and the expenditure of material made in producing voluntary and involuntary motion.

There are many other modes by which Etherium may be set in motion, without the agency of oxygen; but I contend that this is the use to which respired oxygen is put in the animal system.

SECTION V.

SLEEP.

NEW PHILOSOPHY OF ORDINARY SLEEP.

VEGETABLES sleep incessantly, all their actions being involuntary. The motions of animals are divided into voluntary and involuntary. When the animal is performing involuntary motions only, he is said to be asleep. When he is performing voluntary motions, he is awake. There is a very great difference among animals in regard to the time which they spend in sleep; there is also a difference in this respect among men; and a difference in the same individual at different periods of life, and in different states of health.

The only theories of sleep which have ever been proposed, that I know of, are founded upon the idea that sleep is necessary to restore to the body the substance which it loses by its operations during the waking period, and to give the organs an opportunity to rest. It is spoken of as

“Tired nature’s sweet restorer, balmy sleep.”

This is the view supported, or rather assumed, by Mr. McNish, in his “*Philosophy of Sleep* ;” and it is maintained by Prof. Liebig in his excellent work on “*Animal Chemistry*.” After making an accurate calculation of the amount of force which an adult man expends in a day, he says, —

"This supply of force is furnished in a seven hours' sleep."

Again he says, —

"The adult man sleeps seven hours, and wakes seventeen hours ; consequently, *if the equilibrium be restored* in twenty-four hours, the mechanical effects (muscular motions) produced in seventeen hours must be equal to the effects produced during seven hours in the formation of new parts. If, in the adult man, the consumption of force for mechanical purposes, in twenty-four hours, be augmented beyond the amount restorable in seven hours of sleep, then, if the equilibrium is to be restored, less force, in the same proportion, must be expended in mechanical effects in the next twenty-four hours. If this be not done, the mass of the body decreases, and the state characteristic of old age more or less decidedly supervenes."

Having thus fairly stated the received doctrine on this subject, I will now briefly give my own views, which are essentially different.

I consider the cause of sleep to be the predominant influence of the involuntary system over the voluntary, which enables the involuntary system to monopolize all the available force, and appropriate it to its own purposes ; leaving the voluntary system without the means of sustaining its operations, it pauses of course : this is sleep, and its cause. The force which continues both systems in action, is generated by the combination of carbon and hydrogen with

oxygen. Oxygen is continually furnished in a sufficient quantity, but the carbon and hydrogen are not produced in a proper state and proper place to combine with oxygen, and produce force with sufficient rapidity to supply the constant demands which voluntary and involuntary systems would both make upon it, if they should both keep active incessantly. This deficiency is compensated by sleep; not as McNish and Liebig suppose, because sleep is *necessary to restore* the equilibrium of substance; for sleep is not necessary for this purpose. There is a restoration continually going on *when we are awake*, but it does not go on *fast* enough to keep pace with the waste; and when the reservoir is exhausted to a certain point, the struggle commences between the two systems; a struggle in which the involuntary system always triumphs sooner or later. If the brain is greatly excited, it maintains the contest longer; but if all is quiet, monotonous, and peaceful, while the stomach is excited by food easy of digestion, the involuntary system easily prevails over its antagonist, the brain, inducts it, and puts it to sleep.

In harmony with this theory, we find that (*cæteris paribus*) those who digest their food with great rapidity, and whose secretions are rapid, of course sleep but little; while those who digest and secrete very slowly, sleep much. This proposition must be understood with the proper qualifications of *cæteris paribus*, or all else equal; for there are other facts which must be taken into the account, and some of

them of much importance. One is, *the size of the brain* compared with the body. When the brain is large in proportion to the rest of the body, all else equal, there is a greater tendency to keep awake ; and when the brain is small, there is a greater tendency to sleep. Another modifying circumstance is, the *number* of different powers of mind possessed by the individual ; for some animals possess a greater number of mental organs than others. Another circumstance is, the relative *size* of the *higher organs* of the brain compared with the lower, as the higher organs prevent sleep by producing reflection. Now, take an instance for illustration, where all the conditions are favorable to wakefulness: 1. When the food is such (meat) as to be rapidly and easily digested ; 2. When the lungs are very large, so as to demand rapid digestion ; 3. Where the brain is large compared with the rest of the body ; 4. Where the number of the mental organs, as in man, is greater than in other animals ; and, 5. Where the higher organs are much larger in proportion than the lower. If my theory is correct, such a person will sleep but little. On the contrary, let all the conditions just stated be reversed, and the individual will sleep much from unavoidable necessity. The basis of Mr. Liebig's error (if I may venture respectfully to speak of the error of a very justly distinguished man) consists, as I apprehend, in assuming that, to use his own language, —

“A living part cannot increase in volume at the

same moment in which a portion of it loses the vital condition, and is expelled from the organ in the form of a lifeless compound; on the contrary, it must diminish. . . . And only from the period at which the cause of waste ceases to operate, can the capacity of growth be manifested. . . . And, if the original equilibrium is to be restored, we must suppose that, during sleep, an amount of force is accumulated in the form of living tissue, exactly equal to that which was consumed in voluntary and involuntary motion during the preceding waking period."

To annihilate this doctrine, it is only necessary to carry it out to its consequences; for, if it is true that a part cannot grow until the cause of waste ceases to operate, then the heart and all the involuntary organs are unable to manifest their capacity of growth at any time during life. But we know that they do grow, and we know that they continually waste; and yet they do "*increase in volume at the same moment in which a portion of them loses the vital condition,*" etc. What we know of the involuntary organs in this respect, we have a right to assume of the voluntary; that is, that they are capable of growing while they are in operation, and that sleep is not therefore necessary to the continuation of life, excepting so far as it economizes force.

Again, Mr. Liebig's assumption is not true, that, all else equal, —

"The mechanical force available for work is directly proportional to the number of hours' sleep."

It would, doubtless, be true, if the restoration of substance and the acquisition of force could only take place during sleep; but I have already shown that this is not true, and consequently, the assumption of a regular proportion of force to sleep is also without basis. It is at war with facts. Birds, that sleep less than any other animals, surpass all animals in the amount and velocity of their motions. In proportion to their size they certainly expend more force in voluntary motions than any other animals; and yet, according to Mr. Liebig, they accumulate less, because they sleep less. It cannot be said that they sleep so much sounder than other animals, that they are therefore enabled to accumulate enough in their brief sleep to support their long-continued and vigorous motions; for their sleep is not only brief, but very light and imperfect. They are so easily waked that it seems doubtful whether they are ever entirely asleep. According to my theory, it is easy to understand that an animal of this kind could entirely dispense with sleep: I do not doubt that some birds might be kept awake continually. It is said, indeed, that fishes never sleep, and I can readily believe it; for with their rapid digestion and little expenditure of force, balanced as they are in the water, and sustained by the gravity of their native element so as to need but little exertion to propel themselves about, there is little occasion for sleep, if my views are correct; but, according to Mr. Liebig, they ought to sleep during the whole time that they are growing;

and the amount of their sleep ought to be proportional to the amount of growth added to the amount of substance expended in all their motions: this is certainly not true, and therefore Mr. Liebig is certainly and obviously wrong on this point, notwithstanding the genius which he has exhibited in so many other departments of inquiry. As I propose to illustrate this interesting subject more in detail on some future occasion, I will not pursue it further in this work. It seems, then, that the immediate cause of sleep is, that the involuntary system actually inducts or mesmerizes the brain; at certain regularly returning periods, monopolizes, for its own use, all the force then on hand, and proceeds to accumulate substance until the stimulus of the external world prevails, and inducts the external senses and brain sufficiently to produce waking.

The reason why sleep is necessary, is, because we do not digest and secrete fast enough to supply carbon and hydrogen for the oxygen which it would require to move voluntary and involuntary organs twenty-four hours.

The apparent design of the Creator, in ordaining sleep, is to prevent the unnecessary expenditure of force. Accordingly, those animals, or those parts of animals, whose circumstances require continual action, never sleep. To illustrate: horses sleep standing, rabbits with their eyes open: it is said that fishes never sleep, and we know that the heart never sleeps.

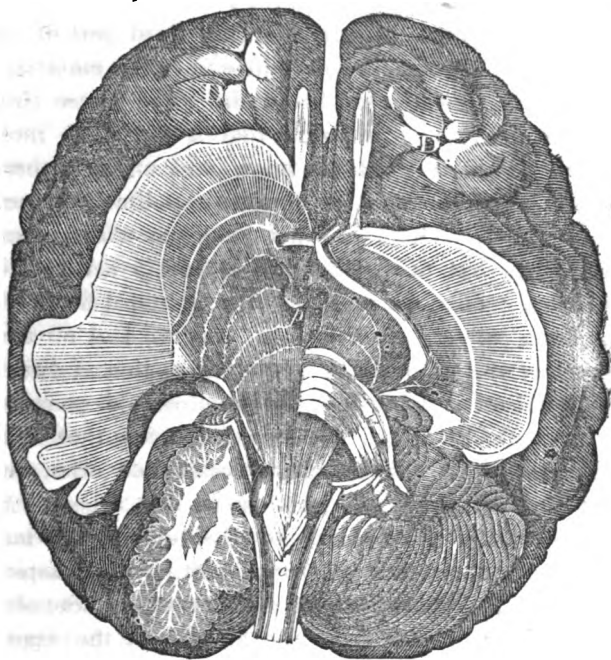
SECTION VI.

THE ORGAN OF CONSCIOUSNESS.*

It is impossible to avoid the conclusion, that there is a central organ of Consciousness in the brain, where all the other organs of mind concentrate their forces, where their relative influence is appreciated, and their relative claims to superiority weighed and allowed — an organ of Consciousness, to which all the other organs of the brain, and all the various external organs of sensation, are merely auxiliaries. All the organs of the brain which are concerned in thought and feeling, converge to this grand centre, and all the nerves of voluntary motion diverge from it.

The organ of Consciousness is located in the *medulla oblongata*: this is the point where sensation terminates, and volition commences; this is the seat of Consciousness. The proof is derived from experiment; for, if the brain above, and the spinal cord below, are both destroyed, consciousness still continues, provided the medulla oblongata and its nerves are uninjured; but if the oblongata is destroyed, consciousness is also destroyed. This is conclusive and unanswerable proof. The precise minute point where

* The attention of the reader is particularly called to this and the succeeding section, as they are necessary to a complete understanding of clairvoyance, and of magic eloquence. — Ed.



The engraving represents a brain as dissected by Spurzheim, to show the fibres of the phreno organs converging to the point *c* in the medulla oblongata. Where alone, according to Prof. Grimes's theory, Consciousness is experienced.

We are indebted to the courtesy of Dr. Bronson for the above engraving, and also for one on page 119. — *Ed.*

Consciousness holds its mysterious throne, whether it is exactly at the place where the pneumogastric nerve is inserted, or the twentieth or the third part of an inch above it, is not yet ascertained ; nor is it material : it is certain that it is not below the place where that nerve is inserted ; it is certain that it is not an inch above. This is what we know, and all we know, of the location of Consciousness — the *sanctum* of the mind. There is other evidence which confirms this, but none which so decidedly settles the question. Thus we find that the principal fibres of the brain converge to this point, and we find all the nerves of sensation and of voluntary motion in direct communication with it. Its intermediate position between the brain and spinal cord, the fact that it is possessed by all animals of the vertebrated class, the fact that some animals have more and others less phreno-organs superadded to the oblongata, but none are without this important part, — all conspire to sustain and illustrate the decisive experiments by which this is proved to be the location of the organ of Consciousness.

“The spinal marrow is sensible along the whole of its posterior column ; but it also acts only as a conductor of the impression. Flourens destroyed the spinal cord from below, by slicing it away ; and he found that sensibility was gradually extinguished in the parts corresponding to the destroyed medulla, but that the parts situated above evidently continued to feel. Perception therefore occurs in the encephalon ; and not in the whole but in some of its parts. Many physiologists, amongst whom may be mentioned

Haller, Lorry, Rolando, and Flourens, have sliced away the brain, and found that the sensations continued until the knife reached the level of the corpora quadrigemina; and again it has been found that if the spinal cord be sliced away from below upwards, the sensations persist until we reach the medulla oblongata. It is, then, in the medulla oblongata that we must place the cerebral organs of the senses, and it is with this part of the cephalo-spinal axis that the nerves of the senses are found to communicate.

“Mr. Lawrence saw a child with no more encephalon than a bulb, which was a continuation for about an inch above the foramen magnum of the medulla spinalis, and with which all the nerves from the fifth to the ninth pair were connected. The child's breathing and temperature were natural; it took food, and at first moved very briskly. It lived four days.” — *Dunglison's Physiology*, p. 83.

The location of Consciousness is not, in itself, a very important or essential circumstance, provided it be admitted that there is such an organ, and that it has a location somewhere in the brain; the philosophy founded upon Consciousness would be the same if its location were utterly unknown. Dr. Reid, the greatest of the Scotch philosophers, advocated the doctrine that Consciousness is a distinct power of the mind, but did not attempt to give it a local habitation. Aristotle and the ancient philosophers considered the brain as the *sensorium*, but did not designate any particular portion as especially entitled to that name. Descartes considered the pineal gland as the seat of the soul. Darwin and many modern physiologists use the term *sensorium* to signify the seat of the mind, wherever it may be. The researches and experiments of the anatomists of France and Italy, which have been made within the last hundred years

upon living animals, with a design of ascertaining the offices which are performed by different portions of the brain, have been very numerous, and have cost much labor, and excited much discussion. Those experiments have, however, been of but little use, except so far as relates to the seat of Consciousness. They demonstrated that life is independent of the brain ; that respiration and volition are dependent upon the brain ; that the medulla oblongata is the centre of volition and sensation ; and that the brain, all excepting the medulla oblongata, may be taken away, and respiration, and volition, and the signs of Consciousness, remain. These experiments seemed to be at war with the doctrines of Gall and Spurzheim, and their fairness was consequently denied by the advocates of phrenology ; none of them have considered the experiments as affording evidence of the truth of phrenology, though in reality they do so, if the doctrines which I have advanced respecting Consciousness are admitted to be correct.

All the phrenological writers seem to have entertained the most vague notions concerning Consciousness. Both Spurzheim and Combe, and indeed all other phrenologists, deny the existence of Consciousness as a separate power of the mind. They seemed to have a notion that each mental power has a Consciousness of its own, in some way, which they did not attempt to define, and probably did not themselves clearly comprehend. The opponents of phrenology have not failed to avail themselves of this

weak point in the science. They have triumphantly demanded, "What constitutes *the unity of mind* — the unity of Consciousness in our system of phrenology?" They have justly characterized the science as a federal republic without a common executive — a circumference without a centre; and though they were inclined to admit that phrenology has added some useful facts to our stock of knowledge on this subject, it is not itself entitled, in their opinion, to the claims which its friends set up for it, to be considered as a systematic science. There was, indeed, but too much truth in this criticism, and I hope that this introduction of the organ of Consciousness will in a great measure obviate not only this difficulty, but many others which previously lay in the way of the metaphysicians. The error of Spurzheim on this point, which was adopted by Combe and other followers of that illustrious man, may be traced in all his works, and in the works of all his disciples. Spurzheim divided the powers of the mind into feelings and intellectual faculties. He reckoned twenty different organs of *feelings*, besides fifteen *thinking* faculties. He and Combe also speak repeatedly of these different powers, as operating sometimes in harmony, and sometimes in antagonism; but did not seem to think it necessary to point out the *common ground* upon which their harmony or antagonism is displayed, and without which it is impossible that it can be displayed at all.

If we say that Consciousness is dependent upon a

material organ, it may be objected, that it is then compound in its material constitution, and consequently liable, after death, to be decomposed, and, of course, its identity annihilated. I answer, that the organ of Consciousness is not necessarily compound. The essential element of the organ may, for aught we know, be an ultimate and indivisible atom of matter, which has the inherent property of being conscious, when placed in proper relations to the senses and other organs, so as to have this property excited. An indivisible, indestructible atom of matter is immortal in its existence and its identity; and if it is capable of Consciousness, when placed in proper circumstances, then Consciousness is immortal, though it may remain dormant for ages for want of the proper circumstances to excite it. There are some reasons for suspecting that every atom of matter in existence is capable of Consciousness, when placed in the circumstances and conditions favorable to its development.

It is quite certain that Consciousness can exist, in all its power of thought and feeling, in a particle of matter so exceedingly minute, that the most perfect microscope cannot perceive it. This is demonstrated by the phenomena presented by that wonderful order of animals, the *infusoria*, some of which, according to an accurate and mathematical measurement by Ehrenberg and Dr. Prichard, are so diminutive that twenty-five thousand of them can stand in a row upon a line which is less than an inch in length, and eight millions can occupy less space than a mustard seed.

Now, when we reflect that each of these animals has limbs, mouth, organs of digestion, an involuntary and voluntary system, with a central Consciousness,— how large a space can we suppose the central Consciousness occupies? That it exists in them, as in us, no one will deny: it is also plain that it does not occupy the whole of the body in them, any more than it does in us; for in their case, as in ours, a limb may be destroyed, and yet Consciousness remain. In them, as in us and all animals, it occupies a central position, distinct in its nature and function from, yet in connection with, all the voluntary organs. Now, it can be easily demonstrated that Consciousness cannot possibly occupy this central position in relation to the other organs of the animal, without being limited to a space more than two hundred times smaller than that which the rest of the animal occupies. As eight millions of the animals occupy less space than a mustard seed, therefore *sixteen hundred millions of organs of Consciousness may exist in a space smaller than that filled by a mustard seed.** Surely, after this,

* *Infusoria.* This term has been applied to the numerous minute animals found in water, which are commonly called *animalcules*.

The invention of the microscope by Hooke, revealed the existence of myriads of living creatures, whose presence was before unknown; and this instrument has shown that a drop of water, though it may appear to the naked eye to be perfectly clear, is perhaps swarming with living beings. Ehrenberg (whose labors have principally contributed to the knowledge of the true nature and structure of the infusory animalcules) has described species which are not larger than from one thousandth to one two-thousandth of a

no one will cavil about the organ of Consciousness being supposed to exist in the smallest possible atom of matter, indivisible and indestructible. This course of reasoning is useful in teaching us that the nature of Consciousness is beyond our grasp ; that we cannot investigate it by the observation of material bodies ;

line (a line is one twelfth of an inch) in diameter, and which are separated from one another by intervals not greater than their own size. A cubic inch of water may thus contain more than eight hundred thousand millions of these beings, estimating them only to occupy one fourth of its space ; and a single drop (measuring not more than a line in diameter) placed under the microscope, will be seen to hold five hundred millions — an amount perhaps nearly equal to the whole number of human beings on the surface of the globe.

Distinct organs of digestion may be demonstrated in all the species. Ehrenberg says, "All true infusoria, even the smallest monads, are organized animal bodies, and distinctly provided with at least a mouth and internal nutritive apparatus."

Speaking of the wonderful power of the infusorial animals to multiply by the mysterious process of self-division, Prof. Ehrenberg says, —

"The possibility of the multiplying of an individual to a million, in less than forty-eight hours, was exhibited in them by the mere process that each single animalcule can divide itself, within one hour, completely lengthwise or across, and after the lapse of one hour's rest, can repeat the same thing. The vast effect of this activity is, that a single animalcule, perfectly invisible to the naked eye, can possibly be increased in four days to 140 billions of independent animalcules. In the polishing slate of Berlin, about 41,000 millions of these creatures form one cubic inch of stone, as may easily and pretty accurately be determined, etc."— *Transactions of the Royal Academy of Berlin*, 1840.

In contrast with these views, it will be interesting to read the following brief extract from Dr. Lardner's Lectures : —

that we can only know its existence in a general manner from experience, and its location by experiments which can only approximate to exactness.

Nor does this investigation shed any light upon the subject of immortality. If man is necessarily immortal because he is endowed with an indestructible organ of Consciousness, then so is every insect and reptile, and all the infinite variety of vermin that have ever infested the earth ; and science offers as power-

“ A star of the seventh magnitude can easily be compared with one of the first, in point of splendor, by the photometer — just as the light of a sperm candle can be compared with that of a lamp. SIR JOHN HERSCHEL has compared the splendor of a star of the sixteenth magnitude with that of one of the first, and has found that the light of the latter is equal to three hundred and sixty-two times that of the former. From this it may be inferred that the distance of a star of the sixteenth magnitude is such that it would require thousands of years for its light to reach our system. These considerations present to our minds most comprehensive views of the economy of the universe. For if light requires a thousand years to come from any of these plainly distinguishable stars, there can be no doubt that it takes twenty times as long to come from others ; and what are we to infer from this but that there are visible objects in the universe which 20,000 years ago existed as they are now seen ? Light left these stars 20,000 years ago, and has just reached the earth upon which we live. For twenty thousand years past, then, these stars, for aught we know, may not have existed. The objects we see to-day are not the objects of to-day : the Sirius that we see to-day is not the Sirius of to-day. The light by which we see it left that star three years ago ; and from that day to this we have known nothing of it. Into what a singular historical state does this view throw creation ! Our system, then, exists at an enormous distance from the nearest of the fixed stars ; and look in what direction we may, the same chasm yawns between us and it.”

ful an argument in favor of their immortality as that of man. Of all the investigations of scientific men, none has excited the jealousy of sectarians as much as the one we have now under consideration ; almost every philosopher who has manifested a disposition to approach the subject fearlessly, and speak of it with independence, has had the mad-dog cry raised against him of *fatalism, materialism, or heresy*. Many of our modern authors have been so far influenced by this outcry, that they have evidently suppressed their true sentiments, and smothered their conscientious convictions, to avoid the relentless persecutions which arise from bigotry and superstition. The only road to the favor of this potent and numerous class of tyrants, is to make a profound mystery of every thing relating to mind ; all explanation, or even demonstration, is condemned by them as unpardonable heresy, dangerous to religion, and inconsistent with *their own narrow views* of the Holy Scriptures. Nothing has had so injurious an effect upon the fair and successful investigation of this subject, as even the well-meant interference of these self-appointed theological critics, and nothing can be more injudicious and misplaced than their animadversions. The truth is, the subject is not fairly within their jurisdiction, and therefore they have no right to meddle with it. The immortality of the soul can neither be proved nor disproved by the demonstrations of natural science. We may examine the nerves and the brain as much as we please ; we may prove to a certainty that Conscious-

ness maintains its seat in the very centre of the oblongata; we may determine the precise, individual, ultimate atom in which it resides with all its prerogatives, where it receives its impressions through the senses, and sends forth its mandates through the motor nerves; we may prove that it is dependent upon the various phreno-organs, the currents of Etherium, and their modifications in the different avenues; and yet the subject is as far beyond our comprehension as before; we can discover nothing that illustrates or illuminates immortality. If all was doubt and obscurity when we began the search by the light of nature, reason, and science, it is equally obscure now; and from the nature of the subject it could not possibly be otherwise. We have come to the wrong place to learn the nature of the immortal principle of the human soul, or to find evidence for or against this important doctrine. Suppose it proved that Consciousness in this temporal life does actually depend upon a compound material organ, which at death is decomposed so as to render Consciousness by that organ impossible; suppose this demonstrated, beyond all question; would this be admitted as decisive proof that the soul is not immortal? Again, suppose it demonstrated that Consciousness is dependent upon a single indestructible atom; would this be sufficient to satisfy us concerning the immortality of man? We may conjecture what we will, and speculate until we have exhausted all the resources of our ingenuity, without solving the question of our future destiny.

Consciousness certainly does exist in man and every other living animal, and has its seat at the point where sensation terminates and volition commences ; this is all that we can know. The condition of human Consciousness after death is a matter of religious faith, but not of scientific knowledge.

Immortality is like one of those fixed and beautiful stars, that cannot be perceived by the unaided natural eye ; but divine revelation is like a powerful telescope, which brings that star clearly to our view. Be it, then, hereafter remembered, that "eternal life and immortality is brought to light through the gospel of Jesus Christ," and not through anatomy and physiology, nor any other department of scientific investigation. The subject is infinitely beyond the reach and above the comprehension of finite intellect and human reason. If any one wishes to find evidence of the immortality of the soul, let him go to the Bible. If he rejects this testimony, I can assure him that he will find it proved nowhere else. He will look to human science in vain—it can only lead him to the grave, and there leave him. History may reveal to him, that man has, in all ages, and under all circumstances, savage and civilized, manifested

"This pleasing hope, this fond desire,
This longing after immortality ;"

but this affords him no assurance that his longing will be satisfied. In vain, then, do we send out science in search of immortality for the soul ; like Noah's dove, it returns again, unable to find a resting-

place even for itself; but divine revelation, like the second dove which Noah sent out, comes to the believer with its beautiful wings illuminated by reflections from the rainbow of eternal hope, bearing the olive branch, the emblem and assurance of rest and peace from all the storms of a troubled world.

In whatever direction we turn our eyes to the works of nature's God, we find evidences of design; and whenever we are able to understand his designs, we are forced to acknowledge their wisdom. Let us, then, inquire, What was the design of the Creator in bestowing Consciousness upon animals and man? Why could not all their actions have been involuntary, as one class of them actually is; and as all the actions of vegetables, in all probability, are? Why was it necessary — when organized beings advanced from the condition of vegetables one degree upwards in the scale — why was Consciousness added?

This has been answered by saying that Consciousness was given that the animal might be capable of enjoying its existence. Why, then, was not Consciousness given to vegetables and minerals? Besides, Consciousness is often attended with suffering; and, in some instances, animals seem to suffer much more than they enjoy. This cannot, then, be the answer. When the question is applied exclusively to man, it may be answered, that Consciousness was bestowed because he could not otherwise have been made an accountable being; but this will not be given as the

reason why Consciousness was bestowed upon the lowest animals ; nor will it enable us to explain all the instances of human Consciousness. I will venture to propose another reason. It is this : *Consciousness became necessary, to enable the animal to act with reference to external objects, which are not in contact with his organs.* Involuntary and unconscious actions are always performed upon objects which are in contact with the organs. When the earth first emerged from its primitive condition, so that organized beings began to live upon it, their first actions were probably altogether involuntary ; and when the condition of the earth so far improved as to render the introduction of animals possible, those animals were but a single step in advance — but one degree superior to vegetables. Accordingly, the lowest animals differ from vegetables only in this, that they act upon objects which it requires a movement of their extremities to bring into contact. This is the reason why vegetables, having no Consciousness, have no muscular motion ; nor do they need any, since all the objects which require their action are in contact with their extremities. Vegetables have propensities to breathe, to eat, to enjoy the light, etc. ; if Consciousness were added, and nothing more, we should have a *vegetable conscious of its wants*, but unable to move to get into contact with the objects which it needed — unable even to perceive them. Now, add perceptive organs and contractile muscles, and it would be a *conscious animal*, with the same wants, and consciousness of

those wants ; and, in addition to these, it would have a Consciousness of the existence, location, form, color, flavor, and weight of the objects which it needed, and the means of moving its extremities, and directing them so as to come into contact with those objects. The animal may still be destitute of reflective organs, and, therefore, unable to perceive the consequences of his actions. He has the very lowest animal propensities, and the very lowest perceptive organs, super-added to Consciousness. He is urged irresistibly by his propensities to aim at certain objects, without reflection, without fear, and without hesitation or forethought ; danger and death will be unseen and undreaded. He will be incapable of acting with reference to any objects which are beyond the limits of present perception, direct and immediate. He has no memory, for that can only exist with reflection. Memory is a power which connects the past and present, and depends, in some degree, upon the reflective powers, of which we have assumed the animal to be destitute. As he cannot avail himself of past experience without memory and reflection, he is a mere conscious machine, moved by external stimulus. Now, add reflection and the higher propensities, and he is a different being ; he remembers past experience, and profits by it, to avoid danger, wounds, and death. He represses his present active lower propensities, because reflection stimulates cautiousness, and other restraining powers. He is no longer urged irresistibly to act from the immediate present external stimu-

lus, but he is operated upon by the treasured stimulus of the past, furnished by memory and applied by reflection, concerning the future effect of present conduct. Thus we conclude that Consciousness is necessary to produce contact with that which is within the range of perception at the present. Reflection and memory, and the high propensities, are necessary to enable us to act with reference to that which is absent from perception at present, but will be likely to be present to us hereafter. This analysis gives a very different character to memory from that which phrenological writers generally have bestowed upon it. They have made it depend altogether upon the perceptive organs; but I have made them mere vehicles, modifiers, and repeaters of impressions which are acted upon by other and higher powers of mind.*

The philosophical reader will perceive that the foregoing explanation of Consciousness has an important bearing upon the subject of clairvoyance, as it enables us to understand clearly how any motion of Etherium, which is made to penetrate the external coverings and

* Prof. Grimes was the first to suggest that there was a single and distinct organ of Consciousness. In 1844 he undertook to show that Consciousness is located in the medulla oblongata, and that the phreno-organs concentrate there, and act upon it. Mr. Fowler has recently discovered an organ of Consciousness, "where the fibres go *criss cross*;" and charity would lead us to suppose that he had never seen or heard of Mr. Grimes's discovery, did we not know the contrary. — *Ed.*

isolation, the "outside guardians" of the brain, can easily afterwards reach the central seat of Consciousness, and make an impression ; but this is all explained in detail in the article on clairvoyance, in another part of this work.

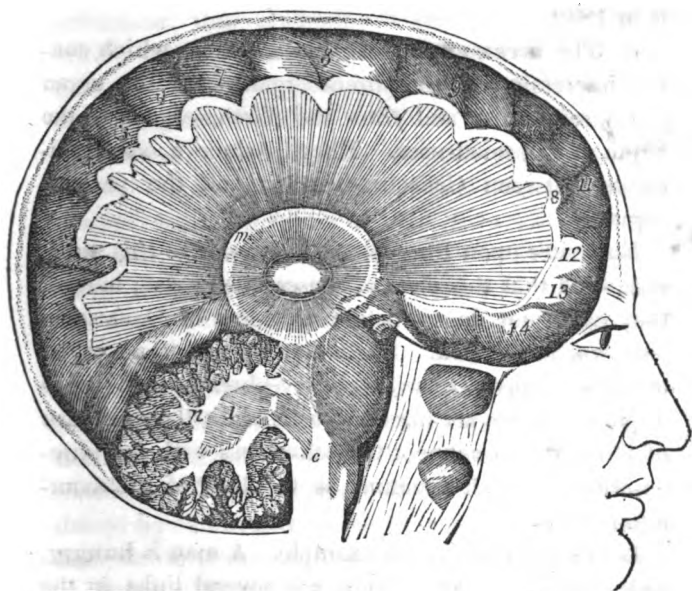
SECTION VII.

INTER-PHRENO SENSES.

THERE are three kinds of senses, viz. : the external, the internal-corporeal, and the inter-phreno.

1. The **EXTERNAL SENSES** are those which convey impressions from the external world to the perceptive organs, and give the ideas of flavor, sound, color, form, etc.

2. The **INTERNAL-CORPOREAL SENSES** are those which convey impressions from the different organs of the body to appropriate organs of the brain, and produce the *feelings* of hunger, thirst, suffocation, pain, and various other *bodily* feelings. These senses, or nerves, are in connection with certain appropriate cerebral organs of the propensities which are dependent upon them. Thus the organ of Alimentiveness is connected with the stomach by means of a nerve, (a part of the Pneumogastric,) which conveys from the stomach impressions to Alimentiveness ; another branch of the same nerve conveys to the organ of Pneumativeness impressions from the lungs producing the feeling of suffocation. There is an infinite number of nerves which convey impressions to the organ of Sanativeness, and through its means produce the feeling of *bodily pain* in all its varieties. These senses have never been properly investigated and explained by any writer upon physiology, and the organ of



In the annexed engraving, the fibres of the brain are represented as proceeding from the convolutions at the surface of the brain, and all converging to a point at *c*, where consciousness is presumed to be located.

The numbers from 1 to 14 designate the convolutions; *m*, *n*, and *o* are parts which it is not necessary to describe in this work: the only important point to which I wish to call the attention of the reader is, that the fibres do actually proceed from the convolutions to the medulla oblongata, and there converge to a common centre; and thus anatomy sustains the Phreno-Conscious theory which our author was the first to advance. — *Ed.*

Sanativeness was unknown until I called attention to it in 1839.

3. The **INTER-PHRENO SENSES** are those which convey impressions to the phreno-organs from the organ of Consciousness, and *from* the phreno-organs *to* the organ of Consciousness. They produce a communication between Consciousness and all the phreno-organs.

No writer upon Phrenology has, prior to this time, suggested that this class of senses must exist; indeed, they could not do so before an organ of Consciousness was introduced. But when we admit an organ of Consciousness, to which every phreno-organ sends impressions, we are forced also to admit the existence of fibres which connect Consciousness with the phreno-organs in such a manner as to allow of intercommunication.

Let us illustrate by an example. A man is hungry, and eats food. Now, there are several links in the chain of causes and effects, which resulted in the act of eating, and we shall find it impossible to constitute a perfect chain without introducing the inter-phreno senses as connecting links. 1. The stomach, being in a condition to need food, produces an impression upon the end of the nerve, viz., one of the internal-corporeal senses. 2. This impression is conveyed (as in the electric telegraph) to the other extremity of the nerve, where it is connected with the organ of Alimentiveness. 3. The organ of Alimentiveness, receiving the impression, is excited, and

sends an impression to the central organ of Consciousness, thus producing a state of Consciousness which we call *hunger*. 4. The organ of Consciousness is excited by the impression, and immediately from its central position radiates, and transmits the impression to the phreno-organs *through the inter-phreno senses*. 5. Each phreno-organ, being thus excited, sends, in return to Consciousness, an impression peculiar to itself. Now, as Consciousness cannot fully recognize more than one impression at a time, the most powerful impression forces itself upon Consciousness first, and the next impression follows, and so on, in the order of their relative force; this succession of impressions constitutes what is commonly denominated *a train of ideas*, or *a train of thought and feeling*. The impressions upon Consciousness, produced by the *intellectual* organs, are called *thoughts*; and the impressions from the *propensities* are called *feelings*. When, in the above example, the impression from Alimentiveness produced the state of Consciousness which we all recognize as *hunger*, the impression was radiated through the inter-phreno senses, and the perceptive organs were thus aroused, particularly the perceptive organ of Flavor. These perceptive organs, being *thus* excited, not by impressions from external objects, but by an impression from the central Consciousness, could only send in return an impression which was but an imperfect *repetition* of a former impression: this kind of impression is the foundation of *memory*. 6. In the case supposed of

the hungry man, those impressions from the perceptive organs which constitute memory, only serve (when transmitted through the inter-phreno senses and Consciousness to a propensity like Alimentiveness) to excite it to a still greater degree, and cause it to send to Consciousness a still more powerful impression. At length the propensity pours upon consciousness such a powerful current of impressions, that Consciousness can no longer be relieved by transmitting them through the inter-phreno senses to the phreno-organs: another outlet is therefore resorted to. 7. Under these circumstances, *the motor nerves* receive impressions or currents, *through* Consciousness, *from* the phreno-organs. The motor nerves convey impressions from the organ of Consciousness to the muscles. 8. This produces those contractions of the muscles which we call voluntary motions, and in the example of the hungry man, those motions were directed to food; taking it, putting it into his mouth, tasting it, chewing and swallowing it, and continuing this operation until the stomach ceased to send impressions along the nerve to Alimentiveness.

It will be perceived, that, according to this view, there are two modes in which phreno-organs may be excited: one is directly through the senses, and the other is through Consciousness. Thus Alimentiveness was excited, first by an impression from the stomach; and secondly, by an impression *through* Consciousness from the external senses.

It would seem, however, that all the phreno-organs are not capable of being excited in these two ways ; some phreno-organs receive no impressions, except through consciousness ; this is the case with the reflective organs, and most of the higher propensities. The reflective organs do not receive any impressions directly from the external world, but the percepts receive them and convey them to consciousness, and from consciousness the reflectives receive the impressions and respond to them. It may be a question whether all trains of thought originate through the external and the internal corporeal senses, or whether the brain may not be sometimes spontaneously excited by operations of its own, which are only dependent upon the circulation of the blood. It may be, in this respect, analogous to the liver and other glands, which are spontaneously excited merely by the circulation.

I am decidedly of this opinion : it is certain that trains of thought which originate in bodily conditions, and which are excited through the internal-corporeal senses, are continued, and, by the aid of the principle of causality and comparison, lead to other thoughts, which seem to have no immediate relation to the things that first started the train of thought. Thus a slight toothache may remind one of a friend who once had a similar toothache, and this may lead us to think of his wife, and then of her sister, and so on, until our pain is forgotten.

This theory enables us to explain the faculty

which we have of using all the powers of the mind in reverie, when neither our senses nor our muscles are active — when we are at rest, every muscle relaxed, our eyes shut, and our external senses inactive, though we are perfectly awake and the mind active upon subjects which are far distant and events that are long past. For after one phreno-organ has been excited so as to impress consciousness, this may cause a long train of spontaneous thought through the means of the inter-phreno senses.* It also enables

* M. Victor Cousin, in his strictures upon Locke, (See *Professor Henry's translation of Cousin, entitled "Cousin's Elements of Psychology,"*) claims much credit for having exposed the deficiency of Locke's system in relation to spontaneous operations of mind, independently of external sensation. Locke makes all ideas proceed from sensation; and his system has, therefore, been somewhat reproachfully denominated the *sensual* or sensuous system. He denies the existence of *innate* ideas.

Cousin acknowledges that ideas are not innate, but insists that the mind has the inherent power of producing ideas which do not come through sensation. He contends that sensation *occasions* the mind to evolve ideas which sensation itself could never have produced. Cousin charges, that the doctrine of Locke leads to materialism and fatalism, and claims that his own doctrine is free from this fault; but it would be easy to show that Cousin's doctrine is more directly opposed to revelation than that of Locke; for Locke candidly acknowledges that his philosophy is imperfect, without faith in divine revelation; whereas Cousin vainly supposes that he avoids this necessity, by showing that the mind possesses powers and receives ideas which are independent of sensation. Cousin does not seem to suspect that there may be *internal material organs* which are capable of being *spontaneously* active, or of being called into action "*by occasion*" of sensation. I have shown this to be the case, and, of course, Cousin, Locke, and myself, are in the same dilemma, — which forces us to admit, that the tendency of

us to understand how it is that thinking on some absent object sometimes produces a movement of the muscles: thus, thinking of a beloved child, and imagining it falling over a precipice, causes an involuntary start, as if to prevent it; thinking of delicious food causes the mouth to water, and move as if in the act of enjoyment; and so of other corporeal enjoyments. The explanation is, that consciousness first received an impression from some phreno-organ, which, when transmitted to Alimentiveness, was adapted to excite it, and to cause it to send an impression to Consciousness with a force which, increasing in energy, at last forced its way through the motor nerves to the muscles, and produced the movement of the mouth. This theory enables us to explain the manner in which dreams are produced when the brain is partially asleep. It also shows, that even supposing it true that touching a certain part of the head excites the phreno-organ touched, yet through the inter-phreno senses the excitement may be so complicated with other parts of the brain as to render it impossible to draw any correct inference in regard to the nature of the organ touched. The relation of the inter-phreno senses to the organ of consciousness must be understood in order to fully explain the philosophy of clairvoyance and of credence induction, as the reader will perceive when he comes to my remarks on those subjects.

all human philosophy is to materialism and fatalism. The only way of escape is, to admit, with Locke, that divine revelation is above all philosophy.

SECTION VIII.

MOTION.

It may be said, with truth, that all motion, of which we know, is *communicated*, and that nothing can be said to *originate* motion but God. When a cannon ball is set in motion, where did the motion originate? Certainly not in the ball, nor yet in the powder. Philosophers say that the motion is caused by the sudden and forcible expansion of the powder. Granted. But what caused the powder to expand in this wonderful manner? It is said that it expands in consequence of its sudden change from a solid to a gaseous form. Granted. But what caused the sudden change from solid to gas? I am told the application of heat caused the change. But why? how? in what way? On what principle does the application of heat to a grain of powder cause it to change from a solid to a gas, and occupy a million of times more space than it did before?

Again, it is not true that the powder occupies more space than it did before; that is impossible. Every thing, every atom in existence, requires a certain amount of space, and has always, and always must have it. It is absurd, then, to say that the powder, in the gaseous form, occupies more space than it did in its solid form. The space which it occupies is the same. The constituent atoms of each grain of the

powder may be widely separated from each other ; but they do not, on that account, occupy more space than when they were associated together in one aggregated lump.

Now, what separated, in such a forcible and sudden manner, the constituent atoms of the powder ? What agency had heat in the operation ? Why could not the separation take place as well without heat as with it ? If the motion in this case was communicated, from whence was it communicated ? What was its source ?

I solve the enigma thus : The atoms of the powder were separated from each other by the introduction of Etherium or caloric between them. The Etherium was in motion before, and only communicated its motion to the atoms of powder. The fire which was applied to the powder was the entering wedge of Etherium, and then the surrounding Etherium, which (although human faculties could not perceive it) was already in motion, and which previously was unable to separate the atoms of powder, now, since the fire commenced it, instantly *took this direction*, and thus communicated its motion and force to the atoms. The motions of Etherium are, therefore, the *ne plus ultra* of human knowledge. It moves and communicates its motions to other things ; this is certain ; but what is the origin of its motions we cannot know.

We see the motions of the water of the river, and we say that it is caused by gravitation ; that gravitation is a tendency of things to move towards the centre

of the earth ; that this is related to the motion of the earth upon its axis ; and this again is caused by the influence of the sun communicated to the earth. Now, what communicates this power to the sun we know not ; yet the tides, the winds, the waterfalls, the vegetable and animal motions, are communicated by the sun, moon, and other planets, to this world. Nothing *originates* motion within human knowledge, and nothing within human knowledge can arrest it. We see it passing, but we never see it commencing nor ending. COMING and PASSING AWAY is written upon the whole universe, and upon every atom it contains. The animal life of one generation is communicated to the next. But where did it begin ? Where will it end ? Is not this, too, communicated motion ? Where was it before the earth was habitable ? The materials of the first organized beings existed in the fiery elements of chaos ; and the motions also existed, but not on earth in animated forms. It must, then, have been first communicated from inanimated forms of this earth, or animate forms of some other planet. Which was it ?

The existence must be admitted of a medium which communicates motion ; different from any material substance which we can see or know by our senses. This is proved by the effect of a magnet upon iron, when partitions of the most solid substances intervene, — bricks, boards, glass, stone, water, etc., — which prevent the passage of all other substances, solid, liquid, or gaseous ; yet through all

these it moves with perfect ease, and without any apparent diminution of its power.

Light passes through glass, water, air, and other transparent substances with scarcely any obstruction, and produces all its effects almost as if no obstacle whatever had interposed.

The planets influence each other and the earth. This could not be, as they are not in contact, unless there were some connecting medium. The inevitable conclusion, therefore, is, that there is a connecting medium.

The influence of the planets upon each other is exactly in proportion to their size. This proves that the influence, whatever it is, proceeds from the constituent atoms of each, to the constituent atoms of the other; and therefore that the power by which one planet influences another must be almost infinitely divisible.

The influence of planets upon each other is diminished by distance. This proves that a part of the force is communicated to other particles on its passage; also that there is a limit to the extent of the influence.

A magnet may reproduce itself upon another piece of iron, by communicating its own motions to it, and afterwards, by a blow or stroke of lightning, lose its own peculiar power, and die.

A crystal will reproduce forms like its own; and, under proper circumstances, a vegetable will do the same, and so will an animal. All motions, wherever

they emanate, have a tendency to communicate and propagate themselves. When two bodies come in contact, one or both being in motion, the superior will impart and the inferior will receive motion ; and so far as the inferior receives motion, it sympathizes. In this sense, it may be said that every thing in existence sympathizes with every other, since they all derive their motions from the same source, though so modified by the medium that they can scarcely be said to be the same. In this sense every thing in existence may be said to sympathize with the FIRST CAUSE and prime Mover of all things.

Sympathy means same motion, same feeling, same condition ; and when one thing produces sympathy in another, it is because it is superior, and therefore capable of communicating its own motions to the substance of an inferior, which cannot resist it.

In this sense, when a magnet attracts iron filings, and makes a temporary magnet of each separate piece of iron, is not this sympathy ?

When a magnet points north and south, is it not because the motions of the earth's magnetism are communicated to it, and produce *sympathy* or *same motion* ? When a magnet which is pointing north and south is brought within the sphere of action of a galvanic battery, and changes its direction to conform to the battery, is it not because the motions are communicated from the battery to the magnet ? — the *same motions*, the *sympathy* ?

When the same motions — the *same kind* of mo-

tions, whether simultaneous or not, are performed by two bodies, one of two things may be inferred — either that they are both set in motion by a third body, or else that one contains within itself the cause of its own motion, and that it communicates motion also to the other.

When one thing communicates motion to another, there must be either contact or connection. If contact, then the motion must be communicated *first* to the part in immediate contact, and from that to the other parts more remote *afterwards*. If connection is the means, then there must be a connecting medium, a connecting substance, a connecting material, which is capable of being itself set in motion by the superior, and of communicating motion to the inferior.

The effects of the motion communicated will generally be less powerful in proportion to the resistance which it encounters; and the resistance will depend upon several circumstances, such as distance, material, counter-motions, etc.

SECTION IX.

GENERAL SUMMARY OF THE PHILOSOPHY OF THE ETHEREAN SYSTEM OF PHRENOLOGY.

1. THE Nervous System may be divided into the Ganglionic and the Phrenic. The principal distinction in the *modus operandi* of the two systems, depends upon the fact that the Phrenic system (or, in other words, the voluntary system) has a central organ of Consciousness, while the ganglionic system has not. Phreno-organs are merely ganglions connected with Consciousness, and ganglions are merely propensities to produce muscular action. Voluntary and involuntary actions are both produced by similar apparatuses, except that one has a common centre, through which each organ of that system is compelled to operate ; while the organs of the other system (the involuntary or ganglionic) are not under the necessity of preserving unity of action, nor of producing Consciousness.

2. Ordinary sleep is caused by the temporary predominance of the ganglionic system over the phrenic.

3. The organ of Consciousness is located in the medulla oblongata, where it receives impressions from phreno-organs, and transmits or radiates the impressions which it receives to other phreno-organs, or else to the motor nerves, or to both, according to circumstances. When it transmits impressions to

phreno-organs, it receives other impressions in return, and thus trains of thought are produced. But when it transmits impressions to the motor nerves, voluntary muscular motion is produced, such as tends to gratify those phreno-organs in which the movements originated.

4. Each phreno-organ has⁹ fibres, (inter-phreno senses,) which convey or conduct impressions from Consciousness, as well as fibres which conduct impressions to Consciousness.

5. Consciousness, and the lowest intellectual organs, were superadded to the ganglionic system, by the Creator, to enable animals (when in the scale of created beings they were elevated above mere vegetables) to act with reference to objects which are not in *contact* with their organs, though the objects desired may be within *reach*, so as to be obtained by muscular movements.

6. Memory depends upon the reflective organs, in an important degree, because they combine, connect, class, and associate, ideas and feelings; but the materials remembered are furnished to Consciousness and reflection by the other organs of the brain.

7. Ideas, thoughts, emotions, or feelings, are only so many states or conditions of Consciousness, which are designed to *prepare* and qualify the conscious being to *act* with propriety.

8. When one phreno-organ, from any cause, sends to Consciousness a more powerful current of Etherium than any other, it produces an effect which is in

accordance with the established laws of mechanics as applied to other forces ; that is, it causes every opposing current to conform, or be neutralized.

9. The phreno-organs may be divided into *Intellectuals*, or those that *direct* actions ; and *Impulsives* that *originate* actions. The Impulsives may be divided into *Ipséal*, or those that were designed for the benefit of self ; and *Social*, or those that were designed for the benefit of others. The brain is thus constituted of three classes of organs ; viz., Ipséal, Social, and Intellectual. By the connecting and concentrating nature of the organ of Consciousness, these three classes of organs act in harmony, and preserve their unity ; I therefore call this the *Triune* system, or *Three-one* system, to distinguish it from the system of Spurzheim, which all other phrenologists follow.

10. The lowest range of Ipséals, and the two lowest Socials, have this peculiarity, that they receive stimuli from the body, *directly* through the internal-corporeal senses, while all the other and higher Impulsives receive all their stimuli *indirectly* through Consciousness.

The perceptive receive stimuli directly through the external senses, but the reflectives receive all their stimuli indirectly through Consciousness.

11. The Ipséal impulsives are subdivided into five ranges, which correspond with different classes of animals ; this subdivision is not very important, nor very exact, but it is convenient and useful ; and, to a naturalist, must be highly interesting.

12. The Socials are subdivided into the organs that establish society — the organs that govern society — and the organs that conform to society. This subdivision is extremely useful and important in its bearing upon the experiments and phenomena of Etheropathy.

SECTION X.

ETHEROPATHY.

THE spontaneous phenomena and the experiments in Mesmerism, Electro-Biology, Electro-Psychology, and Etheropathy, including all those performed by Drs. Elliotson, Buchanan, and others, may all be explained by the application of the following principles: —

1. Imperfect insulation of the subject, exposing him to abnormal induction, both spontaneous and artificial.
2. Will of operator producing induction.
3. Credence induction, or self-induction.
4. Sympathy produced by induction.
5. Clairvoyance, or un-insulated and unrestricted perception, produced by induction.
6. Deranged function produced by abnormal induction; this principle, combined with the principles above mentioned of will, sympathy, credence, and clairvoyance, account for all the phenomena, and explain all the experiments.

1. IMPERFECT INSULATION, *exposing the subject to induction*. The terms *insulation* and *induction* are borrowed from the science of Electricity. The word *insulation* is used in this work to signify the peculiar structure or condition of the organs of man and animals, which is designed to protect them from the influence of surrounding and external currents of

Etherium. This principle of insulation is absolutely necessary to protect the organs from the undue influence of abnormal currents, by which we are continually surrounded. (See *Cuvier's Lectures on Physiology*.) The numberless nerves are continually conveying impressions in all directions throughout the whole constitution. Sometimes we find different functions performed by nerves which are so near to each other that no anatomical skill can point out the precise line of separation; and yet it can be proved, by the most decisive experiments, that one of the nerves conveys a motion of Etherium in one direction, while another conveys motion in the opposite direction, and notwithstanding their contiguity, there is no interference.

Just as two contiguous railroad tracks admit of the passage of cars in opposite directions without jostling or collision, so do these nerves convey the motions of Etherium in opposite directions.

In common electric experiments, the wires can be made to convey electricity in opposite directions, even though the wires are in contact, provided they are coated with glass, resin, varnish, or shellac; but if the insulating varnish is removed, the currents interfere with each other, and the weaker currents become neutralized or modified by the induction of the more powerful currents.

Induction is a term which signifies the communication of motion from one body to another, or from one organ to another; thus, when a current of electricity is

communicated from a body which possesses it, to one which does not, the motion or current in the latter is said to be *induced* or *inducted*, and the process is called *induction*.

If a large magnet, or a galvanic battery, is brought near a small mariner's compass, the compass needle is immediately affected by induction ; that is, the current of electricity is communicated from the large magnet to the needle.

Thus we have seen that the object of *insulation* is to prevent *induction* ; and what we do in an imperfect manner by human skill in a galvanic apparatus, nature does with wonderful perfection in organized bodies.

THE SUSCEPTIBILITY OF THE SUBJECT depends upon two conditions ; *first*, the weakness of the forces of Etherium evolved in the capillaries ; *second*, the imperfection or weakness of the insulation.

Some organs are susceptible, while others are not : the reason is, that some organs are more perfectly insulated, or else they evolve more powerful motion of Etherium. Some organs are susceptible to one operator, but not to another. There seems to be a natural tendency of the organs of the operator to induct the corresponding organs of the subject — Combativeness in operator to induce its own current in Combativeness of the subject ; Sanativeness of operator to induct Sanativeness of the subject ; and so of all the other organs, both of mind and body : this kind of induction is denominated *sympathy*, or *same condition*.

If, therefore, Sanativeness is large in the subject, and small in the operator, it would be difficult for that operator to induct that organ, though he might succeed in inducting many others in the same subject: another operator may, if his Sanativeness be large, succeed in affecting the Sanativeness of this same subject.

The subject may be inducted by his own organs; that is, one organ may induct all the others, and produce paralysis or monomania. Again, the subject may be inducted by external inanimate objects, as in the cases of spontaneous somnambulism, such as that of Jane C. Rider.

I have long since given up all pretensions to skill in determining, by the appearance of a person, whether or not he is susceptible, since I am satisfied that it depends upon two or more causes, one of which is concealed from the senses.

The susceptibility of the subject is greatly increased by his passiveness, and the consent and submission of his mind, while the powers of the operator are in their most active condition. It is also increased by the absence of all exciting stimuli, such as noise, or anxiety, or hunger, or pain. All these facts go to establish the opinion that susceptibility is, in some degree, related to the weakness with which the currents are evolved from the organs of the subject.

2. *Will of operator producing induction.* By the term *will*, I mean the effort which we are conscious of making to accomplish an end: for instance, when I determine to raise my arm, I immediately make an *effort*, which is called *willing*, and instantly my

arm rises. In this case, the nerves of the arm were inducted by the brain. Now, when a person sits before me with his eyes closed, and I will his arm to rise, I make the same effort that I did when I raised my own arm; and if his arm actually rises at my will, I conceive that the effect was produced in the same way in both cases; that is, by the induction of a current of Etherium from my brain to the nerves connected with the arm, causing the arm to perform its function.

If I *will* the arm to feel sore, as if burnt, and the subject instantly moves his arm, and complains of its being hurt, the principle is the same; I induct the requisite nerves of sensation by my will, so that a force passes to Sanativeness from the arm, and produces a painful state of Consciousness. Why cannot I cause a *sensation* in the subject as well as a *motion*? In both cases, there is merely a force of Etherium from the brain of the operator; but in one case the current moves down to the arm of the subject, in the other it moves up to the brain; of course, in one case it produces motion, in the other sensation.

There has been much discussion among metaphysicians concerning Identity and Consciousness. The question is often asked, What phreno-organ is it that says "*I*"? and what is it that says "*I am*"? and what says "*I will*"? What is *will*?

I answer these questions, simply and plainly, thus:—The notions of *I* and *I am* are the result of the operation of the reflective organs. Many animals never have such an idea. *I am*, and *I was*, and *I shall be*, are notions which are related inseparably to

each other, and to the comparing and connecting power. Many beings are *conscious* that never have reason enough to raise the idea of *I am*. An infant is *conscious*, but does not think of *I am*, or *I was* ; and it is not until they learn to compare themselves with other beings, that they distinguish *I* from other beings in their reasoning. Doubtless the first efforts of the infant mind in reasoning, teaches them the notion of *I* and *I am*, and a little more of the same kind of reasoning teaches them the notion of *I was* and *I shall be*.

Identity is an idea that I am the *same* person that I was, and this is certainly a notion which can only arise upon Comparison and connection, or Causality.

I will is an expression which is used in two senses : one signifies *I desire*, and the other *I am determined*.

I desire is a notion excited in Consciousness by any active phreno-organ, when stimulated by some object.

I am determined is a notion produced in Consciousness, principally by Combativeness, Firmness, Imperativeness and Hopefulness, under circumstances of opposition and difficulty.

The idea of *I can* is generally produced by Hope and reflection ; the idea of *I myself am superior*, from Imperativeness and reflection ; the idea of *I love*, from Adhesiveness, Comparison, and Causality ; the idea of *I hate*, from Destructiveness and reflection. In short, it is reflection that says *I*, and impulse says *will*. In operating, when we *will* that the subject shall be in a certain state, that which

will is Imperativeness, Firmness, and Hopefulness, and any other impulses may add their influence, if they are interested in the result. When one impulse desires one thing, and another the contrary, the *will* is the predominant impulse.

3. CREDENCIVE INDUCTION.

While engaged in performing various experiments, I made a very important discovery, which I have never before communicated to the public in writing, though I have frequently mentioned it privately to my friends, and publicly in my lectures. It is this: that when a subject is but slightly affected, and when any of the operators in Mesmerism, or Neurology, or Pathetism, would send him away as unprofitable, — merely by the application of a very simple stimulus, which every one has always at hand, the subject may be brought perfectly under your control. Do you ask me what this simple and powerful stimulus is? I answer, that it is AN ASSERTION.

Assert to the subject, in a decided tone, for instance, “*You cannot open your eyes,*” and if his eyes were shut when you made the assertion, he cannot open them afterwards until you again say, “*Now you can open them,*” or something to that effect. Again, say to the subject, “*Put your hands together, and you cannot separate them.*” If, now, he puts his hands together, he will try in vain to separate them until you reverse your assertion. Say, “*The floor is hot,*” and instantly to him it seems hot. Assert that,

"Yonder is a lion," and he immediately believes it and sees it; or tell him that he is himself a lion, and he instantly assumes the character, and begins to roar and show his teeth and claws.

It has long been known that very susceptible subjects may be deluded and willed into almost any state of mind; but it has not before been known that it requires less susceptibility to perform these experiments than any other. It has not been known that it is on this principle that most of the successful experiments in Neurology, Pathetism, and Hypnotism are performed.* The gentlemen who have conducted these experiments were evidently ignorant of the real agent that produced the phenomena.

It is a fact, capable of being easily demonstrated, that nearly all subjects can be made to believe any thing, or to assume any character, or to conform to the wishes, expressed or implied, of the operator; and this can be done when they are affected in the very least degree, while they are wide awake, and appear to know what they are about. They cannot resist an *assertion*. Put your words in the form of an inquiry, and they are powerless; for instance, ask the subject, "*Can you raise your hand?*" and he will raise it; but *assert*, "*You cannot raise your hand,*" and he cannot do it. The same is true of any other assertion, as, "You cannot speak," "You cannot speak without lisping," "You cannot speak without stutter-

* Also in Electro-Biology and Electro-Psychology.

ing," "You cannot stop," "You cannot rise," "Your finger is wounded and bleeding," "Your hair is wool," "Your hands are iron," or "fish" or "fire," "You are a child" or "an old man." Any of these assertions produce an instantaneous effect.

Let the subject suppose that you are going to excite the organs of his brain—let him believe that you expect, when you touch a certain part of his head, that he will be affected in a particular way, and he will generally use all his ingenuity to learn your wishes, and make his utmost endeavors to oblige you and accomplish your expectations. This is a fact which is undeniable, though it has not hitherto been explained.

Say to the subject, "I am going to excite your Combativeness, and you will be very angry." Now, touch his Combativeness, and he will be angry; touch his Tune, and, if he knows what organ you intended to touch, he will begin to make music. If he even suspects what you wish, he will oftentimes act accordingly. But if he has no idea what you expect, he will do nothing. If the subject does not know the location of any organ, and you say nothing and give him no clew to your designs, *you cannot excite his organs by merely touching them*. If you succeed in exciting his organs when he is ignorant of your intention, it is done by *Will*, by *Sympathy*, or by *Clairvoyance*.

In order to explain these experiments, we must first understand the nature of the organ of *Credenciveness*,

the impulsives to act upon testimony or assertion. It is a *conforming social impulse*, and its natural stimulus is an ASSERTION.

1. It is an *Impulse*, and operates like every other impulse. We must, in order to understand Credenciveness, therefore, acquire a clear notion of the manner in which an impulsive operates. It produces a tendency to *act* in a peculiar manner. It sends an Ethereal force through the motor nerves to the muscles, and either originates a motion or modifies a motion which other impulsives originate. It antagonizes other impulsives which are opposed to it, and neutralizes them or combines with them.

When greatly excited by any extraordinary stimulus, it governs the individual, and produces such uncontrollable tendencies to gratify itself, as to constitute a peculiar species of monomania. This is a general definition and description of an impulse such as Credenciveness is.

It produces a state of Consciousness peculiar to itself ; and when predominant, it causes other impulsives and the intellectual faculties to conform to it, and act as its auxiliaries.

2. It is a *social* impulse, and every social impulse gives a tendency to act with reference to others, and for the benefit directly or indirectly of others. Social beings are the objects from which its stimulus proceeds.

3. It is a *conforming* social propensity. The whole group to which it belongs have this peculiar

character, that they all tend to conform to the wishes, feelings, actions, commands, and assertions of others.

The conforming socials, when predominant in an individual, give him a yielding, obliging, credulous character, and render him highly susceptible to the influence of persuasion, command, example, or assertion. These organs include *Submissiveness*, the impulse to obey — *Kindness*, the impulse to oblige — *Imitateness*, the impulse to sympathize and to imitate — and *Credenciveness*, the impulse to believe and to act upon testimony.

4. The appropriate stimulus of *Credenciveness* is *assertion*. It is the highest organ of the social class, and distinguishes man from the lower animals as much as any other impulse, and perhaps more. — Were it not for this, human society would be reduced to an equally degraded condition with that of the brutes.

The child believes and acts upon the assertion of his parent, instinctively, and thus avails himself of his experience and knowledge. Courts of justice are founded upon the principle of belief; they act altogether upon the testimony and assertions of others, and not from their own experience and knowledge. History and tradition is based upon it; indeed, all literature, and all the modes in which we record or communicate the acts, the experience, or the thoughts of others, are dependent upon *Credenciveness*. Any expression of others excites it; but an *assertion* made by one who is supposed to be of superior authority,

power, or knowledge — this is its highest stimulus, and excites it to its highest degree of activity — even to monomania. When Credenciveness is uncommonly large, and Firmness and the Reflectives small, an assertion, however extraordinary, is received with confidence. It requires but little aid from abnormal induction to render some men mere machines in the hands of those whose assertions they believe.

Now, we must consider that the tendency of inducing a subject, is to bring him under the influence of the operator ; to make him submit and sympathize, conform and confide in the operator. Its first and most powerful effect is upon the conforming socials, to excite them, and to exalt them to monomania. The conforming socials were designed to be stimulated by the words and examples, the actions and commands, of others. Their very nature is such as to cause their possessor *to be influenced*. They are peculiarly open and susceptible to all kinds of stimuli which tend to give others an influence over us ; and, of course, they are peculiarly susceptible to the influence of the currents of Etherium, which proceed from the operator. If they are more affected by his attempts to influence the subject, than any other organs are, it is because it is their function — their nature — their vocation.

Let us now consider, that when a subject is perfectly inducted, the mere silently expressed *will* of the operator can influence him, and cause him to move or feel in any desired way. No assertion in

this case is necessary — no sound — no sign — no external muscular motion. There is nothing but the operation of the silent but potent will.

On the other hand, let us consider, that when the subject is not inducted, but is in his ordinary and normal condition, the will of the operator has no effect unless expressed in a certain way, by voice or other sign, which the subject perceives by the aid of his senses. Here we have two opposite conditions; one in which the subject is insulated from the influence of the operator, except in a certain way which the Creator has prescribed; the other a condition in which the insulation is entirely overcome, so that every motion of the operator is a cause of motion in the subject.

Now, between these two extreme conditions of perfect induction and non-induction, there are, of course, many intermediate states or degrees of induction.

What is the first degree? What organs (in most cases) first feel the effects of the inducing process? I answer, the conforming socials, and especially *Credenciveness*; for, if an assertion produced a certain degree of influence upon the mind of the subject before the induction commenced, it produces more and more as you proceed. At first your *assertion* that he cannot open his eyes or raise his hand, merely renders the movement difficult; next, it is more difficult; next, it can only be done by a vigorous effort; then it cannot be done at all.

You can generally affect his eyes first, then his mouth slightly, then his hands. His hands will at first be so slightly affected, that when you assert that he cannot separate them, you must hold them together lightly by pressing upon them ; next they will adhere without pressure ; and, finally, proceeding from one step to another, with a degree of rapidity very different in different subjects, we acquire control over every power of mind and body, so that he will frown, or smile, or weep, at our command or assertion merely. If we proceed still farther, we gradually, in many subjects, acquire a power of moving their organs by merely willing, and without expressing our will by any sign ; but, in these cases, though neither assertion nor sign is necessary to influence the subject, yet an assertion, if made, is wonderfully potent. The influence of assertions, and the disposition to conform, is in proportion to the degree of induction of the conforming socials. It is generally supposed by those who see experiments of this kind performed, that the operator accompanies his assertion by an effort of his will. This, however, is not the case. If the operator makes an assertion, it will have nearly as much effect, though he wills that it shall have no effect whatever.* This proves that it is the assertion

* This fact directly controverts the commonly received opinion upon this subject, and cannot well be explained except by the original theory of Prof. Grimes, viz., the induction of the organ of Credenciveness. This also furnishes strong corroborative evidence of the truth of his phrenological theory.

and not the will. We are so constituted, that we take the assertion of our fellow-beings as the true expression of their will, and we sometimes believe them in spite of all our efforts to resist the belief.

In order to understand these experiments, another peculiarity of the mind must be taken into account, with which keepers of the insane are familiar ; and that is, that the nature of *delusion* is such that the patient or subject is positive that he is not deluded. To him it seems like reality and truth ; his Consciousness does not inform him that one of his propensities has obtained a mastery over the rest, and is misleading him. It is common to see insane persons believing themselves to be animals, plants, or glass vessels ; and the most positive and palpable proof of their error has no convincing effect upon their minds. Indeed, we see many persons, who are generally supposed to be sane, who, being possessed with a favorite idea, seem incapable of appreciating the most conclusive arguments which show its erroneousness. In these cases I presume that there is a slight degree of monomania.

We also find many insane persons who are rational on every subject but one, and the instant that is mentioned they betray the highest degree of monomania.

The *antagonism* of the organs must also be understood, in order to explain the hesitation, doubt, and wavering, which subjects often exhibit when but slightly affected. It is common for them to deny that they believe the assertion of the operator, and

yet they will act as if they do believe it. For instance, say to the subject, "*That piece of silver is red hot, and will burn you if you touch it.*" He will perhaps answer that he does not believe it, and will advance towards it, and put forth his hand to touch it; but the very way in which he moves, shows that he suspects, at least, that it may be true. He first holds his fingers very near, then cautiously touches it, and perhaps expresses his surprise that it is actually hot. Sometimes, though rarely, he will say, "I know it is not so, though it seems so." Ask him how he knows that it is not really so, and he will answer, that former experience, and the testimony of all around, that he is deluded by the inductive operation, make him think that it must be so, though his senses assure him that they are all mistaken. This contradiction arises, in a great measure, from the opposing effects of the Ipseals and the governing socials, especially Imperativeness and Firmness. They are the natural antagonists of the conforming socials; they give a tendency to act independently of the influence of others; and it is from them that the suggestions arise in opposition to the assertions of the operator, when those assertions contradict our own experience.

If the process of induction did not operate as a stimulus to the conforming socials in particular, if it stimulated the governing equally with the conforming socials, the experiments which depend upon the influence of assertion could not be performed at all.

Strange as it may seem, however, it is a fact, that a

person of intelligence and education, with whom I am acquainted, although I have explained to him the nature of the influence which I have obtained over him — although he knows as well as I do that it is his own Credenciveness that paralyzes his muscles, yet when I assert that he cannot open his eyes, he instantly loses all control over them.*

Such is the nature of Credenciveness, that it responds to its appropriate stimulus involuntarily and irresistibly. In this respect it is like Sanativeness or Pneumativeness, or any other impulsive. When Sanativeness receives its appropriate stimulus, it instantly acts, and with uncontrollable power. For instance, when we are wounded or burned, we cannot help feeling pain, for Sanativeness is instantly roused, and produces pain, and a kind of action calculated to relieve the pain. This affection of Sanativeness is irresistible and involuntary; precisely so it is with Credenciveness when excited by an assertion.

But there is another and more complicated process to be explained. When the operator asserts that a piece of silver will burn the subject's finger if he touches it, the assertion, being the natural stimulus of Credenciveness, of course, excites it; the subject touches the piece of silver, and instantly feels pain. Now, pain is a state of Consciousness produced by Sanativeness, and not by Credenciveness; and an

* There are numbers of persons belonging to the classes Prof. G has taught in this city, to whom this remark will apply. — *Ed.*

assertion is not the appropriate stimulus of Sanativeness. The question is, What roused Sanativeness? If the assertion did not excite it, what did? I answer, that the assertion excited Credenciveness; and Credenciveness, through Consciousness, excited Sanativeness; according to the principle which I have explained in the article upon the inter-phreno senses. It must, however, be constantly borne in mind, that the brain of the etherized or inducted subject is in a condition which renders it liable to be affected in an extreme and morbid degree. The principle that one highly stimulated organ may etherize or induct the rest of the brain, or that it may at least act as auxiliary to the operator, is of very great importance in explaining the fact that a subject can be put to sleep without the will of the operator.

I say, for instance, to a subject, "Sit down, close your eyes, and let me put you to sleep." He sits down, and I put my hand upon him, or stand and look at him, or pretend to look at him, and pretend to be willing him to sleep; though, in fact, I am thinking all the time of something else; perhaps I am actually willing that he shall not go to sleep; yet he does go to sleep just as usual. Now, in this case his own Credenciveness was the principal operator, and inducted all the other organs—neutralized some and made others auxiliaries. Again, I say to the subject, "To-morrow at one o'clock you will go to sleep." When the time arrives, he actually goes to sleep, *unless he forgets my assertion*. I have known

them to forget, and, in that case, not be affected at all when the time arrived. Does not this prove that the power that affects them is within themselves?

Credenciveness may be excited to a peculiar and morbid action by the process of the operator, or by disease ; but, when thus excited, it produces the phenomena without any other aid from external influences. This explanation of the nature of Credenciveness, is a key to most of the wonderful experiments and discoveries of Buchanan and Sunderland ; of Braid, Hall, and Elliotson. It explains, also, the apparent contradictions and absurdities which embarrassed the celebrated French committee of which Dr. Franklin was a member.*

4. SYMPATHY PRODUCED BY INDUCTION.

When the inductive process has been completely successful — when many of the organs of the operator have communicated their motions to the corresponding organs of the subject, and have established such a connection that a movement of the operator is immediately followed by a similar movement of the subject, and a feeling of the operator's mind is followed by a similar feeling in the mind of the subject

* And the same explanation applies to the newly-invented doctrines of Electro-Biology and Electro-Psychology. Their advocates claim for them the merit of novelty, but the novelty consists only in name. The reader will see that Prof. G. has anticipated these "ologies" by some years, and that the true explanation of all this class of phenomena is — Credence Induction. — *Ed*

— this is *sympathy*; and by the word *sympathy* I mean a condition of the subject induced by the operator in consequence of a connection and communication between them; — I mean a condition which is the *effect* of a similar condition of the operator. The condition of the operator is the cause, and the condition of the subject is the effect. The currents of force from the organs of the operator to the organs of the subject are the means by which the effect is produced. The *insulation* of the organs of the subject was an obstacle to the currents of the operator; the process of ethereal induction removed or overcame the obstacle; the ethereal force of the operator, after having first moved the organs of the operator himself, proceeded to the corresponding organs of the subject, and moved them in a similar manner, though in a slighter degree. This is sympathy in a strictly philosophical sense. Sometimes it is so perfect that the very same ideas, thoughts, images, colors, forms, and sounds, which occupy the mind of the operator, are made to occupy the mind of the subject by sympathy.

The operator can put another person into communication with the subject, and then the subject will sympathize with him also in the same manner, and upon the same principle. The only difficulty is in first overcoming the insulation. When this is done, any person who is put into communication, may become the cause or object of the subject's sympathy. The subject may read his thoughts and feelings by sympathy.

In my "New System of Phrenology," I pointed out the fact, for the first time, that normal sympathy depends upon the organ of Imitativeness ; that being a conforming social propensity, it gives a tendency to do as others do, and feel as others feel ; and that, by giving a disposition to observe and think upon what others do, in order to imitate them and sympathize with them, it becomes an essential element in the faculty of learning *human nature*. On page 292, I stated that this organ contributes to give elevation to the forehead, and added, "*This explains why authors, and painters, and orators, who have been most felicitous in their descriptions of HUMAN NATURE, have high foreheads.*"

Now, it may seem almost incredible to the candid and honest reader, yet it is but too true, that after I and my pupils had publicly taught this doctrine for years, and published it in thousands of volumes all over the country, an individual had the effrontery to pretend that he had discovered the *organ of Human Nature* in the front part of Imitativeness. The truth is, every organ of man is an organ of human nature, and must be possessed by self in order to be understood in others ; but the social organs all give a tendency to learn the minds of others. The conforming socials, and particularly Imitativeness, give this tendency more than any others : it is in this sense only that there is any organ in man relating to a knowledge of human nature.

IMITATIVENESS.

It should be mentioned that subjects are apt to be seized with a most ludicrous disposition to imitate every one whom they see, or with whom they are in communication. I do not now refer to the sympathy which I have been describing ; but they imitate just as they do in the normal state, by looking at a thing, or feeling its motions, and then repeating or imitating. It would seem that all the conforming socials are excited by induction, and their activity explains many curious phenomena. It accounts most satisfactorily for their disposition to conform to the wishes of the operator, and to endeavor to make all his plans and experiments succeed ; so that it almost always seems as if there is collusion between the operator and the subject, while, in fact, they are both perfectly honest and innocent in their intentions. The subject deceives by endeavoring to gratify what he believes to be the wishes of the operator.

CREDENCIVENESS, OR MARVELLOUSNESS.

“ This is the propensity to act upon the testimony of others, — to give credence to the assertions, and conform to the opinions, of those with whom we associate, and whom we reverence. It is intimately related to Submissiveness ; and usually acts in combination with it. The convolution of the brain which constitutes this organ, originates at Submissiveness, forms a kind of elbow against Hopefulness, and runs

forward to Causality. This arrangement is not without an important and obvious purpose. Although it is true that every organ in the brain is in some degree related to every other organ, yet there is a more intimate relation between some than others; and those which associate most in action will be found to be associated and arranged together in the brain. These remarks apply with peculiar force to Submissiveness, Credenciveness, and Hopefulness. We give most credence to those whom most we reverence, and our hopes are greatly modified by our belief, while both hope and faith are very dependent upon Causality.

I consider this impulsive as designed, like all the others, to produce *actions*, or to *modify* actions which other impulsives originate. Marvellousness and wonder are *feelings*, which, under some circumstances, precede the actions, just as pity precedes the actions produced by kindness. In order to determine the kind of actions which Credenciveness produces, we must consider the relation which it bears to Submissiveness, and to the other impulsives; and endeavor to ascertain its utility in promoting the harmonious operations of society. It is my opinion, that belief, in testimony of all kinds, depends upon this impulsive. Faith, belief, conviction, are its ordinary affections, when acting, in combination with the intellect, upon a subject that can be understood. Wonder and Marvellousness are caused by its operation when the subject is extraordinary, and not fully understood. Combined with Submissiveness, it disposes to faith

in the testimony of others, on account of our respect for their characters. This principle is recognized in all courts, that the more exalted and honorable the character of the witness, the more credit is due to his testimony. The organ is much larger in children than adults, and enables them to rely with perfect confidence in the statements of their parents. Such is the constitution of their minds, that they believe the most extraordinary thing upon the bare assertion of their parents or guardians. And this is necessary in order to govern and guide them, in cases where they have no experience of their own.

When explaining Hopefulness, the highest of the Ipseals, I stated that it is related to futurity through the medium of Causality. The same is true of Credenciveness. That which is present, and subject to the test of the senses and lower Perceptives, cannot be a subject of belief,—it is positive knowledge.

But when any thing is absent, or contingent, or to come, it is then a legitimate subject for the exercise of this impulsive. It is more dependent upon Causality than any of the other Socials; and is much more directly related to it. In the brain, the convolution of Credenciveness seems to go forward on purpose to join Causality. Indeed, the Reflectives can hardly be said to guide the Socials, except through the medium of this important impulsive. Firmness, Submissiveness, and Conscientiousness are greatly affected by a change in belief.

Every proposition, the truth of which we cannot

test by the evidence of our own senses, if it is probable, or even possible, is calculated to excite and gratify Credenciveness. But its most natural stimulus is the *testimony* of intelligent beings. I consider it as specially designed to make us act upon the testimony of others, and particularly of our superiors, in cases where we cannot have the evidence of our senses. Impressions enter through the senses to the Perceptives, and are analyzed, classed, and connected by the Reflectives. Causality performs the last and highest process of intellect; and if the proposition is not perfectly self-evident, it becomes a matter of belief or of scepticism; that is, it becomes an appropriate stimulus for Credenciveness. This propensity is, of course, modified in its action according to the nature of the subject, the amount of evidence, the proportion of Credenciveness to intellect, and the effect which it is to have upon our interests, or our hopes. Whether an individual will be sceptical or credulous, depends upon the *proportion* which his intellect bears to Credenciveness and Submissiveness. Those who have very high but shallow foreheads, are apt to be foolishly credulous, and those who have low and prominent foreheads are inclined to scepticism. They wish to investigate much and believe but little. There is a third class who have foreheads wide, high, and prominent: they love to believe when they can, but they cannot without proper investigation. They examine thoroughly, and believe sincerely, many controverted doctrines; they

seem to take pleasure in revolving in their minds doubtful subjects, even if they cannot quite believe them. If it is something which challenges belief, if it has probability or even possibility in its favor, it is a proper subject to stimulate and delight this impulse, and produce the feeling of marvellousness. This enables us to understand the character of novelists and romancers, and dramatic authors, such as Scott, Voltaire, Shakspeare, and Tasso, who all had very high foreheads, particularly in the region of this organ and Imitativeness. Those who have been remarkable for faith upon religious subjects, have the same development, combined with Submissiveness. Such are Bunyan, Baxter, Swedenborg, Irving, Wesley, and hundreds with whom I am acquainted.

I consider this as one of the most important elements of a love of knowledge. The ability or the talent of *knowing* depends upon the intellect; but the desire, the love, the proneness to learn, depends upon the impulsives. Each impulsive produces a desire to know that which will be gratifying to itself. The highest gratification of Credenciveness consists in knowing what people have said or written. It is easy, therefore, to understand why those who have it large should be very fond of reading or hearing the extraordinary assertions of others, and of inquiring into their truth. If the intellect is large, they will be commonly successful in their inquiries; but if it is small, they may be induced to give credence to the most absurd statements. It is this impulsive that

makes us love to hear or read extraordinary things, even if we do not believe them. It seems as if some love to stretch their faith to its utmost, just to give it exercise ; the more marvellous the story, the better it suits them ; and if Submissiveness is large, and the statement is made upon high authority, it becomes perfectly charming. This organ is larger in youth than adults, in women than men. It accounts for the love of the marvellous manifested by children ; for the pernicious novel-reading habits of girls ; and for the ease with which impostors of all descriptions succeed with the generality of females. I have noticed that those women, who in youth read the most novels, and the least science, in maturer years are the most prone to superstition and fanaticism. They are much greater sticklers for matters of mere faith and form, than for moral and Christian practice.

The exposition which I have made of this impulsive, shows that it is one of very great importance in society. It is the grand lever, by means of which the few can govern the many, more despotically than by any other. It is for this reason that the union of church and state is a desirable object with all despots, and adds immensely to their power.

This is plainly, then, a *conforming* Social propensity ; since it is the means by which children and all ignorant persons are guided. Nothing renders a man more ungovernable, or unamiable, than a disposition to doubt every thing he hears ; and to rely entirely upon his own judgment and observation, instead of giving due weight to the testimony of others.

In regard to the lower animals, it is more difficult to show that they possess Credenciveness, than any of the other Socials. It is certain that they have it in a less degree than any of the others, which alone is sufficient to prove its exalted nature.

It is worthy of remark, that Hopefulness, the highest Ipseal; Credenciveness, the highest Social; and Causality, the highest Intellectual, are connected together at the top of the brain; and it is curious to study the relation in which these three important powers stand to each other, and to the Perceptives. The Lower and Middle Perceptives are related to that which is perceptible, present, and certain; the Reflectives, to that which is certain, but which is not present to the senses, and which is known only by deduction; Credenciveness to that which is probable; and Hopefulness, to that which is possible. We may hope for that which we do not believe; we may believe what we cannot prove by reasoning; and we may prove by reasoning what we cannot test by the senses and Perceptives.

The region of perception is at the base of the brain; of reflection, a little higher; (see phrenological bust;) of credence, in the upper part of the forehead; and hope, a little farther back. In a well balanced mind, these will bear a just proportion to each other; and in making an examination, it is of the very highest importance that the relative development of the lower and upper parts of the forehead should be compared with each other, since they have an im-

portant mutual influence. Those who have excelled in practical science, have the lower predominant ; and those who have excelled in fiction, the upper ; while those who have avoided both extremes are balanced.

SECTION XI.

ETHEROPATHY — CONTINUED.

5. **CLAIRVOYANCE**, or UNINSULATED PERCEPTION, *produced by the process of induction overcoming insulation.*

When the subject, without the aid of his senses, by his connection with the operator, perceives the same things which are perceived by the operator, it is perception by sympathy ; but when the subject, without the aid of his senses, perceives that which is not perceived by the operator, it is *Clairvoyance*.

The difference in principle between sympathy and Clairvoyance is very slight. The only difference is in the objects from which the forces of Etherium are evolved. When the organ of Consciousness and its dependent organs, in the operator, are the generating points, from which proceeds that force which influences the organ of Consciousness, and other organs of the subject, the result is sympathy ; but when the disturbing force proceeds from any other point, through the abnormal avenues to the subject's organ of Consciousness, it is Clairvoyance. A little reflection upon the principles now under discussion will enable us to perceive that the same cause which produces sympathy in the mind, produces also the muscular movements which we call imitation. Sympathy is a repetition in the *mind* of the subject of the ideas of

the operator; imitation is a repetition in the *muscles* of the subject of the movements of the operator. The term *Clairvoyance* is from two French words, and strictly signifies *clear-seeing*: although some word which is more precisely significant of *non-insulated perception* would be preferred, yet as there is no such word, I shall adopt this, which has the advantage of being in common use; and in our language it has no other meaning.

In order to understand Clairvoyance, we must consider

1st. The emanations of force peculiar to the objects perceived.

2d. The insulation and induction of the brain.

3d. The *modus operandi* of Consciousness.

1st. *Emanation of Motion from the Objects perceived.* — We never perceive any thing unless when there is an emanation of ethereal motion from the object perceived. When ordinarily we *see* a thing, there is always an emanation (reflection) of light from it to the eye. When we *hear* any thing, there is an emanation of aërial vibrations from the object heard to the ear. When we *smell* any thing, there is an emanation of odorous particles from the odorous body. When we *taste* any thing, there is an emanation from the substance tasted, caused by the chemical action of the saliva upon the substance. When we perceive any thing by *touch*, there is a motion emanating from the substance touched, and passing to the brain. When we *feel pain*, there is an emanation from the painful

and injured part to the nerve which is connected with it, passing along the nerve to the organ of Sanativeness, from the organ of Sanativeness to Consciousness, producing there the feeling or consciousness of pain.

The same reasoning applies to *hunger* ; it is produced by an emanation from the stomach to Alimentiveness, and from Alimentiveness to Consciousness. *Suffocation* is produced by an emanation from the lungs to Pneumativeness, and from this organ to Consciousness.

In Clairvoyance, the same principle is in operation. There is an emanation from the object perceived to the central organ of Consciousness in the subject. There cannot possibly be any perception of any kind, unless there is such emanation.

2d. *The Insulation and Induction of the Brain.* — This I have already explained as far as it relates to the communication of thought and *motion* from the operator to the subject — as far as relates, in truth, to one branch of Clairvoyance, viz., Sympathetic Clairvoyance. The same insulating contrivance which prevents the *motions* of different persons, and different organs of the same person, from interfering with each other — the very same contrivance has been instituted by the all-wise Creator to restrict and limit our perceptions. When we consider that motions transmitted from the circumference of the brain to the centre produce different states of Consciousness ; when we also consider that every surrounding object in nature is continually receiving and evolving motions ; we, of

course, must acknowledge that some contrivance is necessary to prevent the brain from being continually agitated, and our Consciousness from being continually excited and confused by the innumerable motions of Etherium which are constantly evolved from the infinite number of objects around us. This contrivance is *Insulation* — a peculiarity of the structure of organized bodies, which prevents nearly all external influences from interfering with their operations, while it admits external influences which are useful to them. In what the insulation consists, we know not; we are certain of the fact that by some contrivance the insulation is effected; but we are, as yet, entirely ignorant of the mode in which it is effected.

The eyes are not influenced by sounds, nor the ears by light; but Consciousness is indirectly affected by both. The reason is, that the eyes are insulated from all other influences except the stimulus of the light, and the ears are insulated from all other influences except the stimulus of sound. If we had no eyes, we should be entirely ignorant of the existence of light, because all our other organs are insulated from its influence. A blind man, who never heard of light until the age of thirty, would be perfectly sceptical concerning its existence. It would be incomprehensible to him that things could be perceived by eyes at such great distances, while by ears they could not be perceived at all. Not having any experience of his own on the subject, he would necessarily be depend-

ent upon the testimony of those about him who professed to have this wonderful faculty. *Very much the same is it with us in reference to clairvoyant subjects. We cannot see without our eyes, nor hear without our ears, nor feel without contact ; but the inducted subject can do all this ; he, with his eyes closed and carefully bandaged, can see, or rather can perceive, through walls impervious to light and sound, and at immense distances — can perceive, indeed, in a way as incomprehensible to us as the perceiving with eyes was to the blind man.

Light cannot penetrate boards and stone walls, but magnetic force can do so ; for a magnet affects iron filings through such obstacles, almost as if there was nothing in the way ; and so also does gravitation. It is plain that if we could perceive through the medium of *this* magnetic force instead of light, we could see through boards and walls as easily as the magnet operates through them ; for the magnet operates in the dark just as well as in the light. We must conclude, therefore, from the great number of facts which we have upon this subject, that there is a motion of Etherium, different from light, by means of which the force of gravitation is communicated ; and another modification of ethereal motion, by means of which magnetism penetrates through opaque bodies. It, therefore, requires no stretch of the imagination to admit a modification of ethereal force which affects the brain and its organs, and produces Consciousness and Clairvoyance in a subject who is, by the process

of ethereal induction, brought into communication with it.

If we analyze a sunbeam, we can demonstrate that besides light and heat it contains another kind or motion of Etherium, different from light and heat, which produces powerful chemical effects; and yet we have no senses given to us by which to enable us to perceive by its means, though it may sometimes abnormally induct us, and produce clairvoyant perception.

It seems to me, that there cannot be a doubt in the mind of a philosopher who examines this subject carefully, that there is a peculiar form or modification of ethereal force, which has, with some propriety, been denominated *Animal Magnetism*, and which is concerned in producing all the phenomena of animal life, and all the wonders of Etheropathy and Mesmerism. We seem forced to this conclusion as the only one which will account for facts which we are not able to controvert.

If we take a magnet and bring it near to a piece of iron, and make a number of passes across the iron, the peculiar motions of the magnet are communicated to the iron, so that it becomes a magnet itself. This is *Induction*. A piece of iron cannot be placed near a magnet for any considerable time without becoming in some degree inducted, losing its own independent motions, and submitting to the influence of the neighboring magnet. Precisely so it is with the inducted subject; the cases are as nearly parallel as the different natures of the two bodies will admit.

3d. THE MODE IN WHICH THE ORGANS NORMALLY PRODUCE CONSCIOUSNESS, after they are impressed by emanations from external objects, must be understood in order to enable us to understand Clairvoyance.

They produce Consciousness precisely in the same way in Clairvoyance as they do in ordinary normal perception. The difference between Clairvoyant perception and common normal perception is in the manner in which the Phreno-organs are excited by the emanation ; or rather it depends upon the different modes by which emanations reach the Phreno-organs to excite them to action. In common perception the motion of Etherium is restricted to pass in certain prescribed avenues, which we denominate *the senses* ; but in Clairvoyance, in consequence of the *insulation* being overcome, the emanation passes directly to the brain through the skull, or through the feet, or hands, or sides, or through any other part where the insulation is especially weakened.

In common perception, the emanation is permitted to reach the brain only through certain limited, defined, and restricted avenues or senses ; and even through these passages the pure and unencumbered motions of Etherium do not seem to be allowed to pass. In the sense of taste, the motion of Etherium is conveyed to the external organ by a *liquid* which dissolves the substance tasted. In the sense of smell, the motions are conveyed by currents of *air*, which are adulterated, or mingled with atoms of the odorous substance perceived. In the sense of hearing, the

emanation is conveyed in pulsations or vibrations of air. In the sense of sight, the emanation is conveyed or moved by currents, pulsations, or rays of light.

But in Clairvoyance, the brain seems to be excited by Etherium in a different state — by emanations which are ordinarily excluded by insulation — and which are introduced in opposition to the insulating guards. When this more pure emanation is fairly introduced, and a current of it caused to proceed from a distant object to the subject, it passes directly through the skull, or some other abnormal passages, and reaches the organs of Form and Color, etc., and excites them so as to cause *them* to produce a state of Consciousness, the same as if the subject had seen the distant object with his eyes. I wish the idea to be distinctly understood, that Consciousness and perception of every kind is, *in all cases*, produced by the Phreno-organs of the brain; that in common perception and in Clairvoyance, the brain operates in the same manner. In both cases the *Phreno-organs* must be excited, and must perform *their* functions, before perception can take place. It is a great error to suppose that in Clairvoyance a person can perceive without his *brain*, because he perceives without his senses. It is absurd to suppose that a person perceives *color* without the *organ* of Color, because he perceives without his *eyes*.

In order, then, to explain Clairvoyance, it is only necessary to admit that the Phreno-organs of perception may be excited through other avenues than the external senses.

According to this explanation, Clairvoyance is no more mysterious than any other phenomenon of Etheropathy or Mesmerism. Many persons are willing to admit that sleep may be produced by the inducting process, but deny Clairvoyance as impossible ; but it will now be perceived that it requires no new principle to explain Clairvoyance after the ethereal or mesmeric sleep is admitted ; for sleep, and sympathy, and Clairvoyance are produced in the same way, by the same agent and the same process applied to different objects.

The inquiry will naturally arise, "Why did not the Creator endow us all with the powers of Clairvoyance? Why should such a wonderful power be withheld from the most perfect and healthy men, and yet be occasionally bestowed upon some weak and debilitated individual." To my mind, the reason is obvious. The Creator has placed us in a situation where a certain amount of knowledge is necessary to enable us to perform our duties, and he has bestowed upon us organs so contrived as to enable us to acquire this knowledge with ease, provided we make a proper use of the means which he has placed within our reach, and the powers which he has bestowed upon us. A greater amount of knowledge, instead of being a blessing, would be injurious, and it is withheld from us in mercy : every animal in existence will be found to have the means of acquiring knowledge enough to harmonize with his condition, and to enable him to satisfy his wants. More knowledge would be an embarrassment.

Suppose that a man could hear every movement which takes place not only on the earth, but in the most distant of the innumerable planets ; and suppose he could see every thing in existence ; would it not be a source of inconceivable annoyance ? Would it not render his life a burden ? I do not doubt that an omniscient man would be utterly miserable. It is enough for us, then, that we are so organized, that by making an industrious use of our powers, we can learn all that is necessary for us to know in order to enable us to fulfil our destiny according to the designs of the Supreme Creator.

But still you will ask, why the power of Clairvoyance is bestowed upon some persons. I answer, that Clairvoyance is the result of weakness. It is in itself a species of disease, and, like all other diseases, it is a violation of the natural laws of the constitution. It was never intended by the Creator, so far as his intention is indicated in the organization of man, that such a power should be possessed by man ; for, instead of making any provision for it, (as he would, doubtless, have done, if he had designed it,) the Creator has ordained a most wonderful series of regulations to prevent it. By insulating the organs, and giving them limits and restrictions, he has virtually said to each of them, Thus far shalt thou go with propriety, and produce happiness, but no farther. Clairvoyance is an overleaping of the bounds to reach the forbidden fruit of the tree of prohibited knowledge. My object in making these remarks is not to prevent

any one from making use of this means of acquiring knowledge, but to convey a clear expression of the view which I take of the real nature of Clairvoyance, and to rebut the absurd doctrine, which has lately been advanced, that Clairvoyance depends upon a peculiar organ, which was bestowed upon man for that very purpose.

SECTION XII.

ETHEROPATHY — CONTINUED.

6. *Deranged Function produced by Induction.* — This principle, combined with the principles of Will, Sympathy, Credence, and Clairvoyance, accounts for all the phenomena, and explain all the experiments, whether they are known under the name of Neurology, Pathetism, Hypnotism, or Mesmerism ; for they are in reality but so many instances of peculiar derangement — of abnormal condition — of departure from proper and healthful operations.

This is true of the Sympathy, Clairvoyance, and Credence delusion which I have already explained ; and by applying these principles, we may unravel any case, however difficult, and reduce it to such simple terms that any person of common intelligence can understand it.

Bearing in mind the principles which I have already advanced, and the explanations which I have made, let us apply them to analyze the different phenomena which have been the subject of discussion and experiment by those who have most attracted public attention.

The subject may be discussed under the following heads : —

1. Etheropathic, or mesmeric sleep.
2. Manifestations of uncommon strength.

3. Conferring extraordinary power upon medicine, water-motion, and other substances.

4. Discovering diseases, their location, cause, and cure.

5. Reading the characters of persons with whom the subjects are in communication.

6. Discoveries in phrenology and physiology.

7. Communing with departed spirits.

8. Abuses and dangers attending Etheropathic experiments.

1. MESMERIC SLEEP. — This is generally one of the very first effects of Etheropathic Induction. The subject feels a sensation similar to that experienced when going into ordinary sleep; and his nodding, and the relaxation of his muscles, often imitate common sleep perfectly. Now, mark the difference: a third person speaks, but the subject does not hear him. The operator speaks, and the subject hears him and answers, or attempts to answer, and finds his tongue paralyzed. A third person takes hold of the subject, and pinches him, burns him, pricks him, and tries every way to excite his attention, but the subject remains totally unconscious of all his attempts. The operator gently touches him, and he shrinks with the strongest signs of sensitiveness. The operator commands him to perceive when a third person touches him; and now he shows Consciousness in return to the slightest touch from the very person who could not rouse him before by the most cruel experiments. In order to explain this, we must recollect

that the insulation of the organs of the subject is overcome, so that the motions of Etherium from the operator's brain interfere with the motions of Etherium from the brain of the subject. The currents from the subject's brain are either neutralized or conformed to the currents of the operator, so that now no current of ethereal force can enter the brain of the subject through the external senses; but currents are passing through the organs of the subject from the brain of the operator with great vigor. The senses of the subject can be affected by the operator, or by any object which the operator permits to be in communication. Those currents are cut off which normally pass to and from the subject's brain, and connect it with surrounding objects.

Sometimes the external senses, the voluntary muscles, and the organs of mind, seem to be all, or nearly all, inducted; so that the subject is almost as entirely under the control of the operator, as if the subject was but a part of the operator himself. But much oftener it happens, that all the efforts of the operator fail to induct the subject except in a few organs. At first the current from the brain of the subject to *his eyes* may be interrupted, so that the subject cannot open them without the consent of the operator; perhaps also the lips become immovable from a similar cause; but the hearing is not yet much affected, and by an uncommon effort he can move his limbs; the mind is but little affected, and the subject knows what he is about, and has the power, and perhaps the

disposition, to oppose the operator, and endeavor to thwart his plans and wishes. The explanation of this is, that only a few bodily organs are cut off from their natural ethereal connection with the brain. The other organs are too securely insulated, or else too powerful to be overcome.

When the external senses and the perceptive organs which are dependent upon them are thoroughly inducted, the subject is asleep; that is, he is in such a condition, that if the operator asks him if he is asleep, he will say "yes." I take it that the whole brain is not asleep at this time, for the subject will sometimes complain of thirst, weariness, or suffocation; showing that the internal-corporeal senses are active, and that those organs of the brain are awake, which preside over the wants of the body, though the perceptive organs are undoubtedly asleep, except so far as their activity depends upon the operator; they are certainly in that condition, whatever it may be, which gives the subject a consciousness that he is asleep, for he will generally answer positively that he is asleep. This leads me to inquire concerning an

ORGAN OF SLEEP.

Is there an organ of mind located in the brain, the function of which is to give a disposition to sleep? If so, in what part of the brain is it located? and what is its nature, its utility, and the design of the Creator in bestowing it? To what class of organs does it belong, Ipseal, Social, or Intellectual? If Ipseal, to what range of Ipseals?

I have reflected much upon this subject, as I deem it one of much interest in a phrenological point of view; and I have at length come to the conclusion that *there is no organ of Sleep per se*. There is a state of Consciousness which we call *drowsiness*, or sleepiness, and this is accompanied with an inability to keep the voluntary muscles, especially those of the eyes, in a state of contraction. Now, it must be admitted, that this consciousness of drowsiness is produced by a particular Phreno-organ, and so also is the contraction of the muscles, which constitute wakefulness, dependent upon an especial Phreno-organ. The tendency to sleep is indicated by an inability to contract the voluntary muscles, and to keep the senses active. Sleep is a negative power. A man asleep is a man doing nothing. Surely an organ for doing nothing is unnecessary. I have shown in another place, that sleep is produced by the predominance of the involuntary ganglia. These are the only organs of sleep, but they are not Phreno-organs; they give no tendency to do any thing voluntarily, but on the contrary, they tend to prevent all voluntary action. The consciousness of drowsiness, which we experience, is produced by the organ of Sanativeness, in consequence of a peculiar weariness of those parts, whose function it is to keep the senses active, and the muscles connected with them in a state of contraction.

The function of the organ of Sanativeness is, to produce consciousness and action when any part is

exhausted, injured, diseased, wearied, or needs our care and attention. If any part of the constitution is exhausted in a certain slight degree, Sanativeness is affected accordingly, and produces a consciousness of *weariness*; if to a greater degree, a consciousness of *pain*; so that weariness would seem to be but a slight degree of pain,—it differs from pain only in degree. The pain produced by the injury of one part of the body, is different from that produced by another part; and the weariness produced by the too prolonged activity of one organ is different from that produced by another. Now, it would seem that *drowsiness* is the peculiar *weariness* of the senses and their auxiliary muscles, and it affects the organ of Sanativeness accordingly. It may be that the organ of Sanativeness is constituted of a great number of departments, to correspond with the different parts of the body which are liable to exhaustion and disease; and if so, then there may be one department which presides over the sanatory condition of the senses and their dependent muscles. Such a department, if it does exist, produces the consciousness of drowsiness, or the exhaustion of the muscles. In this sense, Sanativeness may be called the organ of Sleep; but an organ of Sleep, such as Buchanan and others admit, does not exist beyond their own imaginations.

If there were such a propensity, it would, of course, be an Ipseal of the corporeal range,—it would be one of the very lowest organs in location and function, since the very lowest class of organized be-

ings possess it in perfection, and sleep all, or nearly all, the time of their lives. Dr. Buchanan claims to have discovered an organ of *Sleep*, and another of *Somnolence* ! I have repeated his experiments upon hundreds of susceptible subjects, and failed to verify his "wonderful discoveries," by the very method by which he himself proposes to establish their truth, and that is, by experiment. Dr. Buchanan locates his "*organ of Sleep*" between Combativeness and Cautiousness, and his organ of "*Somnolence*" near the organ of Tune. His location of the organ of "*Sleep*" is a violation of a perfectly established principle of phrenology — which is, that the powers that are the most essentially animal and corporeal in their nature have their organs in the lowest portions of the brain.

But I am told, perhaps, by some very innocent witness of Dr. B.'s experiments, that he certainly does put his subjects to sleep with no other ceremony than merely holding his finger upon that part of the head where he has located the organ of sleep. I answer, that I have no doubt of it ; and neither do I doubt that he could put them to sleep, just as well, by putting his finger on the nose, or any other part, especially if the subject expected to be put to sleep, and was susceptible. I have often put them to sleep, by simply telling them to go to sleep, and without touching them at all. If touching certain parts of a fresh subject sometimes aids and facilitates the sleep, it is, doubtless, because it facilitates the induction, and stops the action of several organs, and not because it excites a particular one.

A person who has been once inducted, can be inducted again with much more ease than before. There are two reasons for this : one is, that the insulation is weakened and rendered pervious ; the other is, that the conforming organs are excited by the recollection that once before he has been overcome, and this leads him to expect and believe that he will be overcome again.

There is a very great difference in subjects, in regard to the length of time that the influence will continue to affect them. Some will for weeks after they have been inducted be highly susceptible to induction, so that the slightest effort made by the operator, *with their knowledge*, is sufficient to render them powerless. I know a young lady of Syracuse, who is so susceptible, that if any one converses upon the subject of Mesmerism in her presence, she will become rigid and unable to move ; the consequence is, that the family are obliged to abstain from mentioning the subject in her presence. In this case, I have no doubt that the power that paralyzes her is within her own brain, though the conversation of others may call it into action. It is my opinion that any organ of the brain may paralyze the whole system under some circumstances ; fear often does this, and so do joy and sorrow. Subjects are often extremely fanciful, capricious, and unmanageable, in consequence of the self-inducting power of their own organs foiling the attempts of the operator to influence them. Such subjects are apt to acquire eccentricities, and apparently

unaccountable peculiarities in relation to their susceptibility. The explanation of their cases may be found in the idle and foolish notions which they have imbibed. I know a lady in Cooperstown, for instance, who becomes instantly paralyzed if any one inducts or attempts to induct her for a moment, and nothing will relieve her but touching a certain part of her head. Her sister, whom she has much reason to love, fills her with horror if she approaches her. The medical gentleman, whose patient she is, was greatly puzzled with these things until I explained to him the nature of Credenciveness, and showed him, by a variety of experiments, that the brain of the subject manufactured all the difficulty, on the principle of insane Credenciveness, and that no other subject would present a case perfectly parallel unless there was an opportunity afforded for a communication or imitation of symptoms. It is not unusual for a whole community to be inducted by imitation and Credence Induction, so as to be subject to delusions, panics, and diseases; and the most extraordinary physical and moral effects are produced through the agency of the *physical* organs of Imitativeness and Credenciveness. A full and sufficient explanation of the causes of the Salem witchcraft delusion is furnished by applying these principles.

MANIFESTATIONS OF UNCOMMON STRENGTH.

The inducted subject sometimes manifests a degree of strength which he cannot possibly manifest

in his normal state. The explanation is, that the currents of force from the brain of the operator unite their power with those of the subject, and both brains are actually moving one set of muscles through one set of nerves ; there is increased *intensity*, analogous to that produced in the galvanic battery by increasing the number of plates, so that those muscles can manifest a corresponding strength. Insane persons sometimes manifest a most wonderful amount of personal strength in consequence of great excitement of the brain ; but in their cases, the excitement is succeeded by a reaction, accompanied with uncommon prostration and weakness. Not so the externally inducted subject ; he often makes the most powerful efforts, and being thoroughly replenished and sustained by the operator, awakes without any sense of fatigue or exhaustion. I have observed, on such occasions, that the operator is exhausted, though the subject is not ; owing, as I suppose, to the drain which the subject makes upon the operator. Sometimes the subject complains of exhaustion ; but this is because he is not supplied and sustained by the operator, but by his own organs, and they begin to feel the effect of his exertions ; or the uneasiness of the subject may be from sympathy with an exhausted operator. The correctness of this reasoning is confirmed by the fact, that, when a subject is put to sleep and aroused again after a reasonable time, without being made to exert himself while asleep, he almost always awakes re-

freshed, and with a feeling similar to that experienced on awakening from a common sleep.

CONFERRING EXTRAORDINARY POWER UPON WATER,
MEDICINE, FOOD, ETC.

The only way in which food, medicine, or any thing else has any effect upon organized beings, is by evolving motions of Etherium, which act upon the organs. The reason why different articles of food or medicine have different effects upon our organs is, because they evolve different ethereal motions: that this is so, can easily be shown by experiment. Take a highly susceptible subject, one who is capable of Sympathy and Clairvoyance, and take any article of medicine, put it into a glass vessel carefully corked, and hold it in your hand, or let the subject hold it, and the medicine will have precisely the same effect as if the subject swallowed it in the ordinary way. It seems to me impossible to explain this, except on the principle, that the medicine evolves motions of Etherium in a peculiar manner, which communicates with the organs of the subject and affects them, although the glass intervened. This can be done upon some subjects, even if the operator does not know what medicine is in the phial. Again, the operator can produce, by his *will* alone, the same effects which are produced by any medicine; this fact proves that the will and the medicine have one power in common. What can it be but the power of giving peculiar motions to the organs? Again,

the operator can do the same without either medicine or will, but merely by *assertion*. I can produce a hundred subjects in the valley of the Hudson River, including some of the most respectable persons in this state, who will make oath that ice burns their fingers when I *assert* that "*it is hot*;" and they will do this when perfectly awake, and apparently in possession of all their faculties — being rational on every other subject but this.

I can give the subject in this condition a glass of water, and *assert* that it is brandy, and it produces the same effects upon his taste and feelings as if it really were brandy. This will happen, even if I *will* that it shall have no effect at all. These are facts which cannot be denied, nor even doubted. The number and character of the subjects render this impossible. I can do this to one person in twenty throughout the United States, and can teach any one else to do it. The facts must therefore be disposed of in some other way than by denying them. I have already explained them by showing that an *assertion* excites one of the largest organs of the brain, and with the aid of Induction this one produces a peculiar kind of monomania, in which the same effects are produced and imitated in the brain by the *Credencive imagination*, which are ordinarily produced by the brandy or the fire.

Since all sensations are immediately produced by motions in the nerves and brain, any means which can cause those motions can produce corresponding sensations. An assertion produces motions in Creden-

civeness, and Credenciveness modifies and communicates them to all the other organs as far as is requisite to cause the result asserted. In short, the whole brain becomes the slave of Credenciveness, and Credenciveness is the slave of an assertion. In these Credencive experiments it should be understood that the motions do not emanate from the substance, — medicine, water, &c., — but from the deranged organs of the subject himself. He is in the same condition as many insane persons, who live for years in the belief that their own limbs are glass, or that they themselves are birds, or plants, or monarchs, or departed spirits.

DISCOVERING THE DISEASES OF PATIENTS, OR OF THEMSELVES, AND PRESCRIBING MODES OF CURE.

Subjects can often discover the diseases, injuries, or pains of persons with whom they are in communication, on the principle of *Sympathy*, which I have explained, or on the principle of *Clairvoyance*, or on both combined. By Sympathy, they know the *feelings* and *motions* which the patient experiences at the time when they are in communication. By Clairvoyance, they know the *appearance* of the injured parts ; and from these data they sometimes are able to prescribe medical treatment which is well calculated to effect a cure. Medicine, as I have already had occasion to explain, produces its effects by modifying the motions in the organs of the patient. There are doubtless hundreds of substances which possess the most powerful medical virtues, though they are not

known to scientific men; for we have had no means of learning the qualities of medicines except by accidental observations and by experiments.

It is not unlikely that the clairvoyant subject perceives operations in diseased organs, and virtues in medical substances, which to one in the normal state are imperceptible. Perhaps the reasoning powers of the subjects, as well as his other powers, sometimes become morbidly active, and enable him to judge and predict, with a degree of correctness which seems almost miraculous, the result of disease or the effect of medicine. I have thus admitted fully on this point the just claims of operators as far as regards the philosophical principles involved, and I refer to Sympathy and Clairvoyance for their explanation; but I must now confess, that although true in principle, Clairvoyance is uncertain in practice.*

It is a fact that experiments in Clairvoyance, are, in a majority of attempts, entire failures. It is a fact that experiments in Sympathy are successful much oftener than those in Clairvoyance. Yet it is also a fact that the clairvoyant subject is sometimes so perfectly correct, and under such circumstances, as to entirely exclude the possibility of deception, collusion, or mistake. This has been the great stumbling-block

* • The majority of experiments in Clairvoyance performed in public are undoubtedly by collusion. The only true way of detecting the fraud, is to let some candid person take the place of the operator, be placed in connection with the subject, and undertake to perform the experiments. — *Ed.*

of sceptics. Having perhaps heard or read of some astonishing feat of Clairvoyance, they protest that it is impossible, and accuse the narrator of falsehood or weakness; and, when challenged to witness the experiment for themselves, they accept promptly the invitation. Preparations are made, expectations are raised, a triumph is anticipated, when, alas! the experiment fails. The operator cannot tell why; accuses the weather, the presence of sceptics, the noise in the room, his own want of health or concentration; offers to try it again, and then proceeds to give the most wonderful accounts of feats which he *has* performed on *other* occasions; so he declares upon his honor. During all this time the sceptics, too polite, perhaps, to express their sentiments verbally, answer with "O!" "Indeed!" and shrugs and looks of suppressed contempt; and finally, take their leave fully confirmed in their scepticism, and afterwards refuse to listen candidly or look fairly upon the subject.

Do you ask me why there need be so many failures? why, if Clairvoyance succeeded yesterday, it should fail to-day? I answer frankly, that I do not know; I know the fact only, and I say that a thousand failures do not disprove one instance of success.

The wonder to me is, not that there should be failures, but that there should ever be success. When I reflect that every successful experiment in Clairvoyance is a triumph over the laws of the constitution, and that creative wisdom has been displayed in preventing the success of such operations, I am by no

means astonished that success is an exception and failure the general result. I am rather astonished that a single phenomenon of this character can be produced at all; and were it not that I am forced to yield to irresistible evidence, I should be disposed to deny the truth of Clairvoyance altogether; and, indeed, of all other Etheropathic phenomena.

All the different kinds of experiments are more successful at one time than another, though performed upon the same subject, without our being able to assign any sufficient reason. But when we reflect that the electric and magnetic states of the atmosphere are continually varying, without our being able to assign the reasons, we ought not to be surprised that similar variations are found in Etheropathy.

I advise no one to *rely* upon clairvoyant subjects in cases of disease; but I would respectfully recommend to physicians to weigh their testimony candidly, and give it all the attention which it really deserves. Let it be borne in mind, that though sometimes astonishingly correct, they are oftener insanelly romantic.

READING THE CHARACTERS OF THOSE WITH WHOM THE SUBJECT IS IN COMMUNICATION.

This is but a species of clairvoyant sympathy, for if the motions of the operator, or any one else in communication, are made to affect the subject, and he is conscious of the affection, he can, of course, judge of its character. A subject who is ignorant of phrenology will sometimes examine the head of a person,

and tell the character with tolerable accuracy. I take it that this is done by the subject being slightly affected, by each organ, and that he judges of the relative influence of the mental powers by their relative effect upon himself at the time of his sympathetic communication.

Subjects can sometimes read the character and disease of a person by merely feeling of a handkerchief, or a lock of hair which belonged to that person. Such subjects are rare, but they are sometimes found. This seems incredible, and, when admitted to be true, is exceedingly wonderful; but our wonder is doubtless principally caused by the novelty, rather than the impossibility, of the thing; for is it not equally incomprehensible that a dog can tell by putting his nose within a few inches of a stone upon which twenty persons and animals of different kinds have trodden, and if his master, or a fox, or any favorite game, has for an instant been standing upon the stone, the dog perceives it as he runs rapidly along over the stone? How can we explain this but by saying that there is an emanation of some kind from the animal which impregnated the stone.

I once tried an experiment with a kitten about three months old, which I was certain had never seen a mouse. I brought a covered tub into the room, in which was a mouse, intending to let it out and see whether the kitten would catch it; but before I opened the tub, the kitten gave the strongest evidences that she already knew its inhabitant. She evidently per-

ceived it without sight or hearing, through the covered tub. Was this not reading character in a manner quite as wonderful as that of the clairvoyant subject? If you say that she smelt it, I might ask how by that means she knew that it was her natural prey.

Take a carrier pigeon a thousand miles blindfolded, by a circuitous route, and it will return by the most direct line that can be drawn. Did the pigeon smell home? How, then, if not by smell, does the bird *know* the way home? I have seen a company of about twelve persons, nearly all strangers to each other and to the subject, take their handkerchiefs and mix them together in a box, and then present it to the blindfolded subject, who took the handkerchiefs all out, and as each owner presented his hand, the subject selected and returned his property. I have seen the same subject tell correctly, by feeling the hands of persons, whether they were of the same family I have seen a ring handed to a subject, and the owner of the ring, who lived at a distance, described — the sex, health, residence, and state of mind, and many other circumstances, with great accuracy, in most particulars; though I never saw an instance in which there were *no* mistakes made in the description, if many questions were asked. I can understand as well how a clairvoyant subject can tell the character of the person by the emanations from the handkerchief, as I can how the dog can tell the character by a footstep, or a pigeon his home, without even one sign or circumstance to afford a hint in any way that we know of.

There are several ways in which the subject may get his information ; one is by sympathy with the person or persons present, who have in their own minds a knowledge of the person inquired about. Another way is by emanations from the ring or handkerchief. The ring, being inducted by the ethereal influence of the owner, partially retains and communicates the motions which it has received, just as a magnet does, or a scented handkerchief.

The difficulty of conceiving such minute operations as those of the motions of *Etherium* in a ring, which can be communicated to a subject, and followed a hundred miles to connect with the owner—this difficulty is not greater than that of conceiving how eight millions of conscious beings can live and move in a space smaller than a mustard seed, or how the force of gravity can be propagated fifty millions of times faster than light. The minute is doubtless as infinite as the grand ; and we commit as great an error by limiting nature to our capacities, as a microscopic insect would, who should suppose that the north side of the grain of earth on which he lives is the paradise and most important part of the universe.

It is with us as it is with the insect, — what seem to be the limits of nature are in truth but the limits of our own powers. The chain of causes and effects is infinite in length, but with our limited powers we can only perceive a few intermediate links. Both extremities of this chain are mysteriously continued far beyond the limits of human conception. Human

knowledge, in its greatest extent, is necessarily cut short at both extremities. In all human reasoning we are forced, through ignorance and weakness, to begin by *assuming* first links or principles, and conclude by again confessing that we are at our wit's end. What we call *first principles* are merely the first links that we can *perceive*; and what we call *a conclusion*, is merely the last link which we can trace. All human knowledge begins and ends in ignorance.

DISCOVERIES IN PHRENOLOGY AND PHYSIOLOGY BY MEANS OF ETHEROPATHY.

Clairvoyance is the only instrumentality by which we may hope to make discoveries through the agency of inducted subjects. But I must confess, that even this method is exceedingly discouraging, since I find that in those cases where I have had an opportunity to know* whether the subject was right or wrong in his pretensions to Clairvoyance, the actual result has been, that he was wrong more than half of the time. They are correct in examining the diseases of patients much oftener than in any other kind of Clairvoyance; but in this they are perhaps aided in a considerable degree by sympathy. It may be, that there is something in the nature of the human body which is congenial to another human organization, and this may render it easier to establish a communication with them, so as to produce Sympathetic Clairvoyance, than any other kind. On this subject there is much need of carefully observed and connected facts; but it is

unfortunate that most of those who are engaged in making experiments, are such visionary and credulous persons, that they lead us to error oftener than to truth. I shall never complain that people are sceptical on this subject, so long as they do not refuse obstinately to examine it. Let us continue to observe, to examine, to theorize, to criticize, and scepticize, and turn, and overturn, until the truth, whose right it is, shall reign.

Public attention has been directed to this subject, especially by the operations of Dr. Buchanan, as reported by himself, and those who acted as committees appointed by audiences to examine and scrutinize his experiments in New York, Albany, and Boston. Dr. Buchanan came with letters of introduction from gentlemen of high standing to some of the first citizens of this region, and as he professed to have made very great discoveries in science, he was received cordially, and his subject taken in hand by gentlemen of such character as to command the confidence of the public. These gentlemen published long and detailed reports, which sanctioned all, or nearly all, that Dr. Buchanan had advanced. The committees professed to merely report the facts which they knew, and the experiments which they had witnessed, without expressing any opinion concerning them; but the tenor and complimentary style of the reports were such as to amount to an official endorsement of the whole concern. The editor of the Democratic Review, the editor of the New York Evening Post, Dr.

Forry, Rev. Mr. Pierpont, and others of the same high character, publicly expressed their conviction of the general truth of Dr. Buchanan's doctrines; and hundreds of others were, and indeed are still, of the opinion, that, being founded upon experiment, they could not be erroneous. What greatly added to their confidence, was the fact that they could repeat the experiments themselves, and with the most perfect success. How, then, could they be mistaken, when they were themselves the operators, and the subjects were their most devoted friends?

In the case of Dr. Buchanan, and the reports of his committees, the mischief is the greater from the fact that they tend to destroy confidence in the science of phrenology. He professed to produce an entire revolution in this science—to add thousands of new organs—to change in a moment the location of organs which had already been established by years of patient observation. Some idea can be formed of the extent to which this mischievous delusion proceeded, from the fact that Mr. Fowler, in a new edition of his work on phrenology, introduced a long catalogue of new organs, which he pretends to have discovered by this means; and, furthermore, he professes to have *verified* them by observation and examination of crania!

Mr. Fowler has made such an immense number of examinations of heads, and is supposed by the multitude to understand the subject of phrenology so well, that it was thought he must certainly be capable of

judging whether Dr. Buchanan was right or not; and, therefore, when he declares that he has tested the experiments fully, made important discoveries by means of them, and then proved and verified the discoveries by observing the developments of the head, he gives his highest testimony in favor of their truth, pledges his own professional character for skill and accuracy, and must stand or fall by the result.

But in reality the experiments do not confirm these organs; their claim is based upon observation of external development and phrenological harmony. The experiments would have confirmed any other organ, or any doctrine, however absurd or visionary, as the records of their pretended discoveries abundantly prove.

In regard to the poles of the stomach, and the magnetic connection of Alimentiveness with the stomach, etc., which Mr. Fowler claims to have first observed, I beg leave to refer you to my work on Phrenology, p. 162, in which, in 1839, I announced this same doctrine in my explanation of the internal senses. The following is the language I then used:—

“These are the nerves that convey impressions from the internal bodily organs to their appropriate impulsives in the brain. Thus Pneumativeness, Alimentiveness, and Sanativeness, of the Ipseals; and Amativeness and Parentiveness of the Socials, are each capable of being excited to the highest degree, when the bodily organs to which they are severally related, are in want of their peculiar enjoyments.

The secretion of milk in the breast irritates certain nerves which convey the impressions to Parentiveness, and rouse it to action. The secretion of the gastric juice irritates certain nerves of the stomach, which convey impressions to Alimentiveness; in the same manner, every organ, when irritated in a peculiar manner, communicates an impression to the brain by means of some nerve, and rouses the appropriate impulsive, to relieve disagreeable sensations, or to continue agreeable ones. The nerves of the internal senses are so concealed from observation, that the most skillful anatomist cannot trace them with certainty; this accounts for the fact, that so very few, besides professional men, are acquainted even with the existence of such senses."

SECTION XIII.

ETHEROPATHY — CONTINUED.

[WITH the exception of a few paragraphs, I have omitted this entire section, as it is of a controversial character, and not necessary to an understanding of the subject under consideration. It is a discussion of the pretensions of Neurology as advocated by Dr. Buchanan, and, at the time of the publication of the first edition, had an importance which does not attach to it now. Dr. B.'s "discoveries were at that time electrifying phrenologists every where, and the fame of Neurology was world wide: the most distinguished phrenologists both in England and America adopted his opinions and repeated his experiments with enthusiasm. Dr. Caldwell, of Kentucky, Dr. Elliotson, of London, Dr. Dodds, Dr. Forrey, Rev. Mr. Pierpont, and Mr. Fowler, were all disciples and advocates of Neurology. They could without difficulty rehearse Dr. Buchanan's experiments themselves, and they seem to have admitted his explanation of the phenomena almost without question. Neurology proved the truth of Phrenology, and promised to reveal all the hidden mysteries of the brain. But to the mind of our author it proved *too much*; its discoveries were too numerous; the head of the subject, like the lamp of Aladdin, answered your wishes each time it was touched; and new organs were located with such rapidity and arbitrary inaccuracy that the preëmption rights of the old ones were not in the least respected, and they were forced to narrow their limits to a mini-

num of space. Besides, if Neurology was right, Prof. Grimes's classification of the Phreno-organs was wrong, and to this circumstance we probably owe the production of this book, in which he shows that Neurology was wrong; and that this as well as every other phase of Mesmerism can be explained in no other way so well as by credence induction, which, if admitted to be the true explanation, admits also his system of Phrenology. In this and the succeeding section, which are direct expositions of the fallacious pretensions of Neurology and Phreno-Magnetism, the author seems to have used the satirical pen of Junius, and to have dipped it in the caustic ink of its owner.

In order that the reader may have some idea of the points at variance in this controversy, I will insert a few paragraphs from this section. Ed.]

I have before me a "Diagram" published by Dr. Buchanan, in 1843, in explanation of which he says, —

"Any one, who has the ambition of discovery, can easily, by experimenting on an impressible constitution, discover hundreds of new organs, or modes of manifestation, by making additional subdivisions. Had the author published all the distinct functions which he has observed, they would have amounted to more than a thousand!"

I doubt whether any man can be found who has sufficient genius to write a sentence which shall surpass the above in foolishness. If there is any thing on earth more supremely ridiculous, it is the position of those who have recommended such doctrines to the public.

Yet there is truth in Dr. Buchanan's promise, that "any one can, by experimenting on an impressible constitution, discover hundreds of new organs ;" and I "will undertake to execute" an order for any number or any kind of new organs which shall be wanted for the gratification of the public credulity. If any one else will "undertake" to furnish names, I will manufacture the organs according to "the laws of antagonism and coöperation" which are practised by Dr. Buchanan and Dr. Caldwell. Again, Dr. B. says,—

"Every function, or organ, is associated, for its balance and control, with an antagonist function or organ ; and by means of these laws of antagonism, the whole mass of Cerebral Physiology assumes a wonderful and beautiful simplicity."

This doctrine of "antagonism" is taught by others besides Dr. Buchanan. It is taught by all those who excite (as they suppose) the organs by touching the head. In the preface of my "New System of Phrenology," I remarked that "I cannot countenance the idea that some organs were *intended* as antagonists to others ; they all act in harmony ; and though some are more intimately related than others, no one, unless abused, counteracts the proper effects of another."

The true doctrine upon this subject, I conceive, is, that any organ is an antagonist to every other which opposes its operation and gratification. Two organs may be antagonists on one occasion and coöperators upon another ; but I repeat what I stated in the preface

of my "New System of Phrenology." "No organ was intended to counteract the proper effects of another." Conscientiousness, for instance, may coöperate with Kindness to oppose Destructiveness, where its aim is unjust; but the same Conscientiousness may coöperate with Destructiveness to oppose Kindness, when justice demands the sacrifice. When two organs tend to opposite results, and the stimulating circumstances are equal, the largest organ will prevail. If the organs are equally large, and the stimulus of each equal, the result will be an intermediate course, in which both powers will be gratified in a medium degree only; but if the size or the stimulus of one surpasses that of the other, the gratification will equally surpass, if opportunity is equally favorable to both. There is, then, no such thing as an organ for an antagonist function, *per se*. By adopting a different doctrine, Dr. Buchanan has involved himself in a labyrinth from which nothing but retraction can extricate him. Some of the new organs which he proposes, are doubtless intended to supply the demand for antagonist organs. Thus the organ of *Suicide* is introduced to antagonize the organ of Vitality — Ignorance *versus* Knowledge — Mortality *versus* Immortality — Sanity *versus* Insanity; and so on to the end of the chapter.

[Dr. Buchanan says Clairvoyance depends upon certain organs.

Also, that he can excite what organ he pleases. Hence he can produce Clairvoyance, in any susceptible subject, at any time.

But he and every other operator knows this cannot be done.

Therefore Dr. B. should revise his premises, or abandon his conclusion.

Our author, after giving, in substance, the preceding clinching syllogism, concludes as follows:—ED.]

It should be particularly remarked that no two of the professional *Head Touchers* agree. Sunderland and Fowler locate Secretiveness and Acquisitiveness in the temple where Spurzheim does, but Buchanan and others place them in the occiput, near Combative-ness; and each rival "toucher" accuses the other of having the organs of "Ignorance and Stupidity" in a state of too great activity for the "antagonist organs."

SECTION XIV.

ETHEROPATHY — CONTINUED.

[THE remarks upon the preceding section are also applicable to this. Neurology and Phreno-Magnetism are essentially the same, and Electro-Biology and Electro-Psychology are in the same category. Whatever their advocates may assert, there is nothing new advanced either in principle or practice. They are all offshoots from the old-fashioned Mesmerism, and are all comprehended under the name of Etheropathy. I insert such parts of this section as I think will be interesting to the reader. — ED.]

The following, from the London "Phalanx," will give an excellent idea of the reception which these discoveries in Phreno-Magnetism, etc., met from the very learned gentlemen who compose the Phrenological Society of London : —

"PHRENOLOGICAL SOCIETY. — On Monday evening there was a full attendance of the members of this society, at their chambers in Exeter Hall.

"The President, Dr. Elliotson, delivered a lecture upon the connection between Phrenology and Mesmerism. He said,—

"In the course of last month, I have received a series of newspapers from America containing accounts of Mesmerism, from which it seemed that when an operator had reduced a patient to a state of stupor, he could excite the phrenological organs at will; that

parts of the brain could be awakened and excited, and afterwards be put to sleep again.

“Dr. Elliotson then read from a New York paper an account of numerous Mesmero-Phrenological experiments, which related a vast number of public experiments of similar nature, and with similar results. In each case, it is represented that the organs, as named by the phrenologists, invariably manifested, under mesmeric influence, the functions attributed to them. The relations excited the greatest surprise in the meeting, and were listened to with deep attention. He then stated that whilst these things were proceeding in America, experiments precisely of the same character and effect were carried on in different parts of England, by gentlemen who knew nothing of the operations of each other, or of those going on in America. He had sent down copies of the American papers to Hampshire, to Dr. Engledue, with a request that he would hand them to Mr. Gardiner, a gentleman of the highest respectability and learning, the son of Sir James Gardiner, an old member of this society. It happened, curiously enough, that when Dr. Engledue went over to Southampton, to give the packet of papers (which he himself had not opened) to Mr. Gardiner, he found that gentleman, Mr. Mansfield, and others, actually engaged in a series of experiments, which, on afterwards looking into the packet, they found to correspond exactly with those described in the American papers. Dr. Elliotson then read from the Hampshire Telegraph, a long account

of experiments by Mr. Gardiner, from which we can only make room for the following : —

“ ‘I asked the patient referred to, (a young lady ignorant of phrenology,) when in the trance, with what part of the brain she kept a secret? She replied, “On the side of my brain.” Upon asking her to point out the spot, she placed her finger exactly on the organ of Secretiveness in my head. I placed my finger on her organ of Secretiveness, when she said, “Yes, just where I am touching my head.” In the trance she fancies the two movements are identical. Having asked her where she felt anger, she placed her finger upon my organ of Destructiveness. I inquired where she felt hunger; her finger rested on my organ of Alimentiveness. I interrogated her as to the time; she was wholly unable to tell me. The idea then struck me that I might possibly enable her to estimate the hour by exciting the organ of Time. With this view I rubbed the forehead gently at the required spot, exerting my volition to the utmost, of course. “O! that makes me feel so odd.” I asked her why. She replied, “It makes me know what time it is.” She then told me the time with almost perfect accuracy. She would afterwards always estimate the lapse of time — intervals — with astonishing accuracy, upon my exciting the organ of time on her forehead. Her finger rubbed on my forehead produced invariably the same results: (this is true of all the organs.)’ ”

Not one of those who have adopted this doctrine

concerning the excitement of the Phreno-organs has yet retracted, or even expressed a doubt concerning the truthfulness of their conclusions. I do not know of a phrenologist in this country who does not admit them to be true. I believe that I am the first who has attempted to show their fallacy.

[Since the above was written, nearly all have abandoned the idea. Mr. Sunderland, in his book entitled *Pathetism*, published in 1848, has the following : —

“When I first excited the separate cerebral organs, in August, 1841, I *thought* I had made an important discovery, one by which I could demonstrate the truth of phrenology, and the precise location of each of the mental organs. But I very soon found that those excitements could not be depended upon, as I at first supposed; and becoming satisfied that what I thought was a discovery was of no very great importance, and, as I found A, B, C, D, etc., throughout the country, claiming the same discoveries, I long ago relinquished my claims, being perfectly willing that those who wished the credit of *priority* in those experiments of exciting the mental organs, should enjoy it without any rivalry from me.” ED.]

The following is a concise summary of the reasons why I reject the doctrine : —

1. When the subject is *Clairvoyant*, he knows the intention of the operator, or of any third person who instructs the operator how to proceed, so that no contrivance can deceive him, and therefore, in Clairvoyant subjects, touching is a mere farce.

2. When the subject is influenced by *the will* of

the operator, this alone will explain all the phenomena, even though the subject is not Clairvoyant. In this case, also, touching the head is a mere farce.

3. When the subject knows, or even suspects, that the touching of a certain spot is *expected* to produce certain results, he is generally desirous to oblige the operator, and will act accordingly. In this case touching the head is also a farce; for under these circumstances the same results can be produced by touching any where else.

4. When neither *Clairvoyance*, *Will*, nor the *subject's previous knowledge* can be brought to bear, the result *cannot* be produced.

5. When the subject, the operator, and all concerned, believe in any peculiar notion, the experiments will not contradict that notion, but will confirm it, however absurd it may be.

6. Subjects are often clairvoyant enough to know the intentions of others, when the operator does not suspect it, and the operator often influences the subject when he does not intend to do so.

7. Admitting that emanations of Etherium stream from the extremities of the fingers, would they not be conducted away in all directions by the innumerable nerves and blood-vessels — the skull and membranes, which intervene between the external spot touched, and the Phreno-organs which are supposed to be excited? This objection acquires additional force from the fact that the brain is especially insulated from external influences.

8. The poles or sympathetic points which the *touchers* pretend to find, afford a *most conclusive* argument against the notion that touching proves the *location* of an organ, for it is impossible to know whether you are touching a "*pole*" or an *organ*. How do you know that there is not a "*pole*" of Acquisitiveness in the *integuments* of the head just over Combative-ness?

9. A great parade and flourish of trumpets have been made about the beautiful manner in which the different traits of character have been manifested by subjects, when the organs were excited by touching; but all this amounts to nothing, when it is known that the very same experiments, the same results, with the same beauty and style of manner, are produced, by simply saying to the subject, "*You are Macbeth;*" or, "*You are Queen Victoria;*" or, "*You are a saw-mill.*" The subjects will generally assume the character, and act the part according to their conceptions of it, much more perfectly than they could enact the same when in the ordinary state: by this method you can make them angry or merry, reverential or profane, at your pleasure.

My attention has just been drawn to an account of some experiments of Dr. Elliotson, of London, a well-written account of which I find in the recently published work of Mr. Lang, of Edinburgh. Dr. Elliotson is one of the most distinguished physicians at present in Europe, and as far as mere authority can give influence, his name will have, probably,

more weight on this subject than that of any other man living. I do not understand that he admits any new organs, or new phrenological doctrines, as proved, or even rendered probable by the experiments ; but he seems to succeed in exciting the very organs which he previously believed in, and no others ; — this being the case, even *his* experiments afford an unanswerable argument against the pretensions of Buchanan, Fowler, and all the other discoverers of new organs. If the brain really could be excited in the way Dr. Elliotson supposes that it can, it is no more than reasonable to suppose that some new organs would be excited and discovered, and by no one more readily than him, since no man in Europe understands phrenology better, or advocates it with more courage and ability than he does. According to the following account, it seems that, when Dr. Elliotson *accidentally touched* with his finger one half of the organ of Self-Esteem, (called *Imperativeness* in my nomenclature,) the organ was instantly excited. Now, this being the case, what is to prevent the function of any minute spot on the head from being known ? And how can there be such an irreconcilable difference between the results produced by different operators ? Do not the very results which Dr. Elliotson produced, indicate that his own mind is the origin of them, and that they are the mere echo of his ideas ?

I have repeatedly seen subjects whose organs were so easily excited by touching the head, that I could not touch ever so slightly, without something going

off; and yet, under the pretence of curing or preventing headache, I have put my fingers on every part of the head, without producing any effect; and I have no doubt such would be the case with any of Dr. Elliotson's subjects. Why is this?

I very lately had a subject in Manchester, N. H., a gentleman whose name I have forgotten, but who is the principal of an academy in that place. This gentleman, when apparently awake, was so far under the influence of my mind, that by my volition — by my merely thinking of his ear being burnt — he acted as if it was actually burnt. I could do the same to his finger or any part I willed. If I stood behind him, and put my finger near his ear, or neck, or his hands, (they being held behind him,) he immediately shrunk, and said that it hurt; yet I did not touch him, but merely pointed within six inches of the flesh. He did not pretend that he could see what I was doing, but said that he experienced a sensation in the part, without knowing the cause: the same happened if any one else pointed. I also lately found a similar subject in Cooperstown, Otsego county, N. Y., named Bates. Mr. Braid, of Manchester, England, seems to have noticed similar cases, and he attempts to account for them by supposing that the ordinary function of "feeling is abnormally exalted." It is certain that sometimes the senses are abnormally exalted in the subjects to a wonderful degree, and this exaltation is generally the incipient stage of Clairvoyance. When the galvanic force becomes exceedingly *intense* in

consequence of *an additional number of plates being brought to bear upon one wire, or avenue*, it will *always* overcome *ordinary* insulation, and, spurning its former bounds, overleaping its constitutional limits, it tends to enter into communication with other bodies — to induct them — to make impressions upon them — and, by their *reaction*, to receive impressions in return. If the intensity is increased still more, the *parallel* wires or avenues are inducted, and their currents neutralized, or conformed in such a way that they become *vicarious* in their function — that is, they perform an office and convey a current, which, of right, belongs only to the avenue which has exceeded its limits.

From this analogy it is easy to understand abnormal sensation and Clairvoyance, for this also is produced by bringing an additional number of cerebral plates to bear upon the same avenue or nerve of the subject; and when the forces of both operator and subject take the same direction through the same nerve, there is of course greater *intensity*, and when there is greater intensity there is a tendency to pass the insulating bounds. Hence we have uncommon manifestations of muscular strength, which are, in fact, but modes in which our phrenic force manifests itself. Hence, also, we have abnormal manifestations of sensation or Clairvoyance — which are but the *reactions* that follow the intensity in the nerves of motion — which reaction is aided by the induction of currents from the operator, and from other surrounding bodies — and let

us remember that action and reaction are equal. Hence, again, we have *vicarious* function — that is, we have the nerves or avenues of one kind of sensation transposed so as to become the avenues of other kinds of sensation; we have the nerves of *touch* changed to nerves of *sight*, or to nerves of *smell*; we have instances of subjects who could smell with the fingers and see with the toes. If any one finds it difficult to conceive the possibility of this, let me remind him that the different sensations are but different motions of the same Etherium; and that nothing is necessary to produce this apparent miracle but to change the motion which is passing through one nerve so as to make it like the motion which is passing through another nerve; — the motion through the nerves of touch like that through the nerves of sight. Hence, too, we have utter insensibility and paralysis produced by the currents of the operator counteracting, neutralizing, reversing, and conforming the currents to and from the brain of the subject. Mr. Lang says, —

“The position which Dr. Elliotson holds as a man of science, places him far above being benefited by any mere casual notice of his labors; and it is indeed gratifying to reflect, that although the illiberal and bigoted of his own profession have attempted to impair his means of usefulness, there are many others who, while they have been benefited by him, have had the gratitude to acknowledge his services.

“Dr. Elliotson, and others, who believe in both

mesmerism and phrenology, maintain that the manifestations are so many proofs of the truth of phrenology; while Mr. Colquhoun, who rejects phrenology, accounts for them by the supposition that they are produced by the will of the operator; that the latter, in putting his hand upon a particular organ, naturally looks for a certain result, and that it is produced accordingly, through the community of feeling existing between him and the patient. In his letter appended to Dr. Engledue's address already referred to, Dr. Elliotson says, in reference to the question here started, —

“‘If it should be urged, that these experiments prove nothing for Phrenology, because the excitement of certain ideas in the brain of the patient resulted from the mere will of the operator, and not from his manipulations over particular cerebral organs, the answer is easy. The will of the operator certainly must be influential in producing mesmeric sleep, if it is true that patients may be mesmerized to sleep when the mesmerizer is far away from them; and I presume it is. But this can be only one source of power. I have made experiments in mesmerism daily, except the two months when I travel in every year, for five years, carefully, with no other desire than that of truth, and in the utmost variety of cases, and have never once discovered the influence of my will. I have never produced any effect by merely willing. I have never seen reason to believe (and I have made innumerable comparative experiments upon the point)

that I have heightened the effect of my processes by exerting the strongest will, or lessened them by thinking intentionally of other things, and endeavoring to bestow no more attention upon what I was about than was just necessary to carry on the process.' ”

I do not understand that Dr. Elliotson means to deny that the will of the operator does sometimes produce movements in the subject, but only that he has not himself observed it; yet the subject's minute imitation of his fingers can only be referred to his own will moving his own fingers, and thus by sympathy indirectly moving the fingers of the subject. I confess that I have myself found the effects which I have produced were not in proportion to my *conscious efforts*. I have found that by my will I could produce certain effects; but I have not found those effects *increased* by increasing the energy of my efforts, though I have found them increase by the *continuity* of the efforts, and by repetitions of them at different times. But it is easy to convince any one that his will does produce certain effects which are independent of the imagination of the subject. I have satisfied hundreds in the following manner, which I will take the liberty to recommend to the attention of Dr. Elliotson: Take almost any person who is unacquainted with the subject, or with the object of the experiment — ask him to sit down, and close his eyes, and keep them closed — take hold of his hands, as if you are going to induct him in the usual manner, and, after you have held them about five or ten

minutes, let go carefully of one hand; and *will* the thumb to move; and in five cases out of six it will do so, even though the subject is not in the least asleep, and though he is so slightly affected that he stoutly denies that he is affected at all. I have generally found, indeed, in this experiment, that, if there are not witnesses present, the subject is apt to attribute the whole to accident or fancy, because he feels nothing and experiences no novel sensations.

I succeeded perfectly in performing this experiment, a few days ago, upon the Hon. Judge Baker, of the Washington Common Pleas. This case is peculiar. I could slightly move any finger by my will, when his eyes were closed, and he was unconscious of the operation. I performed the same afterwards, when he was aware of it; and what is still more curious, I could cause the muscles on the back of his hand to move and quiver by my mere will or volition, though he could not produce the same movement with his volition. Judge Howe and Mr. Attorney Baily were present, and witnessed the operation.

In Cooperstown, Mr. Bates, when quite awake, in the presence of several citizens—if he closed his eyes, and I stood behind him and told him that I was going to will one of his feet or hands to move, without telling him which it was to be, and requested him to remain merely passive—the experiment succeeded to the satisfaction of all present. When I merely wanted to satisfy myself, I willed, and he moved accordingly; but when I wished to satisfy others, I

stood behind Bates and made a sign to let them know which limb I intended to move. The doctor says, —

“ So far from willing, I have at first had no idea of what would be the effect of my processes, — one set of phenomena have come *unexpectedly* in one case, and one in another, without my being able to explain the diversity of effect: nay, the *same process, conducted with the same object*, turns out to produce opposite results in different cases. For instance, I can powerfully excite the individual cerebral organs in the young gentleman by breathing over them; but when I breathe over those of the young lady, desiring and expecting the same effects, no excitement is produced: on the contrary, if they are already excited, they at once become inactive. The same effect requires different processes in different persons; point to the epigastrium of some persons, and will with all your might, and no result comes; but point to their eyes, and they drop asleep; make passes, or point at the back of the head, and will with all your might, and either no effect will ensue, or sleep will not take place before far longer time has elapsed than if you operate before the face: you may make passes in vain with all your might before the face of some persons, who drop senseless presently if you merely point; and hence is apparent the error of those who gratuitously assert, that the processes merely heighten the will of the operator. As to the influence of the operator's will in exciting the *cerebral organs*, the effect ensues as well in my female patient, though the manipulator

be a sceptic, and may therefore be presumed not to wish the proper result to ensue, and though I stand aside, and do not know what organ he has in view : I have never excited them by the mere will : I have excited them with my fingers just as well when thinking of other matters with my friends, and momentarily forgetting what I was about : I have always failed, however much I willed, when I have directed the finger to another organ than that which I willed to excite intentionally, or have accidentally misdirected my finger."

The true explanation of these cases, and of many similar puzzling phenomena is, in my opinion, to be found in the caprice and Credenceive imagination of the subjects. I have found that where a subject gets any unfounded notion into his head, either from the suggestion of any one else, from his own reasoning, or from the practice of the operator, this notion will have the effect to prevent the success of every experiment which does not accord with it. This is the reason why different processes succeed with different subjects. There is a love of forms and ceremonies in superstitious minds, (and the best subjects are oftentimes predisposed to superstition,) a disposition to connect effects with certain peculiar mysterious processes ; so that I think it important, in performing experiments, not to neglect any ceremony or movement which is calculated to produce an effect upon the Credenceiveness and Submissiveness of the subject. This is especially important when the object is to improve

the health of the subject, and I commend it to the serious consideration of physicians as a valuable auxiliary to their *forces medicatrix*. Again, the doctor says,—

“I was taken quite by surprise when I found that I mesmerized an organ—self-esteem, for instance—in the half only to which my finger happened to be pointed.”

After subjects have learned that touching or pointing at a certain part is to be followed by certain movements,—that is, as soon as they have learned to know the sign, and to interpret it,—they will always afterwards act in accordance with their “first lessons.” A subject, therefore, who, by sympathy and by Clairvoyance, has learned what the sign is, and what it means, does not afterwards need to know any thing, but that the sign is made; and I have already shown that subjects such as this which Dr. Elliotson has, can tell when a finger is held or pointed near them. What I mean is, that they use Clairvoyance to learn the intention of the operator the first time the experiment succeeds, (provided that they previously did not know any thing of phrenology,) and afterwards they know by an exaltation of the senses, when and where the finger is pointing at them, after the manner of my subject at Manchester, N. H., and Bates at Coopers-town. How would Dr. Elliotson himself explain it? Would he say that his fingers and the fingers of any person evolve a stimulus which excites Phreno-organs against the will of the operator? He has left us no other alternative, and we know that this is not true,

since we can put our fingers upon the heads of any of these subjects to cure their headache, and under other pretences, without exciting their organs at all until we excite their suspicions.

Mr. James Braid, of Manchester, England, published a work during the year 1844, entitled "Neurypnology, or Hypnotism, or the Rationale of Nervous Sleep considered in Relation to Animal Magnetism." There is nothing novel in the *principles* advanced by this gentleman, nor in the *facts* which he brings forward in support of them ; but he has a singular way of viewing the subject, and has attracted attention by professing to have made a discovery by which he can put a majority of persons to sleep in a few minutes, by causing them to look upwardly and inwardly in such a way as to tire the eye and the mind. His discovery, however, amounts to nothing, that I can perceive, more than we knew before. He labors throughout his work with the zeal of a young convert, but he also betrays the inexperience of a neophyte. Yet there is an evident candor and honesty in his style which wins our good opinion ; and besides, he has interwoven much interesting matter into his treatise. He rejects the idea of a fluid or Etherium of any kind being the agent by which the phenomena are produced ; but at the same time candidly admits that he is puzzled to account for them. He has never had an opportunity to witness any cases of Clairvoyance which were of so extreme and decided a character as to satisfy him that it is more than an abnormal

exaltation of the senses ; it is therefore plain that his observations have been quite limited. Some of his experiments seem to puzzle him exceedingly, which are easily explained by the principle of Credenceive induction ; a principle, in truth, which explains many of the most mysterious of the cases which Etheropathy presents. On page 4, he says, —

“ There were certain phenomena, which I could readily induce by particular manipulations, whilst I candidly confessed myself unable to explain the *modus operandi* by which they were induced. I referred particularly to the extraordinary rapidity with which dormant functions, and a state of cataleptiform rigidity, may be changed to the extreme opposite condition, by a simple waft of wind, either from the lips, a pair of bellows, or by any other mechanical means. I solicited information on these points, both privately and publicly, from all the eminently scientific gentlemen who honored me with their company during the meetings of the British Association in this town ; but no one ventured to express a decided opinion as to the causes of these remarkable phenomena. I now beg to assure every reader of this treatise, that I shall esteem it a great favor to be enlightened on points which I confess are, at present, still above my comprehension.”

This experiment is well calculated at first view to excite surprise ; but when it is known that not only a “ simple waft of wind,” but a simple ceremony of any other kind, such as whistling, or snapping of the

fingers, or any thing else, will produce the same effect, we shall begin to look to that power of the mind which believes in and submits to ceremonies and processes, in full confidence that they are potent in themselves. In this particular case, I take it that Credenciveness was the agent which produced the rigidity, and which so readily changed it to a natural condition. Mr. Braid himself says, in his preface, that the fact that some patients operated upon themselves, "and produced results precisely the same as when done by any one else, seems the most decisive proof possible, that the whole results from the mind and body of the patient's acting and reacting on each other, and that it has no dependence on any special influence emanating from another." Now, this is the same conclusion to which many others have arrived, from an imperfect view of the subject; but none of these have attempted to explain the *modus operandi*, in which it is possible that the mind or the imagination produces the effects. I believe that I am the first to attempt to give an explanation, and on this ground I claim some indulgence. I think that I have shown that those gentlemen are mistaken who attribute all the effects produced to the imagination of the subject; and on the other hand I have explained how it is that the mind of the subject is capable of producing those phenomena which have hitherto seemed so very mysterious. Mr. B. says, —

"I have also had the state of the patient tested before, during and after being hypnotized, [mesmer-

ized,] to ascertain if there was any alteration in the magnetic or electric condition ; but although tested by excellent instruments, and with great care, no appreciable difference could be detected. Patients have been hypnotized whilst positively, and also whilst negatively, electrified, without any appreciable difference in the phenomena ; so that they appear to be excited independently of electric or magnetic change. I have also repeatedly made two patients hypnotize each other, at the same time, by personal contact. How could this be reconciled with the theory of a special influence transmitted being the cause of the phenomena, *plus* and *minus* being equally efficient ? ”

Many seem to stumble over this difficulty. They think that because, in applying common electricity, or magnetism, they can perceive no effect from it, either one way or the other, therefore there can be no “special influence transmitted.”* But this reasoning is not in harmony with the well-known facts in philosophy. Light and heat are, by modern philosophers, considered as the motions of the same sub-

* I have made many experiments which lead me to expect that electricity will yet be used, in connection with some kinds of medicine, to excite or increase susceptibility to induction ; but none of the attempts which have been made to excite susceptibility by galvanic means have hitherto been successful. I have often used an instrument so contrived as to send a large quantity of electricity through the patient, without his knowledge, with the hope thus to overcome the insulation ; but the result has not fully answered my expectations, and it is difficult to determine whether the effects would not have been the same if no instrument or apparatus had been used.

stance; both are referred to a "special influence transmitted;" yet a room warms when light or dark, and it is lighted when cold or warm, "without any appreciable difference" in the phenomena. So, also, magnetic electricity operates through glass, without any apparent diminution of power; but electricity which is evolved by the friction of a common electric machine, will not produce any effect whatever through glass, nor shellac, nor resin; yet there is no doubt, in the minds of our most eminent chemists, that the electric machine and the magnet both depend upon modifications of the same "special influence transmitted."

A common bar magnet will attract iron and produce all its phenomena, "whilst positively, and also whilst negatively, electrified, without any appreciable difference;" but it by no means follows that they are independent of any electric or magnetic change.

As for the fact which seems to puzzle Mr. Braid, that "two patients" induct, or "hypnotize each other at the same time, by personal contact," it is explained by *Credence induction*. The truth is, personal contact is not necessary in such cases; nothing is necessary but signs, ceremonies, and assertions, by which to excite the conforming socials, especially Credenciveness.

Page 65, Mr. Braid says, —

"There is another most remarkable circumstance, that whilst the patient is in the state of torpor and rigidity, we may pass powerful shocks of the galvanic

battery through the arms, so as to cause violent contortions of them, without his evincing the slightest symptom of perceiving the shocks, either by movement of the head or neck, or expression of the countenance. On partially arousing the head and neck, as by gentle pressure on the eyes, or passing a current of air against the face, the same shocks *will* be felt, as evinced by the movements of the head and neck, the contortions of the face, and the whine, moan, or scream of the patient. All this may happen, as I have witnessed innumerable times, and the patient be altogether unconscious of it when roused from the hypnotic condition."

All this is no more remarkable than that pinching, cutting, or burning will not be felt by a subject in the same condition. As for his "current of air" to rouse the subject, any other ceremony will do as well. To prove that currents of air are without effect, unless through the Credenciveness of the subject, I have only to say that I have put them into this condition when the wind was blowing freely upon them, and it made no difference. I have many subjects who, when perfectly awake, if I tell them that an electric shock will have no effect upon them unless they whistle or sing, such will be the case; and, on the other hand, if I tell them that a grindstone or a coffee-mill is an electric machine, and will give them severe shocks when they touch it, they will be shocked accordingly, and seem to experience the same sensations as if it was really an electric machine. Will Mr. Braid try this?

SECTION XV.

COMMUNION WITH SPIRITS.

THE belief of many excellent persons, in the communion of subjects with the spirits of the departed dead, is undoubtedly a delusion into which they have been led by their own credulity, and the peculiar condition and superstition of the subjects. When a subject is under Etheropathic influence to a certain extent, he can be easily made to believe that he sees or hears the supernatural inhabitants of heaven or hell. He can be inspired, and generally is, with the notions of the operator, especially if he is Clairvoyant enough to perceive the state of the operator's mind. Under these circumstances, if the subject is questioned, he will sometimes surprise, delight, or horrify the operator, by merely echoing back to him his own superstitions. I am acquainted with a most respectable gentleman, who was a Universalist, but became converted to a belief in the existence of perdition by a subject who described to him the exact appearance of his mother, and several other dear relatives who were dead, and who had never in life been seen by the subject. It did not occur to the credulous gentleman that his own mind was like a mirror to the mind of the subject, and that his own thoughts reflected the images of his departed friends. But he really sup-

posed that by Clairvoyance the subject actually looked into the eternal world, and from its countless myriads selected his relatives, and described them with perfect accuracy. He therefore proceeded to question the subject as to what his mother said, and whether she had any communication to make to him. He was informed by the subject, in reply, that his mother was in heaven, and was desirous to warn her son of his errors, and to assure him of his imminent danger of falling into eternal perdition. Overwhelmed with awe, and terrified with these solemn revelations, he sunk on his knees, and in an agony of conviction surrendered his former faith, and from that day to this has acted consistently with the resolves of reformation which he then made.

There is at this moment a large number of very respectable persons in this state, who sincerely believe in the reality of communion with spirits by means of Etheropathy. To ridicule it will only make their belief stronger, by exciting the principle of stubborn opposition ; but I think they will become convinced of their error when they find that subjects can be made to believe or to see any thing which whim or caprice may suggest, provided they have not been previously committed for or against it. Many persons have become convinced of the existence of supernatural spirits, from the evidence afforded by mesmerism, who were previously sceptical ; and on the other hand, many have become convinced of the reality of mesmerism, from the supposition that it proved the

existence of spirits, and was therefore favorable to religious belief. The truth, however, is, that mesmerism or Etheropathy sheds no light whatever on this subject. It leaves it where it finds it.

Emanuel Swedenborg was certainly one of the greatest men that ever lived, and possessed the extraordinary power of exercising Clairvoyance whenever he pleased. He was literally a "Seer." I suspect that he obtained some of his wonderful scientific knowledge of nature by the exercise of this power; but his supposed communion with spirits and many of his other peculiar ideas *probably* originated in his own Credence fancy. It was perfectly natural for one who had been educated in the popular belief concerning supernatural beings, to imagine, when he found himself possessed of Clairvoyant perception, that he was indebted to these beings for his peculiar advantages over his fellow-men. A good and virtuous man, such as the Baron Swedenborg was, would imagine that his inspirations proceeded from good and happy spirits, who condescended to sympathize with him. But if he was conscious of his own moral depravity, he would be likely to clothe the spirits — whom his creative fancy called "from the vasty deep" of superstition — with characters like his own. He would conceive them to be selfish, malignant, and revengeful, like himself.

I have little doubt that the ancient *witches*, spoken of in the Bible, were persons who ignorantly made use of induction and Clairvoyance for wicked and

malicious purposes ; and this is the reason of the command, "*Thou shalt not suffer a witch to live.*" It is also evident that the witches themselves attributed their success to their alliance with infernal beings. Some of the Salem witches confessed that they had been aided by the devil, and admitted the justice of the sentence of death which followed the confession. The bewitched were unquestionably insane in mind, and peculiarly diseased in body, while the innocent witches who inducted them accidentally and unconsciously were regarded as allies of the prince of darkness.

Some modern fortune-tellers have been supposed to be in league with Satan, on account not only of their successful impostures, but from their actual performances and revelations. Some have the power, when looking into a particular stone or piece of semi-transparent glass, to perceive in a Clairvoyant manner, which is well calculated to excite astonishment in a superstitious and ignorant mind ; some, again have a faculty of *talking* to sores, felons, and burns, in such a way as to "take the soreness out ;" they actually perform this apparent miracle whenever the patient is in any degree susceptible to Etheropathic induction, but not otherwise. It is my opinion that there are peculiar kinds of susceptibility which have not yet been noticed by scientific men, and which will explain many strange things that now are deemed as mere idle dreams or striking coincidences. I suspect that some persons are Clairvoyant when asleep and dreaming, who are not so when awake ; and that, therefore,

in their dreams they perceive things which seem like communications from spirits of another world, warning them of the death, or sickness, or treachery of friends, or of any thing else which concerns them: this would account for the truthfulness of some remarkable dreams.

I also suspect that some persons are Clairvoyant in a peculiar and singular manner, and at certain times, while at other times and in other modes they are not so. I know a lady who is not considered susceptible, and yet she has repeatedly foretold the coming of friends at a certain hour, and declared in the most positive manner that she felt certain (she knew not why) that they would arrive at a certain time, although letters had just been received stating that they would not come under several weeks; yet she was right, and they actually arrived at the time she predicted. Once she arose in the morning, and told a friend, to his astonishment, what he had been thinking about. It was a subject upon which he had never uttered a word, and it was impossible for any one to conjecture that such a thing occupied his mind. This same lady frequently has an impression concerning the character or designs of her acquaintances which is perfectly correct, but which can only be accounted for by a kind of peculiar and imperfect Clairvoyance.

The impressions which some persons have had that they were to die at a certain time, may also be sometimes derived from a species of Clairvoyant or

abnormal perception, producing what is called a pre-sentiment. This subject is full of interest, and well deserves the attention of scientific and inquiring minds; but I cannot pursue it further at present.

SECTION XVI.

ABUSES OF ETHEROPATHY.

THE abuses of Etheropathy have been few as yet, but I feel bound to warn the unwary of the dangers to which they *may* be exposed.

I have had many subjects, who, when to all appearance perfectly awake, would believe that a piece of blank paper was a bank note of any denomination which I asserted it to be. At Saratoga Spa, in the presence of Judge Marvin and many other gentlemen, I made a young man of excellent character take worthless waste paper for bank notes, and give me a written obligation for a large amount of money, which he supposed he had received. Suppose him to be the cashier of a bank — would not this be a dangerous power in the hands of a dishonest man? Or suppose him to be worth a large amount of property in real estate — he might be made to transfer it by deed in the presence of witnesses, while he was under this influence, and the witnesses not suspect that he was in a state different from usual. The witnesses would go into court and swear that he seemed perfectly rational and master of himself, and yet he would be in such a condition that he could not perceive any thing to be different from what it was asserted to be by the operator. Black would look white, if the operator declared it to be so. Copper would look, and

feel, and sound like gold, if the operator affirmed it. In a word, the subject, and all his property, and other legal rights, would be at the mercy of the operator. He could be made to sign any thing — a deed, or marriage contract — a confession of murder, or any thing else.

Others can judge as well as I how far this power will in future be abused; but I perform my duty in giving a warning to susceptible subjects. Let them not lightly disregard it. They should know that when once *thoroughly* inducted by one person, they can *easily* be inducted by *any* person who is *permitted* to attempt it. They should know that they may be made to perform very improper actions without being aware of it, and without afterwards recollecting it. They should know that they may be made to commit actions which in the eye of the law are criminal, without really intending to do any wrong whatever. A woman may be made to believe that the operator is her father, or brother, or sister, or husband, and she will act accordingly; and afterwards she will have no recollection excepting such as the operator pleases. It is my opinion, founded upon experiment, that one person in ten is susceptible of this peculiar influence.

It may be said, that this is dangerous knowledge, and had better not be communicated publicly. I confess that it would be safer if it could be confined to the medical profession; but this is impossible. It will necessarily be known to a sufficient number to

render the knowledge dangerous. Nothing can prevent unprincipled and dishonest persons from gradually learning to avail themselves of this power to the injury of the unsuspecting. The only remedy is, to let the public know at once the real nature of the power which the operator wields, and then every one will be upon his guard.

In some European countries laws have been enacted forbidding any person to practise Etheropathy, excepting regular medical professors or physicians ; and I would respectfully recommend some such enactment in this country, to protect the innocent from the consequences of their own ignorance and the arts of accomplished knaves.

I would also suggest the propriety of a law rendering any contract voidable which is made by an operator with a subject, except when sanctioned by a physician in the presence of a magistrate.

IMMORAL INDUCTION.

There is another abuse of Etheropathy to which I deem it my duty to allude. I refer to the influence of immoral associates upon susceptible persons. I have in several instances seen persons whose organization indicated honesty, sobriety, and virtue, but who were, notwithstanding, reputed to be the very reverse. These persons were highly susceptible to Etheropathic influence, and, having fallen into vicious society, were unfortunately inducted and vitiated so as to conform to the will of their vicious companions.

It is true that neither the subject nor the companions intended to produce this result, nor even suspected the nature of the agent which was active between them ; perhaps neither of them ever heard of mesmerism, nor Etheropathy, nor animal magnetism, yet they unconsciously employed it, and the subject was innocently inducted and seduced by its agency. I would therefore advise those who are aware of their susceptibility, or that of their friends, especially the young, to avoid the society of those whose examples or conversation are of an immoral character. Vice and virtue are capable of being imbibed with wonderful facility by persons susceptible of ethereal induction, and this fact, being known, may be of infinite service to some who would otherwise be ruined.

Some observations which I have made incline me to the opinion that many persons are susceptible to abnormal induction of a peculiar kind, which has not hitherto been suspected to exist — an induction which is gradual and insidious, and the process of which is complicated. I would denominate it *gradual social induction*.

Many persons acquire the habits of their associates with a degree of facility which cannot be accounted for by their phreno-organic developments, the organs of Imitativeness and Approbativeness, etc., being below medium ; yet on trial they are not readily inducted in the ordinary manner, and are therefore not supposed to be susceptible persons. The fact is, that they are susceptible to *gradual and continued*

induction, but not to sudden induction. They become inducted by long continuance in the society of persons of superior energy, and if they are young, a bias is thus given to their characters, which becomes incorporated into their constitutions, never to be effaced. A thousand reflections naturally arise in the mind of any one who feels an interest in the cause of education and of good morals, from the above considerations. We are more than ever impressed with the importance of selecting proper teachers and companions for the young, and of securing them from improper influences.

LOCAL INDUCTION.

I suspect that there is in some localities a greater tendency to susceptibility than in others, and I have endeavored, though without much success, to ascertain the local causes of susceptibility. I have found blacksmiths, iron-workers, and printers, more susceptible, as a class, than soldiers, and farmers. Is it because those who work among metals become, in some degree, inducted by them? I found that of thirty U. S. officers at West Point, not one was susceptible. Is it on account of their habits of self-control, and of controlling others? their manly exercises? their sceptical, mathematical, unimaginative education? or is it all these causes combined? I have often found persons susceptible in a high degree, who had injured their constitutions by habits of intemperance. Why is this so? On this point, as

well as many others in Etherology, we need statistical information, derived from long continued and extended observations carefully made and recorded by a society of Ethereans.

Was not the Salem witchcraft caused in some measure by the food, or the state of the atmosphere? Was it not an endemic *disease*? May not local causes, or diet, or occupation, or medicine, have an important agency in producing susceptibility by weakening the insulation? May not certain kinds of medicine be discovered, which may produce susceptibility? May not some diseases (especially those of the mind) have their origin in Etheropathic susceptibility and induction produced spontaneously, and may they not be cured by the same means? These things deserve investigation.

SECTION XVII.

INSTRUCTION AND RULES FOR EXPERIMENTS.

1. MANY persons suppose they have explained the whole matter, and accounted for the mesmeric susceptibility by saying that it is owing to the *imagination* of the subject; but, if this were so, the most imaginative persons ought to be found most susceptible, whereas the very reverse is generally the case. Others attribute the susceptibility to the excessive *credulity* of the subject; but the same objection holds good against this notion, namely, that if it were true, the most credulous persons ought to be found most susceptible; but every operator knows that this is not the case. I can show thousands of susceptible persons, whom no one deems either credulous or imaginative, and again, an equal number can be produced of the most weak-bodied, weak-minded, credulous, shallow people on earth, who are not susceptible in any perceptible degree.

Another class suppose that susceptibility depends upon the fact that they are very *nervous*; but they also are mistaken, for it is found that nervous and excitable persons are not as often susceptible as those who are calm and quiet.

Some operators pretend that they can easily tell whether any one is susceptible or not by his appearance, his temperament, the form of his head, his com-

plexion, or some external signs; but all this is mere pretence: the fact is, no one can possibly tell, by any known signs, who is susceptible and who is not; for susceptibility evidently depends upon some peculiarity in the constitution which is concealed from observation. The nerves themselves cannot be seen without dissection; and even if they could be, it is not likely that any thing in their appearance would indicate their insulation or non-insulation. All our reasoning on the subject is founded upon the analogy of the nervous system to a galvanic or an electric apparatus; and even this analogy must not lead us to infer that the nervous influence and the galvanic influence is identical; for there is no proof, as yet, that there is any thing more than a striking analogy between the two influences.

If any person asks you whether you think him susceptible, your only proper answer is, that *you can only ascertain by trying the experiment.*

When you proceed to ascertain by experiment the degree of any one's susceptibility to your abnormal influences, you must bear in mind the important fact, that the operation which you are about to perform is one in which two *minds* are concerned, and your success and usefulness will depend in a great degree upon your knowledge of the true philosophy of mind.

2. You must consider that the force which is to produce the result is guided by your own mind. Your own phrenic force is generated by your blood acting

upon your brain, and you will be more powerful if your digestion and respiration are vigorous and healthful. You should summon your own energies, and arrange your thoughts and feelings, so as to be ready to seize upon every favorable circumstance. Do not attempt to deceive your subject, nor pretend that you possess a mysterious power — nor go through any ceremonies to impose upon his credulity, such as insisting upon his holding coins in his hand, or looking at any particular object, for if he is a shrewd man, he will suspect your object, and rouse his mind to resistance, and thus defeat you. If you really think that any particular ceremony is useful or important, try it; but let your manner, your words, and even your very thoughts, be pure, sincere, earnest, and benevolent; do not flatter yourself that deception or hypocrisy will aid you: it may in some instances, but it will oftener embarrass you, and prevent your success.

“Corruption wins not more than honesty.” Let me assure you that most persons will submit, and conform themselves, and give you a fair chance to induct them, provided that they perceive that you are worthy of their confidence, that you have knowledge, sincerity, purity, and energy. If they are susceptible and conformable, and you are honest and powerful, and they feel sure of it, you will certainly succeed — every word which you utter will have an irresistible influence. Your language will seem like *magic eloquence*. Your tones, your gestures, your slightest wishes, expressed or implied, will be sufficient to excite or paralyze any power of body or mind.

3. You should never lose sight of the fact that there are two modes of influencing a subject. One is the ordinary or normal mode, by speaking to him, and thus affecting his Credenciveness; and the other by your silent will, aided by contact of your hands with the part of the subject's body or head which you desire to affect.

Some operators make a great number of *passes*, which do more harm than good. The only useful rules for making passes are included in the single rule, that all passes should be made in a direction from the top of the head towards the extremities; and when any part is diseased, the hand of the operator should be laid upon it and passed over it until an equilibrium of temperature is produced; he should silently will, and in addition to this, he should express *in words* to the subject his will that the disease abate, etc.

I have often observed with regret that some operators, when I have taught them the power of "magic eloquence" or "credence induction," are apt to fancy that "*willing*," and making passes and contact of the hands, are all useless; but this is a very great mistake, as experience would soon show them. They will find that silent will is a distinct and real power; that it is greatly aided by contact of hands, and by passes over the part which is to be affected; and that eloquence—words, language, and gesture—are modes of reaching the mind of the subject and producing magical effects; but they are not the only modes, and in order to succeed in a great number of cases, you

must avail yourself of *all* the modes of affecting the mind of the subject; that is, by will, passes, contact, and eloquence also.

No one will suspect me of undervaluing the power of eloquence, since I was the first to discover that many of the phenomena of mesmerism are performed by means of language, and that great orators and advocates delude their subjects by the same means that mesmerizers do; but I protest against including all mesmeric phenomena under the name of credence-induction.

* 4. Be serious, firm, and *kind*, and assume a manner which prevents trifling, either on the part of the subject, or the persons who may be present.

5. If the subject has any reluctance to submit to the operation, excuse him at once; do not persuade him, as if it is to do you a favor. Say but little to him, except what is useful to the success of the operation.

6. If the subject has a guardian, you had better not operate unless the guardian or *loco parentis* requests it; and during the operation, if any friends are alarmed, or begin to dictate, it is better to restore the subject and decline to operate upon him more; but while you do operate, allow of no superior. A commanding imperativeness and firmness is as important in the operator, as conformity is in the subject. The opera-

* The preceding part of this section has been rewritten by the author. — *Ed.*

tor should for the time be perfectly "master of his subject" and of every one else who is present, so far as to require order, and a conformity to regulations; but the operator should in no case lose his temper or manifest any irritability; his motto should be, "Mildly but firmly."

7. Let the subject sit down in a common chair, without resting his head. Let him incline his head slightly forward, close his eyes, and keep them gently closed. Let him not speak, nor move, unless it is necessary to his comfort. Let him not cross his legs, as it will interrupt the circulation.

8. Sit down before him, and take hold of his hands in any way you please, provided it conveys to the subject the impression that you are making an effort to affect him, and that your taking hold is a useful part of the operation.

9. You may sit thus before some persons an hour, without perceiving any effect whatever, and afterwards succeed; but, as a general rule, more than fifteen minutes is a waste of time. The first symptoms which subjects exhibit, are various, and often depend upon their fancy, their previous knowledge or reading, or what they have *heard* is the first effect. But there are some symptoms which are evidently involuntary — one is a slight tremor, which sometimes, though rarely, is increased to convulsive twitchings. If the convulsions become alarming, the operator should never lose his coolness and self-command under any circumstances, but rouse the

subject and restore him. I have never had but two such cases, and both were caused by previous nervous disease. Another common and favorable symptom is the breaking out of perspiration, which is of course involuntary. Another symptom is, that when the operator places his hands upon the top of the head and passes them down to the shoulders, the subject breathes louder every time you do so. In some cases none of these symptoms are exhibited, and yet the subject is perfectly induced in five minutes.

10. When you wish to ascertain whether you have succeeded in inducing the subject, press your forefinger on the forehead where it joins the nose, or press one finger on one eyebrow and another finger on the other brow, and, in a low voice, say to the subject, "*You cannot open your eyes,*" and if he is sufficiently affected, he cannot open them: he is not asleep, and, perhaps, he had no idea till this moment that he was in any degree affected. Now tell him to open his eyes and to put his hands together; lay your finger across them, and say, "*You cannot get your hands apart,*" and he cannot; or, perhaps, he can with a great effort. Now tell him to extend his arm, and when he has done so, tell him that he cannot put it down, and he cannot. If he is well induced, you may tell him that he cannot step, or speak, or see, or hear, or taste, and he cannot do it. Tell him that water is rum, or ink, or hot, or cold. Tell him that black is white, that he cannot lift a feather, or a penny, and it will seem so to him. Tell him that a cent is gold,

or silver, and he will receive it as such, and give you the change. Tell him that he is a negro, a female, a dog, a fish, a post, a steam engine — that his head is a coffee-mill — that he is Richard, Hamlet, Jackson, Clay, or what you please, and he is transformed instantly, and verily believes your assertion to be true. Tell him that he can walk until he gets to such a line, but cannot pass over it, and he cannot.

11. If any other person besides the operator makes the assertion, it has no effect; but if the operator says to the subject, "Such a person has influence over you," then the person or persons mentioned can influence the subject in the same manner.

12. There is considerable difference in subjects in respect to how far the delusion can be carried — some cannot open their eyes, or step, or move any muscle, yet they cannot be deceived concerning colors, or their own identity; some can only be deluded in one way, and some can in all ways.

13. The influence will pass off from some subjects within five minutes, and cannot be regained; but in most cases it continues several hours, and in many cases several days. I have made them stop in the street, a week after induction, by a single word.

14. A large majority of those persons who have ever been inducted or mesmerized in the usual way, can be made to perform these experiments when perfectly awake, and when no one would suppose from their appearance that they were in any degree affected, or under any peculiar influence. Five minutes are enough to induct them sufficiently for this purpose.

15. Any person acquainted with Etheropathy can feign and imitate all these experiments, so that no sagacity can detect them. The reality of the whole matter can be proved only by the *testimony* of the subject himself. If he is ambitious to enjoy the character of an imposter, he may be gratified by first becoming a liar. When the subject says that he cannot open his eyes, and pledges his honor to the truth of his assertion, the only way is to assume that you believe him. If you doubt him, it is better not to tell him, nor any one else, of your doubts; you *may* do him injustice. Let every one present judge for himself. The operator should never say that he knows that the subject is not deceiving, he should only answer for himself—for his own integrity. He may say, if he thinks proper, what he knows about the character of the subject for truth and honesty; but he cannot truly say that the subject is not deceiving, and he should not risk his own reputation by doing so.

16. The advantage in performing Credence experiments is, that they are successful upon about one person in twelve or twenty throughout any community; so that it is easy for any persevering man to convince the community where he happens to be, of the truth of Etheropathy by the testimony of their own citizens. Sometimes it will happen that the first persons attempted are found susceptible, and again fifty may be tried in vain. I find that about five in every six are slightly affected, so that I can

perceive it myself, but not more than one in twelve or twenty will manifest the Credence experiments perfectly.

17. If a whole audience consents to be tried, the operator has only to say to them, that if there is any one among them who is susceptible, he will be affected while the operator is lecturing, or doing something else, —and every one in the room who is both susceptible and rather Credence will be affected accordingly. The success of this experiment depends upon the character of the audience and the tact of the operator. It is better to say, that those who are willing to be inducted may occupy certain reserved seats: this will prevent the rest from becoming alarmed and leaving the room, and it will also enable you to come into contact with them and make useful passes over the eyes and limbs.

18. The success of Credence experiments is greatly retarded by the presence and hostile conduct of sceptics, and of proud, imperious, and contemptuous persons, or any persons who do not conceal their incredulity.

EXPERIMENTS IN SOMNAMBULISM.

19. If the subject seems to be in a high degree susceptible, so as to be inclined to go to sleep, let him alone a while, and then ask him if he is asleep; if he says *no*, then tell him to *go to sleep*, and wait a while longer; then ask him the question again as before, until he says he is asleep.

20. When the subject is asleep, ask him concerning his health and the health of yourself, and your peculiar feelings. Pinch your own hand, and see if he shrinks as if it were his own hand. Taste of something, and ask him what he tastes. Move your features and limbs, and see if he does the same. Ask him who else is in the room, or who is in the next room. If he cannot answer any of these questions in a satisfactory manner, he is not in a Clairvoyant nor sympathetic state.

21. Tell the subject to open his eyes without waking, and he will generally do so. If the subject is skilful in any thing in his ordinary state, he will be much more so now. He will sing, or paint, or dance, or declaim better than ever, and with less embarrassment; but he is apt to become sleepy. I have found that such performances are best when the subject is awake, but under Credence influence.

22. When you restore the subject, look him in the eye, and tell him not to have any headache, nor tremor, nor sickness, nor rheumatism, nor melancholy, etc.; and he generally will not, as long as the influence remains in any degree.

EXPERIMENTS UPON DISEASED PERSONS.

23. If the person to be operated upon is affected with some disease, and the object is to effect a cure, you should begin by making yourself acquainted with the history and symptoms of the case, and, if convenient, consult with a physician, before proceeding to induct him.

24. Get rid, if possible, of all curious and inquisitive persons, and those who have never seen experiments. It is better still, if you can have the room exclusively for the use of yourself and your patient.

25. Whatever effect you wish to produce, tell the patient that it will probably be produced, *if* he is in a proper state of susceptibility and of conformity. Tell him not to trouble his mind by *trying* to be affected, but to merely keep his mind upon the probability that he will.

26. After having tried fifteen minutes, if you find you have produced no *apparent* effect, tell the subject that you have affected him in some degree, and that by repeating the operation several times, his *debility* will be relieved. For it is undoubtedly true, that a healthy person always benefits a debilitated one.

27. If you find that you have a Credence control over the patient, *assert* that his disease is cured, or that it is relieved, as the case may require. If his disease is *local*, make local passes and applications, and assert that they will certainly be efficacious, and they generally will be so.

28. If the subject is much inducted and under perfect control, no other medicine is necessary; though the medicine may be taken if the physician insists upon it, and the operator can generally modify its effects at his pleasure.

29. If the patient is but little affected, and the influence acquired is but slight, then medicines must be used as usual; but the medicines may be inducted in

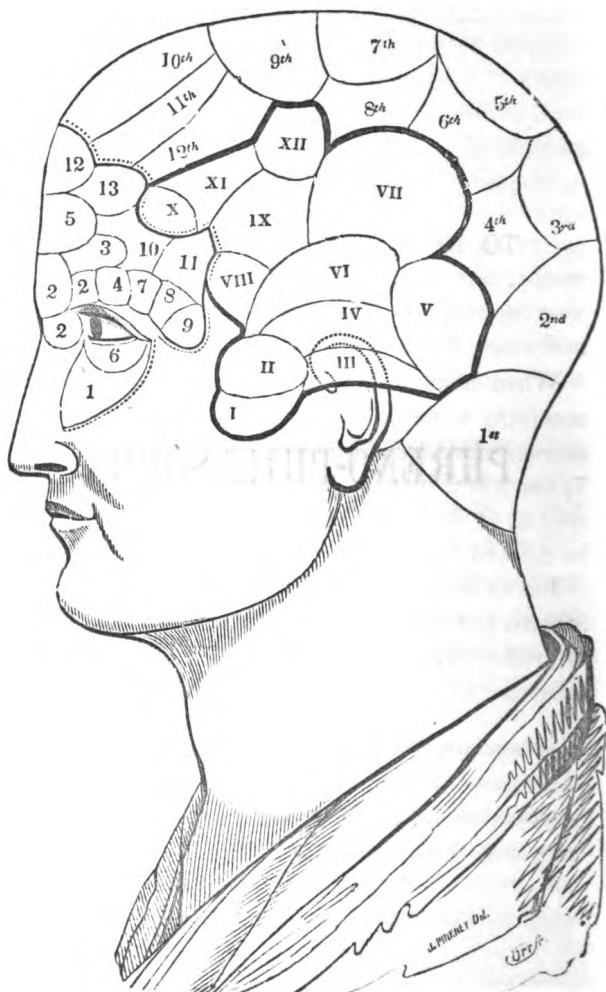
the presence of the subject, and he himself may be inducted also, and told that the medicines will have a favorable effect ; and they will actually have a much more beneficial effect than if no such ceremonies were performed.

30. Electricity is often useful in those cases where the nerves have ceased to perform their function with proper vigor ; and I would advise its use when mesmeric induction fails to produce sufficient effect. It may be used in addition to the mesmeric induction, and thus render essential service in the hands of a skilful person.

31. If a subject is Clairvoyant, and in that state gives advice and prescribes medicine, I would recommend you to apply to a physician and get his consent before following the direction of the Clairvoyant.

I wish, in conclusion, to call the attention of the medical faculty especially, to the important fact, that medicine of a proper kind will have the desired effect with a hundred fold more certainty, if the patient is in some degree under the Etheropathic influence ; and what is equally important is, the fact that many diseases may be reached by medicine and etherean induction combined, when neither alone would be successful. A homœopathic dose will be sufficient in any case where the patient is susceptible either to the induction of the silent will of the operator, or of his magical language.

PHRENO-PHILOSOPHY



A C H A R T

TO BE USED IN EXAMINATIONS.

PRELIMINARY EXPLANATIONS.

When numerical figures are used in examinations, according to the plan adopted in this chart, 4 denotes average size, and of course no organ can be more than 7, nor less than 1, and the organs altogether must average 4; if some are marked more than 4, others must be marked less than 4, to compensate.

But as mathematical precision cannot be obtained, it is better not to use mathematical expressions, which seem to profess such exactness. I therefore prefer to use the following :

Marks which denote the sizes of the Organs examined.

- ||| Very large.
- || Rather large.
- | Above average size.
- O Average size.
- Below average size.
- = Rather small.
- ≡ Very small.

TEMPERAMENTS.

The *Muscular Temperament* is caused by large limbs and muscles and indicates slowness and strength, without much activity or sensitiveness.

The *Phreno-Nervous Temperament* is caused by large and active brain and nerves acting upon slender muscles, and indicates sensitiveness and activity rather than strength.

The *Digestive Lymphatic Temperament* is caused by a large development of the digestive organs and a comparative deficiency of vigor in the arterial circulation ; it indicates indolence and a love of sedentary employments.

The *Arterial or Sanguine Temperament* is caused by large and active lungs and vigorous arterial circulation ; it indicates a power of vigorous, ardent and energetic action.

The *Venous or Bilious Temperament* is caused by much venous blood and large liver ; it is supposed to produce dark hair, eyes and skin. It indicates a power of long continuance in any operation.

The *Debilitated Temperament* is caused by any habit or disease, or weakness, either acquired or hereditary, which tends to impair the energy of the character.

The size of the whole constitution compared with that of the average of others of the same age, sex and race, should be estimated and stated in order to a correct estimation of the force and influence of the character, for, all else equal, size is a measure of power.

DIRECTIVE ORGANS.

PERCEPTIVES.

1. *Flavor*.—This organ gives prominence to the bones under the eye near the nose—it bestows the power of perceiving the qualities of food, drink and perfumes.

2. *Extension or Size*.—This organ bestows the power of observing the outlines, distances, extent and forms of things; it gives practical talent and a memory of facts and things, in detail.

3. *Direction*.—This organ is commonly called *Locality*; it gives the talent for navigation and surveying without scientific instruction—the memory of places—the points of the compass—the directions of objects.

NOTE.—*Individuality, Form and Size*, I include under the name of Extension. I do not think sufficient evidence has been yet given that there is any such power as Individuality; I therefore reject it; nor do I think that a clear distinction has been established between the organs of form and size—all that observation has fully proved is, that a general fulness, width and prominence of the forehead at the place where it joins the nose, indicates practical talent in details, all the rest is mere hypothesis.

4. *Weight*.—Perception of force, weight, tangibility, and resistance in balancing, touching and various delicate operations requiring manual skill.

5. *Eventuality*.—Perception of changes and motions, talent for the detail of stories and history.

6. *Words*, or perception of sounds, commonly called the organ of language ; it gives a memory of words and sounds without reference to their meaning or uses.

7. *Color*.—Perception of the nice shades of color, foundation of the talent for the coloring of paintings, &c.

8. *Order*.—Perception of order in the arrangement of things, and talent for neatness and precision in details.

9. *Number*.—Arithmetical calculations.

10. *Time*.—A doubtful organ, which is supposed to give a talent in chronology, in marching and dancing.

11. *Tune or Vocalness*.—A doubtful organ, supposed to contribute in some way to musical talent. I suspect that it merely gives an impulse or a love of using the voice to make any kind of sounds which may be necessary.

REFLECTIVES.

12. *Comparison*.—Power of distinguishing resemblances and classes ; it is the foundation of the talent for rhetoric, and poetic expressions founded upon analogy.

13. *Causality*.—The power of perceiving connection, dependance, cause and effect ; it gives original talent, depth, logical ability, and inventive talent.

IMPULSIVE ORGANS.

These organs are divided into two classes, the Ipseal and Social.

THE IPSEALS OR SELF-RELATIVES.

The Ipseal Impulsives are located on the side of the head, and are divided into five ranges, as follows :

CORPOREAL RANGE.

- I. *Pneumativeness*.—Propensity to breathe—to make an exertion when air is wanting to sustain life and action, and prevent suffocation.
- II. *Alimentiveness*.—Propensity to eat and drink to prevent hunger or thirst.
- III. *Sanativeness*.—To avoid injuries and diseases of the body and remove the causes of pain.

BELLIGERENT RANGE.

- IV. *Destructiveness*.—To kill, crush, destroy, or be angry and severe.

V. *Combativeness*.—To fight, contend, dispute, resent, contradict.

PRUDENTIAL RANGE.

VI. *Secretiveness*.—To avoid direct encounters, to conceal intentions and act cunningly.

VII. *Cautiousness*.—To look around for danger and difficulty and guard against it.

INDUSTRIAL RANGE.

VIII. *Constructiveness*.—To build, construct — learn the nature of structures.

IX. *Acquisitiveness*.—To acquire property.

IMPROVING RANGE.

X. *Experimentiveness*.—Playfulness, mirthfulness, wit; a species of playful activity of the powers, love of new contrivances and experiments.

XI. *Perfectiveness*.—To improve, to plan and execute in superior and poetical style.

XII. *Hope or Migrativeness*.—To undertake distant, new and doubtful enterprizes, and expect success and happiness.

SOCIAL IMPULSIVES.

ESTABLISHING GROUP—TO ESTABLISH SOCIETY.

- 1st. *Amativeness*.—To love the other sex.
- 2d. *Parentiveness or Philoprogeneritiveness*.—To protect the young and helpless.
- 3d. *Inhabitiveness*.—To remain at home and to concentrate the thoughts in a limited spot.
- 4th. *Adhesiveness*.—To cling with fondness to parents and friends in the domestic circle.

GOVERNING GROUP—TO GOVERN SOCIETY.

- 5th. *Imperativeness*.—Self esteem, to govern command and direct others.
- 6th. *Approbativeness*.—To covet favor, applause, praise or popularity.
- 7th. *Firmness*.—To be unmoved by persuasion.
- 8th. *Justice or Conscientiousness*.—To be impartial.

CONFORMING GROUP—TO CONFORM TO SOCIETY.

- 9th. *Submissiveness*.—To obey and reverence superiors.

- 10th. *Kindness*.—To be kind and gentle and courteous to strangers and others.
- 11th. *Imitateness*.—To do as others do and feel as others feel and think as others think.
- 12th. *Credenciveness*.—To believe what is said or written.

A NEW SYSTEM

OF

PHRENOLOGY.

INTRODUCTION.

THE study of human nature has in all ages been deemed of the very first importance, and called into vigorous action the master minds of every civilized nation. But the numerous systems that have been successively produced and abandoned, afford sufficient evidence that the great fundamental principles of human nature had never been discovered. Some philosophers have shut themselves in their closets and endeavored, by reflecting upon the operations of their own minds, to frame a system of mental philosophy which would apply to all mankind : But the result was that they only acquired an imperfect history of a few of their *own* mental powers, while they remained in total ignorance of the causes which produce the great diversity of human character. Others endeavored to acquire a knowledge of man by travelling, and mingling with all classes and conditions of the human race. These

were more successful; but however much knowledge might, by the experience of a whole life, be acquired in this manner, it necessarily died with the individual, as it was of such a nature that it could not be communicated. Anatomical investigation, was a method of studying human nature; but, although this led to more correct notions concerning the functions of the body, it shed no light upon the nature of the mind. The study of Physiognomy, is another method which has been pursued from the time of Aristotle, Theophrastus, and Zopyrus, among the ancients, to the attempts of Camper and Lavater of our own day; but all the real success which has attended the labors of physiognomists, is owing to their approximation to the great truths of Phrenology, though they were utterly ignorant of this science. By examining the works of Camper and Lavater, it will be found, that the few useful truths which they contain, are based upon the principles which are explained in this work.

The foundation of Phrenological science, was laid by the discoveries of F. J. GALL, a native of Germany, who was born March 9, 1757. His attention was first directed to the subject while a school boy, from the circumstance that those who committed the words of their lessons to memory with the greatest ease, had *prominent eyes*. He next observed that those who excelled in the memory of places, had a peculiar prominence upon the forehead. After he left the University, he commenced the practice of medicine. He was now a man of science—his very profession led him to study human

nature in connection with the human constitution—and he began to reflect—"If the prominence of one part of the head indicates one talent, and the prominence of another part indicates another, may not all the talents and dispositions of men be indicated by the developments of different parts of the head?" The suggestion seemed plausible; and he accordingly, after having in vain examined all the different authors on mental philosophy, betook himself to the observation of the heads of peculiar characters. He was successful, even beyond his most ardent hopes; for he soon discovered external indications of talents for painting, poetry, and the mechanic arts, besides several of the moral and animal propensities. Gall's first publication on the subject was in 1798. He very naturally failed to give system to the facts which he had discovered; and the names which he gave to the organs were unphilosophical. In 1801, fortunately for the science, John Gasper Spurzheim, also a German, became the pupil of Gall, and in 1804 was admitted as his partner.

In 1802, the lectures of Dr. Gall at Vienna, which had continued for five years, were prohibited by an order of the government, obtained through the influence of the clergy. In 1805 Gall and Spurzheim left Vienna, and travelled to some of the other cities of Europe, lecturing upon, and disseminating their doctrines. In 1807, Gall arrived at Paris, and remained there until his death, which took place in 1828.

Spurzheim dissolved his partnership with Gall in 1813, and in 1814 visited Great Britain, and lectured

in the principal cities. In 1817, Spurzheim returned to Paris. In 1824, the lectures of Gall and Spurzheim at Paris, were prohibited by an order of the government. Spurzheim again visited Great Britain in 1825, where he afterwards spent most of his time until June 20, 1832, when he sailed from Havre, and arrived at New-York, August 4. He remained in New-York until the 11th, when he proceeded to New-Haven. On the 16th he left for Hartford, and from that city he went to Boston, where he arrived on the 20th. He gave a course of lectures in Boston, and another at Cambridge. This was the last labor of Spurzheim in the cause of science. A slow, continued fever, not at first considered dangerous, finally proved fatal, and he died at Boston, Nov. 10, 1832. No man was ever more sincerely lamented. To the honor of my native city, the most distinguished tokens of love and regard were extended to him while living, and the highest testimonials of grateful reverence followed him to the grave. His beautiful monument at Mount Auburn, is but an emblem of the pure affection with which his memory is cherished. The marble may perish, and the place of his burial be forgotten ; but the names, both of Gall and Spurzheim, are immortal. They must always be associated with principles that will be known and appreciated, while science has a temple or a devotee on the earth.

Dr. Gall laid the foundation of Phrenological science by discovering that when certain portions of the skull protruded in a peculiar manner, the character and talents of the individual were indicated by the protrusion.

Upon a careful anatomical investigation, he ascertained that the protrusions of the skull were generally caused by developements of portions of the brain immediately beneath ; these portions he called *Organs*. His examinations of the brain led him to the important fact, that its principal internal parts are constituted of fibres extending from the circumference of the brain to the central medulla oblongata and that these fibres were crossed by others which proceeded in an opposite direction. Dr. Gall took a profound view of the subject, and conceived that, in consequence of his discoveries, a great revolution must take place in the science of the mind. He proceeded to learn the truth by observations made upon animals and men—upon the living and the dead—upon sculptured busts and painted portraits, and after a whole life spent in laborious researches, with the assistance of his distinguished pupil, Dr. Spurzheim, he succeeded in placing Phrenology upon a solid and enduring basis. It had imperfections—it was mingled with error—a part only of the truth was known, but enough was disclosed to show that all previous systems were false, and that the right path had at length been discovered. No one was more sensible than Dr. Gall himself, that the science was imperfect. He did not attempt to arrange and classify the organs upon any philosophical plan, for he had not obtained a sufficient number of facts. He was not a friend to new theories and schemes, the results of mere human ingenuity, but labored with incredible patience and industry to discover the laws which the Almighty had ordained to regu-

late the operations of mind ; and he continually insisted that carefully observed facts are the only sure elements of science and the only reliable indications of the natural laws which God has established in the constitution of man. Dr. Spurzheim attempted to systematize the discoveries of Gall and himself and to reduce them to a science. He divided the Organs into two grand divisions, one of which he denominated the *Intellectual* faculties—they are located in the forehead. The other grand division he denominated *Affective* faculties. He sub-divided the Affective faculties into Animal Propensities and Moral sentiments and ascribed certain *peculiar emotions* to the moral sentiments, (located in the upper part of the head,) which he supposed that the animal propensities (in the lower part of the head) did not possess. All the Phrenological writers, (in our language at least,) have agreed essentially with Spurzheim in his arrangement and subdivision, except myself.

In the year 1834 I commenced lecturing upon Phrenology, but did not otherwise publish my peculiar views of this science until 1839, when my “New System of Phrenology” was laid before the public. That work contained a new classification and arrangement of the Phreno-organs, a new system of Phreno-Physiognomy, a new doctrine of hereditary resemblance, and several newly discovered Phreno-Organs. That these things were not essentially new no one has attempted to show, but their truth was denied by every author in this country who had previously committed himself by advocating different doctrines upon these subjects.

Mr. George Combe had just arrived in this country at the time when the work was issued. It was generally understood that the mantle of the illustrious Spurzheim had fallen in an especial manner upon him ; and I was therefore desirous to receive his sanction of the new doctrines which I had advanced. But before I had an opportunity to make his acquaintance, I learned that he was opposed to the New System. He avoided mentioning it in his lectures and writings, and when the subject was urged upon his attention by some one who thought my doctrines correct, he seemed exceedingly annoyed and irritated. Under these circumstances I declined his acquaintance, and determined to appeal to the scientific public. I was then engaged in lecturing in Pittsburg, Penn. ; and being informed by a correspondent that Mr. Combe was to lecture in Albany, I immediately proceeded to that city and gave a course of lectures, in which I stated to the highly respectable audience that attended, the grounds of the difference between the two systems. At the conclusion of my course I was gratified to find my system had made a favorable impression, the evidence of which may be found in the proceedings and resolutions recorded in the concluding part of this work.

I then proceeded to the city of New-York, where I delivered a very successful course of lectures. In the meantime Mr. Combe gave his lectures in Albany, and at their conclusion a Phrenological Society was formed, and Mr. Combe's collection of plaster casts of heads purchased for illustrations. The relative merits of the

two systems became the subject of much discussion, and I was invited to return to Albany and repeat my lectures. I consented, and finding that the influence of Combe, Caldwell and Fowler was all united to create a state of public opinion unfavorable to what I deemed the cause of truth, I was desirous to provoke a discussion which would give me an opportunity to vindicate myself. I therefore addressed a letter to the President of the Phrenological Society, requesting the appointment of a committee composed of their most competent members, to investigate and determine the relative merits of the two systems. The committee seemed to be actuated only by the spirit of truth; and accordingly, after a laborious investigation, and after corresponding with Combe, Caldwell, Haskins and other distinguished authors, they made a unanimous report in my favor. This report produced a very powerful sensation. It consists of twenty-eight pages, drawn up in a masterly manner by the chairman, Professor Eben Norton Horsford, now Rumford Professor in Harvard University, and laid before the Society for their consideration. Professor Amos Dean, of the Albany Medical College, (author of several able works on Phrenology,) read an argument of thirty pages in opposition to the report. One of his adherents read another of about equal length. About the same time the American Phrenological Journal arrived in this city, thirteen pages of which were occupied with a very hostile review of my book, written by Dr. Caldwell, of Kentucky, a gentleman of great

ability, and the author of several works upon this subject.

Professor Horsford replied to the objections and arguments which had been adduced, and in the face of the whole array of eloquence, authorities and prejudice, succeeded in obtaining for his report the sanction of a large majority of the Society, after it had been six months under their inspection, and the ingenuity of the most able critics in the country exhausted upon it. It is worthy of remark that when the investigation commenced not one of the committee approved of my views.

This Report was all that I could wish. Two thousand copies were printed, and it was widely circulated. It was sent to every one who was supposed to take especial interest in the subject; but up to the present time no one has attempted to controvert its positions, or deny the correctness of its conclusions.

If any one enquires why all phrenological authors and lecturers did not at once adopt this system, or else show its imperfections, I can only answer by referring to the history of other improvements. Human nature always exhibits the same traits under similar circumstances.

When the Albany report was sent by the Chairman to a periodical which professed to be a Phrenological Journal, the editor was not *permitted* to notice it, such was the hostility of his employers to the new system. I will not comment upon these facts, but content myself by making them known. In the meantime, the

public generally, and all those (not being themselves authors, nor the dependents of authors of phrenological works,) who are disinterested and independent, without a single exception within my knowledge, have admitted the correctness of the Report, and the superiority of the new system.

When the doctrines of Phreno-Magnetism and Neurology were announced, and were making converts by thousands, and multitudes of new organs were daily discovered by this means, so that my favorite system was threatened with an overwhelming inundation, I was forced to take up this subject in earnest. Almost every friend I met asked my opinion of the new doctrines and new organs, and seemed surprised at my scepticism.

In 1842, the public were assured by Messrs. Sunderland, Buchanan, Fowler and Caldwell in this country, and Elliotson, and many other phrenological writers in Great Britain, that the organs of the brain could be excited by touching the head of a person in the mesmeric condition. A large number of new organs were announced as discovered by this new process and some of them of such an extraordinary character as to entirely overturn my new system of phrenology—and indeed every other system, if their claims were admitted; social organs were discovered in the very midst of my Ipseal class, and Ipseal organs in my social class; some of the warmest friends and stoutest advocates of my new system fell under the influence of the delusion, and I stood for a while almost alone, expecting soon to be obliged to surrender at discretion to the combined

forces of Phreno-Mesmerism, Pathetism, Neurology and Hypnotism, for these were the formidable names which the new science assumed. At first, such was the force of the testimony that I supposed that the organs of the brain actually could be in some cases excited in the way pretended ; and had all the experimenters been as candid and judicious as Caldwell and Elliotson, I should doubtless have been completely misled ; but the extraordinary and ridiculous organs which Buchanan, Sunderland and Fowler pretended to have discovered rendered the whole proceeding suspicious, and induced me to commence a series of experiments for my own satisfaction. I very soon detected the nature of the errors which had been committed, but they were not easily dislodged from their hold upon the public mind.

In 1845 I published a work of 350 pages entitled "Etherology, or the Philosophy of Mesmerism and Phrenology, including a new philosophy of sleep and of consciousness, with a review of the pretensions of Neurology and Phreno-Magnetism." This produced the desired effect. Buchanan's Neurology was abandoned. Nothing is now heard of the new organs, but a new delusion has taken its place under the name of Electro Biology, and Electro Psychology, which in reality are but effects of credence induction as explained in my Philosophy of Mesmerism.

Mr. Fowler seems to give up the new mesmeric organs with much reluctance and regret, and it is indeed no wonder, for he had inserted into a new edition of

his phrenology, a long catalogue of them and declared that he had verified them by the examination of thousands of crania. Mr. Fowler, says—

“No sooner had an application of Animal Magnetism been made to Phrenology, than I eagerly embraced it, not only to test the truth of magnetism in regard to the organs that were fully established, but also, when satisfied on this point, to see which of the doubtful organs stood being tested with magnetism, as well as whether new ones could be discovered. Accordingly, the Rev. Le Roy Sunderland, Dr. Sherwood and myself instituted a series of Phreno-Magnetic experiments; a summary of that portion of the results which relates to *Phrenology* is given.

“Nothing has ever more interested me than those experiments, and I felt that I could not put another edition of this work to press, though it was stereotyped, without giving at least a *summary* of them. I will just add, that I have examined hundreds, probably thousands, of heads, since these discoveries were made, with the view of seeing whether examinations made by means of them, coincided with the characters, and I find they *do* without the least perceptible variation.”

It is hardly necessary to remark that these notions are now repudiated by every one, notwithstanding their verification by Mr. Fowler's examinations of crania.

The truth is, that the subjects whose organs were supposed to be excited, were highly susceptible to the mental influence of the operators; and when any part of the head was touched, they very innocently manifested the phenomena which the enthusiastic operators desired; and they could very easily have been made to verify any other notions or organs, however absurd, which the wildest fancy could have suggested. The lesson taught in this matter should not be forgotten; those who make examinations, and pronounce upon the size and function of parts, should be held to a rigid rule, from which fancy should be excluded.

Mr. O. S. Fowler has lately, among various other similar things, published a phrenological work entitled

"Physiology," containing so many scientific blunders, as to be really beneath criticism; but it includes several things which it is my duty to notice in this place, as they claim to be new discoveries in the science of mind. One relates to the ORGAN OF CONSCIOUSNESS. He says, page 257, speaking of the *corpus callosum*, "*the seat of the soul is undoubtedly in this commissure, and the corpus callosum undoubtedly serves to impart that concert to all the faculties called CONSCIOUSNESS, by which one faculty calls up such of the others as may be required to accomplish the end sought.*"

Spurzheim and all other phrenologists denied that consciousness is the function of a single organ, and no phrenological writer suggested that there is a single and distinct organ of consciousness, before my work was published in 1845, on the Philosophy of Mesmerism and Phrenology.

In 1844 I undertook to show that consciousness is located in the medulla oblongata and that the phreno-organs concentrate there and act upon it. Descartes made the pineal gland the seat of the soul, and some others among the ancients, placed the soul where Mr. Fowler has, in the *callosum*, but since phrenology has been taught, no advocate of this science ever suggested the idea that there is any conscious centre where all the phreno-organs act in concert, until I wrote my work on Etherology, in 1845. I gave my reasons in that work for this important improvement and attempted to reconcile it with Phrenology. Mr. Fowler publishes the *American Phrenological Journal*; and it was therefore

his duty to inform his readers that I had made, or at least attempted, such an improvement ; but I am not aware that he has ever mentioned even the publication of any of my works, except to misrepresent them ; yet two years after my work was published, he comes out with *an organ of consciousness that he has just discovered*. Such conduct only needs to be mentioned to be appreciated by honorable men as it deserves. But he *locates* consciousness in the corpus callosum and not in the medulla oblongata where I did. Haller, in his Physiology, written many years ago, refutes this idea and shows that it cannot be in the callosum ; this part has been ruined by disease and rent asunder, without affecting consciousness, so that it cannot reside there. (See Spurzheim's Anatomy of the Brain.) Again, the *callosum is not possessed by birds, reptiles nor fishes*, and only by the higher animals, yet the lowest animals have *consciousness* and they have faculties of mind to be "called up and to act in concert." Mr. Fowler must therefore, locate his consciousness some where else,—and I advise him when next he commits plagiarism, to *take the whole*, the organ and its location; such conduct would at least have the merit of boldness if not of honesty.

There is another discovery of Mr. Fowler's, which is ushered before the world in this work on Physiology and that is, that (*I give his own words*):

"The heart, lungs, muscles, liver, bowels, pancreas, kidney, and all the other organs of the body have their cerebral organs in the cerebellum ; this conclusion is admirably fortified by the fact that all the nerves which connect the brain with the body proceed from

the cerebellum, as seen in the accompanying engraving, none from the cerebrum. This establishes the most perfectly reciprocal inter-relations between the body and cerebellum."

Now the truth is, that NO NERVE WHATEVER PROCEEDS FROM THE CEREBELLUM!! and no one but Mr. Fowler can be found who will make such an assertion; every one, the veriest tyro, who knows any thing of the anatomy of the brain and the distribution of the nerves, knows that this is untrue. "The accompanying engraving" itself, to which Mr. Fowler refers, betrays him; it was evidently not made nor designed by Mr. Fowler, but was probably an old engraving which was originally intended and used for some other purpose; for upon a close inspection, it positively contradicts Mr. Fowler's assertion, that it will exhibit the nerves proceeding from the cerebellum; the nerves, even upon the engraving, proceed from the medulla oblongata, just as they should do, and not from the cerebellum as Mr. Fowler asserts. It seems almost incredible that Mr. Fowler should have lectured upon Phrenology more than a dozen years, and yet make such a blunder as this, but so it is. Any one who will take the trouble to look at a brain, will see at a glance that no nerve proceeds from the cerebellum to any part of the body; but Mr. Fowler says that all the nerves which relate to the body proceed from the cerebellum, and he attempts upon this foundation, to build up a theory of what he very classically terms the *inter-relation between* the body and the *cerebral* organs of the *cerebellum*!! This is a fair specimen of Mr. Fowler's writings with which he is now inundating the

country ; and although in a scientific point of view they are beneath serious criticism, this does not prevent the half-educated and "superficial" multitude from being misled by them. Nothing, I fear, will put a stop to these mischievous pretensions until an association is formed, composed of men of real solid attainments and sterling worth ; a society whose sanction of truth will have extensive influence, and whose censure will annihilate presumptuous ignorance, and send pretenders back to their rudimentary studies.

- In Europe there are some indications that Phrenology will be permanently established upon their institutions of learning. I understand that Dr. Robertson of Paris, has, by his will, left \$60,000 to the Edinburgh Phrenological Society, and I have also been informed that a Professorship of Phrenology has been established in one of the Universities of Scotland. In this country a conviction is settling upon the minds of all educated men, that the grand principles and the leading facts of phrenology are true ; but there is also a still more general conviction, that it is at present of no practical value—that it is imperfect—that the truth is mingled and adulterated with so much error as to render it merely a dangerous counterfeit—as a science it has been found deficient in system and consistency, and as an art it has been wanting in precision and practical certainty. This is the verdict of the public in this country, upon Phrenology as taught by Combe and Fowler. I propose a reform, and offer a new system which I think is more in harmony with nature. I retain of the sys-

tem of Spurzheim all that I find to be true, and reject the rest. Having devoted more than twelve years to investigation, observation and enquiry—this system is the result. I ask that it be examined thoroughly. Let not friendship favor it, nor charity spare its faults ; but let the keen edge of truthful criticism lay bare its defects with remorseless justice ; error deserves no friends and truth can safely bid defiance to the scrutiny of all its enemies. I have no selfish wish to propagate doctrines merely because they are mine ; no one can be more eager to worship in the temple of truth, and no one can be more desirous to sacrifice his own egotism at her shrine.

J. STANLEY GRIMES.

Boston Feb. 22, 1850.

SCIENTIFIC CLASSIFICATION.

The organs of the brain may be scientifically and technically classified into Orders, Genera and Species, as follows :

ORDER I. — DIRECTIVES.

These were by Spurzheim denominated Intellectual Faculties. Their office is to receive impressions and transmit them to the mind. They may be divided into two genera, as follows :

GENUS I. — PERCEPTIVES.

They receive impressions through the senses directly from external objects, modify them and transmit them to the conscious centre in the medulla oblongata, (the sensorium) where the mind resides, and operates in a mysterious manner, which is not yet understood.

GENUS II. — REFLECTIVES.

These differ from the Perceptives in this, that they do not receive impressions directly from external objects through the external senses, but they receive all their impressions by reflection from the other organs

through the central mind or sensorium. These organs enable the mind to perceive the relations of all the impressions made by all other organs upon the mind.

ORDER II. — IMPULSIVES.

These were by Spurzheim denominated *Affective Faculties* and divided into propensities and sentiments. They receive impressions from the various parts of the *body* directly, and from the Directives indirectly, through the mind; they are excited by our various wants, and *impel* us to those *actions* which are calculated to relieve them, but these Impulsives are blind and need the guidance of the Directives to reach the objects at which they aim.

This Order is divided into two genera :

GENUS I. — IPSEALS.

These originate actions that relate to self, and are subdivided into five species, called Ranges.

Species 1. Corporeal.

Species 2. Belligerent.

Species 3. Prudential.

Species 4. Industrial.

Species 5. Improving.

GENUS II. — SOCIALS.

Which originate actions relating to society and all intelligent beings.

They are subdivided into three species.

Species 1. Establishing.

Species 2. Governing.

Species 3. Conforming.

ORDER III. — SENSORIUM.

A central organ of consciousness—the residence of the mind—it is located in the medulla oblongata at the point where the fibres of the brain converge, and where all the nerves of volition and sensation communicate and connect with the brain and with each other.

Each organ of the brain when excited either impels to action or directs action, and at the same time excites the mind, evolving ideas and emotions peculiar to the organ excited. The Sensorium cannot be divided unless by considering the different *states* of mind produced by different organs as subjects of subdivision; this is the province of psychology and cannot be discussed in this treatise.

ANALYSIS

OF THE

PHRENO-ORGANS

ORDER I.—DIRECTIVE ORGANS.

GENUS I. — PERCEPTIVES.

1. **FLAVOR or CHEMICALITY.**—This organ enables animals and man to judge of the qualities of food, air and perfumes. When large it bestows the power of nice discrimination in matters of taste and smell, but it does not give any disposition to indulge the appetite to excess. The organ is so situated as when large to give prominence to the bone just under the eye when compared with the prominence of the forehead. The olfactory nerve appears to terminate in this organ. It was discovered by the author in 1837.

2. **EXTENSION or SIZE.**—Perception of distance, size, perspective. This organ is important in drawing, forming and measuring.

It is my opinion that what we call the organ *Form*, depends upon a combination of Extension and of Di-

rection aided by Reflection. Form is extension in various directions. This organ when large, gives width and fulness between and immediately above the eyes. The space which others allot to the organs of Form and Size and Individuality, I allot to this one organ. This conclusion is the result of much observation and practice.

3. **DIRECTION**, commonly denominated **LOCALITY**.—It gives perception of the points of the compass and the direction of objects. Locality, the perception and memory of places, depends, in my opinion, upon a combination of Extension and Direction, aided by some degree of reflection ; a talent for drawing, for mapping and for navigation depends also upon the same combination.

This organ is situated between the centre of the forehead and the middle of the eye brow. It must be acknowledged that after puberty the frontal sinus or ca-

NOTE. INDIVIDUALITY.—I consider this a very doubtful organ; indeed I must confess that I do not believe in the existence of any such faculty, and of course I cannot admit the organ. It was thought by Spurzheim that a fulness of that part of the forehead where it joins the nose, indicates a faculty of perceiving things in general, without reference to their qualities. He considered it the faculty of individualizing and of forming such ideas as *God, man, tree*. Now to my mind it is clear that such ideas depend upon the Reflectives aided by all the Perceptives. I admit that a person who is full in this part of the head is possessed of the talent for the observation and memory of some qualities of things, and I explain it by saying that the part called Individuality is composed of portions of the organs of Direction, Eventuality and Extension.

NOTE. FORM.—I do not think that this is an independent organ, but that it is composed of portions of the organs of Extension and of Direction. I admit that width between the eyes indicates a memory of faces and forms, and so far Dr. Gall was correct ; but I deny that this power depends upon a single organ.

vity in the skull bone, renders it difficult to determine the size of an organ in this part of the head.

4. **WEIGHT.**—Perception of resistance or momentum. It is the essential organ concerned in giving the talent for mechanical skill and the delicate use of instruments in surgery, music, machinery and engraving. It must of course be possessed in a good degree by most animals, since it gives the power to command the muscles skillfully in balancing, touching and jumping; combined with the Reflectives it gives the engineering talent and the power of calculating the result of combined forces.

When large it gives depth to the brow and an overhanging appearance between the middle of the brow and the side of the nose.

5. **EVENTUALITY.**—The perception of motion, change and phenomena. The foundation of the talent for history, biography, anecdotes and general knowledge; combined with the organ of Words it gives a talent for learning and literature in general. When the Reflectives are small it gives a tendency to be minute in the details of narrative, but when the organ of Words and of Eventuality are small and the Reflectives large, conciseness and brevity are the result.

It occupies the centre of the forehead and gives it fulness.

6. **WORDS OR SOUND OR LANGUAGE.**—Memory of words and the perception and memory of sounds. It is possessed by animals and man. It is the foundation of the talent for acquiring languages and also of writing and speaking; but this organ alone will not make a lin-

guist, a speaker, nor a writer ; a good combination of intellectual organs is necessary for this purpose. I think this organ is one important element in the talent for a musical perception of sounds. I suppose that the organ of Tune merely gives the *disposition* to use the voice and to imitate it by instruments.

When large it gives prominence to the eyes and crowds them downwards.

7. COLOR.—Perception of hues and tints and nice shades of color ; it is large in distinguished painters. I very seldom find this organ so decidedly developed as to give me confidence in the external indication. I frankly acknowledge also that after the age of thirty, the bones of the skull and the *frontal sinus*, (a cavity in the skull bone over the eyes,) render observations in many cases uncertain.

It give fulness to the middle of the eye brow.

8. ORDER.—A perception of the order, succession and arrangement of external objects. It gives a nicety, particularity, regularity and precision in all operations that require it and sometimes in those that do not ; combined with Causality it gives *system* to operations. Is it not related to regularity in time, in music and in dancing ?

It gives prominence to the brow between the centre and the outer extremity.

9. NUMBER OR ARITHMETICAL CALCULATION.—The foundation of mathematical talent ; combined with Order it makes a good book-keeper and accountant ; combined with Comparison a good salesman and purchaser,

where rapid computation is necessary ; combined with the Reflectives it gives a talent in the higher branches of mathematics.

It produces fulness in the outer extremity of the brow.

10. **TIME.**—An organ proposed by Spurzheim. He thinks that it gives the perception of time in chronology, dancing and music : but I have not fully confirmed it by my observations; and I strongly suspect that Spurzheim was deceived by some appearances, produced by a combination of Causality, Eventuality and Order. I doubt the existence of the organ of Time, but I do not deny it with entire positiveness.

It is situated just above the organ of color, and outside of Eventuality.

11. **TUNE OR VOCALNESS.**—This is reckoned by all writers upon Phrenology, as an intellectual organ, but all the practitioners seem to admit that they cannot pronounce an opinion with any thing like positiveness or satisfaction concerning the musical talents of any one from his developements. This part of the brain is evidently related in some way to music, but it is not yet agreed in what way it contributes to bestow musical ability. My own opinion at present is, that this organ ought not to be classed here with the Directives, but with the Impulsives. Its function I conceive is to prompt and impel to *make vocal sounds*, whether musical or not—to exert the powers of voice that we may thus make known our wants. It should therefore be classed with the Ipseals if this view is correct. It gives

a *love* of music merely because music calls the powers of the *voice* into exercise. But this organ needs further investigation before we can speak confidently concerning it.

It is located just above the organ of Number, which is at the outer extremity of the eye brow and extends up to the organ of Experimentiveness. I shall not venture to change it to the Ipseal class, but suspect that it will ultimately be done by future investigators.

GENUS II. — REFLECTIVES.

12. COMPARISON OR CLASSIFICATION.—All the ideas which we acquire by the Perceptives and also by the operation of the Impulsives are analyzed, compared and classed by this faculty, and when this is well done they can be called up as they are wanted, with ease and facility. It is the foundation of the talent for rhetoric, poetry and of scientific classification, and also of analogical illustration in teaching; it originates parables, comparisons and allegories—it gives that kind of judgment which is founded on comparison with past experience, and not upon original reasoning founded upon the nature of things.

It is located in the centre of the upper part of the forehead.

13. CAUSALITY OR CONNECTION.—This power, like Comparison, relates to all the other powers as their superior. It perceives the connection, relation and dependence of all ideas and feelings, all appearances and

phenomena. It is the organ which gives the idea of the unity and connection of things that are apparently different, disconnected or confused. It is this that seeks for the cause of things—the unseen nature of things—the origin and the ultimate results of all movements; it is this that seeks for the laws of nature which connect together things the most distant, various, and apparently discordant; it gives ability to find new, shorter and better modes of producing results; in mechanics, in science and in poetry, this gives originality, ingenuity, profoundness, foresight and sagacity. But important and powerful as this faculty is, it can only act upon the material furnished by other organs, and therefore we cannot determine what this organ will produce without first knowing the size and condition of the other organs.

It is situated at the outer side of Comparison about an inch from the middle line of the head, and contributes to give prominence to the side of the upper part of the forehead.

REMARKS

ON THE NATURE OF THE IMPULSIVE POWERS AS DISTINGUISHED FROM THE DIRECTIVES OR INTELLECTUALS.

What I name here *Impulsives*, Spurzheim named *Affective Faculties*. I object to the division of the Impulsives made by Spurzheim, into animal propensities and moral sentiments. There is *no* ground for the distinction: the reasons given by Spurzheim are utterly erroneous, for he alleges that the moral sentiments (higher Impulsives) are accompanied by peculiar *emotions* which distinguish them from animal propensities, (higher Impulsives.) I object to this, and appeal to the consciousness of any man, whether his animal propensities are not, when active, accompanied with emotions quite as peculiar and even more powerful than those which attend the operation of the higher powers, which Spurzheim denominates Moral Sentiments. Is not Alimentiveness accompanied with hunger, and Destructiveness with anger, and the lower Socials with emotions of love, and are not these emotions as powerful and as peculiar as those that attend Kindness, Submissiveness, Conscientiousness or Imitativeness? There is then no ground for this division, since each organ produces an emotion or state of consciousness peculiar to itself and different from that produced by every other organ.

The classification by Fowler includes all the faults of that of Spurzheim, besides still greater faults of its own, and has never been deemed worthy of especial criticism.

Instead, therefore, of dividing the Impulsive organs into propensities and sentiments, I divide them into Ipseal and Social, and subdivide them into Ranges and Groups. This classification has received such high and extensive sanction that I think it may now be deemed as permanently established.

REMARKS

ON THE ARRANGEMENT OF THE IPSEALS.

The rule which should be our guide in a scientific classification of natural objects is, *to arrange together those things which bear the nearest affinity and analogy to each other*. I conceive that the perfection of any science depends almost entirely upon the success of its founders in the arrangement, classification and nomenclature of its elements: for this reason I have always been solicitous to discover the true and natural foundations for a systematic arrangement and a correct nomenclature of the Phreno-organs. In considering the whole Ipseal class I thought I discovered that from Pneumativeness to Hopefulness, there is a regular suc-

cession and order of developement which a philosophic mind could not easily mistake ; that these organs are connected together as a natural chain, consisting of twelve or more links, each of which upon a careful analysis, is found to have the Ipseal character and to possess an undoubted right to be admitted into the family of Ipseal organs. Again it is evident that the first three Ipseals have one feature in common which is not possessed by any other organs of this class, namely, that they directly relate to *corporeal*, Ipseal wants. The two organs above these bear also a common character, they *tend to violence*, for Ipseal purposes ; they are *unlike* the two powers Secretiveness and Cautiousness and are so nearly alike in function, as to be with difficulty distinguished from each other, yet they are both easily distinguished from any other organs of this class, no other has the *violent* character.

The next or third Range is composed of Secretiveness and Cautiousness ; here again the functions are strongly analogous, and the propriety of the association of the two organs into one Range is perfectly obvious, at the same time the utter absence of hostility or violence in their character not only distinguishes them from the preceding organs, but actually affords so powerful a contrast that while one Range deserves the name of *Belligerent*, the other is equally entitled to the term *Prudential*.

In the fourth Range, consisting of Constructiveness and Acquisitiveness, the analogy of the two organs is less striking at first, but upon examination it becomes

not only obvious but highly interesting ; they have much in common,—they both relate to the same class of objects—both relate to climate—to *future* Ipseal wants and to those productions of nature which we expect to need ; both distinguish the Rodentia and neither is unequivocally manifested by any other quadruped. Spurzheim was particularly struck with the anatomical connection of these two organs.

Finally, we come to the highest Ipseal Range. Here as might be expected, the sphere of action is less confined—there is a greater freedom of choice—a greater variety of objects is concerned ; but amid and above the whole there is one grand distinctive feature which marks all the organs in this Range and which can easily be discovered—it is a tendency to change for the sake of improvement.

All human performances are necessarily imperfect ; but I doubt whether in the whole round of the sciences any thing more beautifully systematic can be found, than is exhibited in the arrangement of the Phreno-organs as thus set forth.

ORDER II. — IMPULSIVES.

GENUS I. — IPSEALS.

These organs impel to those acts and produce those feelings which relate exclusively to the advantage of *self* and therefore they are denominated *Ipsreal*, from the Latin word *Ipse*, self. A person who has the *Ipsreal*s generally large and the *Socials* small may be said to be an *Ipsreal* character, but it rarely happens that they are all large; most persons have some *Ipsreal*s and some *Socials* large while other *Ipsreal*s and *Socials* are small.

The *Ipsreal*s are divided into five Species denominated *Ranges*, as follows :

SPECIES I. — CORPOREAL RANGE.

This Range is related to the corporeal necessities.

I. PNEUMATIVENESS.—The propensity to breathe voluntarily and to make exertions to obtain air when it is required. When sufficient air cannot be produced it is this that produces that agonizing consciousness which is called a sense of suffocation; the Pneumogastric nerve (lungs and stomach) connects the lungs with the brain and with this organ. Persons in whom this organ is deficient, fall easily into sedentary habits and become careless in regard to the ventilation of their rooms. When the organ is developed to excess it produces such a love of exercise in the open air as to disqualify for study

and reflection. A comparison of the brains of Indians with those of white men shows that this organ is generally much larger in the Indians. It is generally large in those who have large lungs. The author discovered this organ in 1837.

When large it gives greater prominence forward and greater width to the cheek bones than they would have if it were small.

II. ALIMENTIVENESS.—The propensity to eat and drink—when not gratified it produces a state of consciousness called hunger or thirst. It is large in those who never forget or neglect to attend to matters relating to food. It does not follow that those who have this organ large are great gormandizers or drunkards, they may eat but little, but that little is deemed by them a matter of great importance ; persons, on the contrary, with the organ small although they may occasionally eat immoderately, are very apt to neglect their food and be irregular in their attendance to their meals—their minds being pre-occupied with matter interesting to larger organs. A branch of the Pneumogastric nerve connects this organ and the brain with the stomach.

- It gives width just before the orifice of the ear.

III. SANATIVENESS.—Bodily pain, injury and disease; the propensity to protect the constitution from injuries and diseases. When any part of the body is injured or diseased an impression is transmitted along the nerves to Sanativeness, and from this organ to the central Consciousness, thus rousing the mind to a sense of *pain*. Bodily pain is therefore produced by this organ in order

to rouse all the powers of mind and body to protect the constitution and remove the cause of the injury and pain. Sanativeness is generally largest on those animals and men who take the most delight in injuring others. The larger the organ the more acute is the feeling of pain ; the rabbit, the lamb and the deer receive fatal wounds with much less ado than the cat or the dog. The nerves, which are called the nerves of common sensation, proceed from all parts of the body to the brain to enable Sanativeness to receive impressions when the parts are injured. The word is derived from the Latin *sanitas*, which signifies soundness of the body or mind. The author discovered this organ and announced it several years ago.

It gives width to the head just above the ears and below Destructiveness, and tends to crowd the ears outward and forward.

SPECIES. 2. — BELLIGERENT RANGE.

This range is best illustrated by the lion, tiger, dog and other carnivorous (flesh eating) animals, it has, therefore, sometimes and with some propriety been denominated *the Carnivorous Range* ; but the fact that many herbivorous animals are very combative renders it improper to characterize this Range as exclusively carnivorous ; I therefore have adopted the term Belligerent as more unexceptionable. I have been the more willing to do this, because some critics objected to the subdivision itself, on account of the names which I used in my first edition, published in 1839.

IV. **DESTRUCTIVENESS.**—The propensity to kill for food—to injure for any other purpose, accompanied with a wrathful or angry state of mind. It is large on all carnivorous animals and men who are constitutionally disposed to eat flesh ; it is small on those animals and those races of men who are remarkable for abstinence from flesh-food, the Hindoo for instance. Those who have the organ large are apt to direct it to the destruction of any object that displeases them and to express themselves with severity and bitterness when provoked. It sometimes produces cursing, denunciation and sarcasm in favor of oppressed innocence and in opposition to tyranny and injustice, but it often produces mischief and always needs to be guarded by charity and a good conscience.

It gives width to that part of the head which is covered by the top of the ears.

V. **COMBATIVENESS.**—This is the propensity to contend, not to *destroy*, but only for mastery—for victory, and to have the privilege of gratifying the impulses in despite of opposition ; among some of the most powerful herbivorous and indestructive animals the males contend fiercely with each other for the favor of the females. It gives to men who have it large, especially if Secretiveness and Cautiousness are small, a love of disputation even on slight occasions. It produces in the mind the feeling (consciousness) of *resentment*.

It gives width to the head a little above and behind the ears.

SPECIES 3. — PRUDENTIAL RANGE.

This was formerly denominated the Herbivorous Range, because it was thought to be manifested by herbivorous animals especially, but Professor E. N. Horsford has objected, and I admit with much propriety, that Secretiveness is manifested with more energy by some nocturnal carnivorous animals than by any of the herbivorous ; I have therefore thought it better to change the name of this Range and to make it conform to the actual manifestations. It seems to me that the word *Prudential* conveys a just notion of the effect of both or either of the organs of this Range.

VI. SECRETIVENESS.—Propensity to conceal intentions by acting indirectly and cunningly. We have no word in our language to express the feeling or state of consciousness which this organ usually produces ; the word *suspicion* conveys an idea of the feeling which it produces when we are watching others. Some have proposed to call this the organ of *Watchfulness*, but I think that Cautiousness might receive the same name with more propriety. Secretiveness is often useful and proper, but it sometimes is excessive while the moral education is deficient, and then it produces falsehood and deception ; when this organ is deficient the person is disposed to be open, direct and frank in his manners and conduct.

It gives width to the middle of the side of the head about an inch above the top of the ears.

VII. CAUTIOUSNESS OR WATCHFULNESS.—Propensity to watch for coming difficulty and trouble—to avoid danger, and to restrain present gratification when it may be hereafter injurious. When first discovered it was called *Foresight*. It often produces hesitation and irresolution when a bold decided course is required ; it causes the feeling of *fear* and *apprehension* ; when in excess it sometimes produces fright and cowardice ; when deficient, carelessness and recklessness are often manifested. The manifestations of Cautiousness are often confounded with those of Sanativeness, but Cautiousness is related to the future, the distant and the doubtful, while Sanativeness is most frequently roused by the actual injury or disease of some part of the body ; when the two combine they often produce hypochondria, especially if the liver or stomach is diseased. The skulls of the herbivorous (vegetable eating) animals, can easily be distinguished from those of the carnivorous by the fact that the herbivorous are large at Cautiousness, and the carnivorous at Destructiveness.

It gives width to the upper back part of the head.

SPECIES 4. — INDUSTRIAL RANGE.

The powers of this Range are so well manifested by that class of animals denominated the Rodentia or gnawers, that it is sometimes called the *Rodentia Range*. The beaver, the wood-chuck or marmot, the rat and the squirrel are instances of the Rodentia. The word *Industrial* conveys an excellent idea of the true func-

tions of the organs, for it includes the manifestations of Constructiveness and Acquisitiveness. .

The object of all the arts of industry is, to provide for future necessities, and those who have this Range largely developed have a natural tendency to engage in such arts. The Caucasian race are large in this part of the head, and the African deficient.

VIII. CONSTRUCTIVENESS.—The propensity to change the form and size of natural productions to adapt them to our use. It gives the disposition to construct—build or manufacture ; many who have this organ large are *conscious* of a *love* of the useful arts although they have not acquired practical skill. Mechanical talent is not produced by this organ alone, it merely produces a tendency to engage in mechanical operations ; the ability to manifest skill in the use of instruments depends upon the Perceptive organs, and an ability to *invent* mechanical engines and instruments depends upon the Reflectives ; a love of the fine arts depends upon Perfectiveness : all these combined are necessary to produce a great genius in all the departments of the arts and in mechanical philosophy.

If a line be drawn from the orifice of the ear to the centre of the upper part of the forehead this organ will be just about in the middle of that line.

IX. ACQUISITIVENESS.—The propensity to acquire and store up for future use whatever we expect to want. Beavers and many other Rodents store up during autumn the provisions which they will need the succeeding winter. Man not only stores up provisions for

winter, but he acquires property of all kinds for all his life and for his posterity. This organ, like Constructiveness, only gives the tendency or habit, but not the ability unless combined with intellect and other requisite qualities. *Avarice* is caused by general selfishness combined with the activity of this organ while the Social powers are deficient. *Penuriousness* is caused by this organ being active in a timid or weak man. *Theft* is caused by the activity of this organ upon an ignorant or depraved mind. *Profuseness* or neglect of property may be caused by a deficiency of this organ and of Cautiousness.

It is situated above and behind Constructiveness, a little above and before the centre of the side of the head.

SPECIES 5. — IMPROVING RANGE.

This is sometimes denominated the *Human Range*, because it is manifested in a high degree by man only ; but as I had resolved to establish a nomenclature which should distinguish the *function* performed by each Range, rather than the class of animals that manifests it in the highest degree, I have adopted the word Improving as more expressive of the distinctive character of the Range than any other term which occurs to me. I think it will be found upon a careful analysis of the organs that constitute this Range, that there is some propriety in giving it this denomination.

X. EXPERIMENTIVENESS.—Playfulness—wit—mirthfulness. No organ has caused so much discussion

among Phrenological writers as this. Dr. Gall thought it produced *wit*, Spurzheim believed that it also produced *mirthfulness*—various notions were entertained concerning it by the Scotch Phrenologians. In 1839 I announced that I considered it the cause of play and sportiveness in animals and children: Broussais, in France, about the same time, unknown to me, announced that he and also Vimont had made a similar observation. I have lately noticed that it gives a disposition to try experiments in times of necessity and when we are in doubt concerning the extent of our abilities. Much of the play of children and young animals and even of men is but a kind of experimental trial of their powers.

There is a species of apparently spontaneous activity arising from excessive, nutrition and respiration, and a want of serious occupation, which is sometimes denominated a “flow of animal spirits,” and sometimes it is called a “love of exercise,” but neither of these must be confounded with the manifestations of this organ.

This organ does not, in my opinion, give a disposition to do *some thing* and *any thing* merely to gratify the powers that need exercise, but it seems to give a tendency to do something *new*, as an experimental test of ability.

I think that if we carefully analyze the sports of the higher animals and children, we shall perceive that they are composed of two distinct elements; one is a mere love of exercise without interest, object or aim, another is a love of experiment—doing something new and dif-

ficult as a test of ability—as soon as they succeed and it is no longer an experiment they are tired of it and proceed to some new experiment. I consider this the basis of the love of experimental philosophy, and also of ability to resort to new expedients when surrounded by difficulty and danger of a novel kind.

A perpendicular line drawn from the middle of the eye brow will pass through the front inner border of this organ, another line drawn from the orifice of the ear to the middle of the upper part of the forehead will pass through its centre.

XI. PERFECTIVENESS, commonly called IDEALITY.—Love of improvement—self educating propensity—the foundation of the love of the fine arts—invention, planning and improved methods of operating—love of the improved and beautiful in language, in art, in manners, in dress, in every thing. When in excess and not guided by a well balanced intellect and knowledge, it leads to useless contrivances, foolish, fanciful conceits, and vain attempts at finery, the mere mockery of improvement and beauty. This organ only gives the disposition to attempt improvements but the ability depends upon other organs, especially the intellectual directors.

When large it gives width to the upper part of the forehead.

XII. HOPE or MIGRATIVENESS.—Propensity to migrate and to act confidently with reference to the distant, the doubtful and uncertain—to act as if success in future is certain. It bestows enterprize and leads to

great undertakings. It seems to be this which leads to migration from a habitation which is no longer agreeable and when some distant region is more promising; it leads its possessor to expect pleasure and happiness in another and a better place, and to wish to go to the promised land. When in excess it produces visionary schemes and foolish enterprizes; when guided by religious faith it produces a hope of eternal happiness in another and better world.

A perpendicular line drawn from the orifice of the ear will pass through this organ, and another line drawn horizontally from the upper part of the forehead will also pass through it.

GENUS II. — SOCIAL IMPULSIVES.

This class is conveniently and almost naturally subdivided into three groups of five organs each.

SPECIES 1. — ESTABLISHING GROUP.

This is so denominated because its organs tend to establish society by producing the young, rearing them with tenderness, fixing a home and binding the kindred in the bonds of family affection.

1st. **AMATIVENESS.**—The propensity to propagate the species and to love the opposite sex. When combined with higher powers in a virtuous mind, it is the founda-

tion of true love and matrimonial attachment ; in a vicious mind it leads to licentiousness.

It gives general fulness and roundness to that part of the back of the head between the ears where it joins the neck.

2d. PARENTIVENESS or PHILOPROGENITIVENESS.—

The propensity to protect and cherish weak and helpless children ; it produces a general tenderness towards the delicate, weak and defenceless among men or animals, or even plants.

It gives prominence and length to the central back part of the head above Amativeness.

3d. INHABITIVENESS.—The propensity to remain in a permanent and fixed habitation—love of home. When large it has an effect upon the habits of thought and speech, to render them concentrated and to prevent them from assuming a rambling character—running from one thing to another—but confines the train of ideas to a more limited and concentrated range of objects and topics.

I cannot agree with those who would change the name of this organ to Concentrativeness, nor with those who would divide it into two portions, naming one part Inhabitiveness and the other part Concentrativeness. I consider Concentrativeness as an incidental effect of Inhabitiveness and not as its primary function.

This organ when large prevents a sudden falling off and depression above Parentiveness in the middle line.

4th. ADHESIVENESS.—It is the propensity to form attachments, especially in youth, first to the mother,

then the father, and brothers, and sisters, and kindred, and associates, and finally, it combines with Amativeness to produce conjugal attachment. It is generally large in children and females, and in most of those who are constitutionally weak, timid and dependent, but it is sometimes very large upon those who are bold, masculine and strong.

When large it seems to give width to Inhabitiveness. Parentiveness and Adhesiveness combine to make the head long from the ear backwards.

SPECIES 2. — GOVERNING GROUP.

These organs tend to the government of the family and of society with popularity, firmness and justice.

5th. IMPERATIVENESS.—Self esteem—Pride. This is the propensity to *command* in social intercourse—to direct the operations of others—to acquire social power—to assume authority ; combined with the intellect it produces a high estimation of the individual's own importance in the social and political circle in which he moves, and a feeling of the love of independence—prevents him from courting favor, approbation or popularity by manners, dress, language, or excellence in works of art or other performances. The object of this organ is obvious, since without it there could not be even the rudimentary commencement of government among animals nor men ; accordingly, wherever we see animals or men living in societies, we see this propensity manifested : natural history abounds with interest-

ing illustrations of this principle, especially among bees, ants and beavers.

This organ when large gives prominence to the upper back part of the head in the middle line; a cord passing around the chin and going half-way between the eye and the ear, to go over the head will pass over this organ.

6th. **APPROBATIVENESS.**—Love of popularity—desire of the good opinion of others—regard for reputation—desire for applause and fame; propensity to conciliate those who have influence. In ignorance it is apt to degenerate into vanity, and in a vicious and depraved mind it sometimes gives a love of dishonorable and wicked notoriety. Dandies, fops and fashionable exquisites have this large and generally combined with refined taste in small and unintellectual matters, such as require no more understanding than children possess; combined with superior powers it sometimes gives a love of fame and immortal renown.

This organ seems to give width to Imperativeness.

7th. **FIRMNESS.**—Love of consistency—resistance of the persuasive influence of others—disposition to maintain a position once assumed; this must not be confounded with the resistance which springs from Combattiveness or Destructiveness. Firmness is of very great importance in the government of families and communities; it prevents a frequent change of plans, opinions and manners; it also prevents the formation of new and sudden acquaintances and friendships to the neglect of those already acquired.

This organ is at the top of the head, back of the centre.

8th. **JUSTICE** or **CONSCIENTIOUSNESS**.—Equity—the propensity to act impartially and justly between the different members of society. I do not think that this organ alone, however large, gives the disposition to do right to superiors; nor does it give honesty to mercantile dealings when opposed to selfishness, though even in such cases it has considerable influence. Honesty depends upon a combination of this organ with a fair developement of Firmness, Submissiveness, Credenciveness, Kindness, Approbateness, and a *well instructed* mind. The true and primitive function of this organ seems to be to give a disposition to govern impartially, and to treat with equity those who are dependent upon us or in our power ; but though this was its primitive use it is also apt to manifest itself by giving a love of justice and truth in general. What is called *remorse* of conscience does not depend upon this organ alone, but upon a combination of all the higher social and intellectual powers of the mind. A careful review of all the organs of this Group will render it manifest that they bear an important relation to the government of society.

This organ seems to give width to Firmness.

SPECIES 3. — CONFORMING GROUP.

The tendency of this Group is in many respects the opposite of the Governing Group. It produces a disposition to submit, oblige, sympathise and believe ; it

thus produces loyalty and conformity to existing institutions and to those who have power and influence ; when both the Governing and Conforming Groups are large there is a disposition to govern inferiors or to conform to superiors, according to circumstances, and the effect of this combination is very happy and useful.

9th. SUBMISSIVENESS.—Veneration—reverence—propensity to recognize and submit to superior power, authority and influence—tendency to obey, to pay deference and respect to equals, and especially to those who are in power, such as parents, magistrates, and also those supernatural powers whose existence is believed in. When in excess and acting in ignorance it tends to slavishness and to servile following of authority, without proper manly independence. It thus may become one of the elements of superstition. This organ is small and Firmness large in the stubborn, irreverent, unsubmitive, self-willed and impertinent ; it is difficult to make such persons understand the duty of obedience ; when young they often seem more vicious than they really are, because they will not be guided by the advice, nor influenced by the authority of those who have had experience—their own will is their rule of right, and in ignorance, this rule is generally erroneous: when they become older they perceive and regret their previous folly and disobedience.

This organ is in the centre of the top of the head.

10th. KINDNESS.—Benevolence—good nature—courtesy, especially to strangers and new acquaintances and to society in general rather than family friends ; it is op-

posed to prejudice, haughtiness, reserve and repulsiveness of manners to strangers; and tends to give amiableness, gentleness, mildness of manner and an obliging disposition. Combined with Submissiveness, if Firmness is small, it produces a degree of good nature, which amounts to weakness, and unfits its possessor for official situations where decision is necessary to repel the solicitations and importunities of associates and friends; but this combination qualifies one to act in a secondary and subordinate capacity where the responsibility and duty of unkind decisions is borne by others.

This organ extends from the middle of the top of the forehead about three inches backwards.

11th. **IMITATIVENESS.**—Sympathy—Human nature. Propensity to adopt the manners, habits of dress, pronunciations, and expressions of associates. This organ is intimately related to Kindness and Submissiveness, and combines with them to produce *sympathy* or similarity of feeling and conduct to that of others. Mimicking is usually disrespectful imitation, and to be successfully performed requires that previous precision of observation which depends upon large Perceptives.

This organ large, combined with large Reflectives, tends with several other organs, to acquire knowledge of the mental conditions and motives of associates, and a general knowledge of human nature. I pointed out this fact many years ago, and since then some phrenologists have caught up the idea and proclaimed, that at the front part of this organ there is an organ of *Human Nature*. This is plainly an error in theory, though

in practice it will generally prove correct, since this combination actually produces nearly the same practical result as if it were produced by a single organ. Strictly there cannot be one organ especially related to a knowledge of human nature; but all the Socials in some degree and in some sense, are organs of the knowledge of human nature, since each gives a tendency to learn those things concerning others which are calculated to guide to its gratification; and as the organs of Kindness, Imitativeness and Credenciveness relate to all the members of society, whether friends or strangers, these organs of course tend to a knowledge of human nature in general, especially when combined with Reflection.

This organ runs parallel with kindness and combines with it to give height to the forehead.

12th. CREDENCIVENESS.—Wonder—marvelousness—tendency to act upon the testimony and assertions of others—to believe what others say, write or publish; it is the basis of *faith* in revealed religion—belief in history—confidence in judicial testimony, such as courts of justice rely upon—it makes one member of society assume the truth of what another asserts, and act upon it as if he had acquired the knowledge by his own experience; it thus enables us to avail ourselves of the experience of all men in all ages—it enables youth to be guided by the wisdom of age—it is the most important element of human institutions. With all the mischief and misery which is produced by erroneous and unfounded belief, such as fanaticism, superstition, bigotry, delusion and exaggeration, still it is productive of infi-

nitely more good than evil ; it connects the past, the present and the future—it concentrates the experience and knowledge of all men, in all times and from all regions of the earth, and enables a single mind to receive the result. If this organ is small and the Governing Socials large there is a tendency to be sceptical, and to rely upon one's own experience rather than the assertions and experience of others. If this organ is large and especially if all the Conforming Socials are much developed and the Governing Socials are small, there is a tendency to the most unbounded credulity and a total want of independent judgment. In this case a large intellect does not prevent credulity, but rather searches for arguments to fortify it ; for it should be remembered that the intellect is the mere servant and instrument of the larger impulsives ; the intellect does not control the propellers, it only directs them to the objects which they desire.

This organ is parallel with Imitativeness and combines with it to give highth to the head and width also to the upper part of the forehead. This is the highest Social and is bounded by the highest Intellectual and the two highest Ipseals.

TEMPERAMENTS.

A professional examination should commence with an estimation of the **SIZE** of the **WHOLE** constitution, compared with other persons of the same **sex**, **age** and **race**; for, all else equal, the largest man will be capable of exercising the most extensive influence.

The next consideration is the relative **size** and **condition** of the **six** classes of **Organs** or **Systems**, which together constitute man.

1. **THE OSSEOUS SYSTEM**, or **System of Bones**.—The frame to which all the muscles and other organs are attached. The bones have but little influence upon the character, except that when large they indicate strength without much activity: animals or men that have large bones are seldom rapid or dexterous in their movements.

MUSCULAR TEMPERAMENT.

2. The *Muscular System* is composed of fibres that contract to produce motion. If the muscles be large they may be contracted powerfully and bestow personal physical strength, but the motions, though powerful, will be slow. The operations of the mind are generally

slow when the motions of the body are so. The bones and muscles combine to give strength but slowness of motion ; they may therefore be considered as one system of machines which is moved by the Brain and Nervous System.

PHRENO-NERVOUS TEMPERAMENT.

3. The *Brain and Nervous System*, when large produce the Phreno-Nervous Temperament. When the muscles are small and slender, and the Brain and Nervous System much developed and well nourished by good blood, there is a capability of moving with rapidity though not with *strength* equal to the Muscular Temperament ; the mind partakes of the tendency and there is a high degree of mental activity and sensitiveness.

DIGESTIVE LYMPHATIC TEMPERAMENT.

4. The *Digestive System* is the apparatus which receives food and prepares it to enter the blood vessels to nourish the constitution. Every motion that we make consumes more or less substance, and nourishment replaces it. When this System is predominant and the Arterial System deficient, it produces a pale and fat appearance which is the sign of the Lymphatic Temperament.

ARTERIAL OR SANGUINE TEMPERAMENT.

5. The *Arterial System*, including the lungs and the blood vessels, receives air and conveys vermillion colored

blood to all parts of the constitution. The air received by the lungs is conveyed to the minutest extremities of the blood vessels, and there unites with the substances which were originally received in the stomach. Every motion, mental or muscular, which we make is, (in my opinion,) produced on galvanic principles, in the minute capillary blood vessels, by the union of the oxygen from the lungs with the food (carbon and hydrogen,) from the digestive organs. If the Arterial System is in excess, it causes the food, the fat, and even the flesh to be consumed, and the person will be lean but florid. This is the *Arterial Temperament*, and denotes a love of action. When the Digestive System is well balanced by the Arterial, the person is fair, florid, ruddy and animated, the eyes generally (but not always) blue, especially in the white Caucasian. Very florid Arterial persons cannot keep quiet enough to study without being dull and sleepy—they soon become restless and uneasy, and their thoughts wander.

VENOUS OR BILIOUS TEMPERAMENT.

6. The *Venous System* or System of Veins, receives the blood from the minute capillary vessels where the arteries convey it, and returns it to the heart, from whence a portion of it goes to the liver to manufacture bile and the rest goes to the lungs, and undergoes a change which restores it from the dark purple color to its original vermillion, such as it possessed before it entered the capillaries. It is estimated that four-fifths of the blood

(some say five-ninths) is in the veins and only one-fifth in the arteries. In some persons there is a *Venous or Bilious Temperament*, produced by an excessive development of the Venous System and liver, while the Arterial is less developed. This (in my opinion) causes the complexion even of pure white Caucasians to be dark, sallow and bilious—they are not as easily excited but are more *continuous* in their operations both of body and mind.

BALANCED TEMPERAMENT.

In many persons it is exceedingly difficult to determine whether any one system is predominant—they all seem to be developed in nearly an equal degree. In such cases, of course, the individual has a *Balanced Temperament*, and will manifest activity, strength, vigor, continuance, sensitiveness and steadiness of nerve, all or each but not one more than another.

DEBILITATED TEMPERAMENT.

There is often a debilitated condition of the nutritive powers which greatly modifies the mind and character. Some are born with a *Debilitated Temperament*, and marked with the effects of the diseases and debility of their parents or grand parents—others are born with good constitutions but become debilitated afterwards. Some are born with a curious but indescribable condition of body, and irregularity of temperament, which are not healthy, but yet are such as tend to give uncommon and

abnormal activity and energy to some powers of the mind, or a peculiar eccentricity to the character ; this is perhaps a kind of genius allied to insanity. Some also are peculiarly situated, educated and associated so as to have their native character modified in a particular manner which is not easily understood.

The practical Phreno-Naturalist should be careful not to be deceived by these circumstances ; notwithstanding the numerous and varied forms which they assume he should endeavor to detect them and assign them, as far as he can, their true value.

LARGE HEADS AND SMALL LUNGS.

The author has lately made an observation which seems to him to be of considerable importance, and to which he begs leave to call the attention of physiologists. It is, that the largest and most vigorous lungs are generally accompanied with moderately sized heads. The form of the head in such cases is also peculiar—the upper parts of the head being less developed than the lower, the forehead being generally retreating. On the other hand the very reverse is true of persons whose lungs are small; that is to say, their heads are generally

NOTE.—Size is a measure of *power*, but not of *correctness* of mind. This is an important distinction which no writer upon phrenology seems to have made. A man may think, or feel, or act *correctly*, but not powerfully. The town clock may operate with a degree of *power* in proportion to its size, and may be heard throughout a whole city, thus exercising an extensive influence ; and yet a small watch may excel in point of correctness. So a small man with a small head, may excel in correctness a large man with a large head, on account of a more perfect proportion and cultivation of his powers.

larger, and the upper parts more developed than the lower, being in some degree like those which we call ricketty. I strongly suspect that this discovery will lead to important results when it comes to be fully explained. I will venture to suggest an explanation. The reason of small lungs being often accompanied with a large head is, that the small lungs and imperfect respiration are the *cause* of the brain growing larger. For, the brain is the organ of *motion*; and it can only produce its motions by means of oxygen, which oxygen is furnished through the lungs by combining with the food from the stomach. If the stomach and lungs do not furnish blood sufficiently charged with oxygen to enable the brain to produce the necessary motions, the motions must become less, to correspond with the quality of the blood. Under these circumstances, larger brain will be equivalent to larger lungs: just as in galvanic operations a weak and adulterated acid, when applied to a large surface of zinc plates, will produce as powerful effects as a more concentrated acid applied to a smaller zinc surface. Now the question is, does not the brain tend to grow larger and to extend its surface when the blood is weak, adulterated and imperfect, in consequence of indigestion, badly ventilated rooms and imperfect respiration. Is not this the cause and explanation of rickets? It is admitted by physicians that rickets originate in indigestion and imperfect respiration, but why should this cause the brain to grow so large? Why do not the hands or the feet grow large as well as the brain? I answer,

that the brain being the Phreno-Galvanic fountain of motion, and being deprived of concentrated and oxygenated blood, it extends its surface to avail itself of a large quantity of imperfect blood, and thus it is that the same causes which produce imperfect blood produce ricketty shaped heads.

CRITICAL REMARKS UPON THE TEMPERAMENTS.

Ancient Physiologists as well as modern Phrenologists have all admitted that there are certain proportions and conditions of the body denominated Temperaments, which indicate certain peculiarities of character. The first division of the Temperaments seems to have been made as long ago as the time of Aristotle, into the Lymphatic, the Sanguine, the Choleric and the Melancholic, and was supposed to depend upon the predominant quality of the various humours or fluids, red, white, black, or yellow, which the body contained. After the circulation of the blood was discovered and the Lymphatic vessels were known, the Sanguine Temperament was attributed to the predominance of the arterial blood; and the Lymphatic Temperament to the lymphatic fluid and the digestive organs predominating over the arterial. The author of this work was the first to suggest that the predominance of the venous blood and the liver is the cause of the Bilious Temperament. The author's theory of the Temperaments is very simple: it is that the office of the brain and nerves is to move the bones and muscles, and that the brain and nerves

are therefore antagonistic to the bones and muscles, or in legal parlance, it is bones and muscles *versus* brain and nerves. The principal bones and muscles to which I refer are those especially which constitute the limbs and face. Now I insist that *ceteris paribus*, when the brain and nerves are weak and the limbs large, there cannot be as much rapidity of action as when the reverse is the fact; although there may be more strength, it will be manifested slowly. But what do we mean by *ceteris paribus* or all else equal? Why is it that the largest brain, compared with the limbs, is not always accompanied with the most rapid motions? Why is it, indeed, that we sometimes see a large head and slender muscles on one who habitually moves but little and then reluctantly and moderately? Why is it that a brain of a given size is not always of a given power? It ought to be if no interfering causes prevented. Phrenologists generally assume that it is so, but they are constantly met and annoyed by the fact, that the same size and form of head on one manifests genius, and on another stupidity—on one body it produces rapid and vigorous movements, and on another, with bones and muscles no larger—perhaps even smaller—it produces slow, weak and merely necessary movements; again, we see a small brain with large muscles, producing rapid and vigorous motions and an energetic character.

The solution of this whole difficulty is found in the fact that the brain acts on *chemico-galvanic* principles, by decomposing the blood; and that the power of the

brain is dependent upon the qualities of the blood. The brain acts like the plates of a galvanic battery, while the blood acts like the acid liquor of a galvanic battery. Now the liquor of a galvanic battery is composed of several ingredients, only one of which (oxygen) acts upon the plates to produce the galvanic movement. The oxygen may be combined with a large amount of other ingredients, which only serve to dilute and adulterate the liquor—or the oxygen may be combined with just a sufficient quantity of other ingredients to hold it. This is precisely so with the blood—the blood is composed of several ingredients, only one of which (oxygen) acts upon the brain to produce movements of the mind and muscles ; the oxygen of the blood may be combined with just a sufficient quantity of other ingredients to hold it until it reaches the brain.

Now let us see what difference this would make in the size of the brain. Every electrician knows that when an adulterated acid is used a larger surface of plates is required than when a properly concentrated acid is used. This also is true of the brain—when the blood is adulterated it requires a large surface of brain to produce the same effect which a smaller brain could produce, when acted upon by blood properly and thoroughly oxygenated. Here we have a plain and simple explanation of the matter, and the proposition now is, that *the power of the brain depends upon its size and the quality of the blood*. A small brain may therefore be more powerful than a large one, if the small one has the advantage in the quality of the blood. This is no contra-

diCTION of the proposition, that the larger the brain, and the slenderer the muscles, the greater the relative power of the brain, all *else* equal ; on the contrary it is but an illustration of it.

Another branch of the subject, and one that is not without difficulties, is that which relates to the modes of ascertaining what is the condition of the blood, and what is its quantity when compared with the other parts of the constitution.

The Bilious or Venous Temperament is supposed to be caused by the predominance of the dark venous blood or bilious apparatus. The Arterial or Sanguine Temperament depends upon the predominance of the lungs and vermillion colored blood, which contains a large quantity of oxygen. The Digestive or Lymphatic Temperament is supposed to be caused by large developement and powerful action of the digestive apparatus, while the dark and red blood is comparatively less in quantity. These three Temperaments, then, are all founded upon the idea, that the oxygen is adulterated and concentrated in a greater or less degree in each case. The lymph and chyle when acted upon in the lungs by oxygen, are changed from white to red and thus become blood—the red blood when acted upon in the capillaries is changed to dark purple—so that the very dark and the very light colors indicate a deficiency of oxygen.

The Lymphatic or Digestive Temperament is indicated by soft, full, rounded forms, and in the white race by a very light complexion, indicating that the color-

less lymph is abundant—the muscular fibres are not as compact, the bones and particularly the skull is more round and smoother, with less prominences and depressions, the skin delicate, pale and fair ; the movements are not very energetic, rapid nor long continued, and mind and body require frequent *intervals of rest*. This Temperament is also generally, but not always, accompanied with width in the pelvis and abdomen. The Arterial Temperament is indicated by large lungs and in some degree by a florid, ruddy complexion ; when accompanied by small muscles and narrower pelvis and abdomen, the movements are very vigorous, energetic and various. The Venous Temperament is indicated by a dark complexion and generally compact muscles, in consequence of a deficiency of lymph and fat.

According to these premises, three men may have brains of the same size, but if one possesses the Arterial Temperament, a second the Venous and a third the Lymphatic, they will differ in character, in energy, endurance and continuance.

The very lowest animals (the radiata and molusca) are of the Lymphatic Temperament, they have colorless blood. These were among the first inhabitants of the earth and are supposed to have lived before fishes and reptiles were produced. The next animals were of the Venous Temperament, these were mostly fishes and reptiles. The quantity of oxygen in their fluids at any one time was exceedingly small, but their muscles were large and powerful. The next higher animals, are the present races of the Arterial Temperament ; their lungs

are larger and the air that they breathe is more pure and free from carbon and moisture.

We may infer from this view of the subject that the Lymphatic Temperament is the lowest, the Venous next and the Arterial the highest of the three that depend upon the fluids. The Phreno-Nervous is also higher than the Muscular. The combination of Arterial and Phreno-Nervous is the most perfect Temperament that can be conceived for Intellectuality. The lowest Temperament (by which I mean that which is the least favorable to the manifestations of mind,) is the Lymphatic and Muscular ; next, the Venous and Muscular ; next, the Arterial and Muscular ; next, the Lymphatic and Phreno-Nervous ; next, the Venous and Phreno-Nervous, and the next and highest, is the Arterial and Phreno-Nervous. For long continuance the Phreno-Venous is best, but for the manifestation of much power in a short time, the Phreno-Arterial is best.

The Temperament changes at different periods of life. In the commencement of human existence—in embryo—the Temperament is purely Lymphatic ; not a particle of red blood is seen ; next, the Venous Temperament prevails a short time before birth, and man is like the fish and reptile ; at birth, the Lymphatic and Venous Systems still predominate, though the Arterial has commenced its career ; as the child progresses to maturity the Arterial System gradually increases, until it arrives at its climax ; if at this time the Arterial is still inferior to the Lymphatic or Venous, it always will be—it

is constitutional. In some persons the Lymphatic always retains the predominance, though at times there may be a struggle made by the Arterial and Venous for the mastery, especially at puberty. Some, again, are naturally Venous, and this system early predominates over the Lymphatic, but never rises to the Arterial. Some are also constitutionally predisposed to the Phreno-Arterial; in such persons, at a very early stage, even in childhood, the Arterial-predominates over the Lymphatic and Venous, and the Phrenic over the Muscular; in such cases it is precocious and liable to exhibit premature genius, decay and death.

It seems to be more indicative of health and longevity, to see the Lymphatic and Venous predominate until the age of puberty, and then the Arterial gradually take the lead and keep it until after middle age, when the Venous and Lymphatic again resume their sway, and lead to second childishness, and mere oblivion.

The Lymphatic and Venous is the Temperament of childhood, and is apt, when it predominates at maturity, to be accompanied with something of the characteristic imbecility of childhood.

The Arterial is the Temperament of boyhood, and the Arterial, Lymphatic and Venous of girlhood, and is accompanied with beauty, vivacity and a love of variety, with aversion to long continued exertion.

The Balanced Temperament is the prerogative of manhood when all the powers are in equilibrium; but the Digestive, Lymphatic and Venous soon acquire a predominance which the Arterial never regains.

REMARKS

ON NEW ORGANS.

HUMAN NATURE.—The author was the first to call the attention of Phrenologists to the fact, that those who have high foreheads are most disposed to study Human Nature ; such are Shakspeare, Scott, Burns, Rosseau, Voltaire, Jonathan Edwards and most of those who have excelled in their knowledge of character. But I account for this by saying, that the Conforming Socials, when combined with the Reflectives, give this peculiarity. Kindness makes us notice strangers, Imitativeness makes us sympathise with them, Credenciveness makes us listen curiously to what they say, and the Reflectives make us philosophize upon it ; these, together with the operations of the other powers, give us a knowledge of character. I deny that there is any one organ of Human Nature, as Mr. Fowler, Dr. Buchanan and some others pretend.

SUAVITY.—The same reasoning which refers Human Nature to the Conforming Socials, also refers Suavity to the combination of Kindness and Comparison, and not to any distinct organ.

SUBLIMITY.—I know not who it was that first suggested this organ and located it precisely where I do the or-

gan of Hope, but I do not hesitate to say that its existence is a mere phantasy. Sublimity cannot have a distinct organ—I mean distinct from other well known organs. Submissiveness may be considered as one element of Sublimity, giving a consciousness of the power and grandeur, and awfulness of great things. *Credenciveness* is another element of Sublimity, by giving the consciousness of the probability of that which is really exaggerated and unnaturally elevated. Many other organs may thus contribute to produce sublime ideas. But, after all, scarcely two can be found to agree as to what they mean by Sublimity, and it is a pity to encumber this noble science by such follies as the organ of Sublimity. Any man who will carefully examine the heads of his acquaintances, will find Hope in the very place where Sublimity is located by Combe and Fowler.

CONCENTRATIVENESS.—It is undoubtedly true that those who are small where Inhabitiveness is located, are disposed to be wandering, not only in their habits of living but also in their conversation; but this fact by no means justifies the idea of Concentrativeness, as it is generally adopted. I regard Concentrativeness as an incidental effect of Inhabitiveness, not as a primitive function of that part of the brain.

MATRIMONIAL ATTACHMENT.—An organ which gives a tendency to matrimony has been proposed, but not a particle of evidence has been adduced of its existence nor of its probable location.

NEW ORGANS OF PHRENO-MESMERISM AND NEUROLOGY.

A large number of new organs have been proposed by experimenters, who fancy that they have discovered them by means of exciting the organs of mesmerized subjects ; and Mr. Fowler actually declares, that he has himself established and verified these new organs, thus discovered, by his examinations of the head. I can only say in this place, that all these pretensions are ridiculous and unworthy of serious notice; though in my *Philosophy of Mesmerism and Phrenology*, I have taken the trouble to refute them for the benefit of those who are entire novices in the matter.

GROWTH OF ORGANS.

Notwithstanding all that has been asserted, it is not true that by exercise the Phreno-Organs grow during one generation, so that an organ can be made large which otherwise would have been small. I do not think that by ever so much exercise the form of the skull can be varied the twentieth part of an inch in twenty years.

Observers have been misled on this subject, by several circumstances, some of which I will mention.

1. The skull is covered by muscular integuments which vary in thickness, in some places, at different periods of life, and in different conditions of the health, so as to make a difference in the diameter of the head of more than an inch. This circumstance has led some to suppose that the Phreno-Organs had grown to this extent during a certain brief period, when in fact they had not grown at all.

2. The bones of the skull and of the face change by a regular law of developement, in all healthful persons alike, and nearly in the same degree in all. The bones of the forehead in childhood and in mature age, are very different ; the frontal sinus becomes developed, the superciliary ridge, the zygoma, and the mastoid and corrugator muscles all develop and enlarge, so as to entirely change the appearance of the head, and induce

unskilful observers to suppose that the growth of the brain has produced all this difference in the external appearance.

The brain itself undergoes changes by the regular and natural developement of its parts—some parts being more developed at certain ages. Whether the organs are exercised or not the head will tend to assume the form which was possessed by the ancestors at the same age. Now if it were true that the organs of the brain are capable of being developed by exercise in the manner claimed by phrenologists, there could be no such thing as national forms, nor family forms; a negro might by peculiar exercise, have at thirty, or even at twenty, the superior Caucasian features of skull. Surely no one can believe this! no phreno-physiologist who deserves the name, will pretend that a Hottentot can become a Franklin in one generation, by any amount of exercise of his organs: yet if the assumptions of some of our zealous but unreflecting friends are admitted, this is a legitimate result.

No one insists more than I do upon the importance of exercise and knowledge to give power to organs that are small. Exercise, and education and knowledge bestow skill and facility in the use of even small organs, but they cannot make them large in one nor even in six generations. I wish, therefore, to be distinctly understood as denying the common doctrine, that exercise, during one generation, can convert a small organ into a large one, or even to one of medium size.

THE BRAIN.

THE BRAIN IS NOT THE ORGAN OF THE MIND.

The Brain is, in my opinion, the organ of voluntary motion, and I entirely dissent from the received opinion, that it is the organ of Mind in any other sense than any other collection of nerves of sensation and voluntary motion are its organs. The hand may be said to be the organ of the Mind with as much propriety as the Brain may be so denominated. The motions which animals and men make when they eat, proceed from Alimentiveness; those which they make when they breathe, from Pneumativeness; those which they make when they kill, from Destructiveness; and when they fight, from Combativeness; but these motions are not *mind*, as we generally understand it. By mind we mean thought and feeling—we mean *consciousness*; but consciousness is not the function of Alimentiveness nor Destructiveness, any more than it is the function of the hand. Consciousness is possessed by animals that have no Destructiveness nor Constructiveness. Consciousness is possessed by all animals, however limited their other powers. All the results of Physiological, Ana-

tomical and Phrenological reasoning and experiment, seem to me to point to the medulla oblongata as the seat of Consciousness, and to the Phreno-organs which constitute the Brain, as the source of peculiar muscular motions. The Phreno-organs cannot excite the muscles to produce their peculiar contractions without sending their influence through the medulla oblongata, where the conscious power resides, and rousing it to action. Thus an active state of consciousness is produced by the impressions which the Phreno-organs make upon the medulla oblongata. But this does not make the Phreno-organs themselves the organs of Mind any more than the optic nerve or the finger is so. The Phreno-organs are so many avenues or passages which conduct an impressive influence to and from the medulla oblongata where consciousness resides.

ANATOMY OF THE BRAIN.

The anatomy of the Brain and spinal cord and nerves harmonizes in a remarkable manner with my division of the Phreno-organs of the Brain, into three classes, *Ipseal*, *Social* and *Intellectual*.

1. The Brain and spinal cord are in two equal and essentially symmetrical halves, called *hemispheres*. Why this is so—why the brain is in two halves, I cannot tell. Probably the same reason that a bean, a pea, or a leaf is in two halves, and so are all seeds that are denominated dicotyledons. Is this in any way related to the positive and negative forces? I leave this for those who

are more skilful than I am, to investigate. I have never seen any enquiry upon the subject, yet there is probably some important principle of nature involved in this fact.

2. The two halves of the brain are connected by commissures or bridges, three of which are possessed by all animals that have distinctly organized brains which can be dissected ; these three are called in man, the anterior, middle and posterior commissures ; and it should be noticed that this fact coincides with my division into Intellectual, Ipseal and Social Classes ; and each of these commissures probably connects the opposite halves of one of these Classes.

There are several other parts which seem to perform the function of Commissures, that is to say, they unite the two hemispheres in the manner of bridges ; but they are not possessed by the lower animals, and are therefore not essential, though they may perform important and useful functions. One of these is the *corpus callosum*, another is the *pons varolii*, another is the pineal gland.

Each hemisphere is divided into three Lobes by all anatomists, the Anterior, the Middle and the Posterior ; and it was so divided before the time of Dr. Gall ; though no one suspected, until I called attention to the fact, that the three lobes were the local habitations of three distinct classes of organs.

4. Each lobe has a distinct artery to nourish it ; and thus we have the anterior, the middle and the posterior arteries of the brain.

5. The spinal cord, besides being divided like the brain, into two halves, right and left, has each half subdivided into three columns, anterior, middle and posterior; the anterior column terminates in the anterior or Intellectual lobe of the brain; the middle column terminates in the middle or Ipseal lobe of the brain, and the posterior terminates in the posterior portions of the brain, where the Social Class originates.

6. The functions of the body and limbs to which the brain and spinal cord are related are divided by Riche-rand, into those related to self, those related to society and those related to the acquisition of knowledge.

7. A careful and philosophical analysis of the functions and nature of the Phreno-organs, which have been discovered, demonstrates to a moral certainty, that the organs on the side of the head are *Ipséal*, or related to self, that the organs on the back and top of the head are *Social*, or related to society, and that the organs on the front of the head are *Intellectual*, related to knowledge of the surrounding objects which is needed to gratify the Ipséal and Social propensities.

8. As animals rise in the scale of being, as it is commonly called, that is, as they become more and more intelligent, the organs of each class receive superadditions in a way which shows that they (the three classes) are in some respects, independent of each other, but all the organs of one class are intimately connected, being, as it were, mere modifications of each other, or rather, each superadded organ being a mere modification of its predecessor in the same class.

USES OF THE BRAIN.

When we speak of the Brain we refer to it as an organ possessed by the vertebrated animals only. Vertebrated animals are so called because they possess a back bone containing the spinal cord and a cranium containing a brain. The skull is in truth but a continuation of (a superaddition to) the back bone, and the brain is but a continuation of (a superaddition to) the spinal cord. In all vertebrated animals there is a set of nerves, called nerves of sensation, which convey impressions from the external part of the body and head to the brain, and also another set of nerves which convey from the brain to the limbs and muscles an influence which produces voluntary motion. We have the brain then receiving nerves of sensation and sending forth nerves of motion.

There is a small central portion of the brain where the nerves of sensation and the nerves of motion are only separated from each other by a small space. This central portion is possessed by all vertebrated animals, whatever other parts are wanting or deficient. It is called the *medulla oblongata* and is, in my opinion, the organ of Consciousness—the *sensorium*, where all the fibres which constitute the Phreno-organs, concentrate and communicate with the nerves of motion and of sensation. In this central sensorium the mind resides. The number of nerves and the directions in which they run, to and from this centre, differ in different animals,

according to their forms and the circumstances in which they are usually placed. The number and character of the Phreno-organs also differ in different animals according to their dispositions and talents. Man has a greater number of Phreno-organs superadded to the medulla oblongata than any other of the vertebral animals have, and it is believed that the simplest fishes have the least.

Naturalists divide the vertebral animals into four classes, according to their degree of simplicity or complexity of mental character.

Thus : FISHES, REPTILES, BIRDS, and MAMMALS.

In *fishes* the spinal cord and nerves are nearly perfect, but the brain is little more than a continued nerve or mere oblongata.

In *reptiles* the brain is a very little more developed.

In *birds* it is much developed compared with the size of the animal, but still it is smooth upon the surface and deficient in some apparently important parts, such as the corpus callosum and pons.

The *mammals* are so called because they nourish their young with milk from teats or mammæ. At the head of this division is man, with his complicated brain, its furrowed surface and convolutions, and its commissures. Next below man is the ourang, and the only difference in the structure and appearance of this animal's brain from that of man is, that a few convolutions upon the surface of the human brain are wanting in the ourang. The brain of the dog is still more deficient in the higher convolutions, and differs from the ourang even

more than the ourang does from man. The cat's brain is yet more simple; and the brain of the Rodents (squirrel and rat) resembles the bird, and has a smooth surface and no corpus callosum nor pons. Now it is worthy of especial remark, that all these animals have the *central* part—the top of the spinal cord, which is commonly called the *medulla oblongata*; and they all have the nerves of sensation and motion connected with it, and the fibres from the circumference of the brain all centering in it just as in man.

Now, when to these facts we add, that disease, and injuries and surgical operations have often destroyed the upper portions of the brain without taking away consciousness, we shall readily conclude that consciousness is dependent upon another portion of the brain—the oblongata—which cannot be taken away or seriously injured, without destroying consciousness.

If, then, the medulla oblongata is the true sensorium—the organ of the mind—what is the use of the large mass of brain which rises above and around it, like the leaves of a rose above and around the stem? What is the function of the Brain if it is not the organ of the mind? I answer, that

THE BRAIN IS THE ORGAN OF CONSCIOUS MOTION.

The real use of the Brain is to cause the voluntary muscles to contract. I do not mean to be understood that all the *power* which moves the muscles proceeds from the Brain alone, and none of it from the nerves

and spinal cord. When we consider the small size of the Brain in the fish and the reptile—the shark and the boa constrictor for instance—and yet when we consider their tremendous strength, we conclude that in them the brain cannot be the exclusive seat of power ; the brain in these cases undoubtedly originates and directs the Impulsives, but it does not supply the muscles with all the nervous energy which enables them to contract with such terrible force, and much of the energy must in them reside in the spinal cord and not altogether in the brain. The brain receives impressions from surrounding things, and transmits them to the muscles through the spinal cord ; and *in passing*, the current of impressions rouses and excites the nervous influence which resides in the spinal cord and nerves, and thus the combined forces of brain and nerves act upon the muscles to move them. This view is confirmed by the fact that the vertebrated animals which have the smallest brains, compared with their bodies, generally have the largest spinal cords and nerves—indeed it would seem that the size of the *nerves* is generally in proportion to the muscular force which they excite.

The voluntary motions of animals and man *commence* in the surface of the brain, pass through the conscious centre, then through the motor nerves to the muscles.

The exciting cause of these motions is the impressions made by external objects upon the senses connected with the brain; the brain being thus roused, sends a nervous current of influence to the muscles, causing them to contract and move to or from the external ob-

jects which sent the original impression. The whole operation may be well represented by a circle *H*, the top of which *B* may represent the brain, and the bottom *ms* the muscles ; the right half the nerves of sensation *S*, and the left half the nerves of motion *mo*. Now let *ms* be touched by any external object, and a movement will take place along the line *S* from *ms* to *B*, and then from *B* along the line from *mo* to *ms*. Now make another circle *N* in such a manner as to touch the circle *H* at *B*, make another circle *D* and another *E* and so on, but all these circles coming in contact at *B*, and in all of them let the point opposite *B* be represented by *ms*, and let one half of each circle be *S* and the other *mo*. Now in such a diagram the function of the brain is truly represented, for there is but one *B* for all the circles and that *B* is opposite to the *ms* of each and every circle.

In the foregoing illustration the Brain is not represented as a single organ, for the truth is, that each Phreno-organ is to all the intents and purposes of muscular motion a distinct brain, and needs, therefore, the *size* of a brain. The real function of a Phreno-organ is, to cause muscular movements and to rouse consciousness ; and if one class of animals performs twice as many kinds of motions as another, it must be possessed of twice as many Phreno-organs ; accordingly, when any animal habitually moves in a manner peculiar to its class and different from animals of other classes, we may be certain that the animal has a peculiar development of the brain, (a Phreno-organ,) which those classes

have not that do not perform those movements : thus, animals that sing, and those that tear flesh, and those that build huts have certain peculiar developements of brain, (Phreno-organs,) which are related to those operations, and in which those movements originate.

Each Phreno-organ may be represented by a circle K , at one point of which C is the conscious centre or sensorium ; opposite the point C is the surface of the brain E , where it is bounded by the skull ; one half of the circle S conveys movements from C to E , and the other half, *mo*, conveys from E to C .

This explanation is such as to simplify the Phreno-Nervous Philosophy in a remarkable degree ; for it is only necessary to understand that there are several circles (constituting one set) touching at one common point A , to constitute a brain and several other circles of a different character, (constituting another set connected with the body,) touching at the same common point A ; and that a movement in any one circle tends to produce a movement in the others, and to impress the common point A .

I consider then, that the Brain is composed of nervo-galvanic circuits which may be set into motion by external impressions ; and when thus set in motion they impress the central sensorium, producing *consciousness* ; that from the sensorium the motion is *continued* through the motor nerves to the muscles, which contract in consequence of this nervo-galvanic influence. After becoming acquainted with an electro magnetic telegraph it is easy to understand how a motion may be

propagated around a circuit composed of nervous fibres ; and when we find a Nervous System composed of such fibrous circuits, the telegraph teaches us to understand them and their *modus operandi*. When we find that the muscles are attached to these fibres and are moved (contracted) by them, we at once understand the uses of the fibrous circuits. When we find the Brain composed of fibrous circuits, in each of which peculiar muscular contractions originate, we conclude that *the use of the Brain is to originate and regulate those contractions*. When we uniformly find certain portions of the Brain large on animals that are remarkable for certain actions, and deficient on animals that do not perform those actions, we conclude that such portions of the Brain are composed of fibrous circuits in which such motions especially originate, and that such motions do not originate in the other parts of the Brain.

When we find all the fibres of the brain connected with one common point we deem that point to be a very important one. When we find all the nerves which communicate with the muscles, connected also with the same point, we are still more impressed with its importance. When we find that all animals, from the highest to the lowest, possess the same structural connection with this point, whatever else they may be deficient in, and finally, when we find that any other part but this may be destroyed without destroying consciousness, we are prepared to admit that if the mind has an especial central seat, here is its location. All these things we can easily comprehend and understand, for they are analo-

gous to the laws of mechanics, chemistry and electro magnetism, with which we are already familiar : but when we are called upon to explain the nature of mind unconnected with organization, mind in its own disembodied essence, we can give no answer, no explanation, not even a conjecture ; the light of nature goes out, and we must rely upon the supernatural illumination or content ourselves in darkness. I consider consciousness an ultimate fact in philosophy, as incapable of explanation as the origin of matter, of motion or of God.

MEASUREMENTS.

The first step towards a correct examination of heads is, to obtain a *standard of proportion and size*. An indefinite idea of proportion is obtained by practice. After noticing a thousand faces, or trees, or buildings, we naturally form some notion, more or less definite, of the general and average form and proportion of their parts, so that when we see one which has some part proportionately larger or smaller than the other parts of the same thing, we almost unconsciously compare it in our minds with an ideal average or standard which we have thus acquired. Just so it is with the examination of heads: the first time a tyro examines a head he is struck with the prominence of Cautiousness and pronounces it enormous, but after he has examined a thousand heads he would perhaps return to the first which he examined, and pronounce Cautiousness to be no more than of medium size: for by this time he has learned that any well balanced head has certain prominences. The same remarks might be made of Parentiveness, Causality and Firmness—while on the other hand Submissiveness would be pronounced small, and so also would Inhabitiveness, Eventuality and Amativeness, because in the normal head these parts are usually somewhat de-

pressed, or at least it may be said that they do not present any prominences unless when very large.

How are we to determine what is the standard of size and proportion? It has not yet been done by any phrenologist, and can only be done by very great labor and the most consummate skill. I frankly confess that although I have attempted it, and have done something towards it, the task is yet incomplete. It is easy for any arrogant person to publish a bust and say that it is a true standard—a perfect head; and most people will perhaps suppose that it is so, provided they have never taken the trouble to reflect on the matter, or are so constituted as to be naturally disposed to be influenced by the dicta of those who assume to have infallible knowledge by instinct and intuition. To men, however, who are imbued with the true inductive spirit of modern science, such pretensions will only seem to be the offspring of vanity. But how are we to obtain a true standard? I answer that it must be done by the actual measurement of an immense number of heads of persons of the same age, sex and race, and then these measurements must be averaged; this average will be a standard; but it will only be a standard for that class thus measured. It will be no standard for persons of a different age, or sex, or race.

The head of an Iroquois and the head of a Hottentot, the head of a German and of an Irishman, will be found so different that the measurement of a million of the one race, would give no proper standard for judging the average of the developements of the other; so also the

heads of women and the heads of men are different, and one can afford no standard of the other: the heads of children are different from those of youth, and both from those of adults, while old age presents another form peculiar to itself.

Certain organs also are developed at certain ages and their activity characterises those ages. Now I acknowledge again that I have not, and never have had, in my possession the proper data for forming a correct idea of the standards for the different races sexes and ages, and I have no reason for believing that any one else has a better standard than myself. No man has probably made more or more careful examinations ; and of course I have acquired some notion of the sizes and proportions which approximate to the true standard ; but much is yet to be done. What we very much need, and what we have not yet obtained, is a set of measurements correctly taken, by persons whose skill is undoubted, of subjects whose sexes ages races names and histories we know; measurements of the head in various directions, length breadth and highth, by some fixed and judicious rule of measurement which will give a correct idea of the actual dimensions in one direction at least, of the person's head at the part where each Phreno-organ is claimed to be located. Nothing should be left to caprice, nor to the discretion of the one who measures. He should be tied inexorably down to some definite rule, so that when he made his report it would not be his *opinion* but his performance which could be submitted to our examination.

The only plan which I have ever heard suggested which is unexceptionable, is that of Professor Jocelyn, of New-York city. He proposes (if I recollect aright) a craniometer founded upon principles similar to those by which we determine the latitude and longitude of the various places of the earth, or in the heavens; and this so arranged that we can measure the length of a radius from a given centre to the surface of the head, at as many places as there are, or are supposed to be, Phrenno-organs. Having, by means of a sufficient number of measurements, obtained under the sanction of a scientific association, determined upon the average size of heads and proportion of heads, so as to fix a standard of proportion,—we may then tell a person precisely how large his head is compared with such standard, and also the proportion of one organ of his head to the rest of his head compared with such standard of proportion.

It would be difficult to imagine any thing more ridiculously absurd than the present mode in which all the practical phrenologists in this country at present examine heads, and pretend to tell with scientific and professional gravity, that one organ is precisely three and another is six and another is seven; and what is worse, in utter defiance and contempt of common arithmetic and common sense, they persevere in marking a majority of the organs above the average : doubtless this is done to flatter the persons examined. If the plan which I propose could be carried out thoroughly and faithfully, any one could examine a head as well as the most experienced practical phrenologist, for it would all be reduced

to a simple matter of measurement. For instance, suppose it were found that by examining several thousands of Anglo-Saxon heads, that the average highth of the head from the orifice of the ear, is, in a man at the age of 30, five and a quarter inches to Firmness; four and a half the distance from the orifice to the most prominent part of Parentiveness; four and three-fourths to Eventuality; six inches from Destructiveness to Destructiveness, and five and three-quarters from Cautiousness to Cautiousness. Now if we wished to determine the proportionate size of Firmness to the other parts thus measured, we might add all the numbers together and compare the measure of Firmness with the sum of all the others. Thus, take the above numbers :

| | |
|--|----|
| From the orifice of the ear to Pa. . . . | 4½ |
| do do do to Event. . . . | 4½ |
| From Destructiveness to Dest. . . . | 6 |
| From Cautiousness to Caut. . . . | 5½ |
| <hr/> | |
| Equal to | 21 |

In this case Firmness bears to the other organs measured the relation of 5½ to 21, or of 21 to 84. Now suppose another person comes to us to have his head examined. Having this standard for our guide, we might measure from the orifice of the ear to Firmness and find it four and a half inches; to Parentiveness five inches; to Eventuality five inches; from Destructiveness to Destructiveness five and a half; from Cautiousness to Cautiousness five and three-quarters, amounting to twenty-one and a quarter. Then we should say his Firmness

as to the other organs as four and a half is to twenty-one and a quarter, or as eighteen is to eighty-five. We should have a sum in the rule of proportion, thus : as eighty-four is to twenty-one, so is eighty-five to the answer required, which is twenty-one and a half nearly; now the actual measurement is but eighteen, whereas to be up to the standard it should be twenty-one and a half.

By measuring the head of one person with whom we are well acquainted, we can obtain a standard for comparison which will be perfect as far as it goes; for we can measure afterwards any other whom we do not know, and just so far as his head is in the same proportion as the known head, just so far, all else equal, he must agree with him in natural character; and just so far as the proportion departs, so also does the character; assuming Phrenology to be perfectly reliable.

In most cases I have no doubt it would be more interesting to compare with some well known person than to compare with a general average standard. Take a person whose character we know well, measure his head carefully, then compare others with him—for according to phrenologic rules, the difference of heads and characters must correspond. Even if the practical phrenologist should, after measuring the head carefully, proceed in the present indefinite manner of numbering organs, he would be likely to be much more exact—being thus guided and restrained by actual measurement.

If I were now to have a friend at a distance whose head I was desirous to have examined, I know of no

person in this country in whose skill I have confidence, and upon whose opinion I could rely as I could upon actual measurements—let me have these and I could compare them immediately with those of others whom I know, and thus ascertain the comparative character.

MEASUREMENTS OF THE BODY TO ASCERTAIN THE TEMPERAMENTS.

Many remarks which I have made concerning the measurement of the head to obtain certain and definite knowledge concerning the size and proportion of parts, apply equally to the Temperaments. Examiners are in the practice of pronouncing authoritatively that such a person has the Nervous, the Sanguine, or the Lymphatic Temperament ; but it would be much better if some definite and well grounded facts could be given as the foundation of their opinions, or if they have no such facts, it would be better to say that their decision is merely conjectural, or at best an approximation.

The Phreno-Nervous Temperament, in my opinion, depends upon the relative disproportion of the size of the Brain, (and perhaps of the nerves also,) to the muscles. I think that a large head connected with small and slender muscles is indicative of a Phreno-Nervous Temperament, but a small brain connected with large muscles is indicative of a Muscular Temperament.

Now, this being admitted, it follows that a correct measurement of the principal limbs and muscles, and a correct measurement of the brain, will give us much

more useful information than the present unscientific method of conjecturing from the general appearance. It is now quite common for two practical phrenologists to give opinions directly opposed to each other concerning both the Phreno-organs and the Temperament of an individual ; not only so, the same phrenologist sometimes gives different opinions at different times, especially if he does not know that he has examined the person before. This is enough of itself to prove the imperfection of the present system of examinations. It is useless to attempt to disguise the fact, that phrenological examinations have degenerated into the merest quackery. Madame A*****, the fortune teller, proceeds upon precisely the same principles as our practical phrenologists, that is, she *guesses from appearances*, and sometimes guesses aright and sometimes wrong, she judges by the dress, speech, manners and attendant circumstances, and avails herself of every hint which the credulous subject drops, and mixing up some actual but indefinite knowledge of phrenology and physiognomy ; all this, with the occasional aid of a few runners and tattlers, she really tells more than any of our most boasting phrenologists, without half their egotistical pretensions to science. She looks into futurity and pasturity—tells the number of your children—how many wives or husbands you have had, and how many you may have yet to enjoy. In short she will tell any thing which she is paid for telling ; she charges you fifty cents and sends you away. If you tell her it is all a sham she laughs at you and offers to tell a different story for

another fee. I am quite serious in saying that I would as soon give half a dollar for her opinion, as that of any practical phrenologist who is now perambulating the country, and I assure my readers that one is worth just as much as the other ; that is to say, they are both worthless. Perhaps I ought, in justice, to go further and say that they are not only worthless, but the scientific pretenders are absolutely injurious, on account of the discredit which they tend to throw upon a science which is capable of being made of immense value, if fairly and honestly applied in an accurate and judicious manner.

I cannot better illustrate these remarks than by referring to Mr. L. N. Fowler's Phrenological Almanac. (*I have not the article before me and I quote from recollection.*) He there gives an account of his examining the head of a Dr. Pitman : he says, that he pronounced the organ of Self-Esteem (Imperativeness) to be small—in a scale of one to seven it would only be ranked three. Not more than five years afterwards he was called upon to examine the same head again, and not recollecting that he had examined it before, he pronounced the organ of Self-Esteem to be large, so that in a scale of one to seven it would be ranked six. Being called upon to explain this blunder he said, “that the Doctor had been during the five years much of the time engaged in politics, which had exercised his Self-Esteem so as to make it grow from three to six in that time.” !!

Now I do not hesitate to assert that the normal exer-

cise of an organ would not produce this difference in less than a thousand years. The probability is, that the Doctor's head had not perceptibly changed at all.

Another illustration of the same character, is found in the examinations which Mr. O. S. Fowler made to determine the truth or falsity of the new organs, which the Rev. Le Roy Sunderland and Dr. Buchanan pretended to discover, by Mesmeric Neurology and Pathetism. (*See Introduction.*)

It is now admitted by Mr. Sunderland himself, that the organs of the brain cannot be excited in the way that he and Mr. Fowler supposed that they had been. In my work published in 1845, on the Philosophy of Mesmerism, I exposed those errors thoroughly, and since that time they have been abandoned. But what shall we say of Mr. Fowler's accuracy in examining crania? He says that he has examined hundreds and even thousands of heads and the result is in favor of the new organs, yet no such organs exist!! Is it not evident that there must be something wrong in his method of examining?

Since it is now known that the new organs thus discovered never had existence, except in the regions of fancy, I ask, how could Mr. Fowler verify them by his examinations of heads? Shall we be permitted to say that he must not be believed when he asserts that he has thus verified them? or shall we say that his examinations are so loose and inaccurate that nothing can be established or disproved by them? Whichever view we take of the matter, the result is equally discreditable to

Mr. Fowler, and the friends as well as the sceptics in phrenology may reasonably refuse to rely afterwards upon any other scientific assertions which he may think proper to make.

In a moral point of view there could be no objection to the present method of making examinations, if it were frankly stated to the persons examined that accuracy is not attainable, that there is a great liability to error, and that the decision of the phrenologist is merely his judgment, founded upon indefinite knowledge. If such an honest method as this were adopted no one could complain ; and if errors were committed, the grossest mistakes would only lead to more careful examinations, and the adoption of more accurate methods. When men pretend to be already infallible, it is in vain to attempt to improve them, and the only alternative is to expose them and put the public on their guard.

The developement of the chest is, when compared with the developement of the pelvis, an indication of the relative amount of the Arterial Sanguine Temperament ; and I should much prefer to have a person tell me the precise measurement around the trunk at three points, viz: under the arms, at the waist, and the pelvis, than to be told by some pretender that the Temperament is Sanguine or Lymphatic. Again, in regard to the complexion, it might be stated directly and definitely that a person has light blue eyes and yellow hair, and soft pale skin, or dark blue eyes and chestnut colored hair and florid skin, or black hair and eyes and yel

low skin, with leanness. This would be definite and would be a good foundation for the judgment—or at least we should know what the judgment is founded on and could judge for ourselves of its accuracy.

Tell me precisely a person's complexion, and his height, and then tell me how much he measures around the chest, waist and pelvis ; then how much he measures around the instep, ankle and leg, the length of his foot and limbs ; and the measurement around the wrist, the middle of the fore arm and half-way between the elbow and shoulder, and around the neck ; tell me all this, and let me also know the size and form of the head, and I will not ask you to tell me his Temperament, nor to show me his chart. Any one can apply this rule for himself, and decide according to the rule what the Temperament is, and what the character is according to Phrenology.

The head might be measured from the orifice of the ear, (the *meatus auditorius*) to each Directive organ, and also to each Social. Each Ipseal might be measured from the organ on one side to the corresponding organ on the other side, and in addition to this the three highest Ipseals should be measured from the opposite *meatus* to its centre. Amativeness should be measured from one mastoid process to the other, besides being measured from the *meatus* to the mesial line. Number should also be measured from one organ to its opposite and from one *meatus* to the organ on the opposite side. Perhaps it might be a good rule to measure each organ that is near the mesial line, but not actually on it, from

the opposite *meatus*. I am now supposing the measurement to be made with callipers, but it would be much better to use a graduated craniometer, which might be easily so contrived as to give the latitude and longitude of each part measured so as to prevent any misunderstanding as to the precise location of organs. A craniometer may be made in the usual manner, like the bale of a kettle, exactly a half circle with its axis passing through each *meatus*, and held in its place by small knobs passing into the *meatus*. The centre of this semi-circle might come exactly to the mesial line ; to one of the knobs at the *meatus* might be attached another smaller semi-circle at right angles to the large one, and so marked and graduated as to correspond in degrees with the larger one. Now the degrees on the large semi-circle would show the latitude of an organ, and the degrees on the smaller semi-circle would show its longitude ; and by means of a moveable slide, the distance from the skull to the edge of the large circle might be measured ; deducting this from the semi-diameter of the large circle, the remainder would be the distance from the centre of the brain to the surface of the skull ; assuming the centre of the brain to be in a line with the axis of the circle, which axis passes through the *meatus*. A phrenological society would do well to employ a man to use such an instrument for a sufficient time to obtain a standard of proportion as a guide for future examinations.

After every means in our power has been exhausted to obtain exactness, we shall still have more than

enough uncertainty in our results ; for we have not yet learned the *boundaries* of any of the organs, nor have we learned the precise functions, nor even the very existence of all of them; and their modes of operation are still unsettled. Nothing is yet perfect in this beautiful science but the vain self-conceit with which it is promulgated and practiced by some of its noisy advocates.

S U M M A R Y

OF THE PECULIARITIES OF THE PHRENO-SYSTEM OF PHILOSOPHY, SET FORTH BY THE AUTHOR, AND WHICH ARE NOT TAUGHT BY ANY OTHER PHRENOLOGIST.

1. He denies the brain to be the organ of the mind, and considers it the organ of voluntary motion, each organ being the fountain of a class of peculiar motions and the medulla oblongata being the seat of the mind.

2. He denies that any of the organs grow in consequence of exercise during one generation as much as phrenologists pretend that they do ; and he denies that the changes which the size and the form of the skull undergo, at different periods of life, are caused by education, employment or any voluntary exercises of the individual. He deems it improbable that the brain grows or varies more than the sixteenth of an inch during life, in consequence of any amount or kind of exercise.

3. He denies the common doctrine of phrenologists concerning large heads, and he thinks that a very large head (unless it is accompanied with large lungs) is an indication of weakness, and a want of proportionate energy of character, while, on the other hand, a small head and large lungs indicate a tendency to prompt

and vigorous action without much tendency to sedentary deliberation.

4. The nature of consciousness or mind is unknown, but in this life its only real use is to enable us to move in such a way as to gain the objects which our natures require—mind is subservient to muscular motion.

5. The brain is constituted essentially of three classes of organs, which are developed from three different radical points at the base of the brain, like three trees; one class originates Self-Relative (Ipseal) actions, a second class originates Society-Relative (Social) actions, and a third class (the Directives) directs the actions to their proper objects.

6. The Bilious Temperament is related to the dark venous blood.

7. The organ of *Sanativeness*—this is situated just below Destructiveness, and in proportion as it is developed animals and man are capable of experiencing the feeling of bodily pain. No other phrenologist has ever suggested this idea and no organ for this feeling has been proposed.

8. The organ of *Pneumativeness* which contributes to give prominence to the anterior portions of the middle lobe of the brain, and causes the cheek bones to occupy a more prominent position, was first suggested by the author. It was denied by other phrenologists, and afterwards admitted, (and so also were Sanativeness and Flavor,) by some of them, because that they found (as they supposed) that it could be excited in mesmerised subjects; but since it has been found that the or-

gans of the brain cannot be excited in this way, they have been silent upon the subject. This organ conveys impressions of suffocation to the mind from the lungs.

9. The organ of *Flavor* or the perception of the odor, savor and chemical qualities of food &c. The author discovered this organ and published an account of it in 1839.

10. The author denies the existence of the faculty of Individuality and also of Form, and appropriates the space which has been allotted to these organs by Spurzheim, to the other organs around these, namely : Extension, Direction and Eventuality.

11. The author denies the existence of any especial organ of Sublimity, of Human Nature, of Suavity or of Matrimonial Attachment ; but he was the first to announce that the persons who excelled in the knowledge of character have high foreheads.

12. The author thinks that Hope is the propensity to migrate.

13. He regards the organ called Wit, Mirthfulness, or Playfulness as the organ of Experimentiveness—the impulse to experiment. He considers the cause of sport and play, to be an excess of the arterial stimulus producing activity, which during leisure is apparently spontaneous, and is called *sportive* or playful action. This condition of things is favorable to the manifestation of Experimentiveness, and it is apt therefore to show itself in a sportive form, but its primary function is to impel to experiment, to extricate the individual from difficulty.

14. The organ which Gall called Poetry, and Spurzheim Ideality, the author denominates Perfectiveness, the impulse to improve ; and instead of regarding it as related exclusively to the fine arts, he deems it as properly related to the useful arts only, and the fine arts are the results of its operation in leisure, or in excess, or under peculiar circumstances.

15. The organ which Gall called the organ of Pride and Spurzheim Self-Esteem, the author denominates Imperativeness—the impulse to command.

16. The organ which Spurzheim called Veneration, the author denominates Submissiveness—the impulse to submit to superiors.

17. The organ which Spurzheim called Marvelousness, the author denominates Credenciveness—the impulse to act upon the assertions and testimony of others, and thus to substitute what we suppose to be their perceptions for our own actual perceptions.

18. The author considers each organ of the brain as related to a certain class of objects, which are adapted to stimulate the organ to its proper action. The office of the Directive or Intellectual organs is to discover and point out the proper objects for the action of the Impulsive organs.

19. The Directive organs are often imperfect or inexperienced, so that they miss the true objects which the Impulsive organs demand, and are misled by the resemblance of false objects to true ones, so that they direct the Impulsives to act upon erroneous objects. This is *idolatrous* action. The account of each organ

should therefore distinguish the action of organs when excited by their proper objects from their idolatrous actions when excited by counterieits.

20. In 1838 the author discovered and published an account of the relation which exists between the development of the Belligerent, Prudential, and Industrial Ranges of Ipseals and the teeth, lips, nose and ears, showing that the uncommon development of one of these Ranges with an uncommon deficiency of the others, was in animals and man harmoniously accompanied with a peculiar form of the mouth and nose; all other phrenologist at that time were silent on the subject of Physiognomy. Spurzheim had published a work in which he attempted to show that there is no foundation to Physiognomy. But the author flatters himself that he has discovered the true and natural foundations of what he has denominated Phreno-Physiognomy, or the harmony between the form of the brain and of the face.

21. A person resembling most the parent of the same sex is generally smaller, and has a deficiency of the qualities of the opposite sex.

EXPRESSIONS OF OPINION.

Extract from a Report on the Phrenological Classification of J. STANLEY GRIMES; by E. N. Horsford, Professor of Natural History and Mathematics in the Albany Female Academy. Adopted by the Albany Phrenological Society, September 3, 1840.

“The considerations which Mr. Grimes has presented in support of his division of the cerebral organs into three classes are of three kinds:—ANATOMICAL STRUCTURE, NATURAL HISTORY OF ANIMALS, and ANALYSIS OF THE MENTAL POWERS. Of these, the committee have been unable to perceive the value which Mr. Grimes seems to attach to the *anatomical facts*. As a class of truths, they harmonize with this classification, and may therefore be said to lend it some support; but alone they must be regarded as far from contributing sufficient ground for this division. The occurrence of the fundamental organs of each class at the base of the brain, and the regular gradation of the powers, from Amativeness to Credenciveness, through the socials; from Alimentiveness to Hopefulness, through the Ipseals; and from Individuality to Causality, through the Intellectuals, corresponding with the succession of animals in the scale of beings, from the lowest orders up to man, are certainly in beautiful harmony with, and go to sustain the last and most important consideration upon which the classification rests. In the analysis, Mr. Grimes shows that all the powers of each class perform certain specific functions that have a generic character in common. All the powers of the Ipseal class are related to the individual, those of the Social class to society, and those of the Intellectual class to knowledge. He also shows that each of the powers of the several groups in each class have a sub-generic character in common. The first four socials, Amativeness, Parentiveness, Adhesiveness and Inhabitiveness, have for their object the continuation of the species and the establishment of society; those of the governing group, Imperativeness, Approbateness, Firmness and Conscientiousness, have for their object the maintenance of government in society, and the administration of justice; those of the conforming group, Submissiveness, Kindness, Imitativeness and Credenciveness, have for their object the perfection of society, by ‘obedience to government, condescension and kindness to all our associates, and conformity to their manners, habits and opinions.’ In the Ipseal class he shows, that the powers of the corporeal range are related to the nourishment and preservation of the body; that

those of the carnivorous range are most strongly manifested in the animals that feed upon flesh, and procure it by the destruction of life ; that Cautiousness in the herbivorous range characterizes the peace-seeking, ruminating animals ;* that those of the rodentia range distinguish the whole order of animals to which the beaver and squirrel belong ; that those of the human range are fully developed only in man. He makes Playfulness the link in the Ipseal chain, which connects man with the lower animals ; the other organs of this range being exclusively human. He shows that men who have a development corresponding with that of animals, belonging to either the carnivora, herbivora, or rodentia, are, so far as their Ipseal character is concerned, instamped with the dispositions peculiar to the carnivorous, herbivorous, or gnawing animals. The Intellectual class, with the exception of a division into ranges, he considers as a whole, and treats the organs in their order of succession, commencing at Individuality, and proceeding through the first and second ranges of percepts to the reflectives.

" From this hasty view of the principal systems of arrangement among the powers of the mind which have hitherto received attention, the committee pass to the more direct comparison of the classification of Mr. Grimes with that of Dr. Spurzheim. In doing this, it may be well to notice some of the principles of classification in nature, since correspondence with them can alone give perpetuity to any system ; and since they constitute the only true standard of merit. Among those which, in phrenology, are obviously important, may be enumerated the following :

" I. Powers immediately related in functional character should be arranged in the same division.

" II. Powers not directly related, but differing in attributes, should be arranged in different divisions.

" III. The order of succession of the organs anatomically considered, and the relationship of the powers according to metaphysical analysis, should harmonize with each other.

" If a classification is defective when viewed in the light of either of these principles, it is manifestly imperfect ; and that classification against which, when tested by these principles, there are found fewest objections, is the most perfect.

" In noticing Spurzheim's classification, it was observed that Language, manifestly low in the scale of percepts—inasmuch as it is possessed by almost every individual of the animal kingdom, and the organ of which is at the very base of the brain—is ranked next to the reflectives. It was also seen, that Alimentiveness, a propensity related wholly to the individual, is associated with Amativeness and Philoprogenitiveness, which are beyond question related to the species. He has placed in separate subdivisions, Adhesiveness, Approbativeness and Benevolence, making the first an animal propensity proper, the second an affective power common to man and animals,

* Secretiveness is thought by Mr. Grimes to distinguish the Herbivora. It is also manifested in a high degree by the Carnivora. The essential question, however, is whether the associated organs perform analogous functions.

and the last a power proper to man. While it is plain that Adhesiveness characterizes man, even in his higher walks, as much as animals, and more so than most, and that Approbativeness, though common to man and some animals, cannot be claimed to be possessed by all inferior creatures, it is equally plain, from facts adduced by Gall, Spurzheim and Combe, that Benevolence distinguishes several orders of lower animals. This view leaves the alternative of regarding those instances where animals present a developement of the powers not in conformity with the classification as exceptions to a general rule, or as considering the lines of distinction as improperly drawn. As no arrangement like the above is proposed by Mr. Grimes, none of the above objections apply with force to his classification.

"Since the authors of the classification before us draw the same line, and give it the same direction between the intellectual faculties and the affective faculties, or propensities, the further question of relative merit resolves itself into the following inquiries.

"1. Is the distinction between sentiments and propensities maintained by Spurzheim, founded in nature?

"2. If it be not founded in nature, are all the powers of the Ipeal class according to Grimes, related to the individual; and are all the powers of the Social class related to society?

"1. Combe says in his remarks upon what distinguishes sentiments from propensities, that 'Acquisitiveness is a mere impulse to acquire; but Veneration gives a tendency to worship, accompanied with a particular emotion.' Acquisitiveness is made the representative of all the animal propensities, and Veneration of the moral sentiments; and the argument based upon them is applied to the two genera.

"It is true that the evidence here to be adduced is in Consciousness, and therefore may perhaps be thought difficult to present; but as the laws of the mind are immutable, and as the germ of every mental power is possessed by every sound mind, it may be fairly presumed that testimony upon a point of such importance is not altogether shut out from view. Let there be taken Firmness from the moral sentiments, and Combativeness from the animal propensities. When the former is in action, the possessor feels an impulse to resist the influence of others, and to maintain any position he may have assumed—a tendency to fixedness—and this feeling or impulse is called an emotion. When the latter is aroused, the possessor feels an impulse to oppose whatever may be in his pathway. Now between the two, is there any difference beyond the particular *character* of the attribute? Is there any thing amounting to a superaddition? If there be not, this distinction of Spurzheim is without existence in nature.

"2. Are all the powers of the Ipeal class, according to Grimes, related to the individual, and those of the Social class to society? In other language, it may be asked, could each power of the Ipeal class be brought into legitimate exercise, though the whole species besides the individual were annihilated—and could any of the Social class be legitimately exercised without the being of society?

"A detailed reply to these interrogatories would involve an analysis of all the powers of the two classes, a task whose execution it cannot be conceived could be brought within the limits of this report.

"That these two generic functions are respectively characteristic of the two classes, it may be remarked, is not denied, since Carmichael and Besseires have admitted its truth among the lower powers of the two classes, though they were unable to perceive its extension through the whole. From a careful examination of the analyses, the ground of distinction between the two classes, and their limits seem to be well established. The subdivisions of the two classes appear among the obvious arrangements of nature. Of the Ipseals, the corporeal range has relation clearly to the demands of the physical system. So nearly allied in function are Combativeness and Destructiveness, that the language of their respective analyses almost seems to be applicable to a single power. No two, in many respects, appear so nearly related as Secretiveness and Cautiousness; and the propriety of associating Acquisitiveness and Constructiveness is obvious, for the hoarding of possessions demands a place of reception. The powers of the last range, according to Mr. Grimes' analyses, appear all related to the improvement and the perfection of the individual; they seem to point to higher and nobler spheres of action than any of the preceding ranges, and are therefore justly separated from the lower powers.

"Of the Socials, all the powers of the *establishing* group have the distinguishing generic character expressed in the name under which they are arranged. This remark is equally true of the *governing* and the *conforming* groups.

"While the division of the powers into three classes, and their subdivision into ranges and groups, may be considered important and useful, the distinguishing feature, and that which to the committee constitutes the highest merit of the new classification, consists in this, that it traces the chain of functional relationship, from the lowest organ to the highest of each class.

"If Mr. Grimes' classification is founded in nature, the following are some of the advantages which may be expected from its adoption.

"1. It will facilitate the application of phrenological principles in deciding upon character from an examination of the head. Upon noticing the predominance of one class of organs, it may be said of the individual thus marked, he is Ipseal, Social, or Intellectual; or, upon observing two classes prevailing over the third, it may be said, he is Ipseal and Intellectual, or Social and Intellectual, or both Ipseal and Social. The same principle will be applicable in speaking of the development of one group, or of two groups of the Socials, and also of the ranges of Ipseals and Intellectuals. The effects of a combined development of particular groups in the different classes will be more readily understood.

"2. It will aid analysis, in ascertaining the ultimate function of each organ. Upon knowing its position, and the relation it sustains to others—with what organ it would probably act, and whether in the centre of a class, or joined to organs of other classes, its manifestations will be more readily perceived, and more clearly comprehended.

"3. It will aid in discovery, by directing the eyes of all phrenologists to limited regions of the brain, when in search for the seat of a

faculty, in whose existence they have been induced to believe. For example, if the seat of a supposed power related to corporeal wants be sought, the attention will be directed to developments and deficiencies in the corporeal range. If the function of the organ occupying the region marked upon the bust of Mr. Combe as unknown, be the object of discovery, several aids will be afforded. It must, in the first place, be either Ipseal or Social; and in the second place, it must be either a Social of the conforming group, or an Ipseal of the human range.

"4. It will furnish phrenology with new claims to the character of an established science; and by its simplicity and consistency, will induce the student to pursue its investigation with the same kind of satisfaction that now attends his study of the older sciences.

"In conclusion, the committee state, that distrusting their own abilities to discharge the duties assigned them, they entered into correspondence upon the question to be determined with several phrenological writers. They have also examined all the published works relating to the subject which they could command. And with these materials before them, after weighing the whole matter, the result is the opinion, that the classification of Mr. Grimes is a decided improvement, as it arranges the powers of the mind more nearly in accordance with the laws of natural relationship than any of the systems which have preceded it.

E. N. HORSFORD, *Chairman*
of *Committee on Grimes' Classification.*

"At the close of Mr. Grimes' lectures, delivered in the Chapel of the Albany Female Academy, the class organized by appointing Charles D. Townsend, M.D., Chairman, and Thomas W. Olcott, Esq., Secretary. Whereupon Henry Green, M.D., introduced the following resolutions, which were unanimously adopted:

"*Resolved*, That we have listened with exciting interest to the Lectures of Mr. Grimes, President of the Phrenological Society of Buffalo, on the science of phrenology.

"*Resolved*, That we believe Mr. Grimes has made new and important discoveries in Phrenology; that his arrangement of the brain into three classes of organs, viz:—the Ipseal, Social and Intellectual, together with their subdivisions into ranges or groups, is founded in nature, the anatomy of the brain, and the natural gradation of animals as they rise in the scale of being.

"*Resolved*, That we are forced to believe that Phrenology, as taught by Mr. Grimes, may be learned by persons of ordinary intelligence and observation, so as to be useful to them in their every day intercourse with society—that it is destined to improve our race, remodel the present mode of education, become useful in legislation, and in the government of children in families and in schools.

"*Resolved*, That we not only esteem it a duty, but regard it a pleasure, to encourage talents, genius and enterprise, wherever we

discover them, and in whatever pursuit, if the object and effect is the improvement of mankind—that we regard Mr. Grimes as possessing the highest order of intellect, as original in his observations and deductions, and as destined to fill a distinguished place in the scientific world.

“*Resolved*, That we confidently recommend Mr. Grimes to the attention of our fellow-citizens in different sections of our extended country, believing they will find him an accomplished lecturer, a close, accurate, forcible reasoner, and inimitable in his illustrations of the science he so triumphantly advocates.

“*Resolved*, That Henry Green, M. D., and Professor McKee, of the Albany Academy, be a committee to present a copy of these resolutions to Mr. Grimes, and request their publication in the daily papers of the city.

“C. D. TOWNSEND, M. D., *Chairman*.

“T. W. OLCOTT, *Secretary*.”

“Prof. Grimes, whose lectures on phrenology, at Buffalo, Albany, and other cities, have excited unusual interest, and elicited the warmest approbation, proposes to deliver a course of lectures in this city immediately. His System differs materially in its details from that of Gall, Spurzheim and Combe, though resting on the same general foundation. We have not yet heard him; but from the testimony of friends on whom we can place reliance, we know that he handles his subject like a master, and that those who can find time to attend his lectures will be entertained and edified.”—*New-Yorker*.

“Professor Grimes, the phrenologist, whose original and ingenious views on phrenological science have caused his lectures to be very much followed in our western cities, has arrived here, and puts up at the Astor. He brings with him most flattering testimonials, from his Excellency the Governor and others of Albany, where his last course was delivered. He proposes, we are pleased to hear, to give an opportunity to the citizens of New-York to judge of the merits of his discoveries and deductions, in what he justly terms the science of phreno-physiognomy, embracing all the phenomena developed in the brain, features, and whole organization, and character and habits of the individual, as divided into three great orders of mammalia, viz.—the *carnivora*, the *graminivora* and the *rodentia*—corroborated by illustrations from every tribe of animated nature—the only true and exact base of this interesting science.”—*N. Y. Star*.

“*New Theory of Phreno-Physiognomy*, by James Stanley Grimes, Esq.—Mr. Grimes delivered his first lecture last night, at the American Institute, to a respectable and intelligent audience. Every body present seemed impressed with the truth, force and originality of his new views on the science of phreno-physiognomy. Mr. Grimes has the merit of making himself clearly understood, and of presenting his subject under its natural divisions, and with great distinctness. He appealed, in strong and effective declamation, to the common sense of all present, and gave such familiar, graphic illustrations of his analysis of the temperaments, and of the language of the passions,

displaying the powers of mimicry and eloquence to great advantage, that all present, we believe we may with truth say, were convinced that the theory of the Professor is based upon practical sound sense and indisputable facts."—*Ibid.*

"*Lecture on Phrenology.*—Professor Grimes, we are happy to hear, has consented to repeat his introductory lecture on phrenology this evening, at the rooms of the American Institute, rear of the City Hall. The views on the science of phrenology, presented by Professor Grimes on Monday evening, were entirely new, and elicited a universal request from the audience for a repetition on this evening, and we trust all who feel an interest in the subject will attend." *N. Y. Times.*


"*The Lectures on Phreno-Physiognomy, by Professor Grimes.* Mr. Grimes will continue his course to-night, at the American Institute. The subject being one of particular interest, viz :—the highest range of the *ipseal* faculties, as he calls them, or those peculiar to man, as distinguished from all other animals. Mr. G.'s last lecture was received with great approbation, and fully sustained his bold original theory, which has the merit of producing conviction, because we have before remarked, its illustrations are drawn from the only sure foundation for these investigations."—*N. Y. Star.*

"Mr. Grimes commences a third course of lectures to-night, having been engaged to deliver the same before the Mechanics' Library Association, at their lecture room in Crosby-street, near the corner of Grand. The popularity of this gentleman is increasing daily, as is evinced by the flattering demands upon him by the most respectable literary institutions of our city.

'We understand, the lectures of Mr. Grimes, at the Crosby-street Institute, before the Mechanics' and Tradesmen's Library Association, are so crowded that it is next to impossible to obtain admission. Last night a great number had to go away. We felt sure that when this gifted and luminous expounder of the only true laws of phrenological science should have a hearing, he would daily gain more and more converts to his views on this interesting subject."—*N. Y. Star.*

"*Phrenology.*—This science, which seems strongly based upon truth, however erroneous may be some of the theories deduced from it, and however mistaken some of its professors may be in its application, nevertheless appears to be slowly gaining a strong hold upon the faith of the multitude. A new and popular lecturer on this subject is now in this city, and will deliver a course, as will be seen by the advertisement. Mr. Grimes gave an introductory lecture last evening. His first regular lecture will commence this evening. His mode of illustration is exceedingly happy and forcible. Possessing a great fund of humor, he tickles his audience into a roar while conveying much important information—so, his hearers are both instructed and exceedingly amused at the same time. We cannot tell, of course, how the lectures will wear ; but he seems to have made a decided hit in the beginning. We understand that he has made some practical

experiments of his theory at the College, with great success, hitting the characters even of those who attempted to mislead him. We perceive that Mr. Grimes brings with him flattering testimonials from a number of well known individuals in the larger cities, and the Phrenological Society of Albany have published resolutions highly commendatory of him and his system."—*New-Haven Palladium*, 1841.

“ Mr. Grimes' Phrenological Lectures have been exceedingly well received in this city, by the class in attendance. As he progressed with his course, his hearers increased, and those who were in constant attendance were apparently more and more interested with every succeeding lecture, to the close of the series. We do not believe Mr. Combe is his superior, in any sense, as a lecturer on this science, and we know he is altogether his inferior in many particulars. The following resolutions express the opinions of most if not all of Mr. Grimes' hearers in this city."—*New-Haven Palladium*.

On Friday evening last, after J. Stanley Grimes, Esq. had delivered his concluding lecture on Phrenology, in the Exchange Saloon of this city, the audience remained and a meeting was organized by calling His Excellency, Gov. EDWARDS, to the Chair, and appointing W. E. ROBINSON, Secretary. Whereupon the following resolutions were proposed and unanimously adopted :

Resolved, That we have listened with increasing interest and delight to the course of lectures just concluded by James Stanley Grimes, Esq., on the Science of Phrenology.

Resolved, That we believe Mr. Grimes has made many valuable discoveries and improvements in the Science : That we admire his lucid explanation of the connection and harmony between the organs of the brain and those of the body, and that his classification and arrangement of the Phrenological organs appear to be founded in nature.

Resolved, That we take pleasure in recommending Mr. Grimes as a pleasing, original and able lecturer, that, whether in this country or in Europe, where we understand he intends to lecture on this science, he has our best wishes for his success and happiness.

Resolved, That the Secretary of this meeting be appointed to present a copy of these resolutions to Mr. Grimes.

WM. E. ROBINSON, *Secretary*."

New-Haven, Dec. 12, 1840.

“*Mr. Grimes' last Lecture in Hudson.*—On Friday evening last Mr. Grimes completed his *second* course of Lectures on Phrenology, in this city, before a numerous and highly respectable audience. At the close of the lecture JOSIAH W. FAIRFIELD, Esq. made a few appropriate remarks complimentary to Mr. GRIMES, and proposed that the audience should resolve itself into a meeting for the purpose of passing resolutions, expressive of its sense in regard to Mr. Grimes' lectures. Whereupon Col. CHARLES DARLING was called to the Chair, and J. R. S. VAN VLEET appointed Secretary.

J. Sutherland, Esq. then rose, and after some remarks expressive

of the pleasure and gratification with which he had listened to Mr. GRIMES' able exposition of his system of Phrenology, offered the following resolution, which, on motion of J. W. Fairfield, Esq. was adopted :

Resolved, That we have listened with high gratification to the course of lectures on the science of Phrenology delivered in this city by Professor Grimes, and which have been this evening completed. That we feel it due to Professor Grimes to express our thanks for the instruction and pleasure his lectures have afforded us, and the interest we have felt in his able exposition of the principles of Phrenology. That his manner of lecturing is admirable, combining amusement with instruction, and well calculated to impress favorably all who hear him with the principles of the science. That we highly commend his zeal and ability in advancing a science the aim of which is more perfect knowledge of intellectual Philosophy and of ourselves.

The Secretary of the meeting then offered the following, which, on motion of CYRUS CURTISS, Esq., was also adopted :

Whereas, the labors of Mr. Grimes are for the present ended in this city, we deem it a duty we owe to him—to the cause of truth, and to ourselves, that we give an expression of the high gratification with which we have listened to his interesting and instructive lectures. Therefore, be it

Resolved, That we approve of his classification of the Phrenological organs—of his explanation of the temperaments, and of his new system of Phreno-Physiognomy.

Resolved, That we cheerfully recommend Mr. Grimes to the public, as an able advocate for his new and beautiful theory of the human mind, and from whose teachings we have derived in a high degree, intellectual pleasure and instruction.

On motion, it was resolved that the proceedings of this meeting be signed by the Chairman and Secretary, and published in both the newspapers of the city.

CHARLES DARLING, *Chairman*.
J. R. S. VAN VLEET, *Sec'y*."

Hudson, June 6th, 1840.

UNION COLLEGE, October 23, 1844.

PROF. J. STANLEY GRIMES :

"Dear Sir—At the conclusion of your lectures, just delivered before a portion of the students of this Institution, a meeting of the class was duly organized, and the following resolutions were adopted, as expressive of their sentiments in reference to your lectures.

Resolved, That we have listened with deep interest and the highest satisfaction, to the series of lectures on the Philosophy of Mesmerism, just delivered before us by Mr. Grimes, and that we unanimously concur in tendering to him this testimony of our approbation and respect.

Resolved, That the experiments delivered before us, have without exception been of such a character—the subjects being our fellow-students and classmates, known to us to be men of intelligence, firmness,

and Christian integrity—as to forbid a doubt of the facts, and leave us not the slightest ground for scepticism.

Resolved, That so far as we are competent to judge, the theory of Mesmerism, as presented by Mr. Grimes, is not only novel and excitingly interesting, but in perfect accordance with admitted principles of science.

Resolved, That should Mr. Grimes, as we understand it is his intention to do, publish to the world his views upon this subject, we believe they will meet with that favor from the public, and from men of science in particular, which, in our judgment at least, their present novelty demands.

Resolved, That wherever Mr. Grimes may go, we would respectfully solicit for him a candid hearing from an enlightened public, feeling assured that their experience will accord with our own, and prejudice give place to conviction, and scepticism to confirmed belief.

Resolved, That a copy of these resolutions be presented to Mr. Grimes, to be used according to his discretion.

A. NEWKIRK LITTLEJOHN, *Chairman.*"

"Professor Grimes' Lecture on the Philosophy of Intemperance.— This gentleman appeared last evening at the Tremont Temple, before a large and respectable audience. Intemperance is an old and somewhat hackneyed subject, but the able Lecturer gave quite a new form to it, and deeply interested his audience for an hour and a half.

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 We freely give Professor Grimes great credit for the very able and interesting manner in which he handled his subject. We hope we shall hear from him again."—*Boston Daily Mail.*

*"Lectures on the Science of Human Nature.—*It will be seen on reference to our advertising columns, that Prof. J. STANLEY GRIMES, of New-York, commences a series of lectures on this subject at the Masonic Temple, on Monday evening next. Mr. G. is eminently known as the author of several philosophical works, among which are "A new System of Phrenology," "Etherology," "The Philosophy of Mesmerism," etc. The opinions and positions assumed by this gentleman in relation to the human mind, as connected with the above mentioned subjects, are entirely different from those hitherto assumed by other gentlemen who have lectured upon them. Mr. Grimes comes among us with the highest possible commendations."—*Boston Daily Mail.*

*"Professor Grimes.—*This gentleman is slowly, but surely gaining a merited popularity among our citizens, without resorting to any of the usual means to acquire notoriety; hardly advertising in the public prints to inform our people that he is present with us, his audiences are nightly increasing, and are of a class which neither humbugs nor mediocrity could satisfy. His great merit is a quaint and hearty originality. He appears to be a close observer of human nature, the foibles of which he illustrates with infinite fancy and sarcasm. His

manner of discourse is peculiar ; he is exceedingly impressive in depicting the different emotions of the mind, a capital mimic, when relating the many droll anecdotes in which he abounds, and yet sober and serious when treating of the more profound themes of his discourse.

The basis of his lectures is Phrenology, being a modification of the systems of Spurzheim and Combe. He does not confine himself to the brain alone, but to the whole structure and constitution of the frame, to judge of the tendencies and capabilities of the individual.

Mr. Grimes, we understand, is a lawyer of some eminence in the State of New-York. Having had much success as a lecturer, he employs the vacant time between the sessions of the court, in promulgating his peculiar views on men and things. This is his first visit to our city in this capacity, although originally a Boston boy, where at school, we have heard it hinted, he was chiefly remarkable for the fact that he could thrash every boy in it. He seems disposed to come off victorious even now with any one, either physically or mentally, who is inclined to grapple with him, or is anxious to feel the weight of his calibre. His lecture this evening is on Hope, at the Tremont Temple."—*Boston Daily Whig*