



J. Taylor



Lewis Cass

BUCHANAN'S JOURNAL OF MAN.

Vol. I, No. 1.—JANUARY, 1849.

ART. I.—THE PRESIDENTIAL CANDIDATES.

IN accordance with the plan adopted, for illustrating the Journal of Man, I have selected for engraving, the heads of the four presidential candidates—Zachary Taylor, Lewis Cass, Martin Van Buren and Gerritt Smith.

The heads of General Taylor and General Cass, after daguerreotypes from nature, accompany the present number. The two other heads will be given hereafter, with such comments and applications of the science, as may be deemed appropriate. The characters of the men, who are now before the nation, as candidates for its highest office, are matters of deep interest and importance. On this subject, I believe that the science of Neurology may throw an important light: indeed, I have little doubt, that, hereafter, the impartial authority of science will have an important and recognized influence upon popular opinion, in the choice of candidates for high offices. In the midst of the distractions and exaggerated statements of party contests, it will be no trivial advantage to be able to look for the truth through the pure and unclouded medium of science; and to ascertain, in a dispassionate manner, the true moral and intellectual claims of the various candidates for public favor.

It might, perhaps, be expected, that, in this number of the Journal, a full application of the science should be made, to illustrate the characters of our present Presidential aspirants; but there are several weighty reasons which induce me to postpone this important duty to future numbers. Our country is now (at the time of writing) agitated by a warm political contest, in which we observe the usual amount of prejudice and angry passion. It would be im-

possible, at the present time, to discuss, freely, the characters of our political leaders, without appearing to mingle in the partizan contests of the day, to a much greater extent than is desirable. After the Presidential election shall have been decided, and the usual tranquillity of the public mind shall have been restored, the dispassionate voice of science may find a more appropriate hearing.

An additional reason for postponing this investigation of public characters, lies in the fact, that I have not yet had the necessary space to develop scientific principles, upon which the estimate must be based, or to illustrate the different processes of the enquiry. After the necessary explanations shall have been given, I propose to undertake the task of giving an impartial and critical opinion of the characters, capacities, and talents of the distinguished men, who are now our candidates for the Presidency.

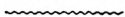
This opinion will be the result of an impartial application of scientific principles; and it will be such, I trust, as may stand the test of "scrutiny and of time." Whatever may be the popular reputation of these individuals, and whatever might be my own prepossessions, I trust that no such influences could modify the results of the scientific enquiry which is to be made. It may be proper, however, to remark, that I approach this subject with none of the feelings of a political partizan, having long regarded our political contests as of trivial importance, in comparison with the great objects—which are to be attained by other means—the improvement of science, and the general elevation of the condition of mankind.

The heads and faces of the present four candidates for the Presidency, are all of a strikingly marked and decided character. There is nothing small or meagre in their contour. They all indicate a physiological and mental stamina, above mediocrity; and, in some respects, we observe a remote resemblance in their style of character. They are marked, however, by very distinct peculiarities; and most of these have become so well known, from the conspicuous position of the parties before the public eye, that, I doubt not, the impartial portraiture by science, will be recognized, at once, as true, by a large majority of intelligent readers.

The biographical sketch and the critical investigation of these distinguished gentlemen will appear together, in a future number.

I would not claim too much for my own imperfect deductions and opinions, but I do assert the existence of a science, by means of which we may determine the true internal characters of men, as surely as the chemist can determine the elementary composition of compound bodies. In this application of the science, I claim no extraordinary skill, but undertake, merely, to exhibit the wonderful powers of science, of which my readers may easily avail themselves in the search for truth. I claim an impartial spirit and a love of truth, and hope that this Journal, while it stands as a calm spectator of the great conflicts and agitations of the world, will ever survey, with dispassionate liberality and kindness, the individuals who are performing their part in the great drama.

ART. II.—THE FIRST NUMBER.



THE JOURNAL OF MAN has been issued at the present time, some months in advance of the regular period at which it is dated, in order to present the public a specimen number, which may illustrate its general character. It would be difficult, however, by the first number, or even the first volume, to give a proper conception of its scope, and the entire character of its subject matter.

When introducing a subject so novel and extensive as the science of Neurology, it must be impracticable to proceed at once with those diversified illustrations, essays, narratives, experiments, &c., which would constitute the main body of a periodical, devoted to the dissemination of a familiar science. It is indispensable that the first volume of the Journal should present a systematic exposition of the science itself. Until this has been given, its readers could not be equally prepared for the narratives of experiments, the philosophical disquisitions, the portraiture of character, and the general application of the principles of the science—in all of which we may expect to be engaged hereafter.

In the next number, a regular series of essays will be commenced, designed for the illustration of every department of the science, presenting, in a connected manner, its fundamental principles, the facts upon which it is based, and the methods by which each one may verify for himself, all that is taught by Neurology. These subjects will be illustrated by numerous drawings, representing the brain, the cranium, the cerebral organs, the relations of the brain to the body, the philosophy of attitude and physiognomy, and the relation of the different organs of both brain and body to each other.

An important feature of the Journal, hereafter, will be an application of the principles of the science, by means of the varied resources of Physiognomy, Craniology, and Psychometry, to the illustration of extraordinary characters. Biographical sketches, accompanied by a critical scientific analysis of character, and, when practicable, by suitable engravings, will furnish interesting and instructive matter for the general reader, as well as a practical illustration of the scope and bearings of the science.

The peculiar charm of these investigations, as they will be carried out in this work, lies in the fact, that we are not only enabled to determine the characteristics of men, by means of Physiognomy and Craniology, but are also enabled, in many cases, to portray character with satisfactory accuracy, when the individual is beyond our reach. Whether living or dead, present or absent, he may be made the subject of scientific investigation. Even when his mor-

tal remains have been entirely decomposed, and no statue, bust, cast, portrait, or memorial of any sort, has preserved his lineaments, the portrait of his character may yet be sketched, with satisfactory accuracy—and, indeed, with far greater certainty than has ever been attained by practical Phrenology. The process by which this has been accomplished is, in some respects, analogous to that of Clairvoyance, but is simpler in its character, and independent of any of the processes of the Mesmeric experiments. Incredible as it may still sound to some, I have demonstrated, in many experiments, during the last six years, in the East, the West, and the South, the existence of this wonderful power, by which we may determine, positively, the character of any individual, whether living or dead, to whom this method of investigation may be applied.

In future numbers of this Journal, I hope to prove, to the satisfaction of all its readers, the existence of this power, and to show the vast range of its application. If science can thus establish a tribunal of character, which shall render an impartial and accurate verdict in all cases, the decisions of this tribunal must render important assistance, in establishing the character of the living, and in rendering strict justice in history. Whether the decisions of the science can be made infallible—whether our pictures of character shall exhibit, in all cases, the accuracy of the *daguerreotype*—depends, not upon the correctness of the fundamental principles, but upon our energy and success in putting them in practice. There is a process of *Psychometry*, or “soul-measuring,” which has the accuracy of *daguerreotypy*, but which, like the daguerreotypic art, requires perfect accuracy in the *instruments* and processes adopted.

To render this matter sufficiently clear, it will be necessary, in the first place, to explain the processes of Psychometry, and relate some of the experiments which have been made. I shall not only show the success of the experiment in my own hands, and among my pupils, but describe the methods of experimenting, so as to enable my readers to repeat them for themselves, and acquire a positive knowledge of their truth. In the second number of this Journal, the subject will be developed, and—however extraordinary these things may really be, or incredible they may appear—every reader, who has sufficient candor and love of knowledge to conduct the experiment, will be enabled to convince himself that I have not overstated the truth.

The course of our future illustrations can scarcely be defined as yet; but the general aim will be to select the most interesting specimens of character. The prominent statesmen, heroes, and authors of America will receive due attention. Such men as Clay, Calhoun, Webster, Van Buren, Jefferson, Burr, Madison, Marshall, Adams; Generals Washington, Green, Arnold, Knox, La Fayette, Jackson, Scott, Taylor, Harrison, and the heroes of our naval service; our celebrated authors, Irving, Bryant, Whittier, Cooper, Emerson, Bancroft, Prescott, &c.; from the pulpit, Edwards, Channing, Campbell, Bascom, &c.; our celebrated inventors, as Fitch, Fulton, Whit-

ney, Evans, Morse, and our scientific teachers—these, and their peers, may indicate the field of our investigations. The prominent politicians, orators, and literati of the old world, who, at times, attract public attention (the Lamartines, O'Connells, &c.), will often furnish subjects of investigation for the Journal, which, I hope, may prove as instructive, in a scientific point of view, as they will be acceptable, in supplying a variety of the most interesting reading matter. The contemporary statesmen, artists, and philosophers of Europe, will often furnish subjects of attention; and the deep interest with which we regard the names of those, who, though no longer living, still exert their influence over increasing numbers of their race, will often invite to a critical survey of their historic characters and *actual merits*. The affectionate interest and reverence with which the names of many European writers, and other influential men, are regarded, will impart a peculiar value to the critical survey which I propose, of the personal and mental characters of such men as Gall and Spurzheim, Harvey, Hahnemann, Hunter—Kant, Locke, Brown, Butler, Chalmers—Scott, Byron, Burns—Bulwer and Carlyle—Bentham and Godwin—Swedenborg and Fourier—Luther, Melancthon, Calvin, Wesley, Whitfield, &c.

There are many such names which I have in view, for future reference and illustration.

ART. III.—WHAT IS NEUROLOGY?

THE JOURNAL OF MAN is designed to be especially the expositor of that science, which I have introduced to the American public, under the title of Neurology. The first question, therefore, with its readers, will be, "What is Neurology?" This term, as employed in this work, may be considered as nearly synonymous with "Anthropology," or "the Science of Man." Its use, heretofore, has been limited to medical works, in which it has borne a technical signification, embracing but little more than the anatomy of the nervous system.

The term "Neurology" (compounded of *νευρα* or *νευρον* and *λογος*) signifies, necessarily, "the science of the nerves," or "the science of nervous matter." The brain, being the greatest mass of nervous matter in the human body, presents, of course, the greatest amount of material to the science of "Neurology," even in its most limited import. But, heretofore, so little has been known of the brain, and there has been so little philosophic knowledge of the functions of nervous matter in general, that the word "Neurology"

has suggested to the minds of medical men, rather an anatomical than a physiological science, and rather a science of the nervous cords and ramifications, than of the nervous masses and convolutions of the brain. But, since I have demonstrated the physiological and mental functions of the brain by direct experiment, it appears that the science of the brain is, by far, the most conspicuous and interesting portion of Neurology; and that the anatomy of the nervous substance, in all its divisions, interesting and wonderful as it is, bears no comparison, in interest, in magnitude, or in importance, with the science of the nervous functions. Thus, by the discovery of the impressibility of the brain, and the researches to which it has given rise, Neurology is changed from a mere anatomical description of nervous cords and masses, to a comprehensive science, embracing all the functions both of mind and body. Wherever we observe mental phenomena connected with a nervous structure, or nervous structures controlling the phenomena of life, so far does the domain of Neurology extend.

It is well known to all, that the functions of the body are directly dependent on the influence exerted by the nervous system. It is equally well known, that the brain is the governing portion of the nervous system. It is also well known and admitted, both by medical men and the public at large, that the brain is the organ of the mind, through which all our intellectual faculties and emotions exert their influence on the body, and through which all the conditions of the body exert their influence upon the mind—in which, in short, we find the center of man's existence, where his spiritual nature has its seat and appropriate offices for the performance of its various functions and for the control of the various departments of his body, from which the controlling influences proceed to sustain, impel, or check every physiological function, and through which the sympathies exist by virtue of which the various functions of the body manifest a harmonious action.

In short, to repeat this fundamental fact, the brain is the seat, the center, of man's conscious existence, in which all the transactions of mind and life are represented. Strictly speaking, it may be said, that man has no conscious existence in his body beyond the brain. It is in the brain that he sees, hears, tastes, smells, and feels. It is in the brain that he feels hunger, thirst, fatigue, pain, and pleasure. The impression of light upon the eye is not vision, until that impression has been referred to, and recognized by, the brain. The impressions of sound on the ear (as we *miscall* the vibrations that *cause* the sensation) do not constitute hearing, until those impressions are recognized at the seat of consciousness in the brain. An exhausted condition of the muscles of our limbs does not constitute fatigue, until the sensitive nerves have transmitted corresponding impressions, through the spinal cord, to the brain.

It may appear strange, at first, to those unacquainted with physiology, to affirm, that, in reality, it is neither the eye that sees, nor the ear that hears, nor the hand that feels; but that seeing, hearing,

and feeling are all transacted in the brain. Yet these truths are so familiar to all anatomists and physiologists, that I should not have adverted to them at all, but from the probability that these pages may frequently fall into the hands of readers, who have but little knowledge of anatomy and physiology. For their sake, permit me to illustrate this proposition by a few familiar facts.

Every part of the body derives its power of sensation from the distribution through it of sensitive nerves, proceeding from the posterior column of the spinal cord, and; through that, connected with the brain. When these nerves are in an excited or inflamed condition, they give the part of the body, to which they are distributed, an extraordinary sensibility, so that the slightest touch will produce acute pain. But, when they are compressed or benumbed in any way, cut or tied, they no longer carry impressions to the brain, and the parts to which they are distributed become insensible. Even a slight compression of the nerves of the lower limbs, produced by sitting in a peculiar posture, often renders the feet quite insensible.

If the back bone should be broken by a fall, and the spinal cord crushed and compressed at the point of fracture, parts of the body below this compression would become utterly insensible and impotent—not only insensible to pain by the compression of the sensitive nerves, but also paralyzed and incapable of motion by the compression of the muscular or motor nerves. The spinal cord contains the nerves both of motion and sensation; and, when it is divided or compressed, all parts of the body below the division or compression lose both motion and sensation. A man, in whom the middle of the spine has been injured, so as to compress or crush the cord, would be entirely unconscious of having a pair of legs, if he did not see them or touch them with his hands. If the injury to the spinal cord were inflicted sufficiently high up on the back, near the head, the whole body would become instantly and totally paralyzed and insensible.

Thus, we perceive, that all voluntary movement comes from the brain, through the nerves, and that all sensation takes place in the brain, in consequence of an impression carried to the brain by the nerves. But, as the brain, in reality, feels the sensations in itself, it may produce the various feelings, or sensations, independently of the nerves. Thus, in certain excited conditions of the brain, when its action becomes disordered, we *see* objects which have no existence, *hear* sounds which have not been uttered, and *experience sensations* which are entirely deceptive. A familiar illustration of the latter remark is found in the fact, that many individuals, who have had a leg or arm amputated, still continue to feel strange sensations *in* the lost limb, as it appears to them. Ten or twenty years, perhaps, after a leg has been amputated, the person experiences the same sensations in his leg or foot, as when it formed part of his living body. The same rheumatic or neuralgic pains in lost limbs may seem to continue to afflict the patient, which he endured *in them, as he thought*, while *they* were attached to his body. These

facts show, that sensations produced in the brain alone, may be as vivid as those felt with the assistance of other parts of the body.

In reality, the brain is all that is essentially necessary to the complete life of man. The various organs of sense, the muscles and the viscera, are merely supplied as instruments to the brain, and as means of sustaining its continuous healthy action. Man has a digestive apparatus, to supply the brain with blood. He has lungs, to supply this blood with air, and give it the power of stimulating and refreshing the brain. He has bones and muscles, to act, under the control of the brain, as mechanical instruments, by which to carry it about, to protect it from injury, and to operate upon the external world. It has the eye as an optical apparatus; the ear as an acoustic apparatus, to receive the impressions of light and sound; a tongue, to enable it to select appropriate food, without coming into contact itself with the substances selected; and a nervous system, diffused throughout the whole body, by which it is enabled to feel and to recognize the various influences upon its health, without coming itself into contact with external media, and by which it is enabled to note the condition of all the organs and machinery under its control, superintend their action, and preserve their health and harmony. Thus, man may be regarded as a living brain, surrounded with apparatus, by which, sheltered itself, it holds communication with the external world, and reacts on surrounding objects. By these expressions, I do not mean to exclude, or to disregard that SPIRITUAL entity which constitutes the true life of man. I speak of man as the subject of physical science, and, in speaking of the brain, I include the spiritual life connected with it. As, in speaking of the earth, or of the universe, the power and existence of the Deity are understood oftener than expressed, so, in speaking of the physical constitution of man, the co-existence of his spiritual nature is taken for granted.

With this view of the constitution of man, which is admitted by all anatomists and physiologists, it is obvious that the science of the brain is the science of man; and that by understanding the brain thoroughly—by knowing in what manner it operates upon the body—by knowing in what part of the brain the different organs of the body find their central controlling power, and by knowing, also, what intellectual faculties, passions and emotions reside in its different convolutions, and in what manner those mental faculties and passions are connected with each other and with the different physiological powers—we may ascertain the entire mechanism of the human constitution, and lay open that citadel of mystery, which has, for more than twenty centuries, baffled the besieging armies of anatomists and philosophers.

By what means then is this great scientific conquest to be gained? By what means are the intricate convolutions of the brain made to reveal their mental and physiological functions? The method is so simple and direct, that we are lost in wonder that so many ages of laborious enquiry should have passed by, and so many volumes of

idle though learned speculation, have accumulated in our libraries, without a single effort to enter this vast treasury by the most obvious and direct method—the method which common sense suggests—which is surrounded by no difficulties, and which has escaped notice principally because it was so simple and obvious—the method of *direct experiment upon the brain*.

If it be possible in any way to excite the various portions of the brain, to increase their activity or to paralyze and benumb their action, such a process must necessarily give us the same direct and positive certainty of their functions that we already have of the functions of the nerves of the eye, the tongue and the muscles. It was not until a quite recent period, that the structure and functions of the spinal nerves, and of the nerves of the tongue, were understood with certainty by anatomists. That certainty has been attained mainly by experiments upon those nerves in living animals. Centuries had passed by without any important advance in our knowledge of this subject, until the experiment of Magendie, Bell, Muller, Reed, and others, have given us correct and positive knowledge in the place of mere hypothesis. The success of this method of demonstration has even led to the remark, by Muller, that the true means for the advancement of nervous physiology is that of “experiment upon the living nerves.”

This principle I propose to carry out in a manner before unattempted, and to an extent which has never been deemed possible by physiologists. They have never supposed the brain susceptible of delicate and satisfactory experiment upon its different convolutions, in its sound normal condition. Magendie, Rolando, Flourens, Foville, and others, have made many thousand experiments upon the brains of animals by the cruel process of *living anatomy*, by slicing off particular portions of the brain, for the purpose of discovering what faculties were disordered by the loss. These gentlemen are entitled to much honor for the zeal and assiduity with which they have labored by this barbarous and unsatisfactory process to advance our knowledge, and, although they have not accomplished a great deal, they have rendered us a valuable service in demonstrating the insufficiency of such rude and mechanical measures for the discovery of the functions of the brain. Anatomical experiments upon living animals must ever be unsatisfactory, in consequence of the limited nature of their faculties and their incapacity to show, or to express the effects which our experiments have produced.

In fact, the experiments of the French *vivisectors*, in cutting open the cranium and slicing away the living brain, have resulted, for the most part, in meagre or confused deductions, on account of the fact that such processes disturb and derange the whole brain and even endanger the life of the animal, to such an extent as to render the results confused and uncertain. I shall endeavor, hereafter, to point out what little has been accomplished by this process of vivisection, but, for the present, it is sufficient to state that physiologists, generally, are agreed in condemning this process as not only cruel to the

animals, but unproductive of important results. I cannot, however, altogether condemn those labors of vivisection, which have given any additional certainty to our knowledge of the divisions and functions of the brain.

The experimental means, upon which I rely for the development of the functions of the brain and the establishment of an entire science of Anthropology, consist in the excitement of the organs of the brain of the living man, compelling those organs to exert their characteristic physiological influences upon the body, and to manifest the intellectual operations, passions and emotions with which they are connected. If it is possible, by the excitement of a particular portion of the living brain, to increase the muscular strength; by the excitement of another portion, to increase the secretion of bile; by that of another portion, to increase the activity of respiration; by another portion, to increase the activity of digestion; by another, to excite the peristaltic movement of the bowels; and by other portions, either to accelerate or retard the circulation of the blood, and give to the pulse those varied characters which it assumes in various states of health and disease—in short, if we can thus put in motion the various springs of physiological influence in the brain, which act severally on the various organs of the body, we at once convert the science of the brain, from a matter of conjecture and probability, into a matter of positive and scientific certainty.

If it is possible, by exciting a particular portion of the brain, to produce the violent mental excitement of anger; by exciting another portion, to produce serenity and good humor; to call forth from one portion, heroic resolution; from another, trembling timidity; and thus to bring forth, by exciting the various regions of the brain, all the manifestations of reason, imagination and the various passions, it is obvious that we become possessed of the true science of man—of a thorough knowledge of the manner in which the mind, through its immediate organ, the living brain, controls the body and performs its infinitely varied part in the drama of life.

This is what Neurology professes to do; and, from the endless round of experimental researches, which it shows to be possible, arises a mass of science, the vastness and variety of which defy the imagination to conceive. As the application of the telescope to astronomical investigations, opens the incalculable heights and depths of the starry universe to the eye of man, so does the application of the experimental method to the living brain, open to our view an equally illimitable universe of humanity, bright with constellated truths of the first magnitude. In man, as the master-piece of the Creator, there is an infinity far more varied and interesting, and even sublime, to appreciating reflection, than the mere material infinity of astronomy. The infinity of which I speak, belongs to the plan or constitution of our being: but in studying its actual operations, in thought, passion and action, health and disease in the living man, we learn from the individual all that belongs to the race. Man is, and has been, in all regions and all ages, essentially the same being;

and, in unfolding fully the constitution of one individual, we develop, in truth, the elements of all past history and the possibilities of all future progress.

Thus, by a simple and obvious process of experiment upon the brain, we are lifted at once to the highest regions of philosophy, from which the past and the future lie within our view.* The experimental process to which I allude, consists in exciting the brain of the living man—not in any mesmeric state whatever, but in the fullest possession of his natural and rational faculties—by means of the nervous influence of another constitution, applied to particular portions of the head and body, for the purpose of exciting the subjacent nervous substance. This method, simple to a fault, I have practiced since its first discovery in the year 1841; and now, in the eighth year of the discovery, I am enabled to affirm, that an immense number of experiments, by myself and others, have demonstrated the sufficiency of this method to solve the problems of physiology and psychology; to illustrate the entire constitution of man; and to unite, in one grand harmonious whole, the fragments of anthropological truth, which have been developed by the labors of physiologists, phrenologists, mesmerists and mental philosophers. In future numbers I propose to illustrate and explain all the details of this method of experimental investigation; to show the results which I have already attained; and to lay the whole matter before the readers of this Journal, in such a manner that each will be enabled to commence a course of experimental investigation for himself, and verify all the discoveries and doctrines which I shall announce.

Let no one fancy, because he is not acquainted with anatomy and physiology, or because he has not a scientific education, or because he knows but little of phrenology, that he will be unable to profit by this instruction. The simplicity of the experimental methods, which I propose to describe, is such, that any person of ordinary intelligence may, with a little patience, become proficient in the illustration of Neurology, without the assistance of any other instruction than that which will be given in these pages. Most persons will find in the very simplicity of the processes recommended, their principal difficulty. They will find it difficult to believe that the mere application of the hands, without any previous process or preparation, can produce effects so wonderful as those which I promise they shall witness.

The wonders of nature are sometimes concealed from us, as much by their simplicity as by their complexity. It would seem to have been a simple matter to discover a new continent by sailing forth to the west, towards a region before unknown! But all the wisdom and learning, and enterprise and ambition of Europe, shrank from this simple and obvious method of opening a new world to com-

* To some this expression may appear extravagant, but, in future numbers of the Journal, I hope to show, as soon as the subject can be fully set forth and illustrated, that it is literally true.

mercial enterprise and chivalrous adventure. The voyage was made by Columbus, and we now live in the new world to which he led the way. A similar juncture has now arrived—a new world of knowledge exists—which the savans of Europe and America have deemed utterly inaccessible. They have supposed that a fathomless and shoreless ocean—a trackless and impassable waste of waters—surrounded the present limits of our knowledge, and forbid all approach to that new world of truth, which, we now know, is easily accessible. Shall we hesitate to go forth and explore this new region? To those who desire to make the voyage, the “*Journal of Man*” proposes to furnish the compass and the chart, by the assistance of which it will be rendered a voyage of pleasure and of romantic interest.

ART. IV.—NEUROLOGY IN NEW YORK.*

QUÆQUE IPSE VIDI.

IN surveying the history of discoveries in natural science, one of the most peculiar facts that strike the view is the circumstance that for years, aye and even ages, preceding the development of some important principle, many of the leading phenomena had been repeatedly observed; and when the grand conclusion deduced from these phenomena was once announced to the world, the result excited less astonishment than the circumstance of its having been so long unperceived. Men of the most exalted genius would seem often to stumble over these facts, and even not unfrequently to pick them up and handle them, and still fail to discover their most obvious bearing. Hence it has always occurred that attempts have been made to rob the discoverer of his honors, however well merited, on the ground that certain of the essential facts had been previously well known. Thus has it been with the kindred subject of Phrenology, whose enemies, failing in the effort to subvert its principles, endeavored to show that what was true in it was not new, and what was new was not true. And in illustration of the circumstance just adverted to, that the tendency of natural phenomena is often by no means appreciated even by the most acute observers, it may be mentioned that Gall himself once struck accidentally upon one of the most important facts of “*Neurology*” without discovering the general law to which it most obviously pointed. The same remark is applicable to the experiments without number performed during the

* From the *Democratic Review*—January, 1843.

last fifty years in France, Germany, England, and the United States, upon subjects put into the somnambulic state by means of the Mesmeric process.

The earliest knowledge that we have of these discoveries in "Neurology" on the part of Dr. Buchanan, is, that in April, 1841, he was giving public lectures and experiments on the subject at Little Rock, Arkansas. We are the more particular in referring to this date, as an attempt has been made in the city of New York to establish a priority of claim, based upon experiments made in the latter part of the same year. But by this time the announcement of Dr. Buchanan's discoveries had spread, by means of the Journals of the day, over the whole extent of our wide domain. "These experiments," in the words of their author, "occupied the whole ground of Phrenology; more than doubled the number of distinct organs; and established propositions in physiology and therapeutics, of much more importance than the Phrenological doctrines which had thus been established." Instead of hastening to our Atlantic cities, in the reasonable hope that here a discovery of such magnitude would be speedily and fully appreciated, Dr. Buchanan remained in the far West, quietly prosecuting his investigations to the end of perfecting his system of Neurology. So far as regards cerebral excitability, he could not but be aware that others would, by this process, attract the public mind, and that it would be caught up even for popular exhibitions; but justly considering this as entirely subordinate to the science he aimed to establish by this means, he directed his efforts solely to the accomplishment of the scientific end in view.

As these discoveries embrace, in their wide range, not only the mental physiology of the brain, constituting *Phrenology*, but also the physiology of every corporeal organ as dependent upon special portions of the cerebral mass, it follows that it was necessary to substitute a new term. Were the functions of the brain exclusively mental, the term, Phrenology, would be sufficiently comprehensive; but as its control over the corporeal functions is not less decided and important, the term *Neurology*, or science of the nervous substance, has been judiciously selected as expressive of all the phenomena comprised within its wide limits. These two classes of functions, Dr. Buchanan distinguished by the terms *psychological* and *physiological*, which are, indeed quite expressive in their more popular acceptance; but, as the phenomena of the mind, in our present existence, can be manifested only through the cerebral structure, we cannot see that this class of functions is less physiological than the other. This double function of the brain, as demonstrated by Dr. Buchanan, we consider as its *mental* and *corporeal* physiology.

To Dr. Buchanan is due the distinguished honor of being the *first individual to excite the organs of the brain by agencies applied externally directly over them*, before which the discoveries of Gall, Spurzheim, or Sir Charles Bell—men who have been justly

regarded as benefactors of their race—dwindle into comparative insignificance. This important discovery has given us a key to man's nature—moral, intellectual, and physical; for, by this means, in "*impressible*" subjects, have become discoverable the various cerebral organs which are not only connected with the phenomena of thought and feeling, but control the corporeal functions. As man is pervaded by the imponderable and invisible fluids, which radiate from him unceasingly, such as the electric, galvanic, magnetic, and (according to Dr. Buchanan) "*nervauric*," the laws of these he would seem also to have demonstrated. He has likewise clearly established the general truths of Phrenology, corrected many errors of detail, and developed the subject with such a degree of minuteness, that it now may be said to resemble the full-grown adult as compared with the child.

"Neurology," says Dr. Buchanan, "while it incorporates the entire mass of Physiology with Phrenology, makes a revolution in the latter science. Although the greater portions of the organs discovered by Gall and Spurzheim, have been, in the main, correctly described, yet experiment has proved about one-third of the number to have been incorrectly understood. Nor does the catalogue of Gall, Spurzheim, Combe, or Vimont, embrace a sufficient number of functions to explain the diversified phenomena of human character. *

* * * The number of independent functions which may thus be demonstrated by experiment with an adequately susceptible person, amounts to one hundred and sixty-six; but, for convenience of instruction, I demonstrate usually not more than one hundred. With a subject of large brain, well cultivated mind, and high susceptibility, I have no doubt that even as many as two hundred might be shown *distinctly*."

The agent employed most generally by Dr. Buchanan to excite the various functions of the nervous system, is the same as that used in the operations termed Mesmerism or Animal Magnetism, viz.: the aura of the nervous system, which is radiated and conducted freely from the human hand. Instead, however, of putting the subject first into the Mesmeric somnambule condition, which renders the phenomena that follow highly deceptive and inaccurate, Dr. Buchanan operates upon his subject in the *waking* state, free from the mental delusions which may be supposed to pertain to somnambulism. This impressible class, which is a very limited one, may not only have a portion of the brain so energetically stimulated, by the touch of another, as to manifest its particular function predominantly; but the individual becomes equally excited when he places his fingers on the cranial regions of the cerebral organs of another person.

These characteristic and leading principles of Dr. Buchanan's system, are here adverted to merely in a general way, as they will be again brought under notice by us, both in a sketch of the principles of Neurology by Dr. Buchanan himself, and in the diversified experiments of a committee, appointed by a public audience in the

city of New York, for the purpose of investigating the pretensions of Dr. Buchanan to the claim of having enlarged the boundaries of anthropological science.

These announcements are, indeed, of a startling character, extraordinary to all, and to many wholly beyond credence. Had Dr. Buchanan lived in an earlier age of the world, when philosophy had not yet asserted its noble prerogative of releasing the mind from the bondage of superstition, instead of being regarded as a bold and original thinker and an untiring searcher after truth, he would have been dreaded, or perhaps persecuted, as a necromancer casting his magic spells over the body and soul of his victim. But, notwithstanding the wise in all ages, seeing the deceptions constantly practiced on mankind by the marvellous, have been very justly on their guard against easy credulity, it does not become the true philosopher of the nineteenth century to close the organs of his five external senses against the intrusion of any evidence which might possibly disturb some favorite and long cherished system. It does not become the philosophic enquirer to decide precipitately that any phenomenon is too marvellous for belief. Many natural phenomena, which were formerly regarded with superstitious awe, as, for instance, the *Spectre of Brocken*, which consisted of the gigantic image of a man delineated on the sky—the fact of troops performing their evolutions on the surface of a lake, or on the face of an inaccessible precipice—or the equally extraordinary phantasm of a ship's being seen in the air, in the solitude of the ocean's waste, notwithstanding no vessel was within reach of the eye—are all now satisfactorily explained by the unequal refractive powers of the atmosphere arising from its variable temperature. "It is impossible," says Dr. Brewster, "to study these phenomena without being impressed with the conviction, that nature is full of the marvellous, and that the progress of science, and the diffusion of knowledge, are alone capable of dispelling the fears which her wonders must necessarily excite, even in enlightened minds."

In like manner, to those unaware that each mental faculty has its distinct organ in the brain, the proposition that these emotions or faculties may be excited at will, as when we call forth the different notes of a musical instrument, is so startling as to be beyond credibility; but to the mind of the phrenologist, who has been wont to contemplate the great truths of his science, the announcement of such results offers no violence. This field of scientific research, which offers a harvest rich in new and valuable facts, is open to every laborer; and we find, accordingly, that it has been already entered upon by many philosophical enquirers. We, as well as many others, have witnessed repeated experimental verifications of the excitement of the separate organs of the brain, thus calling forth, in an intense degree, their natural language and action. Although the number of those having brains thus excitable is comparatively small, yet in every society of a few hundred individuals, there will be found some subjects impressible in a greater or less degree. To those

in whom scepticism is a predominant organ, we would seriously recommend the perusal of the following lines written by Galileo to Kepler, which are not the worse for having been often quoted :

"Here, at Padua, is the principal professor of philosophy, whom I have repeatedly and urgently requested to look at the moon and planets through my glasses, which he pertinaciously refuses to do."

We would now proceed to illustrate the general subject of NEUROLOGY, by bringing before the reader certain portions of a report on experimental investigations, published in the "Evening Post" of the 6th December, entitled—"Minutes of the proceedings of a Committee appointed by the public audience attending the lectures of Dr. Buchanan, to superintend experiments relating to 'Neurology,' and to prepare experiments suitable for public exhibition."

The committee met on the 4th and 5th of November, and spent several hours each day in the performance of a variety of experiments; but, as a general impression prevailed that the results exhibited were not, on the whole, of a character so marked and unequivocal as to be very satisfactory, Dr. Buchanan stated that he had relied on the expectation that some impressible subjects would be brought to the meeting by members of the committee, but that there had not been any of a character other than very imperfect and doubtful. He suggested that a sub-committee should be appointed, who could witness experiments, in greater privacy, upon some subjects who might be found unwilling to appear before so large a number as the general committee, and who would also be able to bestow more time on the investigation of the subject than could be done by the larger number. This suggestion being adopted, the following gentlemen were appointed as that sub-committee:—Rev. Henry W. Bellows, Messrs. William C. Bryant and John L. O'Sullivan, and Dr. Samuel Forry. The first named of these gentlemen was prevented by absence from the city from being present at the greater part of the experiments made, and from participating in the report.

We will present, in the first place, the conclusions of this sub-committee :

"REPORT OF THE SUB-COMMITTEE.

"The sub-committee, appointed to witness private experiments by Dr. Buchanan, beg leave to report, to the committee from which their appointment emanated, that they have held meetings, of which an account is given in their minutes subjoined. Their object has been to give the subject an attention, at the same time cautious and candid, and to present a simple statement of their observations, to serve as a basis for the deductions of others, rather than of any positive conclusions of their own, as to the correctness of those views and opinions to which Dr. Buchanan has given the name of the science of 'Neurology,' as discovered and developed by him.

"For the sake of rendering more intelligible the bearing of the

facts and appearances observed, upon those principles propounded by Dr. Buchanan, of which they are presented as illustrations and evidences, the sub-committee present also a brief and general statement of the outlines of Dr. Buchanan's system, as furnished by himself at their request.

"In justice to Dr. Buchanan, they at the same time feel bound to declare the highly favorable manner in which, throughout all the intercourse growing out of this investigation, they have been impressed by the evident intelligence, sincerity, and earnestness of convictions, and truthfulness of conduct and deportment, strongly characterizing that gentleman; and that they are fully satisfied of the honorable motives prompting his present devotion to these investigations, in the sole spirit of a student of science, a pursuer of truth, and a friend of his race. They will also add that, feeling every reason to believe in the good faith and veracity of the subjects of these experiments—independent of those experiments which were, in themselves, of a nature to preclude deception—they deem it their duty, in view of the extraordinary facts they have witnessed, to say that, although they have obtained a very imperfect knowledge of the system of Dr. Buchanan, and have been prevented by the pressure of their other avocations from bestowing on the subject as much time as would have been desirable to themselves; they have had sufficient evidence to satisfy them that Dr. Buchanan's views have a rational experimental foundation, and that the subject opens a field of investigation second to no other in immediate interest, and in promise of important future results to science and humanity.

"The different members of the sub-committee have not all been present at all the meetings described in their minutes. Some of them have, however, in private, on other occasions than those here referred to, witnessed other similar experiments, of the most interesting and satisfactory character, which are not here described, because not witnessed by them collectively, in that capacity in which alone they have to make the present report. The absence of Mr. Bellows from the city, at the time of submitting this report, renders it necessary to forego the advantage of his participation in it. The minutes were prepared by Dr. Forry, from notes taken at the time of the various experiments. The papers appended to this report are a brief and general statement, by Dr. Buchanan, of the outlines of his system or science of 'Neurology,' and the minutes of the proceedings of the sub-committee.

"All of which is respectfully submitted.

"WM. C. BRYANT,
"J. L. O'SULLIVAN,
"SAMUEL FORRY, M. D."

Every reader must determine for himself the degree of confidence to which the statements of this committee are entitled. The name of one of its members is already classical in the English language; Dr. Forry's recent excellent work on the Climate and Endemic In-

fluences of the United States has given him, though a young man, an honorable place among the scientific observers and writers of the day; while, however otherwise obscure, the remaining name is not unknown to the readers of the Review, through which he has the honor, monthly, of coming into a relation with them, grateful on the one side, and not unfriendly, it is hoped, on the other.

The following outlines of the principles of Neurology, by Dr. Buchanan himself, will, in connection with the remarks already made, afford the reader at least some general idea of the subject:

"Gentlemen—As you desire from me a sketch of the principles of Neurology, I submit the following brief statement, hoping that its brevity will not render it obscure:

"The word Neurology, as it relates to man, is but another name for the great science of Anthropology, because the science of the nervous substance necessarily includes all the manifestations of mind and life connected with or dependent upon that substance, which we know is the seat of life and the organ of the mind.

"Physiology, Pathology, Insanity, and what has been called Animal Magnetism, Mental Philosophy or Phrenology, Cranioscopy, Physiognomy, Education, &c., are partial views of the phenomena and systematic laws of the human constitution, which constitute the science of Neurology.

"The characteristic feature of that system of Neurology which I have brought before the public is, that it has been established by means of cautious and decisive experiments, and may easily be verified by any individual who has the necessary patience to pursue the investigation of the subject.

"The experiments consist in exciting the various functions of the nervous substance in the cranium or the body by the application of the proper stimulating agents. Every article of the *materia medica* possesses in some form, or to some extent, the power of exciting and modifying the functions; Galvanism, Electricity, Magnetism, and Caloric, possess efficient exciting powers; but no agent that I have used possesses so efficient, and at the same time, so congenial an influence, as the aura of the nervous system.

"This Nervaura, which is the agent by which one individual makes a physiological impression upon another, when in contact, is radiated and conducted freely from the human hand. The experiments which I have made in your presence, consist in applying this Nervaura to the various portions of the brain, upon which it may make an impression through the cranium and the face, which present no obstacles to its transmission.

"To develop important results from such experiments, it is necessary that we should make them upon persons whose cerebral action is easily excited, or deranged by slight influences. It is necessary that the portion of the brain which we excite should be so energetically stimulated as to become predominant over all the other portions, and to manifest its functions in a pure and distinct form, unmingled with any different or counteracting functions. It is also

extremely desirable that the experiments should be made upon persons whose mental cultivation, sagacity, and integrity, render their descriptions of their own sensations cautious, exact, and worthy of implicit confidence.

"As my experiments have been repeated by many Phrenologists and others, and have generally been attempted by them during the state of somnambulism superinduced by mesmeric operations, I would remark that such experiments are often highly deceptive and inaccurate. Experiments should be made in the natural condition of the subject, and free from the imaginative excitement which belongs to somnambulism. As far as I have heard of the result of the somnambulist experiments, I know of but few cases in which the operator has not been misled by his imaginative subject.

"An extensive course of experiments upon persons of intelligence, in their natural state of mind, has established and placed beyond a doubt, the fact that the brain, as a psychological organ, manifests an immense number of mental functions, and that there are no phrenological divisions in the brain, other than the anfractuositities of the convolutions, and that there are no simple primitive cerebral organs manifesting a pure special single function, unless we carry our sub-divisions so far as to make a primitive organ of each constituent fibre of a convolution.

"The number of cerebral organs which we may recognize is, therefore, a matter of arbitrary arrangement, as we may divide the brain, for convenience, into three, four, or five regions, or with equal precision and functional accuracy, into three, four, or five hundred. From fifty to a hundred subdivisions would be as many as we can learn to locate correctly, and is a sufficient number for practical purposes.

"It is established with equal certainty, that the brain is as much a physiological organ as a psychological organ, and that it maintains its sympathies with the body, and exercises its controlling power over it by means of certain conductor organs at the base of the encephalon, by which it radiates volitional, circulatory and secretory influences to the muscular system and other tissues of the body. Each portion of the brain has an intimate relation or sympathy with its particular region of the body, and exercises a modifying influence upon the general circulation and innervation of the system. It is through the conductor organs that the special relations of the brain and the body are established, and all the physiological effects which may be produced by operating upon the brain, may be as easily, and, indeed, more promptly evolved by operating upon the corresponding conductors, which transmit their influence directly.

"Thus do we explain the relations of the brain to the body, and by carrying out the mathematical laws of cerebral physiology, we show the influence of each hemisphere of the brain upon the opposite hemisphere, and through that upon the correlative half of the body.

"To explain the relations of the mind to the brain, and the pe-

cular mode or laws of their connection, would not be a more difficult task than to explain the relations between the brain and the body—either of which would seem to the novice a chimerical undertaking.

“This higher psychological philosophy, however, constitutes no part of the psychologico-physiological system to which I have called the attention of the public, and which aims at extensive educational and medical utility. Of this system, I have given you a few imperfect illustrations, and regret that I have not had the opportunity of illustrating, in your presence, the beneficial influence which may be exerted upon the sick.

“The experiments with medicines applied to the fingers, were designed to illustrate some important principles in reference to human impressibility, and the mode in which medicines produce their effects.

“The experiment of bringing an impressible person into contact with the head of another, illustrates the laws of the transmission of the nervaura, and presents us a method of accomplishing a perfect diagnosis of disease, as well as of exploring the physiology of the brain, and ascertaining the characters of different individuals. This method, which I have been for some time engaged in applying to practice, must ultimately take the precedence of all other methods of diagnosis and examination, either for character, for disease, or for the establishment of scientific principles.

“In conclusion, permit me to remark, that the principles of Neurology have been established by innumerable coincident harmonious facts, similar to those which you have witnessed, and that unless the testimony of our senses is utterly false, or unless a large number of intelligent observers have been suddenly seized by an epidemic and methodic insanity, a new class of facts has been developed, and a new science exists, which imperiously demands the attention of all lovers of truth or friends of man, and which, if even half of its bright promise is realized, must originate a great and happy era in the history of human progress.

“With high respect, enhanced by the cordiality, courtesy and promptness with which you have engaged in your recent duties, I remain,

Your humble servant,

“JOS. R. BUCHANAN.

“Messrs. Bryant, Forry and O'Sullivan.”

We shall next introduce to the reader some extracts from the minutes of the sub-committee. As these minutes alone would cover twice the space allotted to this article, we are obliged to exclude the greater portion; and to decide which shall go in, and which shall not, we find no easy task.

“Sub-committee met on the 11th of November. Present, Mr. Bryant and Dr. Forry.

“The person experimented upon was a lady residing near Poughkeepsie, aged about forty, and the mother of a large family. She declared her entire ignorance of the principles of phrenology, as well as the locality of any cerebral organ; and lest some doubts

might be started upon this point, the certificate of the gentleman who accompanied her has been appended.

"In these experiments, Dr. Buchanan designed to show that an individual who is highly 'impressible,' may not only have the special functions of the brain excited by having the corresponding portions of his head touched by another person, but may receive the 'nervauric' influence to the same extent, or nearly so, directly from the brain of another, simply by his placing the end of a finger on the region of a special organ upon such person.

"The lady having, at the request of Dr. Buchanan, placed the ends of her index and middle fingers upon the upper part of Dr. Forry's forehead, in the region, as designated by phrenologists, of the *reflective* organs, and being now asked what mental emotions she experienced, replied—'I have a desire for knowledge, and particularly to know all about this subject.' Dr. Buchanan then asked her what her motive was in desiring this knowledge, to which she answered that she was influenced alone by the mere love of knowledge. Dr. Buchanan next raised her fingers so as to touch, at the same time, the region of *benevolence* in Dr. Forry's head, and being now interrogated as to her mental emotions, she said in reply that she still had a desire for knowledge, but that there was now a motive added to her wish for knowledge. This motive she declared to be a 'wish to do good;' that is, she desired to become acquainted with the mysteries of Neurology, with a view to be enabled to do good to her fellow-beings. Her hand was next placed in the region of Dr. Forry's *self-esteem*; instantly the whole tone of her manner changed. From being modest and retiring, she suddenly became bold and assuming. Jerking her hand from Dr. Forry's head, she remarked abruptly—'I do not like this sensation—I feel covetous.' To the question of Dr. Buchanan, why she felt covetous, the reply was—'I would wish to get means to make a display in the world.' Placing her hands now, at the request of Dr. Buchanan, successively on the upper fore part and on the back part of Dr. Forry's head, she described the sensation of the former as mild and more agreeable and causing ennobling feelings, whilst that of the latter was unpleasant, but imparted strength to her system—phenomena which accord with the principles laid down by Dr. Buchanan. These experiments were repeated with similar effects upon the head of Mr. Bryant; but when she came to the region of skepticism, she suddenly jerked away her hand, saying—'I feel nothing.' This result, as Dr. Buchanan remarked, is a phenomenon that follows invariably.

"As Dr. Buchanan's system modifies very much that of the phrenologists, it may be here mentioned that his divisions of the functions of the brain, as delineated externally on the skull by certain regions, as those of skepticism, insanity, intoxication, temperance, levity, &c., is, for the sake of convenience, adopted in these minutes by the sub-committee, without intending to express an opinion as to the accuracy of all its details.

"These were the leading experiments, which were here cut short, as the lady was about leaving in a steamer for her home.

"**CERTIFICATE.**—At the request of the committee, I would state that I am well acquainted with the lady above referred to, and well know her to be entirely unacquainted with phrenology, the location of any of the organs, or any of its principles.

"LEWIS WAKELEY,

"29 Greenwich street."

"Sub-committee met November 16th, 1842. Experiments on Mrs. R. Present, Messrs. Bryant, O'Sullivan, and Dr. Forry.

"Upon our arrival at the residence of Mrs. R.—a lady of intelligence and respectability, whose health is generally delicate—we found her complaining of some chilly and uncomfortable sensations. Dr. Buchanan began by holding his hand for some time on the organ of 'calorification,' and silently placing his hand on the various portions of her head, which he thought might have a restorative effect. In the course of three or four minutes, her chilliness was removed, and her feelings were comfortable. Dr. Buchanan then remarked aloud that he would endeavor to excite the organ which is the cause of perspiration, to such a degree as to produce a distinct moisture on her hands. In three or four minutes we found, on examining the hands, that they were perceptibly moist. His patient being now in an agreeable condition, he proceeded with other experiments.

"It is a part of Dr. Buchanan's theory that each finger is the conductor of a particular influence, such as the galvanic, electric, nervous, &c.; and accordingly she describes the sensation produced by touching the ends of his fingers with her own, as very different in each one. Her descriptions correspond somewhat with the effects attributed to each of these agents. In the ring finger, she says there is a 'jerking motion,' which may be compared to the successive thrills caused by electric agency. On touching the middle finger, she avers there is produced a 'stiffening sensation of the wrist.' The index finger caused an effect, which she describes as 'stimulating and warming to the arm.'

"Dr. Buchanan next attempted to excite *mirthfulness* by placing his finger on the region of that organ, and the result followed in a striking degree, three or four times successively. On her part, the tendency to laugh was irresistible, and she each time buried her face in her handkerchief until relieved by Dr. Buchanan. The result intended to be produced was in this, as well as the following instances, stated in writing, and the person operated upon was kept wholly ignorant of what was anticipated. It was now proposed that Dr. Buchanan should excite the organ of *language*, but in attempting to do so, his finger touched the locality of the adjoining organ of *calculation*, when suddenly Mrs. R. arose from her chair and commenced counting the flowers on the wall paper. Counting the number in a horizontal line, and then in a perpendicular one, of a side

of the room, she would immediately announce the sum total. So completely engrossed did she become in this, that she took no notice of the by-standers further than as they interfered with her view of the wall. Her mind seemed entirely abstracted, as it were in a monomania of calculation. This experiment was repeated several times with the same effect. One time she wished to count the threads in a flower of the carpet.

"In the next place, Dr. Buchanan excited the organs of *self-esteem*, *combativeness*, and *firmness*—that of *philanthropy*, as he remarked, being naturally strong. The effect was truly remarkable. Under the influence of these organs, she commenced an animated conversation with the company, in which she took the lead, and soon became the sole speaker. She began by expressing the opinion, that she was qualified for a higher station in life than she has always occupied, and that she possessed intellectual powers sufficient to exert a controlling influence over public opinion. She proceeded to vindicate in an eloquent manner the rights of her sex, during which she gesticulated with great vehemence, and her countenance displayed an almost unnatural brilliance. She spoke in glowing terms of the good she might do, if placed in her proper sphere; and when now reminded by Dr. Buchanan that the domestic sphere is the one proper for woman, and that her own feeble constitution and delicate health would incapacitate her for such exertions, she replied in a proud and energetic manner—'But the mind can overcome the body's weakness.' As she was continuing her harangue in the same vehement and thrilling style, Mr. Inman, Dr. Buchanan's assistant, who was standing behind her, approached and placed his fingers on the organs, as designated by Dr. Buchanan, of *humility* and *physical relaxation*. For about five seconds, no apparent effect was produced. In the next five, her manner changed greatly; her voice lost its force; the brilliant animation of her countenance almost immediately disappeared; and her arms fell languidly by her side. The change in her countenance was perhaps the most remarkable we have ever witnessed under the influence of any mental emotion. Under the former influence, her features assumed a marked and striking expression, as if flushed with excitement; her eye was brilliant and sparkling, and her whole bearing was that of exalted enthusiasm. But under the influence of humility and despondency, her countenance, in less than a minute, lost its tense and flushed appearance, and exhibited the collapse which always follows high excitement of the human system; her voice became feeble, her eye was downcast, while tears trickled over her cheeks; and presently, in a sad and moralizing tone, she gave utterance to the expression—'Ah! but I am only a poor weak woman! and what can she do?' She now spoke of her own weakness and the general frailty of her sex; and in this desponding strain—the language of physical and mental depression—she continued until self-esteem, combativeness, and firmness were again touched. In perhaps a single minute she was roused once more to the highest

excitement. The unwiped tears were soon dried upon her cheeks. In this condition she was even more determined than previously, and seemed resolved that nothing should prevent the accomplishment of her great designs. 'I will crush under foot,' she exclaimed, 'the monster, *Prejudice*, that man has erected as a barrier around woman;' and she proceeded to show, in the same excited language, that she possessed powers of mind qualifying her for the accomplishment of great benefits to mankind, instead of being confined to the duties of domestic life. The organs of *humility*, *despondency*, and *relaxation*, being again touched, the same remarkable change, above described, was renewed. The flushed, excited countenance again collapsed; her arms fell languidly at her side; she again spoke of the frailty of woman, and despaired of ever accomplishing her great designs. In this state she burst into a flood of tears, and burying her face in her handkerchief, she said, 'Gentlemen, excuse me.' Mr. Inman now restored her by placing his hand on what are called the restraining organs, and by touching that part of the intellectual organs which gives a clear and correct consciousness of our condition. She now looked up, and, with a smile, said, in a natural tone, 'I fear, gentlemen, I have acted very foolishly.'

"It was next proposed to produce *dreaming*, which Dr. Buchanan did by placing his finger on the special organ, lying on the side of the head anteriorly. She soon closed her eyes and seemed unconscious of surrounding objects. Her hands and lips were continually moving, as if in reference to objects seen in a dream. When waked up, she said that many scenes had passed before her, but that her memory of them was indistinct. She seemed to have a shadowy recollection of many vivid colors and brilliant objects, without the power to form a connected chain among these events of the land of dreams.

* * * * *

"Dr. Buchanan now placed her hand upon that region of his head, which he regards as the source of innervation to the viscera of the body. The effect she represented as agreeable. Placing her hand in the same position upon Mr. Bryant, in whom the digestive functions possess less vigorous action, the influence conveyed, she described as not so agreeable or apparently beneficial to her. She was then requested to place her hand on the side of Mr. Bryant's forehead, upon which she spoke of increased intellectual activity and stronger powers of reasoning. Whilst her hand was thus resting on Mr. Bryant's intellectual organs, it was quietly moved so as to touch the organ of ideality alone with one finger. Under this influence her head hung as if in a profound reverie—her hand dropped by her side, and she made no reply to Dr. Buchanan's enquiries as to the effect produced. Having again placed her finger on the same point, her head once more dropped, and she let fall her hand by her side; and being now urged repeatedly to say what effect she experienced, she at length replied, '*It gives me a very pleasing sadness.*'

On being further asked by Dr. Buchanan whether it excited her judgment or reasoning faculties, she replied that it acted altogether on her imagination."

"Sub-committee met November 19th, 1842.—Present Messrs. Bellows, O'Sullivan, and Forry. Experiments on Mrs. R., continued.

* * * * *

"Dr. Buchanan next attempted to show the control which can be exercised over respiration, by exciting the appropriate cerebral organs, called by him, 'inspiration, expiration, and restraint.' Under the influence of the two former, her breathing became hurried, laborious, and panting. Under the influence of the latter, the movements of the chest became slow, and were partially arrested.

* * * * *

"Dr. Buchanan then proceeded, at the request of the committee, to excite the organ of calculation. She immediately drew back from the company in a state of seeming abstraction, and fixed her gaze intently on a house on the opposite side of the street; and on being asked what attracted her attention, she replied that she was counting the bricks in the wall of the house. She then arose and walked to the window, and still seemed intent on her favorite object. We now attempted to ridicule her strange propensity, and to dissuade her from this employment, but she insisted with much earnestness that it was both very agreeable and very rational.

"Dr. Buchanan next excited the moral and selfish feelings alternately, five or six times in succession, with the view of calling off her attention from surrounding circumstances, by the lively play of her own feelings. The former she describes as agreeable, and the latter as producing a disagreeable excitement which would no doubt have an injurious effect on her character. As he touched several points among the moral organs in succession, his hand at length reached that of firmness; and as he excited this organ and that of its antagonist, fear, she remarked that the former seemed to increase her energy, whilst the latter appeared to enfeeble or relax the system. To produce an unequivocal physical manifestation, Dr. Buchanan excited alternately the organs producing physical sensibility or sensibility to pain, and on the other hand the organs producing hardihood. Under the influence of the latter, he requested her to remove a ring from her finger, which she easily took off and replaced. Then having excited sensibility to pain, she was requested to take off the same ring, but after several attempts, she gave it up, as causing too much pain, on account of its tightness. She tried other rings upon her fingers, and found that they also were too tight to be removed without causing great pain. Hardihood being now re-excited, she removed the ring with ease. To show how complete was her insensibility to pain under this influence, Dr. Buchanan requested one of the committee to offer his knuckles for a blow from hers, to show which would evince the greater sensibility by the

contact. Although her hand was small and rather delicate, yet she inflicted several blows in succession upon the knuckles of the gentleman who offered his, with so much strength as to compel him to retire from the unequal conquest; whilst to Mrs. R., it seemed to be a matter of mere sport, productive of no pain whatever. Dr. Buchanan now changed operations by restoring her physical sensibility, when she immediately began to feel the pain from the bruising that her knuckles had just received. She now appeared to suffer much more than her antagonist; and on being requested to strike again, she could not be induced to make more than a gentle contact, which could scarcely be called a blow.

* * * * *

"These physiological experiments were succeeded by several of a more striking and simpler character. Dr. Buchanan excited the organ of pride, the exaltation of which was not continued more than a minute before she arose from her chair and left the company. She walked about the room in silence, and refused to return to her seat to undergo experiments. Dr. Buchanan now approached her and excited the organ of humility, when she immediately resumed her place. Upon being asked the reason that induced her to leave the chair, she said that she had felt an indisposition to sit there and be gazed at by a number of gentlemen. She now seemed conscious of the impropriety of leaving the company so abruptly, and promised that she would not do so again; but as Dr. Buchanan re-excited the organ of pride, it was scarcely a minute before she arose from her chair and acted as she had previously done. She was now again subdued by exciting the organ of humility, and brought back to the chair.

* * * * *

"The committee being about to retire, Dr. Buchanan, in order to place her in the most agreeable condition, touched an organ producing the most enlivening effects, which he denominates the organ of *levity*. This produced so much buoyancy of spirit, that she moved about the room with girlish gayety and lightness, and even offered to dance with any one that would accompany her. The antagonist organ being excited, she became dull and slow, and at length unable to stir. From this state she was relieved by a slight re-excitement of the organ of levity. Her husband, observing the fine effect of the action of this organ, requested that its locality might be pointed out to him, so that he might excite it whenever it became desirable to enliven her. This being done, Mr. R. held his fingers on the spot till he produced so much excitement that she could not contain herself, but frolicked around the room as if under the influence of exhilarating gas. This excessive excitement so overcame her physical powers, that she sank exhausted into a chair, apparently unwell, with a chilly rigor and other unpleasant sensations. It was now necessary for Dr. Buchanan to use means for her restoration, which was speedily effected by stimulating other portions of the brain which, he said, re-established a healthy equilibrium."

"Sub-committee met November 25th, 1842. Present, Mr. Bryant and Dr. Forry. Also, Major John Le Conte, by invitation. Continued experiments on Mrs. R.

"Before proceeding to the house of Mrs. R., Dr. Buchanan performed, at his own rooms, several experiments upon a gentleman (Mr. O., of this city), whom the doctor had discovered to be slightly impressible. It should be remarked that Mr. O. had been a total disbeliever in the reality of the *nervauric* influence, until he had felt peculiar sensations in his hand from the influence communicated by Dr. Buchanan. The object of the first experiment was to produce that somnolent state, resulting from the influence of the front lobe of the brain, which might be not inappropriately called an *intellectual* or *self-conscious sleep*. Dr. Buchanan requested Mr. Bryant to place his hands on the outer part of the forehead of Mr. O. In this position Mr. Bryant held his hands for several minutes, while the rest were observing the countenance of the subject. In about two minutes we detected a singular appearance about the eyes, soon after which Mr. O. remarked that it had passed off, meaning that he had felt a peculiar influence which had now ceased. Mr. Bryant, however, continued to hold his hands in the same position, and in about two minutes more the eyelids of Mr. O. began to quiver with a very rapid motion, and gradually closed. They opened again, winked and quivered alternately for a few moments, and finally closed firmly. About this time we observed that his arms fell relaxed by his side, and one of his legs resting on the other fell to the floor, as if he had suddenly fallen asleep. We spoke to him, but he made no answer. We asked him whether he was fully conscious, and he nodded assent. Being now requested to open his eyes, he raised the eyebrows several times to their extremest height, stretching the membrane of the eyelids, and rolling the eye-balls, as if making a great effort; but he did not succeed even in getting the lids apart. Mr. O. was allowed to remain in this state a few moments, unable to relieve himself. Dr. Buchanan then showed Mr. Bryant how, in order to relieve Mr. O., to apply his fingers on the back part of his head. The fingers were applied accordingly, and almost instantly the eyes of Mr. O. flew open, and he was restored to the command of his speech. On resuming this faculty, he said that he had been conscious all the time, but that it was utterly impossible to open his eyes or to speak, notwithstanding he had made the greatest effort.

"Dr. Buchanan now attempted with his own hands to produce *animal sleep*—a condition of the system in which the intellectual faculties are arrested, and consciousness is destroyed, while the animal functions are vigorously sustained. For about two minutes Mr. O. evinced no effect on his countenance, averring that he was not conscious of any impression being made upon him. His countenance, however, appeared rather dull, and he soon gave way under the symptoms of sleep. His eyes closed, his head hung on one side, his limbs relaxed, and his body rested in a reclining position,

as if completely under the dominion of sleep. 'He is snoring,' remarked Mr. Bryant. Dr. Buchanan now addressed several remarks to his sleeping subject, which received no reply or recognition. The breathing of Mr. O. was rather heavy, accompanied by a slight moaning noise. Dr. Buchanan proceeded to restore him, which was not accomplished so promptly as in the case of intellectual sleep. It was nearly a minute, before he was fully recovered from his sleep. He did not, however, believe that he had entirely lost his consciousness: but upon being questioned as to what had been said to him during his sleep, it was apparent that he had heard nothing.

"The committee now proceeded to the house of Mrs. R. The first experiments consisted in the application of medicines, in the same manner as was practiced at the previous sitting, for the purpose of ascertaining to what extent a medicinal influence may be imparted through the hand. Dr. Forry having brought with him six different articles of the *Materia Medica*, each was tried successively; and as none of these parcels—each being enclosed in double papers—had any labels, the result could not be anticipated, as the contents of each paper were unknown, even to Dr. Forry himself. A decided effect was usually produced, in the course of thirty seconds; and most of the effects which did occur, were similar to those observed in the usual mode of administering such medicines. In those cases in which it was necessary for her to describe her feelings, the experiment would not, of course, be so successful as when the effects would speak for themselves. In regard to sulphate of quinine, however, she described the effect with much correctness, as 'cooling and strengthening.' The narcotics, however, told their own story, and in language, too, admitting of no two-fold meaning. A paper, for instance, was placed in her hand (it being at the same time held by Dr. Buchanan), which speedily produced so powerful a narcotic effect, as to create some alarm; and it was some minutes before she could be recovered by Dr. Buchanan from its poisonous influence. As she was being restored to a state of consciousness, she made several efforts to vomit; but, after the lapse of eight or ten minutes, during which time various 'passes' were made for her relief, she seemed quite recovered. On examination, this paper was found to contain the extract of stramonium (Jamestown weed). One of the papers which had been previously tried, and found to produce an 'irritating effect and copperish taste in the mouth,' and which was laid aside for subsequent trial, was now again presented. The effect, as it now, perhaps, proved less irritating, she described as 'stimulating, heating, and exciting' to a greater degree than she could well bear. This was opened, and found to contain Cayenne pepper. Another paper was presented, which induced narcotic and sickening effects, somewhat similar to those of the stramonium. It was immediately removed, and the paper, on being opened, was found to contain opium.

* * * * *

"Dr. Buchanan now excited the organ of *skepticism*, and she soon evinced the highest action of the faculty. She ridiculed the idea of making experiments upon her, declaring that no effects were produced, and that she considered all such effects as perfect nonsense. She denied that any effects had been produced upon her in the early part of the evening, either by medicines or by the application of the hand. She denounced Neurology as a ridiculous absurdity, and endeavored to convince one of the committee that he was quite mistaken in believing in such a pretended science, as there was no reason at all in its support. She spoke of other sciences and doctrines, which she denounced in similar terms, and declared that she relied only on facts and experience, and the evidence of her own senses. Whatever proposition was advanced, she would always assume the negative, and demand the proof of its truth. She denied the existence of thunder and lightning, saying that, as she did not comprehend them, she did not, of course, believe in their reality. Being asked if she did not believe that fire would burn, she denied most positively that it would; and to prove the negative, she ran to the heated stove, to place her fingers on it, and was only prevented, apparently, by her husband's grasping her hand, he being unwilling that her fingers should be burnt, for the illustration of science.

"Her mind was now, for a few moments, alternately placed in a state of profound faith and unbounded skepticism, showing how completely her belief in anything was regulated by the state of the two organs.

* * * * *

"These experiments being concluded, one of the committee entered into conversation with Mrs. R., in the German and French languages, in both of which she conversed fluently; and being asked how many languages she could speak, she replied, 'five or six.' To ascertain the extent of her lingual powers, Dr. Buchanan excited, at the same time, her organs of memory and language. Under this influence, she made a long recitation from the Talmud, in the Chaldaic language, and chaunted, in a fluent and graceful style, the fifty-second chapter of Isaiah, in the Hebrew tongue, which fell upon the ears of the listeners, in the most impressive, distinct, and pleasing tone. These languages, which she learned in her youth, she has now almost entirely forgotten.

"Sub-committee met November 29th. Present, Messrs. Bryant and O'Sullivan, and Dr. Forry.

"The subject of the experiments to-day was a Mr. M., a young man residing in this city—a mechanic; but he was not regarded by Dr. Buchanan as sufficiently impressible to produce any very decided results.

"The first experiment consisted in a trial of strength in the arms. In the first place, his natural strength of arm was tested, by means of a carpet bag, containing some books, the weight being made equiv-

alent to his utmost muscular power. Dr. Buchanan then operated in such a manner, as to relax the muscular system; and, in perhaps ten minutes, he was unable to support what he had previously done with ease; nor was he able to sustain it, after a large, heavy volume, and one of a smaller size, were removed from the bag. Dr. Buchanan now reversed the operation, by exciting those organs which give tone to the system, when Mr. M., notwithstanding the fatigues of repeated attempts at lifting at his utmost strength, was so effectually re-invigorated, as to be again able to support with ease, the greatest weight he had at any time lifted.

"The second experiment was intended to illustrate the peculiar relaxation of the muscular system, which attends a state of inexcitation. Dr. Buchanan, as Mr. M. stood up in front of him, placed his hand on the appropriate organs, and, in a few moments, we observed Mr. M. recoiling or staggering back, as if unable to support himself. This experiment was several times repeated, with the same result. In walking across the floor, Mr. M. appeared incapable of proceeding in a straight and steady manner; and one time, he became so weak, as to be obliged to take a chair. When asked how he felt, he answered that he felt as if he had been drinking too much.

"Dr. Buchanan now remarked that he would endeavor to excite an organ in Mr. M., of which he (the subject) could not, by any possibility, have the slightest conception. But, as Mr. M. possessed only a moderate degree of impressibility, Dr. Buchanan added that he did not expect to produce any vivid manifestation of the action of the organ; nor was he sure even of inducing any decided result. The first effect that could be imputed to the operation, was the remark of Mr. M., that his mind felt like a perfect blank, being merely conscious of surrounding objects, without the capability of reflection. Dr. Buchanan, all this time, was attempting to excite the organ of insanity; and he now modified his operation, by touching two portions of the head at once, requesting the committee to watch closely the results. In a few minutes, we discovered the expression of Mr. M.'s countenance illumed by an unusual animation; and this we regarded with the more surprise, as Mr. M., who is usually of a dull, heavy, and diffident deportment, appeared quite embarrassed and shy when he first came into the presence of the committee. Soon after this change in the expression of his countenance, Mr. M. suddenly enquired of Mr. Bryant whether he was not the editor of the 'Evening Post,' and upon being answered in the affirmative, he arose and shook hands with Mr. Bryant, in the most familiar manner, saying, 'I am very happy to become acquainted with you, not on account of your *politics*, but your *poetry*.' As remarked above, Dr. Buchanan was at this time stimulating two portions of the head—one, the region of insanity, and the other, the poetical portion of the organ of ideality. As these two points were the only parts of the head touched by Dr. Buchanan, we were, of course, struck by the remarkable coincidence. Mr. M. now said

1849.]

that he had heard much of Mr. Bryant's poetry, and had read some detached pieces; and he also expressed a strong desire to have an opportunity of perusing a volume of his poems, in which Mr. Bryant, in great earnestness, whether he did not think that he himself might learn to write poetry, and complained of his never having been able to compose a single verse. To the question, whether he did not now feel as if he could write poetry, Mr. M. replied that he felt unable to get his ideas together; and if he did, he feared that they would be good for nothing. It was then suggested that, as he did not receive any poetic inspiration from the hand of Dr. Buchanan, he might, perhaps, be inspired by the touch of Mr. Bryant. This suggestion he seemed to adopt as quite plausible; and Mr. Bryant accordingly placed his hands on the regions of imagination and credulity, and, after some time, on that, also, of self-esteem. Mr. M. now not only talked, in glowing terms, about poetry, but recited several passages, with the most extravagant enthusiasm, and vehement ostentation—his eyes expressing an almost furious excitement, and seeming ready to start out of their sockets. One subject was the following, from Campbell's 'Pleasures of Hope.'

"Oh! sacred
And Hope,
When leagued
Her whisk
Waved her
Peal'd her
Tumultuous
Presaging
"Warsaw's

Truth! thy triumph ceased awhile,
thy sister, ceased with thee to smile,
and Oppression pour'd to northern wars
r'd pandours and her fierce hussars,
dread standard to the breeze of morn,
loud drum, and twang'd her trumpet horn;
as horror brooded o'er her van,
wrath to Poland—and to man!

Last champion, etc.'

"Another consisted of a white man's oppression, whether he was the negative. Certain have suspected him deed, now, when attending on the antagonist from Campbell with word of nearly ever before, he merely recited, expressing collected, expressing
"Whilst still under of the excitement forth his ideas, at for the special editing just before learning an harangue again Bryant to confine From Mr. O'Sullivan publish in the 'Democratic

of a patriotic Indian effusion, denouncing the n. To the question, asked after his restoration the habit of reciting poetry, he answered in ly no one, from his general appearance, would be the least given to poetic declamation. In excitement was partially removed, by operstic organs, he was unable to repeat the lines ut assistance, in the way of having the first line; and when requested to declaim them as eated, in a subdued voice, such parts as he reby his actions, a want of interest in the subject, the influence of self-esteem, and some remains roduced by the organ of insanity, Mr. M. set siderable length, on various political subjects, tion of Messrs. Bryant and O'Sullivan, he havd, that the latter was also an editor. He made party politics and party editors, advising Mr. attention to literature, and especially poetry. he attempted to exact a promise, that he would ocratic Review,' an article, which he would, on

that condition, write, in regard to the rights of man. In this request he was very strenuous and exacting, except for a few moments whilst Dr. Buchanan held his hand on the organ of humility, when, doubting his ability, he desired Dr. Buchanan to furnish him with a few ideas, and instruct him how to arrange them. The contrast apparent between the powers of expression, and elevation of thought and sentiment, evinced by him while under the excitement of the intellectual organs, and the more dull and ordinary deportment when this excitement was removed, was very striking."

During the same period that these experiments were being conducted before this sub-committee, Dr. Buchanan was engaged in delivering a course of lectures, before a private class of highly intelligent gentlemen, who, at its conclusion, presented to the public certain resolutions, expressive of the sentiments of the class. Among these resolutions, let it suffice to quote the following:

"*Resolved*, That, in our opinion, he has demonstrated the practicability of exciting, or modifying, or arresting the action of the several moral, mental, or corporeal organs, so as to change the thoughts, feelings, and actions of the individual for the time. * * * That the experiments have, in our opinion, demonstrated the discoveries made by Dr. Buchanan."

In view of the preceding observations, it may be asked—Whither is this new science to lead us? Are the old landmarks of knowledge to be set aside; and are we to pull down every system which has been built up upon consciousness, or upon the tedious gatherings of observation? Is this new system to subvert all its predecessors, and then be overwhelmed in turn by another theory—a still shorter royal road to wisdom?

We answer, No. Systems pass away, but truths survive; and every new truth added to our stock of knowledge, notwithstanding it may destroy some error, cannot crush or obscure a previously known truth. The new demonstrative school of metaphysics will, we are confident, develop and confirm many of the principles which, heretofore, as no experimental mode of testing them was known, have been sustained by reason alone. We observe that memory has been restored to its rightful place in the catalogue of our faculties by the new system. Consciousness and abstraction are also recognized as special faculties, dependent upon special organs. We expect to see many of the doctrines of Locke, Reid, Stewart and Brown established experimentally on the new physiological basis.

We expect to see a subtil and intricately arranged philosophy spring up from these investigations, as different from the crude system of Gall, as is the bright face of Nature, with all her diversities of mountain, plain, forest, field, river, and sea, from the rudely sketched outline of a school-boy's map.

But to what else will it lead? If impressibility is most frequently found among those of refined organization, why may it not be evinced by some man of genius? If so, may not the intellectual

organs be stimulated to a higher degree of activity, than results from ordinary influences? May not a cerebral power be generated, bordering upon the supernatural energy of insanity? And may not this intense intellectual excitement be directed to useful purposes, in the investigation or illustration of truth? May not the student rouse his memory, when it fails to recall the knowledge that it once possessed? May not the naturalist and the artist have the external senses rendered more acute? May not the faculties of sight, touch, taste, and smell, be sharpened, for minute investigation of physical science?

May we not, by various excitements, produce all the diseases and all the conditions to which the human mind and body are subject? May we not ascertain the condition of the mind and of the brain in insanity, sleep, dreaming, trance, and the act of dying? May we not determine the seat of life, and discover in what portion of the brain the mental action is last perceived—from what spot the soul takes its final departure? May we not besiege and torture Nature with ingenious and searching experiments, until we compel her to confess her secrets?

We put these questions because they seem naturally to arise from the establishment of the fact, that we can compel the various fibres of the brain to manifest their functions; and thus we may interrogate Nature, as it were, by the most rigid examinations. We believe that all that we have hinted at, and much more, is comprehended in the system of Dr. Buchanan; and that these various points have been made the subject of experiment, we know. His views have not yet been embodied in a volume, to which we might refer for their nature and scope; but we know that he aspires to go as far as human intellect can pierce the almost impenetrable mysteries of life and mind. Should he ever present to the public that “higher psychological system of philosophy,” of which he speaks as distinct from Neurology, we anticipate something of a still more strange and startling character.

If all the elements of humanity can be summoned up at the beck of the skillful experimentalist, we cannot but believe that many a rare and strange feature of our common nature will be brought to light. The elements of genius, of poetry, of love, and of the mysterious sympathies of mind with mind, will be brought forth, and subjected, like the gay ornament of the skies—the rainbow—to philosophical analysis. As the natural philosopher explains its beautiful effect by the laws of that luminous medium, which, by passing through the drops of water, presents to the eye a brilliant spectrum; so will he, perhaps, explain how that higher medium—the Divine Aura of life and thought—passing through the white and grey matter of the cerebral convolutions, originates the affections and all the poetry of life. Would it be strange if he should discover through what medium the soul acts upon its corporeal tenement, or that there are media heretofore unknown, and of a nature different from the galvanic and magnetic? Would it be incred-

ible that faculties should be discovered in man, which have been sometimes supposed to exist in the gifted few, but which are entirely unknown and unfelt by the multitude?

In the great ideal of Humanity, in which we embody its dignity and its powers—worthy to be the servant and the agent of Divinity—we perceive that which we realize in no individual. There are none to be found who even approximate the great and perfect type of humanity. How far the noble nature of man has been debased cannot be told, nor how many of the world-knowing and world-conquering faculties, bestowed by his Creator, have been enfeebled or destroyed. There are continual aspirations to something greater and better, which are not gratified, and which we cannot carry into execution; but which seem like vestiges to remind us of what we should be, and what may once have been the nature of man. In the system of Buchanan, these vestiges are recognized; a range of faculties has been discovered, which are now dormant, and which have been, perhaps, dormant for ages, in the greater portion of the human race. These faculties, giving a stimulus to the mind, and expanding greatly its range of knowledge, may, hereafter, be developed as features of our common nature, and be made the means of obtaining a loftier species of knowledge than has ever yet been obtained by human kind.

We hope to be enabled to return to this fruitful theme, as soon as a sufficiency of facts shall have been published, to warrant some general deductions. At the present time, we regard it indeed as altogether too early to attempt to organize a science, on the basis of the phenomena as yet observed—so far, at least, as they are known to us. We have already stated, as participating in the Report above quoted from, the extent to which, alone, we consider ourselves able to draw deductions from the experiments we have witnessed. Obloquy and ridicule, on the part of nine-tenths of the promiscuous public, must, no doubt, be the portion of those who will ever dare to venture on the responsibility of avowing their belief in the facts which have been attested, to their own close and suspicious investigations, by evidence of the most convincing character. This must, and easily can be, borne with patience—until the arrival of the day, not, as we feel confident, very far distant, when all the world will recognize as familiar fact, that which all the world will, at first, unite in deriding as the absurdest of fiction.

[In the foregoing article, from the Democratic Review, I have taken the liberty of changing the term *Neuraura* to the more euphonious *Nervaura*, as at present used.—ED. JOUR. OF MAN.]

ART. V.—SYMPATHETIC DIAGNOSIS OF
DISEASE.

~~~~~

It is an important doctrine of Neurological science, that our sensibilities, if fully developed, may be affected by the nervous influences, or by the emanations of any substances, with which we may be brought into contact. Hence arise a great many phenomena in the way of "contagions," which are, ordinarily, not understood. Hence, too, the power of the "mesmeric subject" to explore the pathological conditions of patients; and hence arises much of the sympathetic tact, which assists the physician in forming a correct diagnosis of the condition of his patients—arriving, as he often does, at results, as if by intuition, the reasons for which he but imperfectly understands.

The power of sympathetic diagnosis by contact, although not a universal power, is far more common than is generally supposed. At present, this power is most frequently exercised by clairvoyant mesmeric subjects, in their somniloquent condition—and the scientific world is not aware, that quite a large number of persons, possessing this faculty, as a natural endowment, are capable of using it successfully, in the investigation of disease. Were these persons acquainted with the science of Neurology, they could easily ascertain and understand their peculiar power, which then might often be applied, for the benefit of their suffering fellow men.

The following narrative, from the Hampshire Herald, presents an illustration of the success of the power of Sympathetic Diagnosis, arising from increased susceptibility, developed by the Water Cure. Of the diagnostic powers of Mr. Ruggles, as described in his communication, I entertain no doubt, as they are similar to those which I have developed in other individuals; and, as I have heard authentic statements of his success, in determining, accurately, the condition of his patients, and the causes of their maladies.

The following statement—headed in the paper from which it is taken, "Dr. Ruggles's Hydropathic Experience"—gives us his own view of his case:

"For the purpose of avoiding the frequent rehearsal of the circumstances which led me to an acquaintance with the Water-Cure, and to adopt my 'peculiar method of practice,' and to satisfy, in a degree, the many enquiries relative thereto, I here make a brief confession of my experience:—

*First*—As an Allopathic patient.

*Secondly*—As a Hydropathic patient. And

*Thirdly*—As a Hydropathic practitioner.

I. After six years suffering from liver complaint and dyspepsia, under the care of some of the most eminent physicians in this country, during which time I was repeatedly bled, leeches, cupped, blistered, blistered, salivated, dosed with arsenic, nux vomica, iodine, strychnine, and a variety of other poisonous drugs, and contracted an enlargement of the liver, the worst kind of dyspepsia, irritation of the lungs, chronic inflammation of the bowels, costiveness, piles, nervous and mental debility, and numb or palsied state of the skin, which rendered me insensible to the prick of a pin, or extreme heat; and, after blindness had shut me out from the light of day, in the opinion of gentlemen standing high in the profession, my life was limited to a few weeks.

II. In January, 1843, I heard of the Water-Cure, as practiced by Vincent Preissnitz; and, from the effect produced in the case reported, I was led to hope that I might obtain some relief from the extreme pain and weakness, which, I expected, would soon terminate my existence.

Under the most embarrassing circumstances, with vague notions in relation to the application of water as a remedy, I commenced an indifferent course of treatment, which was continued several weeks; when I became convinced (though I had improved) that water, as an agent, was powerful for evil, as well as good; and that, unless understandingly applied, my hopes of relief were chimerical.

About this time, I heard of Dr. Robert Wesselhæft, of Cambridge, now of the celebrated Brattleboro' Water-Cure, from whom, by correspondence, I obtained salutary advice, and continued my practice, with better effect. In a few months I was enabled to visit Cambridge, and consult Dr. Wesselhæft, personally. After an examination, he found the liver so much enlarged, and my sight and other symptoms so precarious, that he was not sanguine of success; yet, considering the progress I had made, he recommended the erection of a douche bath, and advised a more thorough course of treatment. While the system was undergoing a slight change, under this course, I became gloomy, and suspicious that the ill-forebodings of friends, opposed to the Water-Cure, might be realized.

At this point, the Doctor raised the first note of encouragement, and advised perseverance, under a varied and milder treatment, until new symptoms required a more rigid course. Then the packing in the wet sheet, once and twice a day; the plunge, or shallow wash bath; the douche, five minutes; three hip baths, from fifteen to sixty minutes each; two eye baths, and a foot bath, comprised the daily course, until a fever crisis was developed, with symptoms of salivation, and other exudations, from the trunk of the body, which left no doubt in the minds of witnesses, that I had been faithfully drugged. It will be remembered that my physician was in Cambridge, and I in Northampton, and, at this critical period, which continued about six weeks, my symptoms were so versatile, that many of his prescriptions were inapplicable when received. In

about eighteen months, however, from the commencement of the treatment, I had passed safely through the crisis, and my health finally became established, with an equilibrium of circulation. Sensibility and motion were restored to my eyes, with the feeble sight which now serves me to walk alone, where I had formerly been led. For a time, my whole system was attended with an unaccountable sensitiveness, which I never before experienced. My sense of feeling became so acute, that I could recognize individuals, and detect shades of difference in very minute objects. My case induced many, who were, hitherto, faithless, to believe in the Water-Cure; and, as I had some conveniences for bathing, a few persons of both sexes, were induced to obtain the advice of Dr. Wesselhøft, and commence a course of treatment, under my care. This afforded me an opportunity to cultivate that faculty, which enables me to detect symptoms of disease, and practice the Cure.

III. I improved the opportunity thus afforded, to note the various symptoms, developed by the treatment in the several stages of the complaint, in different cases, under the Doctor's skillful direction. Practice strengthened this acute sense of touch, until the conviction was irresistible, that the skin is the organ through which the symptoms and character of disease are indicated—a fact which the success that has attended my practice, for the last three years, has established before an enlightened public. I can feel, near the surface of the skin of a healthy person, a regular and forcible action or emission, indicating vitality, or power. This, I think, is electricity. In an invalid who may be successfully treated, this symptom is intermittent, or feeble; but, where a person is suffering from general debility, beyond the power of water to afford relief, no vital or electrical action is perceptible near the wrist. This symptom is also imperceptible in the region of the lungs and stomach, when the case is incurable; and, for more than two years, I have found it prudent to decline all applicants for the cure, who lack this vital action in the parts alluded to. In a case of neuralgia, the electrical symptom alternates, in the parts of the body affected. At times, when the patient is suffering under severe pain, it is not perceptible; at other times, it is excessive.

In sciatica, this symptom is similarly developed. In chronic rheumatism, it is quiescent. In inflammatory rheumatism, it is tremulous, and appears confined by the cuticle. In fevers, it is excessively active; but appears not to escape the pores, until it is conducted off, or equalized, by the application of the treatment. Although this is the first in importance, yet there are other symptoms, attending the skin in various cases, that materially aid me in the varied and successful application of the treatment, which are easier felt than described.

Having thus briefly, though imperfectly, stated the circumstances that led me to an acquaintance with the Water-Cure, and to become a Hydropathic practitioner, with an outline of the principles by which I am governed, I may be permitted to add a word of caution to persons

who think of availing themselves of the benefits of the Water-Cure.

1. Such persons should be sure that their system is attended with sufficient vitality to commence the cure.

2. They should begin right, that they may not injure their physical strength, and thereby impede their progress, or prevent success.

3. A judicious course of treatment should never be suspended, with a view to its completion at a future time; as the best, if not the only opportunity would be lost, for a speedy and thorough cure.

4. Should a patient be partially relieved of morbid secretions, by crisis, or otherwise, and become convalescent, he should be extremely cautious in regard to diet, air, and exercise; and whatever may be his feelings, he should never abandon a proper bracing course of treatment, until an equilibrium of circulation is permanently restored.

5. Water used for Hydropathic purposes, should always be fresh from the well or spring, excepting what may be warmed for a tepid bath.

6. A bath should never be taken in a painted vessel, or within an hour before a meal, or two hours after.

From testimony of numerous correspondents, who have commenced the treatment at home, and visitors, who have presented themselves for examination and prescriptions, and patients, who have been treated at my establishment, I am satisfied that much error prevailed among the friends of Hydropathy, on the subject alluded to, and by whom a word of caution may be needed.

As I have omitted to remark upon the condition of my own health, I would only add, that, with the exception of my imperfect vision, occasioned by the convexity of the cornea, my health was never better than it is at present, or than it has been for more than two years past. Respectfully,

DAVID RUGGLES.

*Northampton Water Cure, Jan. 1st, 1848."*

As to the suggestion, that the agent, or medium, emanating from the skin, and perceived by impressible persons, may be electricity, I would remark, that the term electricity has been used, in a popular manner, for nearly all imponderable agencies; but that, strictly speaking, it would be erroneous to assume, that the vital influences emitted from the human constitution are merely electrical. That electricity is actually emitted in a small quantity, is undoubtedly true. But there are many distinct nervous influences, proceeding from various parts of the human constitution, through which, impressions are conveyed, by contact and otherwise, to other human constitutions. These influences are not simply electric, but have a very diversified character.

## ART. VI.—INTERESTING EXPERIMENTS.

~~~~~

It is earnestly hoped, that the readers of this Journal will not be contented with a merely speculative knowledge of the Science of Man. The experimental demonstration, by which positive certainty is gained for ourselves, and may be given to others, is so simple, and its performance is the source of so much interest, gratification, and amusement, that I hope all will resolve, at once, to repeat the experiments I am about to describe for their guidance.

In order to make experiments upon the human brain, in a satisfactory and accurate manner, it is necessary to select individuals of a highly impressible temperament. These may be selected by certain simple tests. Of these, perhaps the most convenient and universally practicable, is that of attraction. To test the impressibility in this manner—let the individual, upon whom you wish to try, stand in front of you, in an easy, unembarrassed manner, unsupported by any surrounding objects. In this position, gently place your hand upon his forehead, your fingers extending over his head and upon his temples, with the lightest possible touch. Then, very gradually, withdraw your hand to the front, with caution and gentleness—observing, as you do so, whether he remains steady in his position, or gently inclines to follow your hand. In many of those upon whom this experiment is tried, the inclination to follow the hand will be slight, at first; but upon several immediately successive repetitions of the process, they will gently incline forward, as the hand is withdrawn, and their heads may be perceived to have moved half-an-inch or an inch from their first attitude. Others will move three or four or six inches during the first minute, and, in the course of five or six minutes, will be so effectually overcome, as to be drawn forward, and compelled to advance a step or two; or if the operator move his hand downward, be drawn downward accordingly.

When the person is very impressible, and the operation is favored by the warmth of the climate, and the condition of the atmosphere, and of the person's constitution at the time, the attraction between him and the operator will appear really wonderful. The subject may be drawn over, by moving the hands downward, until he falls upon the floor, in a perfectly helpless condition. In warm climates, where a languid, sensitive condition of the constitution exists, even men of robust frames may be completely prostrated and paralyzed by this process.

The attraction which takes place in these cases, between the hand of the operator and the head of the subject, is not like the physical attraction of iron to the magnet, or of a stone to the earth; but is a

vital attraction, by which one living body influences the functions of another. It depends on the mental and physiological constitution of the two persons, and not upon the laws and properties of inorganic matter. The subtil nervous forces of one constitution affect the same powers in others. As a red-hot ball of iron diffuses heat among surrounding objects, or as an electrified body produces, by induction, peculiar electrical conditions in proximate surfaces, so does one man, with his wonderful vital powers, imponderable fluids, and mental faculties, affect the constitution of another.

The result of the foregoing experiment is a demonstration of the vital influence that one person exerts over another; and it shows, especially, that the surface of the hand exercises an attractive influence on the bodies of others. The fact is most efficiently demonstrated upon the brain, although the hand is also capable of exerting this attractive influence upon other portions of the body; it will attract any portion of the person, to which it is applied. It will attract another hand with greater facility, because their attractive influences co-operate. But the demonstration is more striking when made upon the brain, because that organ controls the whole person.

In some portions of our country, especially in the colder climates, many will be found, who will be not at all affected, or very slightly, by the above experiment. But it is exceedingly improbable, that any one who tries the experiment properly, as above directed, should not attain interesting results, even in the first ten or twenty trials. In some families, every individual will be found thus impressible, yielding readily to the attraction. When we have thus ascertained who are distinctly impressible, we shall be prepared to institute the course of experiments, which I shall describe in succeeding numbers.

These experiments are not only beautiful and interesting, but entirely free from any dangerous or injurious effects, if conducted according to the proper direction. So far from producing any injury, the Neurological experiments may be so conducted, as greatly to benefit those of feeble health, while contributing to our own scientific instruction.

Supposing the reader will have made himself practically acquainted with this first experiment, before the publication of the next number, I shall then proceed to indicate a Course of Experiments, which may be systematically pursued by all who read these pages, and which will be sufficient to lead the enquirer into a familiar knowledge of the constitution of man.

ART. VII.—OBJECTIONS TO PHRENOLOGY.

~~~~~

THERE are many who still object to receiving the science of Phrenology, as taught by the disciples of Gall and Spurzheim; not that they would totally deny its truth—for they will readily admit that there may be some connection between the general conformation of the head and the general tendencies of the character—but they have a strong impression that the relation of the brain to the mind is a mysterious subject. They are not willing to believe, except upon the best of evidence, that this mystery has been solved. They look, therefore, at phrenological science with a skeptical eye; and at first, when this science is rudely presented, with all its uncouth, technical terms, so distinct from the former dignified technology of “Mental Philosophy,” their skepticism is strengthened by disgust for its singular phraseology and apparently awkward as well as arbitrary analysis of the mental powers.

The solution of the great problems of the human constitution which the Gallian system of Phrenology presents, strikes them at first sight as altogether too simple, crude and uncouth. That such persons should continue to doubt, we need not be surprised; and when, in this frame of mind, they examine the science further, they find additional reasons for suspicion. They observe certain difficulties in ascertaining the development of organs. These difficulties are trifling to a practical phrenologist; but to a tyro they appear very great. They observe that certain regions at the basis of the brain are not included in the old system of phrenology; and make the obvious reflection that these regions may influence the development of the whole. They observe, too, that, while phrenologists make exact and arbitrary divisions upon the surface of the cranium, the structure of the brain does not accord with these divisions. Confirmed by observing these difficulties, they still admit it as quite probable that there may be something in Phrenology, but contend that it is by no means yet a science of any accuracy.

Others, of a metaphysical turn of mind, observe that phrenologists propose a great and violent innovation in explaining and even describing well known operations of the mind. They have been accustomed to speak of “reason,” of “imagination,” of “memory,” “faculties,” “passion,” &c., and *their* technicalities have become an established part of all cultivated languages. In place of these, they find in the phrenological system “Eventuality, Causality, Ideality,” &c., without any adequate reason for the change, other than that such is the result of observation. The metaphysical enquirer finds that he has clearer and more satisfactory views of the mental phenomena under the old system, and that there is a difficulty and

awkwardness in getting hold of the new. Hence he feels a strong suspicion that the whole system is of artificial coinage, and not in conformity with the true laws of mind.

Others again, of a more poetical temperament, accustomed to contemplate the vast variety of mental phenomena, witnessed in daily life, or described by the tragic poet, feel that there is much more in all this than the phrenological system illustrates. It has to their eye a meagre character, and seems to compare, to their conceptions of human nature, as "Peter Parley's Geography" would to Baron Humboldt's "Kosmos."

With those who object to Phrenology on these grounds, and they must be admitted to form an important portion of the intelligent public, I have no contention. However severely I may denounce the infidel spirit of distrust and denial, which opposes all new and great truths, I have no objection to a rational enquiring skepticism. On the contrary, I admire the caution and candor with which objectors of the above classes comment upon the science, and only regret that they have not acquired such a practical acquaintance with its details, as might have made them more familiar with its truths.

The objections to which I have alluded are not destitute of foundation. *There is* a crudeness or incompleteness in Phrenology as it has been taught. *There are* difficulties in the way of Practical Phrenology; and *there are* decided faults in the phrenological doctrine, viewed as a system of Mental Philosophy. These imperfections and difficulties I have from the first perceived, acknowledged, and sought to remove. Notwithstanding my long course of public advocacy of the science, no partizan zeal has ever made me blind to its defects. Permit me, then, earnestly to invite those who have heretofore been candid opponents of the science, to scrutinize its developments in these pages; and to observe whether the difficulties and objections which have hitherto injured it in their estimation have not been effectually removed by the revolution which has been effected in its details and in its philosophical principles. By going to the fountain-head of truth, and compelling nature, with critical experiments, to reveal her laws, I trust I have escaped the errors of predecessors, who watched the course of nature, as it were, from afar, and followed the imprints of her footsteps, without coming into the close contact of experimental enquiry.

As I have found candid enquirers, who had earnestly opposed the old system of Phrenology, frankly surrender their objections upon the presentation of the new system, I have no doubt that those who have heretofore, upon scientific grounds, withheld their assent from Phrenology, will hereafter be counted among its cordial supporters.

## ART. VIII.—TO THE READERS OF THE JOURNAL OF MAN.

~~~~~

IN presenting this Journal before the American public, it becomes necessary to state, as distinctly as possible, its character and scope. These I have endeavored to indicate faithfully by its title and title-page. It will be emphatically *THE JOURNAL OF MAN*. The great object to which it will be devoted, is the attainment of a thorough, profound and accurate knowledge of the whole mental and physical Constitution of Man. While investigating and developing the constitution of man, it will necessarily be considered in its relations to external objects, to society, to nature, and to the laws of the universe.

In viewing the external world from this point—in observing our social institutions, manners, customs and history, and in reviewing the prevalent philosophy of man, as an individual and as a social being—we must necessarily obtain peculiar views, because our views are taken from a peculiar position. This Journal must thus become the organ of that species of Science and Philosophy, which springs from the study of the constitution of man as related to the constitution of society, and from that of the constitution of his body, as related to the laws of nature.

If we obtain a thorough knowledge of the constitution of man, and of its laws of relation to fellow beings, which constitute the foundation of society, it is obvious that such knowledge will indicate very clearly the nature and tendency of different systems of society, laws, governments, education and morals; will demonstrate the errors or defects of our existing arrangements, and will direct us to the most rational plan for the attainment of general happiness, intelligence, virtue, scientific progress, and social elevation. In this respect, therefore, the *Journal of Man* must become a *Journal of UNIVERSAL CRITICISM AND UNIVERSAL REFORM*.

In studying the relations of the physical constitution of man to external objects and the laws of nature, we enter upon an immense field of directly practical and useful knowledge. The relation of the human constitution to food, notwithstanding its pre-eminent importance, has not heretofore been made the subject of much very profound or systematic research. Much useful knowledge has been accumulated incidentally in reference to the effects of diet on the constitution of man; and many philanthropic physiologists have labored in this field; yet no one would affirm that we have at this time a satisfactory Science of Dietetics.

Can any one point out even three elementary substances, in reference to which we understand thoroughly their physiological influence? their ultimate effects upon mental development, and their

ultimate tendencies to develop or oppose particular diseases? Even the articles which have been universally consumed by the human race from time immemorial—water, bread, flesh, oil, butter or fat—are but imperfectly understood in their effects upon the constitution. The more obvious results of their use have long been observed; but a great number of the effects which they produce upon the mind and body, are yet unknown. The articles of food produce different effects upon different temperaments and constitutions; but, so far from having a knowledge of this matter, which would guide the selection and adaptation of the various articles of food to different constitutions, a deplorable ignorance exists upon the whole subject, and it is impossible, by the existing lights of science, to do more than give a few general directions, for the guidance of those who would sustain their health by food rather than medicine.

I would not disparage the labors of Dietetic Reformers; but when we compare that which has been accomplished, with the vast amount which remains yet to be done, the former dwindles to insignificance. As before remarked, we know not the exact value and efficiency of a single article of diet, nor the principles which govern its adaptation to different constitutions. In reference to nine-tenths of the articles which we annually consume, our knowledge is little better than that of the savage; and, practically speaking, little, if any, better than that of the brutes, that are guided by sensation and instinct. What accurate knowledge have we of the moral, mental and physiological effects even of tea, coffee and tobacco, of which so much has been written? In what manner do they effect the various secretions? what mental faculties do they stimulate? what traits of character do they render predominant? What is the difference between the effects of Wheat and of Indian-corn, consumed in the form of bread? What is the influence of cheese as an article of diet?—under what circumstances, and to what constitutions, would it be appropriate? To what extent should butter be an article of diet?—to what climates and constitutions is it best adapted? What are the relative effects of salt-meat and of fresh? and when should they be prescribed or prohibited? what diseases do they respectively tend to develop by their excessive use? and to what constitutions is the one or the other most beneficial?

The same questions may be asked in reference to salt, pepper, vinegar, pickles, mustard, and other condiments. And when such questions are asked, the consciousness of our ignorance enforces the necessity of new researches. Let us ask such questions in reference to the use of the apple, pear, peach, plum, and cherry, the fig, grape, orange, and lemon, the tomato, melon, squash, and cucumber, the turnip, carrot, and parsnip, the onion, cabbage, potato, lettuce, peas, beans, celery, asparagus, &c., &c. Every question we ask but reveals the extent of our ignorance, and the importance of dietetic researches, which will determine the relations of such articles to the human constitution, which will show the influence of

different kinds of aliment in developing its different organs, which will indicate the appropriate food of man in different climates, and which will enable each individual, who understands his own constitution, to counteract its faults and to contribute to supply its defects, by a judicious selection of diet. It would be difficult to exaggerate the importance of dietetic science, when we reflect that it is far more desirable to prevent than cure disease; and that no constitution can possibly resist the continued beneficial or destructive influence of food and drink.

Ignorant as we are at present of the true principles of Dietetics, it is yet well known that certain kinds of food and drink exercise an important influence over the moral character; that a judicious system of diet will contribute much to the clearness of the intellect and the serenity of the passions; and that a gross and carnivorous style of living, with a free use of alcoholic stimulants, will degrade and destroy all our moral and intellectual faculties. Is it not obvious then, that in developing the constitution and minds of children, and in laboring to elevate the moral and intellectual condition of a nation, an exact science of dietetics is a matter of indispensable necessity. In the brutalized culprits of our prisons, we generally find that their physical as well as moral aliment has been well calculated to degrade and destroy all their higher powers. The penitentiary reformation of the criminal, therefore, requires food adapted to his moral and intellectual development, as well as suitable mental nourishment. The criminal at present, is, it is true, removed from the influence of alcohol and vicious society: but what do we do to supply a proper mental and physical nourishment, by which his mind and body might be harmoniously restored to their proper conditions, by which his animal passions might be checked, and by which his moral and intellectual nature might be again developed in man-like symmetry?

We have but glanced at the relations between Food and the Constitution of Man. Important as they are, they are but a portion of the Relations which man sustains to Nature; and, as it would be impossible to do justice to this subject in the present number, we but allude to the principal relations which are open to our study, and to the illustration of which the pages of this Journal will often be given. A summary index to these relations may be presented as follows:

First, DIET—embracing the relation of every article of food to the physical, moral, and intellectual development and health of man (the bearing and importance of which have been indicated above).

Second, MEDICINE—embracing the physiological and pathological action of every medicinal substance on the human constitution. I believe that I have proved by experiment, that every substance which exists has more or less medicinal effect upon the human constitution—that every plant which grows, every substance which constitutes a part of the soil beneath our feet, everything in the air

or ocean, is capable of producing an important effect when applied to the human constitution, and that by a new process of physiological research, which I have practiced and tested in the annual lectures of our Medical College, all these medicinal properties may be ascertained with ease, certainty, and precision. When I shall have given the necessary time to these researches, and secured the co-operation of medical friends, the magnitude of the results attained and attainable, will be fully demonstrated.

Third, THE ATMOSPHERE.—The Influence of the Atmosphere in connection with the Laws of Respiration, Ventilation and the influence of various localities, healthy or unhealthy, is a matter of high importance. If we can demonstrate satisfactorily the specific influence of oxygen, nitrogen, carbonic acid, pure hydrogen, carburetted hydrogen, aqueous vapor, and the various compound gases and emanations, which in small quantities occasionally rise in the atmosphere, and that of a lighter or heavier, and positive or negative electric condition of the atmosphere, we shall go far towards solving the important problems of climatology.

Fourth, THE IMPONDERABLE AGENTS—Heat, Light, Electricity, &c. When by accurate physiological experiments, we shall have ascertained the effects of Heat and Cold, Light, Colors and Darkness, Electric, Galvanic, and Magnetic Influences, upon the human constitution, such knowledge will necessarily give rise to important practical results, in reference to our clothing and the arrangements of our dwellings, the amelioration of climates and the improvement of the surface of the country. The mysterious and deadly effect of certain localities upon the constitution of strangers, and the equally inscrutable march of epidemic diseases, from nation to nation, and from continent to continent, imperiously demand from science a solution of their mystery. While millions of the human race are annually falling victims under our present ignorance, how trifling indeed is the amount of labor which has been given to the direct experimental investigation of this great subject?

Recent researches indicate more clearly the power of Imponderable Agents, in their bearing on human health particularly, and in connection with malarious or epidemic influences. Of the importance of these insensible agents, I have long been convinced; and I am satisfied that electricity, magnetism and galvanism are not the only forms of imponderable and invisible agency that affect the constitution of man, and the development of animal and vegetable life. For several years I have maintained and taught, that other imponderable fluids exist, unknown to Natural Philosophers, which exert a powerful influence upon man. The demonstration of some of these is satisfactorily made out to my own mind, and when farther confirmed and elucidated, will be given to the public.

Fifth, THE MECHANICAL MOTIONS AND POSITIONS.—The Laws of Motion and Position, in Relation to Man, are apparently complex, yet in reality simple. Orators, historians and poets speak of the effects of mountain scenery, of the ocean, clouds, storms, landscapes,

battles, and the movements of social life upon the human mind : yet it has probably not been dreamed by the poet that these beautiful and mysterious influences, by which the individual and the national character are continually moulded, are subject to the laws of a science as exact and intelligible as that which explains the movements of the solar system. There are a few fundamental principles by which we may determine the effects of moving objects or of peculiar forms upon the human mind. When these principles have been ascertained, the influence of a mountain, a tree, or a cloud becomes perfectly intelligible ; and we see, at once, how the wild movements of a battle, or the graceful gestures of a social party, affect the mind of the beholder.

Sixth, THE FINE ARTS—Music, Painting, Sculpture, &c. Neurological experiments have demonstrated the Relation between the human organs and certain Colors, and the laws of the affinity between musical sounds and our various emotions. By means of this scientific analysis, we determine, not only the effect of simple colors upon the human mind, as presented in the dress, the landscape, or the sky, but also determine the effects of their artistic combination in pictures, and originate new modes of presenting colors with a still more delightful effect. By it we are enabled to explain the mysterious charms of music, to show its importance in education, religious worship, war, &c. ; and to trace the wonderful parallelism or correspondence between music and colors.

When thus developing philosophically the laws of taste, Neurology accomplishes still more for art, in its development of the constitution of man, by showing his true craniology, the philosophy of temperaments, the true principles of physiognomy, the entire significance of his bodily form, as well as his features, and the true meaning and expressive force of every attitude or gesticulation.

From this brief and incomplete survey of the external relations of man, as developed by Neurology, it is obvious that the *Journal of Man* will occupy a vast and comparatively unexplored field, where the richest fruits of science exist in profusion on every side.

The field of Physical Research, which has been presented in five great departments, and the field of Moral Research, which is even more important to the social happiness and progressive elevation of man, lie, in different planes around us at every step of our progress, tempting us to frequent and distant excursions. The fertile lowlands of physical science yield at once the richest and most tempting fruits, while the table-lands and mountain heights of psychological philosophy attract us up to a purer atmosphere, nearer to heaven, and give us farther-reaching and loftier views of the world around for our guidance in life. Yet, for the present, however tempting the rich discoveries in physical science and the sun-lit prospects of high philosophy, it is necessary, for the greater portion of our time, to pursue our cardinal object, the development of the Constitution of Man. This is the aim of the *Journal*, and when that aim shall have been more fully accomplished—when its read-

ers have become familiar with that wonderful mechanism, the brain, in which the spiritual life of man is blended with his physiological organization—then we may be justified in ranging into the unexplored fields of science which lie around us, above and below. For the present, therefore, I would refer the readers of the Journal for this cardinal object, to the article of the present number, entitled, "*What is Neurology?*"

FUTURE SUBJECTS.—The materials for the Journal of Man are so abundant and interesting, it would not be very difficult to fill a quarto volume monthly with anthropological matter of much interest and value. Several articles which I had been anxious to present in the first number are necessarily postponed. Among these may be mentioned a short sketch of Baron Reichenbach's *Researches in Magnetism*, &c. The Baron's discoveries in the phenomena of Magnetism as connected with the human constitution, are among the most important contributions to science which have been made during the last twenty years, and derive additional importance from his high reputation as a man of accurate science. A sketch of the phrenological character of Murrell, the celebrated south-western robber (with an engraving), a review of Delucze's *Animal Magnetism*, a description of what constitutes a good head upon true phrenological principles, a description of the true structure of the brain correcting certain important anatomical errors which are found in our phrenological text-books, a sketch of the true characters of our present presidential candidates, an essay upon the new method of discovering character, an essay upon the principles of physiognomy—these, and many other important articles, are necessarily postponed, and will appear as soon as practicable.

THE REV. DR. RICE, of Cincinnati, is now publishing in a book his theological attack upon Phrenology, &c. Such volumes of dry polemic sophistry generally travel a very short road to a very profound oblivion; but I hope, before the mantle of darkness has entirely concealed its pages, to notice some of its peculiarities in this Journal. If ten pages in explanation or refutation of his attack could have been inserted in his book, or if Dr. Rice would have permitted any brief reply to his misrepresentations to be published in the paper which he edits, it would have been unnecessary to notice his productions any farther, but since Dr. R. has endeavored to mislead the public, by an unfair course in our discussion last winter, and by excluding any reply to the misstatements of his editorial columns, it is due to the cause of truth not to allow his book to pass unnoticed. Yet in exposing the unfairness of his mode of attack, I would avoid any personal reference or imputation. His course was surely neither magnanimous nor liberal, but it is so common for reputable men to be blinded and misled by partizan prejudice, that I can easily imagine he may have regarded his course as justifiable at the time.