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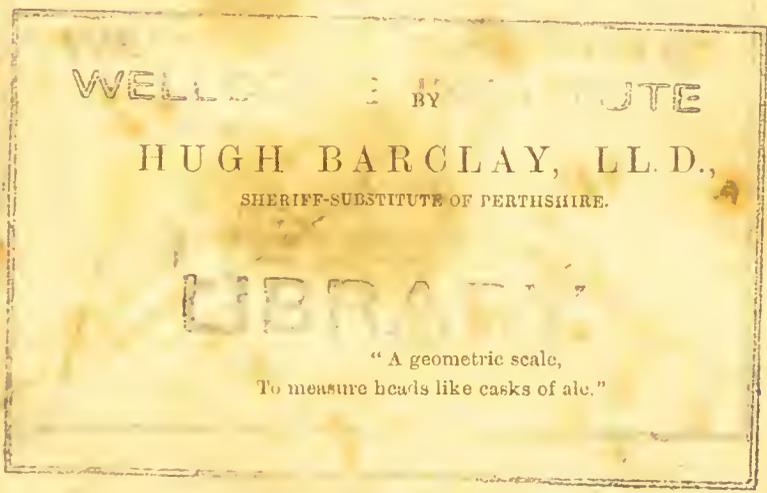
CURIOSITIES OF PHRENOLOGY:

BEING

AN INQUIRY

INTO

THE PROOFS AND ARGUMENTS FOR AND
AGAINST PHRENOLOGY.



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PHRENOLOGY.

“ How poor, how rich, how abject, how august,
How complicate, how wonderful is man !
Oh, what a miracle to man is man ! ”

YOUNG.

THE object of this paper is briefly to exhibit the doctrines of phrenologists—to state the arguments in support of, and the objections made in opposition to, these doctrines, without any desire specially to plead for or against their truth and reception.

Phrenology is derived from two words denoting “mind” and “discourse,” and therefore answers to the “science of mind.” It treats of the powers or faculties of the human mind as manifested by or through certain organs said to be situated in the brain.

The positions maintained by the adherents of phrenology are—

First, That the brain consists of many distinct parts, each of which is the organ of a distinct innate faculty. “Each is said to be primary and independent in its functions, doing its own work, and not doing the work of any other.”—(Fowler & Wells.) “The brain consists of a congeries of organs, the instruments of a corresponding

number of mental faculties, each possessing an individual and separate function."—(Sidney Smith's Principles of Phrenology. 1838. Page 72.)

Second, That the power of manifesting each faculty is in proportion to the size and activity of the relative organ or part of the brain with which it is held to be in immediate connexion. "The power of each organ, all other things being equal, is in exact proportion to the size of that portion of the brain which manifests the power."—(Fowler & Wells.) ^{As compared with the other organs in the same head} "The amount of power possessed by each mental faculty is modified by, and the result of the size, structure, and quality of these encephalic divisions, and its energy is indicated by certain *easily distinguished* convolutions of the brain, discoverable during life by parallel protuberances on its shield, the skull."—(Smith, p. 5.)

Lastly, That it is possible during life and health to ascertain the relative size and consequent strength of the organs by the corresponding protuberances or enlargements on the external surface of the cranium. "It being established that the size of the brain is ~~the~~ ^a measure of its power, it follows upon the same principle that the size of each organ in the encephalon is the measure of its power also."—(Smith, p. 71.)

Phrenologists have, as it might be supposed, turned their attention specially to the anatomy of the brain. Their mode of dissection they assert to be different from that commonly pursued, and they maintain that the encephalon or brain is not, as had generally been supposed by ordinary anatomists, a pulpy substance, but a membrane. From the *medulla oblongata*, or top of the

can be seen the relative size of the various organs when the tendency

spinal marrow, they assert that the fibres of the brain radiate to the different parts of the surface, and hence they measure from the external ear, the various distances to the top, front, and back of the cranium. From these measurements they draw certain general conclusions as to the preponderance of the animal propensities over the intellectual powers, or those again over the moral faculties. They ^{assign} the occipital region, or back part of the head, ^{to the} animal propensities (the domestic and selfish;) the frontal, to the intellectual; and the top of the brain, to the moral sentiments. "The size of the brain, in whatever direction developed, is the measure of general mental power. If it be in the direction of the propensities, the individual will manifest power of animal passion. If in that of the sentiments, the momentum will be of a moral kind. If in the anterior lobe, it will produce superiority of reflection; and if in all regions, it will result in universal greatness."—(Smith, p. 33.) "It is a principle of phrenology that the *largest* organ in each head is that which craves for greatest excitement, and receives most gratification."—(Smith, p. 72.)

The whole number of organs now generally held, as exhibited on the skull, is thirty-three; by some, thirty-five; and even by more recent writers as high as thirty-seven. All these are double, being divided by an imaginary line drawn from the front to the back across the centre of the head. *a thick membran*

The region of the brain, with the corresponding organs, as already said, is divided into three portions or classes. The first class is situated on the back and lower part of the skull, and comprehends *nine* organs. *lateral*

x Partly from a faint illustration from an engraving from the M O

First, *Amativeness*, indicative of connubial love—attachment of the sexes to each other—said to be uniformly in excess in the heads of certain classes of criminals and insane persons.

Second, *Philoprogenitiveness*, (Parental Love,) or that which produces the instinctive love of offspring in general; said to be larger in females than in males, and to be found large in those inferior animals which rear and tend their young, but is wanting in those which nature has for wise purposes prompted to abandon their offspring.

Third, *Concentrativeness*, or Continuity, is by some phrenologists thought conjectural. Its function is to maintain two or more powers, thoughts, or feelings directed to one object simultaneously.

Fourth, *Adhesiveness*, (Love of Friends,) producing the instinctive tendency to attach ourselves to surrounding objects; therefore said to be large in gregarious animals, and wanting in those which do not cohabit. It is, of course, said to be large in the human species.

Fifth, *Combativeness*, (Self-Defence,) producing courage, and, when energetic, the propensity to attack, is therefore found in great generals and belligerent animals.

Sixth, *Destructiveness*, (Executiveness,) which produces the impulse and desire to destroy, and therefore is to be found in the heads of murderers and of beasts of prey.

Seventh, *Constructiveness*, which inspires with the tendency to construct in general, is said to be found in

birds, and such animals as construct nests or habitations ; also in the heads of eminent architects.

Eighth, *Acquisitiveness*, (Economy,) which produces the tendency to acquire and possess. Accordingly said to be in excess in the brain of the miser, and deficient in that of the prodigal.

Ninth, *Secretiveness*, (Policy,) which produces the tendency to conceal—said to be large in the heads of thieves and misers.

To these nine, more recent students of the science have added *Vitativeness*, (Love of Life,) *Inhabitiveness*, (Love of Home,) and *Alimentiveness*, (Appetite.)

The second class of organs, called Moral *Sentiments* or Perfective Faculties, occupies the middle or upper portion of the brain, and are ten in number.

(10.) First, *Self-Esteem*, producing self-love ; its excess is the parent of pride.

(11.) Second, *Love of Approbation*, (Approbativeness,) producing the desire for the esteem or love of others. Vanity is the offspring of its excess.

(12.) Third, *Cautiousness*, (Prudence,) producing the emotion of fear. *In this not Love of Life*

(13.) Fourth, *Benevolence*, (Kindness,) disposing to kindness, compassion, and charity.

These four organs are said to be possessed by man in common with the inferior animals. The following sentiments are peculiar to man :—

(14.) Fifth, *Veneration*, (Reverence,) producing respect and reverence in general.

(15.) Sixth, *Hope*, (Expectation,) producing the sentiment of hope or belief.

(16.) Seventh, *Ideality*, producing the feeling of exquisiteness and perfectibility—generally possessed by poets. Some recent authors make a subdivision under the name of Sublimity. *No subdivision has been left under*

(17.) Eighth, *Wonder*, (*Spirituality*), producing credulity. *Is this not the abuse*

(18.) Ninth, *Conscientiousness*, (Love of Justice,) producing the feeling of right and wrong.

(19.) Tenth, *Firmness*, producing determination, constancy, and perseverance.

The third and last division of the organs occupies the forehead, and is in number fifteen. These are the intellectual powers, and are subdivided into the *knowing*, or perceptive; and the *reflective*, or reasoning faculties. The former comprehend eleven, and the latter four, organs.

(20.) First, *Individuality*, or the desire to know facts. It is subdivided into the upper and lower, or eventuality and individuality proper. The one is directed to objects, and the other to persons.^{*} There are persons who recollect distinctly the minutest fact and circumstance, but cannot recognise and identify the actors and scenes; whilst others recognise the persons and places most vividly, but special facts have with them passed into oblivion.

(21.) Second, *Form*, producing the judgment of shape.

(22.) Third, *Size*, giving the power of readily estimating size.

(23.) Fourth, *Weight* (Gravity,) producing architectural excellence.

(24.) Fifth, *Colouring*, producing taste for, and discri-

mination of colours. The want of this organ is well known under the name of colour-blindness, or Daltonism, from the celebrated Dr Dalton, the chemist, who was greatly deficient in discernment of colours.*

(25.) Sixth, *Locality*, originating the desire of traveling, and a talent for geography and kindred sciences.

(26.) Seventh, *Order*, (Method,) producing the desire of arrangement.

(27.) Eighth, *Time*, giving the power of conceiving of time in chronology, and in music.

(28.) Ninth, *Number*, (Calculation,) producing the power of calculation.

(29.) Tenth, *Tune*, giving the perception of melody.

(30.) Eleventh, *Language*—indicated by the prominence of the eyes—giving a facility in acquiring languages. *expressing our thoughts*

The reflecting or reasoning faculties are four.

(31.) First, *Comparison*, giving the power of perceiving resemblances and similarities.

(32.) Second, *Causality*, inducing reasoning, or the asking the why and wherefore of things.

* However difficult it may be to discover the deficiency in the sense of colour on the skull, there is none in obtaining the knowledge of the defect by exercising the eye. Dr George Wilson, in an able paper, has proved how very common is this defect. This is a fact much neglected, in appointing servants on railways who are to act according to certain signal colours. It is right to ascertain general good character in such servants, but as much to be assured of their peculiar fitness quickly to discern shades of colours. Many a life has been sacrificed from want of attention to this well-known fact, and several persons have been severely punished for what was considered to be their negligence when it truly was physical defect. It is very probable that some more certain mode of signals will be adopted than that of diversity of colour, open as that is to so obvious an objection. The number of lamps, independent of their colour, would give surer indications of safety or danger.

(33.) Third, *Wit* (Mirthfulness,) giving a desire for the ludicrous.

(34.) Fourth, *Imitation*, giving the power of imitation in general.

(These last two are by recent writers ranged among the feelings rather than the reflective organs.)

It will be observed that there is no special organ for memory. Some phrenologists maintain that memory is merely a mode of activity of the various intellectual faculties, and that each organ has a separate power of recollection, though they connect it more especially with individuality and the other perceptive faculties. We meet with those who minutely recollect circumstances, but cannot recollect the dates when these occurred; others can give a date for most events in their lives; others recollect places and roads; others calculations and tunes; others, colours and forms; and so forth, throughout the powers of the mind.

Having thus generally and specially stated the nature of the science, we now proceed to examine the arguments for its support and the objections against its reception.

A twofold objection has been brought against phrenology, founded on its history. One class of objectors asserts that its doctrines are of recent origin, and that had they been true they behoved to have been observed at a much earlier period of the world's history. Another class of objectors alleges that the doctrines were indeed known to the ancients, but scouted as absurd. Neither of these charges is strictly true, nor are they legitimate. On this reasoning, the system of modern astronomy should not be true, because not made known till 1510

by Copernicus. Harvey's theory of the circulation of the blood must likewise be false, because it remained unknown till 1619; and so of the electric and galvanic fluids, and many other discoveries in natural science. There appear certain favoured epochs in the world's history when the angel of human progress silently descends to earth to disturb the mental pool. It is then that men of mind are inspired to plunge into the cleansing and invigorating waters on whose margin social intellect has lain long, as if helplessly paralysed.

Modern phrenologists never laid claim to the discovery; on the contrary, they find arguments in the fact of its being in some respects known to the ancients. They claim, however, for Drs Gall and Spurzheim the merit of reducing it to fixed principles and rules. Aristotle assigned different operations of the mind to different parts of the brain. Juvenal, in his "Satires," ridicules the doctrines of Soothsaying on the appearance of the forehead. In the thirteenth century, Albertus Magnus pointed out the supposed position of the several mental faculties; and about the same time a plate of the surface of the skull, marked out into the mental divisions, was published. Willis, who wrote so early as 1683, observes,—"Though we can discern nothing with our eyes, or feel with our hands what passes within the social chambers of the brain, yet may we, by *rationally* comparing the effects with the working of the machine, at least *conjecture* what *kind* of functions are performed *in some parts of the head*." The advocates for phrenology refer to ancient statuary in evidence of the antiquity of their science. They maintain that whilst the heads of the

gladiator and the slave are uniformly of a small size, and with a sloping forehead, the heads of heroes, statesmen, orators, and especially the heathen divinities, are portrayed with prominent and high foreheads; and in several instances they affirm that particular organs may be discovered indicative of the particular character of the being sought to be thus represented. Very remarkable coincidences are seen in ancient coins and modern portraits. Men of note, whose names have come down to us encircled with fame, are said to be uniformly represented with their heads bent forward, whilst those who have rendered themselves infamous by wicked works, have their heads erect or bent backwards. This is especially apparent in the contrast between the great and good Cæsars of the Roman Empire and their degenerate successors of the Caligula type. The same remark is said to hold good with the portraits of Dr Johnson, Sir Walter Scott, Dr Chalmers, and that class of men.

The facial line or angle of Camper for a time excited much attention. By describing a line about parallel with the floor of the nostrils, and another from the most prominent part of the forehead to the front of the upper jaw-bone, it was supposed that the relative quantity of brain was ascertained.* It will be easily seen, however, that this mode did not at all apply to the breadth of the forehead; indeed, it did not even shew the quantity of brain, but simply the angle of the brow. The *basi-facial* line of Dr Barclay was introduced; and more recently several instruments have been used not merely to ascertain the gross quantity of brain, but the relative proportions of phrenological development.

Latin sign.
face & Brain

The complexity of the brain is thus well illustrated by a recent continental writer, "We find in the brain hills and dales, bridges and aqueducts, beams and vaults, hooks, claws, ammon horns, trees, sheaves, harps, and tuning-forks. No one has yet explained the signification of these singular forms, and centuries may yet elapse before a Copernicus appears who may be able to regulate the solar and planetary tracts of our psychical organism."

Dr Gall, a physician in Vienna, when young, had his attention directed to the great diversity of inclinations and pursuits characterising his schoolmates and play-fellows. Some whom he excelled in one branch of study surpassed him in another. He at length discovered that all the superior scholars were distinguished for prominent eyes. Finding this rule never to fail, he sought out other indications of talent and relative developments with equal success. Having betaken himself to the study of the writers on the philosophy of mind or metaphysics, he found nothing but general divisions into will and understanding, volition, conception, and perception. Where any particular faculty was treated, the various writers differed widely from each other. Proceeding on his observations of nature, he at length reduced the results of his labours into a system, and delivered his first course of lectures at Vienna, in 1796, when he was interdicted by the Emperor, on the ground of his teaching doctrines leading to materialism. In 1800 he was joined by Dr Spurzheim, who added much to the labours of his predecessor, especially in the philosophy of the science. Both these gentlemen lectured throughout the greater

part of Europe, and enrolled amongst their disciples many eminent men.

Their first inquiry obviously was, whether the brain be truly the seat of the mind, or the instrument through which the mind is exercised or excited. Little needs now be said on this question, because it appears very generally conceded in the affirmative. This, however, was not always a settled point. Aristotle placed the soul in the head; Descartes assigned it to the pineal gland. This was so called from its resemblance to the cone of a pine. There was sand in this central portion of the brain, but that is found in the brains of all adults, not excepting those of idiots. By others the vital knot in the *medulla oblongata* has been supposed to be the seat of perception and sensation. By others the seat of the soul has been supposed to be in the large *commissure* which unites the two hemispheres of the brain. Van Helmont very sensibly placed it in the stomach. Many practical Van Helmonts are to be found in our day—men who live to eat, instead of eating to live. So late as 1803, Dr Thomas Brown, in the *Edinburgh Review*, held it as a controvertible point, and quoted the fact of birds and insects enjoying many functions after being deprived of their heads. Reference to comparative anatomy, however, is not always safe where the inquiry is on a subject of *mind*. Strong evidence of the brain being the seat of the mind may be deduced from the fact, that injury of the brain generally produces mental imbecility; and that the mind is acted on by narcotics, opiates, spirituous liquors, nitrous oxide or laughing-gas; and when fatigued with mental exertion a painful sensation is felt in the head.

There is a remarkable case recorded of a Welshman in St Thomas' Hospital, who received an injury in the head, and on his recovery was found able only to speak Welsh, which he had known in his youth, but had forgotten, and became unable to speak the English which he had acquired in manhood. *Quoted in Pritchard's Natural History of Man*

Holding then the brain as the seat of the mind, or, at least, necessarily connected with its functions, the next inquiry is, does the mind act simply and singly or by separate *medicæ* or *organs*?

On this point of the inquiry much has been written, and still the subject is one veiled in obscurity. Those who deny the principles of phrenology, affirm that the mind is simple and incapable of division. ¹ They admit that it acts differently in different persons, and at different times in the same person, but this they hold as not implying a diversity in its organisation, but simply a variety in the modes or states of the mind, induced by external causes, such as education, health, or other circumstances calculated to excite or repress peculiar feelings or dispositions. *See also*

The brain has by these philosophers been likened to a musical instrument : for example, a trumpet. If excited with one degree of force, it emits one kind of note, which is the result of the metal being in one state ; if excited with another degree of force, the same instrument produces another kind of note. The person and the instrument are here always the same, but the former exercises different degrees of power, and the latter is thereby put in different states or degrees of action.

According to phrenologists, however, the brain may

be compared to another kind of musical instrument : for example, a piano. The first string struck produces one note ; the second produces another note, and so on. Still, however, the person and the instrument are the same. The former only gives his power a certain direction, and the latter receives the power on a certain point, but without the individual strings the corresponding notes could not be produced, and even when the various strings are existing these may produce tones louder or sharper, according to the size or degree of tension of the cord or string. A still better illustration has been given by the late Rev. Dr Welsh. He remarks, in his *Life of Dr Thomas Brown*, that the only difference between the doctrines of phrenologists and those of metaphysicians is, that the latter refer the feelings and thoughts to relations of the simple substance mind to certain states or external objects. Phrenologists just carry the process a step farther, and refer thoughts and feelings to the relations of the simple substance mind to certain portions of the encephalon or brain. Dr Welsh illustrates his doctrine thus—We look at snow, and we have the notion of a certain colour. That notion is not in the snow, but in the mind. But it is by all allowed that there is a step between the snow and the mind. The eye and the optic nerve intervene, and yet this does not alter the simplicity of the mind, although at the same time it may be receiving other impressions by the auditory and olfactory nerves. If this be conceded, it does not destroy the simplicity of the mind to require another step of communication, and, instead of making the optic nerve give the idea or notion of the

colour in the snow to the mind, to require the intervention of a particular portion of the brain. So if the optic nerve be strong or weak, will the impression from the colour be strong or weak. In the same way, if the relative portion of the brain be larger or of finer structure, or more active, the perception of the colour will be more delicate, quick, or pleasing. We must in candour admit that this reasoning is perfectly convincing to us, that phrenological principles do not destroy the simplicity or singleness of the mind. Nevertheless we admire the philosophical humility of Sir William Hamilton, who leaves the subject with this beautiful observation,—“The sum of our knowledge of the connexion of mind and body is therefore this—that the mental modifications are dependent on certain corporeal conditions, *but of which we know nothing.*”

The chief arguments for a plurality of separate and distinct powers in the same mind are the following:—

(First,) That when a person has long had his mind directed to one object he feels mental fatigue, and obtains relief by changing the object of mental study. Phrenologists hold this as proving a change from one organ of the mind or portion of the brain to another. But their opponents answer that this may arise merely from a change of the state and direction of the mind. The eye may be fatigued with a long examination of one colour, and find relief by looking to another colour, yet it is still the same eye. So with the olfactory, auditory, and gustatory nerves, which receive relief by mere change of object.

(Second,) Phrenologists found on the fact that in

lunacy one particular mental power or feeling appears to be chiefly and sometimes solely deranged. Examining the causes assigned for madness we find these stated as arising from love, ambition, religion, and so forth. Indeed, some authors hold that there is a vein of insanity in every man and woman. What is called a man's hobby or his peculiarity is just a disarrangement of a portion of the brain and corresponding mental feeling, which, if encouraged, or the hobby over-ridden, tends to bring all other mental powers under its subjection, and to produce that state of lunacy called monomania.

(Lastly,) The theory of dreaming is founded on in proof of a variety of mental powers. Phrenologists hold that in this state the mind has lost its sway over the powers subject to her dominion. That the material organs become affected by the state of the body, especially the stomach, and that cerebral organ which has been chiefly excited throughout the day is apt to retain its activity during the night. Thus the organs acted on without system or order produce all these mixed and dissolving views of mental phantasmagoria called dreams, wherein one or more organs are awake and active, and others asleep or dormant, whilst, if the organisation of the mind were simple and uniform, no such phenomenon as dreaming could exist. Somnambulism offers another illustration of the same theory.

The science of metaphysics is generally supposed to be a barren region, wherein no sure guide exists to lead the traveller. One class of philosophers divides the mind into certain faculties; another class adopts another division; a third denies powers maintained by others, and

affirms faculties disputed by their adversaries — one sect, of which Bishop Berkeley was chief, denied the proof of the existence of matter, and another school, under the auspices of Hume, denied the possibility of proof of the existence of mind. The school of which Locke is the founder hold the mind at birth to be as a piece of white paper—*tabula rasa*—on which education and circumstances write feelings and dispositions. This last is undoubtedly untrue, for we daily find in the same family, children receiving the same education and care, and placed precisely in the same circumstances, who are, nevertheless, distinguished from each other. One is thoughtful and studious, and adopts a learned profession ; another is calculating and enterprising, and becomes a successful merchant ; a third, unlike all the family, is wild and restless, and probably runs off to sea. Again, one brother readily becomes a distinguished linguist, but cannot work out the simplest arithmetical calculation. Another, who can acquire no knowledge of grammar, delights in the mazes of algebraical calculation. One sister is the admiration of all for her skill in music ; another, on whom the same education has been bestowed, cannot produce one concord, but excels her sister at drawing. We need not pursue the illustration farther. It is now generally admitted that genius is inherent, while talent may be acquired—that the poet is born and not made. But, nevertheless, the native power may be nearly lost by neglect, and the native weakness strengthened by culture.

It has been argued at great length by phrenologists that we cannot discover by consciousness that we think

through the medium of separate organs, because though the organs be many and separate, yet consciousness is one and single. Thus we are not conscious that we see by the optic nerve, smell by the olfactory nerve, or hear by the auditory nerve, however distinct these nerves may be when traced by the aid of anatomy. We know the fact, but this is founded solely on observation, and infants perform these functions without either consciousness or knowledge. Neither can dissection discover the properties of these organs. An anatomist might dissect the optic nerve for a lifetime without being able to discover from its structure that its function was to convey impressions made by the appearance of external objects to the mind. Indeed, it is said that Magendie has recently given reasons for doubting whether the optic nerve is at all connected with vision.

This brings us to the difficult part of the subject. Phrenologists found their science on experience. They argue that by observation we find different dispositions and acquirements in different individuals. By observation, also, we find no two heads any more than any two faces precisely the same. They therefore apply the inductive or experimental principles of the Baconian philosophy. If they find two heads having a similar development, and the persons shewing similar feelings, dispositions, and mental powers, then they argue that there is at least a probability that there is some connexion between this cranial development and this characteristic manifestation. Two instances of the same kind make the conclusion stronger, and so on, till by the number of

observations what was at first *probability* becomes *certainly*.

“Phrenology is based altogether upon the *observation* of a correspondence betwixt cerebral projection and mental manifestations, or absence of development and deficiency of relative psychological indications.”—(Smith, p. 5.)

It is impossible to dispute that this is fair and philosophical argument, and here it is that the principles of phrenology are to be met and examined. Any other mode of argument is fallacious. It matters not whether the brain is or is not the seat of the mind, or whether the mind is simple or divided, if it can be proved that peculiar developments of the brain are uniformly attended with certain mental characteristics. To use an opposite rule of argument would be to adopt the practice of the bigots of old, who held that the world *could not* revolve round the sun as a centre, and hence declined to examine the proofs for the assertion, and condemned its great advocate to a dungeon.

Let us, then, inquire whether it be a fact that the true shape and convolutions of the encephalon or brain can be ascertained by examination of the bony crust or skull which contains and defends that membrane. Phrenologists maintain the affirmative of this position, and as it is the brain they alone hold as sentient or indicating mental powers, they have disclaimed the names of craniology and cranioscopy formerly given to their science, and have adopted that of Phrenology. It appears admitted on all sides that the brain is first

formed, and that the skull receives its figure from the brain, not the reverse.* It is admitted that the skull is somewhat altered in its shape with the advance of life, and phrenologists maintain that these changes are in exact consistency with their principles—that in children the knowing powers or lower part of the brow are first developed, and with the advance of life the *reflective* powers assume a prominency. It is admitted by phrenologists that in disease and in old age the brain recedes, and that it is then impossible to ascertain its configuration from the skull. These instances are attended with a relaxation of mental energy, and hence they assume them as proofs of their theory. We find from the writings of opponents of phrenology that the brain has reached its full increment in seven years, and this they hold as inconsistent with the great advance of mental power afterwards obtained. However, it may be answered that by that period the feelings, disposition, and *natural* genius of the man are pretty well fixed. Subsequently these may be greatly improved and modified, but no new powers are obtained. From a table made up from the experience and observation of hatters, and given by Dr Milligan, it appears that a child of *one* year has a head of $5\frac{5}{8}$ inches of mean diameter ; at *two* years, $5\frac{7}{8}$; at *four*, $6\frac{1}{2}$;

* In like manner the face takes its outline from the brain, and therefore physiognomy is dependent on phrenology, and does not form a separate department of inquiry. Thus all admissions of the truth of physiognomy are corroborative of that of phrenology. One illustration of the former may be seen on the occasion of a regimental inspection. When the sergeants are called to the front, let a comparison be made of their countenances with those of a like number of the rank and file. These men have been promoted because of their intelligence and uniform good conduct, and they bear the characteristic marks in their features.

at seven years, $6\frac{5}{8}$; at twelve years the head is only $6\frac{3}{4}$ —giving a very slight increase for the intervening five years. Adults measure about $7\frac{1}{8}$ to $7\frac{3}{4}$, and the largest 8 inches. Hatters agree that servants' heads are smaller in proportion about one-fourth of an inch. Negroes heads are much smaller. Women's heads are more round than men's, and nearly all of a size, varying from $6\frac{5}{8}$ to 7 inches in diameter. *Curly 2*

Dr Lander Lindsay of the Perth Royal Asylum for the Insane, with the view of inquiring whether there existed any connexion between the size and configuration of the heads of the insane and the manifestations of insanity, measured the crania of several of his patients with the following results:—Of 121 patients—48 males and 73 females—the greatest circumference of the heads of males at its greatest diameter, including forehead and occipital protuberance, was 24 inches, and the lowest measurement was 21 inches. The highest measurement in females was 23 inches, and the lowest 19 inches. The average circumference in males was 23.90 inches, and in females 21.74. The learned doctor mentions the fact that “the measurement was only $21\frac{1}{2}$ inches in one of the most active and intelligent members of the community—a well-educated and accomplished gentleman—a man remarkable for his powers of memory.”—(*Report of Perth Asylum for 1858. See also the Report for 1860.*)

Such results are admitted by phrenologists themselves. “It does not always follow that the largest skull contains the greatest quantity of brain. . . . Size of brain is therefore not altogether measured by that of skull.”—

(Smith, p. 79.) “It is certain that the mere appearance of a fair and broad forehead is not the accurate criterion of intellectual endowment.”—(Smith, p. 178.) “It will be perceived that a broad or even a high forehead will not alone be evidence of great intellectual capacity. . . . Neither will a forehead which is somewhat narrow be necessarily indicative of great intellectual deficiency.”—(Smith, p. 76.)

Phrenologists, therefore, do not hold the mere *absolute* size of the brain as indicative of *general* mental power. Some of the inferior animals with small heads approach nearest in sagacity to the human race. It is the *relative* size of the head to the body of which it is a member, that is held to be the rule, and not even so much that fact as the particular distribution of the brainy fibre within. It has been remarked, that in the effigies of the Roman Emperors on ancient coins, as well as the portraits of great men of ancient and modern times, the head not only appears relatively large in proportion to the body, but is bent forward on the breast as if from the weight of the portion assigned to the thinking powers. This is peculiarly remarked with the head of Napoleon. His head is said to have greatly increased in bulk during his eventful career.

It has been said by the learned that the human frame undergoes a gradual and imperceptible change, whereby there is at the end of every cycle of seven years not a particle of the same corporeal matter—a total but so silent a change that there is no disturbance in personal identity. This number *seven* has certain mysterious qualities. The Holy Scriptures declare that it had

its divine origin in Paradise, and we find it recurring throughout the blessed volume until speaking in a voice of thunder by the *seven* angels of the Apocalypse. So, too, in the history of ancient nations the number *seven* is the emblem of perfection,—an idea which, no doubt, was derived from the stock of humanity in the race of Heber. It certainly is most marked in the *seven* ages of man. At *seven* the brain, as we have seen, has reached almost its full volume, and childhood then ceases whilst youth begins. Double the golden number, and the youth of *fourteen* makes his joyful entry on puberty. The rule of three brings him to majority, when man is supposed to be able to manage himself, but too often finds that he is but the slave and sport of passion and fashion. It has been asserted by those who have studied vital statistics that every septennial period is marked by an increase of the voracious demand of death and the grave—the ninth summation brings man to his grand climacteric, and the *tenth* power of the number sums up the Scriptural tenure of humanity when the few remaining cedars which have been left in the forest of life, yield at length to the axe of the last enemy, and make way for another plantation. Wave succeeds wave wafting onwards to the dread ocean of eternity, few leaving the slightest trace on the shifting sands of time.

“Just like the snow-flakes on the river,
A moment white, then gone for ever.”

The antagonists of phrenology allege a number of circumstances as preventing the true ascertainment of the convolutions of the brain from the outward configuration of the cranium. As this is a most important part of the

subject, we shall bestow considerable attention upon these objections.

First.—It is objected that the outer and inner tables of the skull are not parallel. The skull consists of two layers of bone—an external and an internal—separated from each other by a sort of network, called the *diploë*. The internal table is next the brain: the outer is connected with the bones of the face. In proportion, therefore, as the facial bones increase in size, the external table is separated from the internal, and the *diploë* becomes more or less thick and irregular. The action of the muscles has a considerable effect in occasioning this inequality, and in determining the configuration of the skull. Hence the parallelism of the two tables is destroyed. Mr Combe, in his “Elements,” admits this departure from parallelism to be in a line from one-tenth to one-eighth of an inch. But he considers it as of little moment, because the degree of difference between organs amounts from a quarter of an inch and upwards. We do not wish to speak rashly against such a highly respectable authority; but we humbly venture to hint this non-parallelism, in a study where the measurements are extremely nice, to be a great source of doubt and perplexity.

Second.—There is on the anterior part of the head, or superciliary ridge, a separation of the two tables, forming what are termed the frontal sinuses, which prevent all ascertainment of the brain underneath that portion of the skull. The difficulty is occasioned from the circumstance that these spaces are irregular in different persons. Dr Stone asserts that these sinuses extend over

twelve and sometimes over sixteen most important organs. Mr Combe, however, asserts that they only affect two of the organs. The medium may perhaps be true, and that four or six will be found the average number of the organs thus affected. It is obvious, therefore, that the objection leaves the science as a *whole* untouched; and even as to those organs affected, we can conceive that the outer layer may take its figure from the inner, and therefore give the true result of the shape of the brain underneath.

Third.—There is a difficulty attending the inquiry whether the upper extremity of the brainy fibre is always indicative of the size of that portion or congeries of fibre throughout. No access can be had during life to the *lower* portion or base of the brain, where phrenologists place the feelings of hunger and thirst, heat and cold, and others not yet assigned a place on the sphere of the head. Now, as these portions of the brain are larger or smaller, they will, of course, exert an influence by compression or relaxation of the fibres of the other and superior portions. Phrenological anatomists assert that no such difficulties exist, and that the external appearance is positive evidence of the size of the portion of the brain throughout.

Fourth.—But a very strong stand is made by the opponents of phrenology on the fact, that although there be elevations and developments on the surface of the skull, and although a similar convolution may be found on the surface of the brain on the removal of the skull, yet those portions cannot be separated. The anatomist, it is said, can trace the auditory nerve, the optic nerve, and the other *media* between the brain and external objects of sense; but he cannot separate the organs of

Benevolence from Veneration, or of Destructiveness from Combativeness. Several answers have been given to this. It is said that by a particular dissection of the brain, beginning from the *medulla oblongata*, and rising to the surface with a blunt instrument, the fibres may be traced to the different developments, and that they cannot be turned in any other direction ; but that so soon as they are thus disturbed, they hastily assume their former direction and place in the encephalon. Still, however, they certainly cannot be divided. The analogy from the nerves of the external senses may not be a fair illustration, because none of the phrenological organs are, at least immediately, in connexion with external objects. Besides, it is maintained that there are minute divisions in the nerves of motion, feeling, and taste, to distinguish which as yet has baffled the powers of the anatomist. Another answer may be given—that from the arrangement in the encephalon, this impracticability of subdivision is less material. If Destructiveness lay next Benevolence, there would be much force in the objection ; but though the latter were thus to blend into its neighbours, it would just be such a union as really exists in fact—namely, into Veneration and Hope. Again, Destructiveness would embrace its twin-brother Combativeness, and Aquisitiveness would walk hand-in-hand with Secretiveness. Amativeness, or love of sex, very properly is but one step from Philoprogenitiveness, or love of children.

Fifth.—It is objected that as the phrenological organs are all double we should feel double. This is absurd. Consciousness is single, because the mind is single. On the same argument we should see double with two eyes,

and hear double with two ears. So far then from an objection arising from the duality of the organs, it appears to be in perfect unison and analogy with other portions of the human frame.

Sixth.—It is objected that persons have been injured in certain portions of the brain without losing any mental power. The following case is reported in the *Lancet*:—“Griffith Jones, still living in a small farm on the lakes of Llanberis, (Wales,) lost his eyes by an explosion of gunpowder in a quarry; a hole was made above the inner canthus of the eye, in the frontal bone, from which a quantity of brain escaped; the surgeon (Dr Roberts, Caernarvon,) states that he moved the director in every direction, even straight to the cerebellum, yet the man felt nothing, and completely recovered, with his intellectual faculties unimpaired.”

The following case was reported to the Medical Society of Ghent:—“A young man lost, by a pistol-shot, two tea-cups full of brain, and more at subsequent dressings. He lived for two years with his intellect *vastly improved, having before been of limited intelligence.*”

Dr Badeley quotes the case of a boy who, on a portion of his brain coming away through a fissure in the skull, in consequence of a violent injury, earnestly requested that it might be sent to his schoolmaster, who had frequently affirmed that his scholar *had no brains.*

But it is answered to these and similar cases, that such are exceptional, and that the general result is, impaired mind, from injuries of the head, often increased to mental derangement and insanity. But though it were otherwise, this is said to arise from the duality of

the organs and powers, the bountiful arrangement of the Creator. A person may lose the power of one eye or one ear, and yet see and hear, and so it may be with the organisation of the brain. A beautiful analogy exists between the duality of the mind and that of the body. To those who are curious on such subjects, we would recommend the study of the "Treatise on the Duality of the Mind," by Dr Wigan. All the vital organs are in duplicate. Therefore, why not with the brain, and the mind of which it is the organism? One of the organs of the body may be injured, and even destroyed, and yet the individual may enjoy unabated life. Such is the wonderful provision of the Divine Creator in the body "*so fearfully and wonderfully made,*" to meet the manifold risks of accident and injury to which men in this world are exposed. An injury on one side of the head often produces paralysis on the side of the body opposite to the seat of the injury, as the nerves cross each other at the top of the spinal cord. It is, consequently, argued that the brain is not one sphere, but two hemispheres, and that the distinctive mark of great men, is having two brains of equal volume, forming one *concentric* whole. Such heads may be said to be equal to two minds of equal power and activity. The man possessing such *brains in equilibrium* may be said to act with a *two-mind* power, and is known for decision of character and steadiness of aim. Such are said to have been the heads of Bacon, Newton, Napoleon, and Sir Walter Scott. On the other hand, those who have unequal quantities of brain, are justly said to have ill-balanced or ill-regulated minds, and, like their heads, are

said to be *eccentric*. There are two minds, of unequal force and character, attempting in vain to act in unison. Hence the hesitation and contradiction in such characters. The one brain assents, and the other doubts; the one hopes, and the other fears. Men of *equal* volumes of brain have the ear of Reason and Judgment yoked to two well-matched steeds, who steadily obey the curb and rein, and run with ease, side by side, never jolting or upsetting the delicate machine to which they are attached. Men of *unequal* brains and mind have ill-matched and ill-trained kine, who draw unsteadily, unevenly, and in different directions, with unequal pace and speed. Whilst the man of the well-formed head is as *one* man, the man of weak and vacillating mind is commonly known by the appellation of "*a man beside himself*," as if two men or minds of unequal strength, or rather weakness, were thus yoked together in worse than Siamese brotherhood. From this want of symmetry and modulation in the head, it is said that idiots have such a morbid reluctance to wear either hat or bonnet, or where such are forced upon them, are sure significantly to cock them on one side, indicative of the obliquity of the tenant within. They also move in very angular and eccentric circles, sometimes like a gin-horse pacing around a certain point, or move sideways, with great horror of coming into collision with any of their species, by which their vitreous composition might be shivered into atoms. By this theory, the phenomena of dreaming, somnambulism, and drunkenness are sought to be explained. It is supposed that in the first, certain portions of the brain are awake, whilst others are still in the arms of Morpheus, and thus

produce the varied kaleidoscope of dreaming, always increased by disease ; whilst in the higher phenomena of somnambulism, one brain or mind is awake, and goes forth most philanthropically, carrying his sleeping brother on his back, and performing prodigies of skilful pedestrianism or Blondinism, which would have been perilous, had both minds been sufficiently awake to see the danger and risk to which their night-watches exposed them. Illustrative of this inequality of brain, it has been said that on examination it will be found that no person has the nose exactly in the centre of the face, nor does this most important member of the body corporate stand mathematically at right angles with the line of the face, but denotes an obliquity according to the state of the brain to which it forms an important appendage. In fact, this functionary has thus not only the position, but the office, of the index in the sun-dial, by which the state of mental light may be measured. We say not whether there be truth in these views, but this we say, that the observation is within the reach of every one who wishes to experiment on the nasal promontories of his friends, or, with the aid of a mirror, would desire to gauge the extent of his own mental powers, as seated in the superincumbent region of the brain.*

Seventh.—Admitting that we have ascertained the

* Dr Lauder Lindsay, in his minute investigations on the heads of the insane, observes—“Among comparatively frequent peculiarities of conformation in individual cases, we may mention a pyramidal or conoid tapering form which we have noticed in certain cases of monomania and mania : an unsymmetrical development of the two sides of the head—one being flatter, smaller, or more irregular than the other : and lateral compression, giving rise to what has been called the carinated or keel-shaped skull.”—*Asylum Report*, 1858, p. 20.

size of development, is this sufficient to warrant us to predicate its exertion? Here we may state that phrenologists utterly eschew the term "bump." They hold that an organ may be large by mere extent of surface, without any rise or prominence. Looking at other parts of the body, we find portions such as muscles and valves very small, and yet possessing greater power and activity than their larger and more dormant brethren. Accordingly, in the phrenological map of the brain, we have a large continent assigned to Amativeness, or love; though certain most worthy and wealthy gentlemen practically deny any such human feeling, failing, or frailty. A small islet is dotted out for the residence of Causality, which is the pivot on which the whole mental orb revolves,—the intellectual zone which binds the whole together. In the same way, while Destructiveness and Combativeness look like large peninsulas, all the intellectual powers are conglomerated like some cluster of small islands amidst an ocean of boisterous and sensual passions. Phrenologists are, therefore, forced to admit that the size of the organ only proves its *power*; its *activity* is to be ascertained by another inquiry—namely, into the constitutional *temperaments*. These are said to be the lymphatic or phlegmatic, the sanguine, the bilious, and the nervous. Dr Gall attributes to each organ *five* degrees of activity, occasioning perception, memory, recollection, judgment, and imagination. Dr Spurzheim allows only *three*, which give rise to perception, memory, and judgment. The latest writers on phrenology admit three temperaments: the *vital*, being a combination of the *sanguine* and *lymphatic* of Mr Combe; the *motive*,

corresponding to the *bilious*, and the *mental*, formerly called the *nervous*. Again, the activity and direction of the organs may be modified, by education and circumstances. "It will be found that *quality* of brain is a modifying circumstance, and *health* of brain, and *exercise* of brain."—(Chambers's Information for the People, p. 354.)

Thus in the man of no education, and in poor circumstances, a large Acquisitiveness may produce theft, and a large Destructiveness, murder; whereas, in another person of education and rank, the former would make the distinguished merchant or wealthy banker, and the latter the hero of many victories. We should, however, in justice, say that phrenologists disclaim the prediction of actions and events, or that certain developments must produce certain characters. Dr Gall was therefore much and justly blamed for calling the organs of Secretiveness and Destructiveness by the names of *Theft* and *Murder*. Phrenologists merely state that these organs evince the peculiar powers or aptitudes indicated by their names, which are modified by circumstances or events. They merely hold that the organs are indexes of feelings and impulses. But the force of the objection lies in this, that if size does *not* completely determine the *operation*, but merely the *power*, and if the *operation* must be learned by extraneous circumstances, then there is an end to the exactness and *utility* of the study. It is exceedingly safe in engaging a servant, after getting an excellent character for honesty and order, to discover that the organs of conscientiousness and order are large; or in marrying a wife, who, we are assured, by a long and happy courtship, possesses good temper and attachment, to ascertain

as corroborative testimony that her organs of Benevolence and Adhesiveness are of goodly proportions.

Eighth, It may be objected to phrenology, that supposing the configuration of the brain can completely be discovered on the surface of the skull, yet that as it is the *whole* in combination which must be viewed, and not a single development, the process of examination is extremely difficult, if not impossible. We may find one good disposition, as of one pound weight, but we must see whether in the opposite scale there be not two separate pound weights, with a half pound to the bargain, all of malevolent qualities, which will make our good quality to kick the beam. Hence it is said, as with Madame Catáliná, there may be a deficiency in the organ of *tune*; and yet the individual may be the finest singer in the world, because she has the organ of *time* in excess. Again, Sheridan, the dramatist, had the organs of Destructiveness as large, and Combativeness larger, than in Pallet, the murderer; and yet, these being counter-balanced by other organs, he was neither a brawler nor a murderer, but an eminent statesman and polite writer. Again, in Thurtell, the murderer, Benevolence was very large, and hence it was said that he murdered Wear through pure benevolence to the world, that they might be rid of so bad a character. So with Burke, whose murderous practice has introduced a new word into our language. His Benevolence was much above the average, which in like manner is explained by his mode of murder,—one of the least painful to the victims he immolated on the altar of his cruel avarice,—a mode exactly according to the pattern set him by Hazael, in

See a
great way
of Amurka

the murder of Benhadad, the King of Syria, as recorded in the Second Book of Kings. The organ of Benevolence in the skull of the notorious murderer Burke was found absolutely above the average size of the same organ in thirty-seven crania. Sad mistakes may thus be committed. Suppose the unhappy semi-phrenologist, who has married solely on the guarantee of the benevolent development on the brow of his fair one, be soon kicked out of doors with a broken head, he will become still further confirmed in the truth of the science when he is calmly told that in the ardour of his love he had been content to write sonnets on his mistress' eye-brows, but forgot to examine behind her ears for the sad counterpoise of Combativeness and Destructiveness.*

Lastly, It is argued that changes in the character and conduct of the same individual are proofs against *one* determinate direction of the mind. Thus the spendthrift in youth becomes the miser in old age: the juvenile rake becomes the sedate married man; the sceptic becomes devout, and the thief becomes honest. Again, cases are cited where the same person excelled in a variety of dissimilar sciences. Such was the admirable Crichton of Clunie, who excelled in every study in which he engaged, and yet sacrificed his life in a duel. Bishop

* Can it be from the desire to conceal the posterior lobes of the brain, that the modern arrangement of the hair of the fair sex completely sets at defiance all inquiry from without as to cerebral manifestations? The ladies may cite St Paul as their authority, but verily the apostle was no phrenologist. It has been said that where there exists matrimonial bliss, the countenances of the happy pair are very similar, and become more so with the prolongation of the union; while in the more rare case of ill-arranged marriages, there is a striking dissimilarity in physiognomy increasing with the length of their unhappy partnership, and the extent of the discord existing between the partners.

Watson was a distinguished scholar, anatomist, chemist, and divine. Nations in like manner have lost their ancient national characters. Thus in Otaheite, when first visited by Captain Cook, the population was 204,000. In thirty years it was reduced to 5000, in consequence of the prevalence of infanticide. Now, by the conversion of the natives to Christianity, that crime is completely removed. The revolutions in Britain and France, and the Reformation from Popery, are all instances of a very sudden and general change in the feelings, habits, and characters of whole nations, without supposing any corresponding change in their craniums. Phrenologists answer these objections by saying that in all these instances the same organs continued unchanged, but were acted on by external circumstances, and received another bias or direction—the dynamics of moral force. The spendthrift, from love of pleasure or of approbation, when in the buoyancy of youth sought to obtain it by extravagance; in old age by amassing the means of purchasing it. The rake changed his love of boisterous mirth for his love of temperate pleasure; yet love was still the desire, and pleasure still the object of pursuit. Again, the sceptic formerly venerated his own wisdom or reason; now he venerates the Divinity and His Revelation. *Saul* of Tarsus, the persecutor of Christians, became *Paul*, the apostle of Christianity. Still Veneration was his feeling: formerly it was directed to the Jewish institutions, subsequently to the Christian. The inquiry, therefore, comes to what phrenologists themselves wish: to the standard of observation and fact. If it can be established that a certain development is

uniformly attended with a corresponding mental inclination, or power, then phrenology must be true, and of vast utility. All arguments *à priori* must yield to that of induction. But we are obliged to confess that the facts already gleaned are too few and contradictory to support the absolute truth of phrenology. Let us speak, however, with much caution, charity, and respect. Phrenology is yet in comparative infancy, and has the support of great and good men, so that it would be rash to declare that it may not yet admit of further progress and improvement. We are inclined to object to the facts as chiefly obtained from the heads of executed criminals. In these cases, the body being laid on the back after the process of suspension, the blood would necessarily flow to the back and base of the skull, assigned by phrenologists to animal passions, and thus these may appear large, whilst, from the same cause, the front portion of the head, the seat of the moral virtues, may seem relaxed. Besides, the character of the individual being already known, we fear frequently and insensibly gives an undue bias to the inquirer. This remark, indeed, in some degree applies to the analysis of the organisation of the head of any person of eminence. As has been shewn, the combinations are so various and discordant, and are so modified by external circumstances and constitutional temperament, that it really appears to us no difficult task to suit any skull to any preconceived character; and thus phrenologists amuse themselves by making heads for Iago, Shylock, and the other inimitable conceptions of the Bard of Avon. It has been said that a wag having made a cast from a well-shaped and neatly

cut out turnip, most wickedly sent it to a phrenologist, and obtained in return a most satisfactory character of this creation of his fancy for all that was amiable and generous in the human species, thereby (if the story be true) shewing the intimate union between the vegetable and animal kingdoms.

Phrenologists claim considerable aid from comparative anatomy. They find Destructiveness in the lion and tiger, Combativeness in the bull-dog, Secretiveness in the cat and fox, Time in the singing-bird, and Locality in birds of passage. With some allowance for the different configuration of heads, there are, without doubt, several remarkable coincidences in these references: but, as already said, it is dangerous to draw conclusions on *rational* subjects from *irrational* animals. Cuvier remarks that the smaller animals have relatively the largest brains—such as the mole, the rabbit, and the mouse—whilst the sheep, rat, and field-mouse have in proportion more brains than the elephant, horse, or dog; yet it is notorious how much the latter excel the former in their powers of intelligence. It is well known that several animals, such as rabbits, alligators, and frogs, shew signs of sensation and volition, after removal of the cerebral hemispheres. It was well said by Pascal—“In nature there is nothing great but man, and in man there is nothing great but mind.”

We may briefly allude to Pathognomy or Natural Language, which is an amusing part of the inquiry. *National* languages may be termed arbitrary: but *natural* language is the same throughout the species. We, in Great Britain, express affirmation or negation by

yes or *no*, and every language has its own nomenclature to express similar feelings. But these terms might have been mutually converted the one into the other. In all nations, however, the nod of the head, bringing forward the organ of Benevolence, is understood to mean acquiescence or assent. On the contrary, to shake the lateral organs of Caution or Combativeness is understood even by a child, to mean doubt or negation, or even a threat of chastisement. Again, the proud man, with the organ of Self-Esteem on the top of his head, walks very erect, and, even in common parlance, is said to carry *his head high*, or to be high-headed and high-minded. The humble man holds down his head, or is said to be *down-cast*. Religious persons, as the Puritans of old, had Veneration very large, and hence they had their hair shed down over that organ, and in the civil revolutionary wars obtained their name of "Roundheads." Hence, also, it is said many or most eminent clergymen are bald. When we *think*, we never put our hand on the back or side of the head, but directly on the organ of Causality. It is singular that in all the portraits of Sterne, he has his finger straight over the organ of Wit. When music is well played, the genius for harmony naturally nods in the direction of the organ of Tune. Children, when afraid, thrust their heads laterally into their mother's lap, and when Caution is covered seem satisfied that they are safe. Children, and even adults, when embracing, are said to bring the posterior sides of their head into contact over the organ of Adhesiveness; and just in this position is found the ancient statue of Castor and Pollux. In vulgar language, a man is said to have a *long head* when dis-

tinguished for acuteness—a *clear head*, when distinguished for quickness of thought—and is called a *thick head*, or a *blockhead*, when illustrious for dullness or stupidity. A *bull-headed* man is one noted for obstinacy, and to be avoided as much as the quadruped which gives the name to his mental constitution.

Objections have been raised against the tendency of phrenology, on the grounds of Materialism and Fatalism. We humbly conceive there is nothing in either objection, and the adherence of several distinguished clergymen as votaries of the science gives us strong guarantees for the absence of such tendencies. But we should take no truth on the mere evidence of another, however eminent. We must examine for ourselves. It has been shewn that the existence of material organs in the brain does not imply that the mind is material. The objection of Fatalism is equally unfounded. It is quite undeniable that mankind, on the very opening of the mind, evince different mental dispositions, feelings, and powers; and in the language of the poet, “the boy is father of the man.” It matters not, therefore, whether the individual varieties of character be shewn by material organs or not. Still the objection is of equal force. The principles of phrenology appear nowise inconsistent with the truths of Revelation, which at once declare the sovereignty of the Creator and the free-will of the creature. If the truth of the science or facts be established on undoubted evidence, we are bound to receive its truths, and leave the results and consequences to that Almighty Being, who, however mysterious in working, does everything wisely and well, and from seeming temporary evil

evolves eternal good. Any other mode of reasoning is to impeach the wisdom of the Creator. Such reasoners are of the class of the antagonists of Galileo, and were well answered by that eminent man when he thus addressed them :—“The day will soon break when pious simplicity will be ashamed of its blind superstition—when men will recognise truth in the book of nature as well as in the Holy Scriptures, and rejoice in *the two Revelations*.” But the true response is in the inspired language of the apostle—“Nay, but, O man, who art thou that repliest against God? Shall the thing formed say to him that formed it, Why hast thou made me thus?” Or in the words of the poet—

“ Let no man dare
Snatch from *His* hand the balance and the rod—
Prejudge His justice—be the God of God.”

The advocates for phrenology aspire to claim for it a greater extent of utility than can as yet be justly conceded. Take the following from one of the most recent recommendations of the science :—“A correct phrenological examination will teach, with *scientific certainty*, that most useful of all knowledge — yourself ; your defects, and how to obviate them ; your excellences, and how to make the most of them ; your natural talents, and thereby in what spheres and pursuits you can best succeed ; shew wherein you are liable to imperfections, errors, and excesses ; direct you specifically what mental faculties and functions you require especially to cultivate and restrain ; give all needed advice touching self-improvement and the preservation and restoration of health ; shew throughout how to develop, perfect, and make the

very most possible out of your own self ; disclose to parents their children's innate capabilities, natural callings, dispositions, defects, means of improvement, the mode of government especially adapted to each, predispositions to disease, together with preventives, &c., &c. ;—nor can as little be spent on them as profitably, as in learning their Phrenologies and Physiologies. It will enable business men to choose reliable partners and customers—merchants, confidential clerks—mechanics, apprentices having natural gifts adapted to particular branches—ship-masters, good crews—the friendly, desirable associates ;—guide matrimonial candidates in selecting congenial life-companions especially adapted to each other ; shew the married what in each other to allow for and conciliate ; and can be made the very best instrumentality for personal development, improvement, and happiness.”—(*Fowler and Wells.*) Such a science is thus upheld to be a panacea for all the mental and moral evils to which man is heir, by the general application of which a mighty revolution in the moral world might be effected, when

“ Man's holy mind, if train'd aright,
 To such a height of good would grow,
 That spirits pure and angels bright
 Might with us mingle here below.”

But the chief advantages more soberly claimed by leading phrenologists are—Improvement of the Philosophy of Mind, the Education of the Young, and the Treatment of Lunacy. As to the first, much may be done, even without the aid of phrenology. There are so many mental and moral systems and theories opposed to each other, that the student of mind is often lost in

cloud-land. Phrenologists explain this on the principle that each metaphysician sits down, and as he feels and thinks, he composes a mental system, holding that mankind must feel and think in the same way as himself. Another meets the system, and writes it down as false, just because he feels and thinks differently. Accordingly, Mr Combe has been able to quote authorities from various metaphysical writers for the separate existence of powers or faculties in the mind, in number nearly equal to, and in kind nearly the same as, the *thirty-three* phrenological organs.

On Education, much may also be done without Phrenology. We subscribe to all that phrenologists have written on the manifold and manifest errors of education. It is worthy of the dark ages that a large class, of different capacities, genius, and talent, must be all carried on in improvement at the same rate—that the clever boy must be whipt back that he may bring up his stupid compeers, and the dolt must be whipt forward to keep up with those with whom nature has never designed him to rank. Most material injury is done to both. Nothing is more absurd and injurious than, on the same principles, compelling children to adopt certain professions and pursuits, however adverse to their talents and tastes—the parents' *will* being the measure of the boy's *ability*. But all this can—and we hope will—be rectified without the aid of phrenology. The proof of talent and disposition, and fitness for professions evinced from outward manifestations, will be more satisfactory than the prognostication from developments on the skull. On one point all friends of education must be agreed—that in

the race for riches, the inordinate love of money, and the worship of the god Mammon, our youth are placed under mental education before the period when physical development can be properly perfected, and are taken away from school long before the mind has been sufficiently cultivated, or, indeed, is in a state fit for efficient cultivation. As well might the agriculturist sow his seed on the hard frosts of winter, and expect a plentiful harvest in spring, as the educationist, if children have their memories crammed with *prosody* when their stomachs should rather be replenished with *porridge*, should expect such treatment to result in anything but a puny mind in a stunted body—a moral shrub, forced under the power and cover of glass, and wholly unsuited to encounter the keen, biting frosts, and the severe, uprooting tempests of this cold and changeable world.

As to the Treatment of Lunacy, phrenologists maintain that it is a physical disarrangement in the brain, which should be treated in the same way as other corporeal diseases—that the brain, being diseased, must be treated on pathological principles—and that, when the material organ is healed, its functions will also be restored to a healthy state. Much has of late years been done for this unhappy class of men. The treatment of mental affections by our ancestors was undoubtedly more fit to make sane men mad than to insure the recovery of those who were insane. The diseased in mind were viewed as criminal, and treated as such. One rule was observed with all: chains and darkness were their unhappy lot, without inquiry as to the cause or manifestation of the mental aberration. Much still remains to be done; but

we have not been able to see how the knowledge of the existence and position of a congeries of organs in the brain can at all assist the treatment of mental diseases ; and we may add that the dissection of the brains of persons dying insane, though frequently shewing diseased conditions, has not corresponded with the phrenological organs, as producing certain corresponding peculiarities of character.

Dr Lauder Lindsay has, with great pains and care, measured the heads of a great number of the inmates of the Institution under his charge, and has minutely given the results in tables appended to the thirty-third Report thereof, (1860.) He succinctly states the general conclusions to which his careful investigations have led, in the following words :—

1. That, while there is apparently much truth in phrenology, especially in regard to some of its general laws or doctrines, there is unquestionably more error.
2. That, while protuberances or depressions on the skull at the site of what are pointed out by phrenologists as the “organs” of which the human brain is composed, sometimes co-exist with the manifestation or non-manifestation of the propensities, sentiments, or intellectual powers, ascribed as the functions of such “organs,” there is, at least, as frequently, and probably more frequently, no confirmatory evidence ; or discrepancies or contradictions abound to such an extent, that the exceptions are more numerous than the rules.
3. That the size or development of the protuberances and depressions—in other words, of the “organs” above referred to—throws no light on our knowledge of the forms and phases of insanity.
4. That hence the confident predictions of phrenologists, as to the value of phrenology in the diagnosis of insanity and the classification of psychopathies, have not been fulfilled.

We shall devote a passing sentence to certain cognate studies, (we cannot venture to call them sciences,) which have recently attracted considerable public notice. We allude to Animal Magnetism, Mesmerism, Biology, Table-turning, and Spirit-rapping, and the combinations of several of these. At first sight it is startling to find one doubtful theory called in to support another equally or more doubtful, as if any number of cyphers in combination can ever give any value. Nevertheless, we cannot refuse to investigate facts, and search for truth wherever she may be found—though, with the ancients, we seek for it in the bottom of a well. If the water be pure, we quarrel not with the depth from which it may be raised. The precious metals have to be separated from their alloy. “The more the torch of truth is shaken, the brighter it burns.” The oak of ages sinks its roots deeper and firmer in the soil because of the storms to which it is exposed during its growth. We cannot ignore an offered theory or dispute an alleged fact, until we have patiently and impartially examined the evidences in its support.

“ Fair Truth’s immortal Sun
Is sometimes hid in clouds—not that her light
Is in itself defective, but obscured
By our weak prejudice, imperfect faith,
And all the thousand causes which obstruct
The growth of goodness.”

We object to the common and wholesale rejection of any assumed truth on the sweeping assertion that it is a mystery or an impossibility, and therefore cannot be *comprehended*, and in consequence must be false. This is a most dangerous practice, and is the fond refuge of Religious Scepticism. The question is not whether

some *truths* are *mysteries*, but whether some *mysteries* are *truths*. They may be *above* the limits of finite mind, and yet nowise *opposed* to any of its rational conclusions. They may be *apprehended*, though they may not be *comprehended*. The polarity of the magnet is a dread mystery, but all receive and act on its truth. So, too, with the magnetic and electric telegraph; and manifold truths of science are thus admitted as established, and yet the *rationale* and mode of operation of most of them are as much unknown to the learned as to the ignorant. It is most irrational to reject any theory without inquiry into the facts by which it is said to be proved, especially where great men have declared their belief in its truth, founded on a patient examination of facts which they have made, but which we refuse to make. We ought no more to condemn any theory unheard, and without proof of error, than to condemn any man without trial and evidence of guilt. It is the duty of every man who has the time and talent, to examine and judge for himself. If, on due investigation, the theory is found to be false and unsupported, by all means let us reject it, and publish to the world the result of our investigation and our verdict. But if we find the theory true, admit it, and seek to apply it for farther discovery, both in extending the circle of knowledge, and for the good of mankind. Our motto ought to be that of the Athenian—"Strike, but hear." It is as absurd to admit as truth that which has not been satisfactorily proved to be true, as to reject as false that which we have not investigated, and therefore do not know but it *may* be true. Obstinate unbelief is as much to be

avoided as rash credulity. The province of Reason is calmly to sit in judgment on every claimant at her bar, and, after patient and impartial examination, either to receive the claim as a new truth, or reject it, or send it back to further probation as at least not yet entitled to be ranked among the exact sciences or ascertained truths—the inheritance of man. In investigating any of the grand secrets of nature, we are bound to proceed cautiously, yet confidently. Our first inquiry is the *possibility* of the alleged phenomena, remembering that with God nothing is impossible, and that many facts which must have appeared impossibilities to our fathers are now matters of certainty to this generation; the second inquiry is their *probability*; but, finally, their *certainty*, as fully established by experiment, and to this all opposition must yield.

As to Mesmerism, it is not easy to perceive how, if Syncope and Somnambulism result from natural causes, similar phenomena may not be the result of artificial appliances. To those who wish to study these subjects in a calm and truly philosophical spirit, we confidently recommend the “*Isis Revelata*” of the late Sheriff Colquhoun of Dumbarton, and the smaller but admirable works of Dr Esdaile, formerly of Calcutta.

We have satisfied ourselves of the reality of Mesmeric facts, but we cannot admit their application, except for medical purposes, and under the sanction of that most honourable profession. Without this sanction and protection, we see much public danger in the knowledge or application of these facts, and therefore we venture to lift our voice against all encouragement to the itinerant

performer who ventures, for a piece of bread, to unlock the human breast, and to make public sport with so awfully delicate a machine as the human soul and spirit—and who, to gratify the morbid appetite of a gaping multitude, lays prostrate the noblest work of Almighty power, once created in His own image, and, through the sanctifying power of His Holy Spirit, still enabled to reach the same high stage of spiritual existence and glory, when the curtain has dropped on this world's eventful drama.

In conclusion, we are not ready to maintain that there exists *no* truth in Phrenology; we do firmly believe in the *general* outline and configuration of the head, and something more than that the head of a man of talent may be distinguished from that of an idiot. But we are not yet convinced of the existence of so many individual organs—we do not think that sufficient proof has yet been brought to support the separate existence of many of the phrenological catalogue, and we doubt whether the supposed science admits of such proof as can ever warrant its reception as a satisfactory and undoubted mode of ascertaining the existence and degrees of power and activity of all the various mental faculties, feelings, and dispositions. We come to this conclusion, however, with much, very much, humility, and we earnestly invite every one to study the subject for himself, assuring him that his mind must be very differently constituted from our own if he does not at once find amusement blended with instruction; and with the advice of the poet we conclude these rambling remarks:—

Let no presuming impious railer tax
 Creative wisdom, as if aught was form'd
 In vain, or not for admirable ends.

* * * * *

And lives the man whose universal eye
 Has swept at once the unbounded scheme of things,
 Mark'd their dependence so, and firm accords
 As with unfaltering accent to conclude
 That *this* availeth nought.

A D D E N D A.

In 1824 Mr Combe delivered in Glasgow a course of lectures on Phrenology, which the writer of the foregoing observations had the privilege of attending. He was then induced to write a series of letters in one of the newspapers on the subject, under the name of *Peter Pipestapple*. The letters attracted some notice, and were afterwards printed in pamphlet form. In illustration of the promises held out by the advocates of the science, he sportively gave what might be expected to be the contents of a Glasgow newspaper in the year 1860. Now that the epoch has come and passed, it cannot be said that Phrenology has assumed all that importance which was then predicted, but some other of the supposed advances in social and scientific life have been to some extent realised in the railway and telegraph, then unknown, at least unapplied. Some extracts from this supposed newspaper may not be destitute of interest, at least may tend to throw a shade of amusement on a

subject not in itself very interesting, and not made more so from the desultory manner in which it has been treated in these remarks.

LETTER FIRST.

SIR,—I am one of those whose sleeping hours are frequently profitably spent in edifying dreams. Last week, whilst reading a treatise on Phrenology, I fell sound asleep; but it appeared as if I still continued my reading, only with the eharacteristic fitfulness of Morpheus, the subject of my attention had become the "Glasgow Free Press" for some day in the year 1860. Its style of printing was still unaltered, and, therefore, easy to be read, even by one asleep. I was much astonished with the novelties with which its columns were replete; and having written down several of the paragraphs on my awakening, I send you a few of them, which you are at liberty to publish in your valuable paper.

PETER PIPESTAPPLE.

Burnt Barns, 19th Oct. 1824.

PRIVATE CORRESPONDENCE.

The negotiations between this country and the Court of Madrid are broken up. We always predicted this unhappy result as being certain, from the extreme disoordance of development in the heads of the ambassadors.

There was nothing of importance in either House of Parliament last night. Their Lordships were engaged in diseussing the clauses of the Royal Phrenological Exclusion Bill. The Commons were in a Committee on the Education Bill, where the supporters of the old doctrines were left in the minority on every division.

LOCAL AND DOMESTIC NEWS.

At the assizes last week, there was a most terrific calendar. In a case of murder, there was only one witness to the encounter; but the evidence, on examination of the respective heads of the parties, left no doubt on the minds of the Jury, and the man had sentenee of death. Mr Bam-bouze, his eounsel, made a motion in arrest of judgment, founded on the certainty of the action proeeeding from Fatality, but the objection was overruled.

A woman was acquitted from a charge of child-murder, though there were three witnesses to the direct fact, the proof arising from the extreme development of the organ of Philoprogenitiveness being quite irresistible.

A nice question, however, arose from the fact that the organ of Benevolence was small, and that of Destructiveness large; but this was not found sufficient to elide the very favourable development of Philoprogenitiveness.

We understand that the iron craniological cases for the decrease of crime by depression of the head, are now in general use in all the English jails and houses of correction.

An Auxiliary Missionary Phrenological Society, for support of Phrenological Missions among the Hottentots, was last week formed in the town and suburbs of Black Quarry.—Dr Gull, President.

A young man committed suicide by strangulation. He was a man of exemplary character; but, on having his head examined by a Phrenological Quack, he found that both he and the public had utterly mistaken his character, and in a fit of melancholy he did the rash act. On accurate inspection after death, we need hardly mention that the developments were found exactly to correspond with his actual character. It cannot be too strongly pressed on the public, that no reliance ought to be placed on any examination of the skull made by any but a licensed Member of the Phrenological Society. The organ of *Caution* was found small, and *Destructiveness* large, which completely accounts for his melancholy end.

Mr Rashman last week inspected the Custom House in Greenock, and reported favourably as to its removal, by means of steam levers, to the proposed site at the foot of Telfer's Quay, Broomielaw.

There is no truth in the report that Government has any *present* intention of removing Dumbarton Rock and Castle to the mouth of the Thames.

BIRTH.

At Spurzheim Place, on the 6th ult., Mrs Spintow, of a son. The developments are of the most flattering description.

MARRIED.

At Ideality Terrace, by the Rev. Mr Moudiward, John Tattler, Esq., to Miss Williamina Sophia Celestina, daughter of James Prattler, Esq., of Little Plot. The accordance of Phrenological developments insures a happy union. The happy pair set out in a balloon for Cape of Good Hope.

DEATH.

Died, at Locality Place, John Thomas, Merchant, whose benevolent developments endeared him to all who knew him.

ADVERTISEMENTS.

GLASGOW COLLEGE, WINTER, 1860.

Languages, Arts and Sciences,	Vacant.
Phrenology, Simple,	Dr Cerebrum.
————— Compound,	Dr Dura.
————— Complex,	Dr Frontal.
————— Comparative,	Dr Occipital.
Economy of Phrenology,	Dr Cerebellum.
History of Phrenology,	Dr Pollybeus.
Legal Phrenology, Civil,	Dr Stott.
————— Criminal,	Dr Gallow.
Theology of Phrenology, Evidences,	Dr Newcome.
————— Doctrines,	Dr Sewatchbarden.
————— Practice,	Dr Ethies.

WANTED,

A Manager to take charge of a large manufacturing establishment. Applications, with Phrenological casts, left at our office will be duly attended to. Certificates of character will be of no avail.

PATENT PHRENOLOGICAL HATS.

Mr Perieranium has on hand a vast variety of these highly useful hats at all supposable prices.

GLASGOW SHARPSHOOTERS.

A few young men, without the development of Causality, but with that of Adhesiveness, Combativeness, and Destructiveness above the average, may still find a place in the ranks of this respectable corps, by applying to
 GEORGE ROBERTS, Adjutant.

EPISCOPAL CHAPEL.

Two choristers, with extensive musical organs, are wanted for this chapel; and a door-keeper, with the organ of Veneration very large.

BUTCHER WANTED.

A young man with the organ of Destructiveness large, will find employment by applying at No. 1, Beef Market.

CHILD'S MAID.

A young girl, with the organs of Benevolence and Philoprogenitiveness in excess, will be engaged as a child's maid by applying at No. 2, Combe Place.

WANTED,

Two Scavengers. Applicants must have good organs of Form, Order, and Locality. Also a Watchman, without the organs of Tune and Conscientiousness, but with that of Individuality large. Apply at the Police Office.

EXECUTIONER WANTED.

The above important situation being at present vacant, from the promotion of Mr Young to the situation at Edinburgh, offers, with certificates of ability, will be received by the Governor of the Jail any time before the 6th proximo. The applicants must have the organs of *Benevolence*, *Philoprogenitiveness*, *Adhesiveness*, and *Conscientiousness* small; and it will be indispensable that the organ of *Destructiveness* be very large. Applicants will attend, *with their heads*, on the above day, in the front of the Slaughter-House, where they will meet a Committee of the Phrenological Society and the Town Council.

Phrenology has made this office no longer one of dishonour, but the holder of it cannot at the same time be a member of the Town Council, because of the self-denying ordinance.

LUNAR JOINT-STOCK COMPANY.—CAPITAL FIVE HUNDRED MILLIONS.

It is now well understood that a body, placed at the spot where the powers of gravitation, respectively of this globe and its satellite, intercept each other, would remain for ever at rest. This fact has suggested the expediency, by the all-powerful means of a Joint-Stock Company, of placing a body in that situation, and thus opening up a communication with the lunar orb and the race of lunatics. The capital will be raised by shares of 15s. each. The capital will, as in all such speculations, be in the first place beneficially expended in the salaries of the various managers, and in obtaining experiments and observations made, and finally in achieving the mighty but certain project.

Shares (on which a rise is immediately expected) may be had from M. Josiah Hunbug, No. 1000, Cheat'em Place.

IMPROVED SYSTEM OF EDUCATION.

Mr Cleverlop will open his academy for education by steam on Monday

next. He has, at great expense, provided himself with four literary steam engines, of six teachers' power each. Any language may be thus learned in one hour, and he pledges his honour to produce *esteemed* scholars.
 Fee, £10, 10s., with guarantee.

POPULAR LECTURES ON PHRENOLOGY.

Mr Grumphy will deliver a Course of Popular Lectures on the Theory and Practice of Phrenology, in the Hall of the Phrenological Institution.
 Tickets for the Course, 4d. ; children, half-price.—No porter's fee.



BY THE SAME AUTHOR.

Just Published, Price 1s., by Post, 1s. 1d.,

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 ON 8TH OCTOBER 1863.

W. R. M'PHUN AND SON,
 GLASGOW, EDINBURGH, AND LONDON.