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SIZE AND SHAPE OF HEADS.

Not long since the "London Leader" contained the following sprightly and sensible article upon the subject of heads, the candor and good sense of which forms a very refreshing contrast to the style in which leading journals were once accustomed to treat phrenological subjects. The writer appears to be a liberal, independent seeker of truth. Had our literati and scholars generally approached the subject of phrenology in the spirit of this writer, we should not have had to complain, on the one hand of the stagnant conservatism of those who have opposed the science without investigation, nor, on the other, of the little progress which has been made by the followers of Gall and Spurzheim:

"With regard to the large head and small head controversy, we might say, we have never been able to come to any tangible conclusion. Cuvier's head must have been large, for his brain weighed sixty-five ounces. This is generally accounted the heaviest known healthy brain; but we were recently told of a working man who died in University College Hospital, London, and whose head was so large that the students had the brain weighed, out of curiosity, when they found it weighed sixty-seven ounces, though perfectly healthy. On inquiry, all that they could learn about the man was, that he was said by his neighbors to have a remarkable good memory.

"The brain of Dr. Abercrombie, of Edinburg, weighed sixty-three ounces, Dr. Chalmers had a very large head indeed, (Joseph Hume and he were said to have the largest heads in the kingdom,) and yet his brain weighed but fifty-three ounces—almost under the average. On the other hand, Byron had a small head, at least Mr. Leigh Hunt informs us that

his hat, which is not a very large one, used to go quite over his head, but his brain is said to have weighed nearly four pounds.

" Keats and Shelly had very small heads, Mr. Leigh Hunt's hat going over them, too. Rafiella had a small head; Sir Walter Scott had a small head; so had Neander, the Church historian; so, also, if we recollect aright what Bernal Diaz says, had Cortez, the conqueror of Mexico. Wellington's head is said to have been under the average size. The brain of Mrs. Manning, the murderess, was said to have been a pound lighter than her husband's.

" The skull of Rush was very large, measuring, we think, upward of twenty-four inches round. Pericles, as we know, had a large head; so had Mahomet; so had Mirabeau; so had O'Connell. Lamartine describes Napoleon's as a small head which had bulged out. The skull of the poet Burns was carefully measured when it was disinterred on the burial of his wife; it measured twenty-two and a quarter inches round, which, allowing half an inch for the integuments, would make the circumference of the living head twenty-two and three quarter inches, a large head, but not extraordinary. Goethe's head, we believe, was not remarkable for size. About Shakspeare's head, our only information must be from the Stratford bust, which Chantry pronounced, from certain signs, to be almost certainly modelled from an original cast taken after death. It is a curious example of a foregone conclusion, that Mr. Hugh Miller, speaking of this bust, in his admirable work entitled, " First impressions of England and its People," describes the head, from personal inspection, as a large one. The skull, he says, must have been of a capacity to contain all of Dr. Chalmers brains. This, as Dr. Chalmers was then alive, was tantamount to saying it was of the largest known dimensions. Now, with this description in our memory, we have ourselves examined the Stratford bust with the utmost closeness and care, and we unhesitatingly declare, that the head in that bust is, if not a smallish one, at least such as any average English hat could easily fit. We *believe* it is a smallish head. In short, from all the statistics we have in command, respecting large and small heads, including our own private observations among our acquaintances, we have never been able to obtain any presentable conclusion on the point.

" The opinion of David Scott, the painter, was that large heads were generally found among successful men of the world, such as statesmen, bankers, and the like, and the fineness of nervous tissue requisite for the purely intellectual lives of artists, thinkers, and literary men generally, connected with a small or average size of head. Even this opinion, however, will break down, if applied in practice. We know very energetic, prudential and weighty men, with smallish heads, and we know men with very large heads who seem at home only in the most exquisite and ornamental kinds of mental activity. More sure than any conclu-

sion that can be come to on this point of size, seems to be a motion we have heard advanced with respect to the *form* of heads. Length of head from front to back, we heard an eminent and very deserving man declare to be, according to his experience, the most constant physiognomic sign of ability. Only in one eminent head, that of Sir Walter Scott, had he found this sign wanting; and in this case, if properly considered, the want was significant. Next to length or depth, his idea was, that height over the ears, as in Scott's head, was the best sign, although he had not found this nearly so essential.

"To us it appears that if to the two dimensions of length or breadth and height, as thus expounded, we add the third dimension of breadth, and if we attach to these three terms their corresponding popular meanings when used in speaking of mental character—regarding a deep head or a head long from front to back, or from the forehead to the ears, as significant of depth or astuteness; a high head; or a head rising high over the ears, as significant of moral elevation; and a broad head, as measured across and behind the temples, as significant of what is called width or generality of view—we shall have as tolerable a system of practical craniology as the facts will warrant; not very different either from that propounded by the ordinary phrenologists, though they would carry us much further. Here, however, let us not be too certain in our judgment. We have seen "foreheads villainous low" on very noble fellows, and grand domes of heads on mere blocks and ignoramuses."

Some of the statements of the foregoing article are probably incorrect. The head of Sir Walter Scott could not be properly pronounced a small one. It may not have measured very largely in horizontal circumference, but according to the casts and engravings, it was a remarkably deep head from the coronal to the basilar surface, and must therefore have contained a brain of respectable, if not large dimensions. No small brain could have produced such works as those of Scott, in which we see a strong character displayed by the writer, and a forcible delineation from fancy of scenes in which strong men display the strongest passions of human nature. There is nothing in Scott's writings which would lead us to anticipate very large intellectual organs, or any great developement of the organs of philosophical reason and depth of thought. His head was in fact just what we might infer from his writings and character. The depth gave a large developement of the emotions and passions—of Firmness and the other organs which give a superior temperament. Intellect and imagination were well developed, but the organs of Philosophy and Ideality were moderate in developement. Hence with a very respectable degree of sagacity and fertility of conception, he had not sufficient depth of thought to be a permanent instructor for the world or to leave behind him many sentences which have an enduring and intrinsic value.

The head of Byron, according to all accounts, must have been rather smaller than Scott's. Its horizontal measurement, as tested by hats, was so much below the average as to render it doubtful whether he could have had a large brain as asserted. It is true he must have had considerable developement in height and depth to account for his emotional and passional activity, but probably not enough to render his whole brain a large one.

From the portraits of Shakespeare no one would imagine his head to be below the average. His head and face indicate a full and symmetrical developement—but the most remarkable point in his intellectual developement is in the region of Ideality in its anterior portion—the organ of Composition which gives literary capacity and invention. This developement produces that artistic ingenuity and invention which are so especially necessary to the construction of a successful and interesting drama.

The head of Napeleon was large—his intellectual organs were prominent, indicating great powers of perception and memory. It was not, however, a head of sufficient frontal expansion for any great originality, philosophy or ideality. The description said to have been given by Lamartine—"a small head which had bulged out," is not surprizing from so fanciful and inaccurate a writer.

The head of Wellington does not appear large in the published sketches, and certainly no one would expect it to rival that of Napoleon, but it certainly presents a strong developement of the perceptive faculties necessary to a military commander, with the indications of a vigorous and active temperament.

Heads of moderate size, with superior temperaments, have often gained distinction, but there is a higher sphere of human action occupied by large heads alone. When these large heads are associated with vigorous temperaments, they attain the summit of true greatness.

As Napoleon was greater than Wellington, so do we generally find the large brain, cœteris paribus, capable of a higher career than one of moderate developement. The massive head of Carlyle, and the large intellectual developement of Bulwer, correspond to their eminence among English literati. Cuvier, the great naturalist, and Dupuytren, the great surgeon, were as remarkable for large brains as for scientific superiority. In the French revolution, Danton had a more massive brain than Marat. In Ireland, O'Connel had a larger brain apparently than John Mitchell, and wielded more power, though less brilliant as a writer. In America, Webster had a larger brain, and greater intellectual power than Clay or Calhoun, although the superior brain was lowered by a sluggish temperament, and the superior temperament of Clay rendered him a far more successful orator. The more weighty political leaders of the present day are men of large heads—Buchanan, Cass, Marcy, etc., are well

known as leaders of their party. Gen. Houston has one of the largest heads among our politicians, and notwithstanding his defective education, and the peculiar history of his life, he bids fair to rank among the foremost leaders.

In Phrenology, the massive brains of Gall and Spurzheim explain the difference between them and their followers, in none of whom do we find an equal cerebral developement.

The concluding suggestions of the Leader in reference to the effect of the form of the head, are singularly judicious and correct, if they originated merely from casual observation. Antero-posterior length, is truly, as the writer supposes, a safe indication of ability, as it implies strong intellectual developement, united to sufficient ambition and force of character to make the intellect practically efficient and successful. Yet even this is not infallible, for there may be a deficiency of developement still in the upper part of the head across the region of Firmness—and indolence, unsteadiness, dissipation, timidity or waywardness, may bring to a profitless result fine intellectual endowments.

" Elevation above the ears," which he considers the next best sign of ability, is truly a valuable indication, as it gives a developement of Firmness, Decision, Energy, Industry, Hardihood, Perseverance, Hope, Patience, Pride, Self-control, Integrity and the moral faculties which together indicate a noble character as well as an efficient temperament. Hence this elevation may be considered a correct sign of ability if the intellectual developements are not exceedingly defective.

In regarding a broad head, as indicative of " width or generality of view," the writer is quite happy, as the broad head gives, in the forehead an original and comprehensive mode of thought, and by developements farther back, a sound, steady and active condition of the brain with a magnanimous and elevated style of thought. These traits, however, belong to that breadth which is on the level of the upper portion of the forehead. Breadth is a lower range, corresponding to the perceptive organs, is productive of a restless activity and excitability, suitable only to action and observation, not to elevated and comprehensive thought.

The observer who originated these views is entitled to no little credit for his intuitive sagacity, which has led him to more correct conclusions than those generally adopted by Phrenologists.

MORAL INFLUENCE OF THE INTELLECTUAL ORGANS.

[*Concluded from page* 83.]

The pathognomic mathematical law applied to the action of the intellectual organs, furnishes a clear illustration of their tendencies.

According to this law, every organ acts in its own peculiar line, and enables us to recognize that which coincides with its own tendency. The coronal organs, for example, acting in the upward direction, recognize all upward tendencies, but cannot recognize the opposite. They recognize the better elements of human nature, but cannot recognize the baser. Hence those who are governed exclusively by the coronal organs, are never able to realize fully the wickedness and malignant passions of human nature. They are easily imposed upon by lower natures, because they cannot understand or conceive the motives which govern our animal character. They recognize goodness in all things, and always perceive, both in the present and future, a continual tendency to improvement, and to the developement of happiness and virtue. Animated by love, the mother perceives in her infant the germ of future greatness and goodness, and the friend perceives in his friend capacities for success and distinction. Indeed public men, and aspirants for fame, are often deceived by the influence of partial friends, who overrate their abilities, and promise them a success which can never be realized. On the other hand, enemies, governed by the malignant basilar organs, discover the indications of weakness, failure, and degradation, in everything one may do. And, in proportion as our friendly or unfriendly feeling predominates, we are disposed to predict the success or the failure of their object. The remark of a French author, that, "there is always something gratifying in the misfortunes of our friends," was based upon his profound appreciation of the depravity, selfishness, and insincerity of society, which could be gratified by the downfall of those it professed to esteem. Such a sentiment belongs only to a thoroughly depraved mind, which tends continually to evil.

The intellectual organs, acting in their nearly horizontal pathognomic lines, suggest the continual progress of nature, and extend before us the boundless vista of the future. But, in their prospective action, there is a material difference between the different departments of the intellect. In the region of Memory, and the organs which lie on the same horizontal plane, we find that progressive horizontal action, which reproduces the past upon the same plane, and thus presents the future as unvarying repetition of the present and the past. Hence the man of mere learning

is not a progressive philosopher in the present sense of the terms. His ideas are derived from the past, and his future knows neither improvement nor degeneracy. Such, perhaps, is the tendency of the greater portion of the world's intellect.

Distinguished intellectual men are generally more remarkable for learning than for originality, and statesmen are much more frequently men of knowledge than men of genius. The tacit acknowledgement, that the world must be as it has been, seems to have governed the world heretofore, and governs it still.

This tendency of the intellectual organs, however, is modified by the associated sentiments; and there is always among the amiable, in whom hope, love and benevolence predominate, a vague sentiment that the future must be better than the past, or that it may reproduce the better and brighter incidents of the past, omitting its gloomier events. Our hopes or fears thus alternately brighten or darken—elevate or depress our anticipations. The virtuous and happy are continually looking to a bright and happy future, in accordance with their own nature; but the stern, gloomy and selfish are continually apprehending evil. Yet the vague anticipations, either of good or evil, which are prompted by the sentiments and passions, are far from being a correct revelation of the future, for it is not the province of the emotions and passions, to reveal that knowledge which comes through the intellect alone. It is the province of the intellectual organs to reveal the future; in doing which they are assisted and impelled by the various emotions which have elective affinity for the scenes which they depict. But the middle stratum of the intellectual recollective organs, has not the power of revealing correctly the future, even when modified or assisted by the various emotions. That power requires the higher species of intellect, which discovers the internal forces of nature, and the causes from which her phenomena rise. This faculty resides in the upper range or group of reflective organs, the pathognomic line of which indicates a sustaining and advancing movement, by which grand results are produced from the humblest beginnings or from the most hidden causes.

The tendency of the reasoning organs, therefore, is to trace the progress of nature from primal causes, to ulterior results—to trace the minute forces which develope the acorn to the oak—the infant to the philosopher,—the tribe to an empire, and the globe from its saurian age desolation, to its age of trillion-peopled Utopian glory.

No such power resides in the lower perceptive, or knowing strata of intellectual organs. They recognize merely that which *is*, not that which may be. They point down to the earth and can go no farther. They have no conception of progress,—they know no future; and, had the mind of man no higher intellectual developement than belongs to these organs, his spiritual existence would be but an eternal now, and his in

tellectual life would be but little elevated above nonentity. In the world generally, the middle and lower strata of intellectual organs seem to predominate, with the consequent sentiment whenever the mind is cast to the future, that it will be but the repetition of the present.

The growth of nations, and the steady progress of arts and sciences, seem not yet to have expanded the reasoning intellect of mankind, to understand the destiny of man; and every new developement of knowledge startles and disturbs the fixed habits of thought in the human race.

From these considerations, it is obvious that as the moral organs delight only in goodness, in happiness, in relieving suffering, in ascending from a lower to a higher plane, in elevating the lowly and giving goodness and greatness to all, they can derive no co-operation from the horizontal and downward tendencies of the knowing and recollective organs. When they ask for the relief of suffering, the lower intellectual organs indicate nothing but its permanence. When they ask for universal developement of love and happiness in society, the lower intellect brings forward the appalling record of human crime and suffering, and identifies the future with a barren and benighted past.

In this dilemma our generous sentiments appeal to the reasoning intellect, and ask if there be not some power in humanity, which may develope a future, different from the past. The reasoning organs, which look not merely at the procession of events, but at the secret forces which impel their movement, reply, that there are in man the spiritual forces of an infinitely diversified future, and that these forces are slowly working out the higher destiny which the generous sentiments desire. The capacity for improvement, must be based, not merely upon the stability and continued existence of the present, but upon the latent powers with which all mind and matter is pregnant, and which are ever at work in society, evolving the progressive destiny of man.

The truly philosophic mind recognizes in the nature of man, the boundless diversity of his capacities, and the immense possibilities of his future.

Thus does the higher department of the intellect, the reflective organs, co-operate with the moral nature, while the horizontal and basilar portions of the front lobe, correspond in their moral platform, with the horizontal and basilar organs of the various unintellectual regions of the brain.

According to these views, a certain amount of the stern and selfish animal elements, is highly favorable to the strength of the knowing intellect, though quite unfavorable to true and high philosophy, which flourishes best in conjunction with the higher attributes of humanity. *Savans*, or men of positive knowledge, belong, therefore, to an earlier period in the history of mankind, while philosophers belong to the latest and highest epoch of humanity. Philosophers, no doubt, have lived in

all ages, as individuals have attained high moral and rational developement; but the age of philosophy, in which the philosophic shall be the predominant cast of mind, and true philosophy shall govern the human race, is yet in the far future.

The world has as yet produced but few philosophers, among a vast crowd of savans who have been building up the solid fabric of material science, upon which philosophy is yet to rear its noblest superstructure. Sociology, Pneumatology, and a host of philosophic sciences, or positive philosophies, which I need not name, are yet to be developed, when the minds of the educated million have been prepared to receive them.

THE ANIMAL SPIRITS.

The ancients and moderns have been accustomed to indicate the various pleasant and unpleasant states of our feelings, by referring to the depression and elevation of the animal spirits, as though some fluid in the human constitution, accustomed to rise and fall like the mercury in the thermometer, indicated its various degrees of enjoyment and suffering.

In these expressions a great physiological truth was contained. In all the prevalent ideas, and peculiar phraseology, which have been current for centuries, some truth must be contained, for the human mind has a predominant tendency to the truthful. In this old fashioned phraseology, which refers to the animal spirits, we find a truth of which Neurology furnishes ample demonstration. The human body, like a thermometer, indicates by its ascending and descending currents of nervous excitement, the good and evil influences which operate upon us, and by its various *foci* of vital action and nervous concentration, presents, like the fixed points of the thermometer, a scale of elevations, corresponding to our moral warmth and happiness, or coldness and depression.

From the head to the pelvis we have a scale of elevation and depression of the animal spirits, presenting in the coronal region of the brain, the maximum of happiness or extacy, and in the pelvic region of the body, the deepest depression of melancholy, despair and insanity. Between these opposite regions of celestial and infernal character, the animal spirits undulate as they are successively attracted and concentrated in different organs. When vital activity is concentrated in the brain, leaving the body in repose, man's existence is purely spiritual. His mind is serene, clear, and intuitive, and his happiness unclouded. When vital excitement is concentrated in the chest, a greater degree of

activity arises from the pulmonary organs. Respiration, which evolves caloric and nervous force, supplying the stimulating oxygen to all parts of the body, gives a vital sensibility and activity which rouse all the manifestations of life in harmonious combination.

In the lower portion of the lungs the influence is somewhat more rousing and inflammatory to the body, developing a greater amount of fibrine in the blood, and giving greater excitability to the muscular system. Still, the entire pulmonary influence may be regarded as constituting a temperament of high activity, in which the animal spirits are sufficiently elevated, though not developed to the serene and elevated joys of our purely spiritual nature.

When vital excitement is concentrated upon the heart, the animal spirits are in a lower position. The heart is the focus of excitability and excitement, and in its vigorous action, rouses all portions of the constitution, developing equally the animal and vital forces. But when we pass below the diaphragm—when vital excitement is concentrated in any of the organs below that muscle, we experience a very decided depression of feeling; or, in the old fashioned phrase, lowering of the animal spirits, and developement of melancholy.

The very word which expresses a dull, unhappy frame of mind, indicates that vital action has concentrated below the diaphragm. This word, *melan-choly*, literally signifies, black bile—the melancholic condition being, according to the very structure of the language, a *black-bile*, or *atrabilious* condition. Every physician is familiar with the fact, that diseases and irritation of the liver, are accompanied by great depression of the animal spirits; and, it is equally familiar to experienced practitioners, that irritations of the stomach and bowels are accompanied by great intellectual and moral depression, while many of the disorders located in the pelvic region, produce not only depression, or melancholy, but serious disorders of the brain, manifested in coma, apoplexy, paralysis, and insanity.

These principles, which are more fully illustrated in my forthcoming work on Physiology, show that the animal spirits in man are elevated or depressed, in proportion as the vital excitement concentrates at a higher or lower point in his body. Whether this excitement be of a healthful and vigorous, or of a pathological character, the principle is still the same. High excitement exclusively in the brain, results in extacy or trance; high activity in the lungs, is associated with general animation in the whole constitution; excitement in the upper portion of the lungs, as in the first stages of bronchitis, and in consumption, is associated with intellectual activity, and elevation of hope; high excitement in the region of the heart, is connected with all the intense and agitating passions which are too powerful to be entirely pleasant. Disease of the heart itself, is accompanied by a state of excitement and apprehension which

constitutes a leading symptom of pericarditis, or any form of inflammation of the heart; and, when we go below the heart, which is the common center of animal and moral excitement, descending through the abdominal or pelvic viscera, we find a host of diseases, accompanied by gloom, debility, oppression, and depravity, while even the physiological exercise of the organs below the diaphragm, is accompanied by depressing, exhausting and oppressive effects, whenever their action runs beyond a certain limit of moderation.

Thus, we have in the brain, the region of high spiritual exaltation; in the thorax, the region of active passional life; and below the diaphragm, the morbid, purgatorial, and infernal tendencies of humanity; in which three regions, human happiness ascends or descends, as the vital excitement is concentrated in the different localities. When the brain and lungs predominate—and especially the upper portion of the brain, and the upper portion of the lungs, life is calm and harmonious, and we are literally in Heaven. But, when life concentrates in the lower limbs, the abdomen and the heart,—in other words, when passion, excitement, impulse and sensuality, govern, our life is void of sunshine; and the miserable inhabitant of the lowest plane of earthly existence, departs finally to the spirit land, utterly unprepared for that higher sphere of existence, and incapable of entering upon its serene, intellectual enjoyments.

CEREBRAL HYGIENE.

CHAPTER I.

MENTAL CULTURE, AND BODILY EXERCISES.—The healthful, vigorous, and harmonious developement of the brain is so essential to human happiness and improvement, that a few chapters on Cerebral Hygiene, (health culture of the brain,) will probably be both interesting and profitable to the readers of the Journal.

The especial object of the Journal of Man is to develope new ideas in Anthropological Science, and to present those subjects which have either been entirely neglected, or improperly and erroneously developed heretofore.

The science of Cerebral Hygiene has been but little cultivated heretofore, and indeed the proper basis for such a science did not exist anterior to the demonstration of the functions of the brain, by which a complete Anthropology was organized.

The brain, being the region of conjunction and reaction between the mind and body, its integrity is dependent upon both mental and bodily influences, and also upon the conditions inherited from our ancestors.

1. The *hereditary influences*, paternal and maternal, are more important than any subsequent bodily or mental influence.

2. The *bodily influences* may be arranged in two classes, viz: general health, and animating exercise.

3. The *mental influences* are of two classes: 1. The regular and appropriate exercises of the organs; 2. The proper supply of mental and moral influence in society, books, nature and art.

If these three influences are right, (the hereditary influence, the bodily influence, and the mental influence,) we necessarily have a sound and vigorous condition of the brain.

1. Our *hereditary influences* are beyond our control; we must submit to what our ancestors have given us; but the influences which we are to exert over our offspring are controllable, and to them we owe the sacred duty of placing ourselves in the best bodily and mental condition, *selecting the best possible parent to co-operate with us*, and watching over their developement in *gestation* and infancy.

2. As to BODILY INFLUENCES, they consist of those derived from *action*, and those derived from the general health, that is, from the condition of the viscera and the circulation.

First, as to exercise and labor. Is it desirable for those who wish to possess a sound, vigorous, and active brain, to take much exercise, or to engage in lively labor?

Undertaking *bodily* labor for *cerebral* developement, appears at the first thought, an inconsistent course. The muscular system and the brain have a natural and incessant antagonism. The cultivation of one is generally accompanied by the decline of the other. The classes of society which are devoted to mental cultivation, have generally feeble or inactive muscles, while those devoted to labor, are on the other hand remarkable for dullness and ignorance. The great number of unintellectual laboring men, who have rather large heads, constitute *apparently* a serious objection to Cranioscopy, while the remarkable mental powers and activity of intellectual persons, descended from a superior ancestry, even where they have brains of but ordinary or moderate size, is equally hostile to the maxim that *size gives power*, in reference to the brain.

If, then, the tendency of a life of labor is to benumb and belittle the intellect, and on the other hand the tendency of a life of study, is to enfeeble and dwarf the body. it would seem that the best course for the man aiming at physical developement, would be to avoid intellectual occupations, and that the best course for one aiming at mental developement, would be to avoid wasting his vital force upon his muscular system. To a great extent, these principles are spontaneously carried out. The habits of those engaged in study, are sedentary, while the habits and lives of those engaged in muscular employment, are generally illiterate. When we are engaged in violent muscular labor, the mind has but little activity, and at the close of a hard day's labor, we find ourselves unfit for study. The scholar, after a few days of hard study, is entirely unfitted for labor, and can scarcely persuade himself to take any active exercise. He lies down

at night after a day of purely intellectual labor, performed sitting or lying on the sofa and he has too little muscular activity to rise at the usual hours, although he has had no bodily fatigue to demand rest. The highest manifestations of profound philosophic thought, come from the still, silent closet of the student at midnight, and in those transcendent displays of intellect in Clairvoyance, which go beyond the bounds of the senses, of reason, and of memory, the person is as still and tranquil as if in a dream. So in trance, when strange visions come, and mysterious revelations are made to the entranced, the body rests in a repose like that of death.

As it is thus sufficiently obvious, that the cerebral and muscular systems are antagonistic in their tendencies, should we not commend those who in seeking to cultivate their minds, shun labor and exercise? Should we not especially admire the example of a celebrated author, who performed his best intellectual labor in bed?

Should we not advise all who are preparing for professional pursuits, to shun manual labor? To this I reply, that although intellectual and physical labor are opposite, or antagonistic in their tendency, that is the very reason why men engaged intellectual pursuits should also engage in labor, in order to balance the constitution, and preserve the symmetry of health. The tendency of bodily labor is to develope the body at the expense of the mind, creating a hardy, enduring constitution. The tendency of mental labor is to develope the mind at the expense of the body, thus producing a feeble and puny constitution, and accelerating the approach of the final separation between the soul and body. There is no labor so exhausting as the labor of the mind. A few days of hard study and original writing, or investigation, will reduce a delicate constitution, to extreme debility. Hence it is necessary for those who engage in intellectual labor to combine with it enough of bodily labor to counteract this tendency to debility and death.

The overworking of the brain exhausts the physical constitution, and diminishes the power of the heart, as well as the general health; hence it impairs the cerebral circulation, and thus diminishes the energy of the mind. It is true the sensibility and receptivity of the intellect may continue, but that force and activity in the mental manifestations which constitute what is commonly called strength of mind are greatly impaired, and the individual becomes incapable of attaining any eminence in society. Hence bodily labor is necessary to sustain the vigor of the temperament, and to give the brain itself a vigorous tone of action; but especially is it necessary, to counteract the debility, frailty, feebleness and emaciation, which come from exclusively mental occupation.

The question then arises how much exercise should be taken for the sake of a good condition of the brain. To answer this question we must look back to another reason for taking exercise, which is the

controlling reason. The brain itself directly demands muscular exertion. The occipital half of the brain, which is the source of our energies and capacities for success in all pursuits, is so connected by nervous communications and sympathies with the muscular system, that whenever it is vigorously active, the muscular system, as its appropriate organ, is impelled to corresponding activity, and a desire for muscular exertion is produced, which ought to be gratified. If in the midst of this impulse to action, our impelling organs are robbed of that gratification, their developement is checked; but if indulged, the gratification favors their growth; in the one case, by action, we increase the strength of the character, in the other, by inaction, we gradually destroy it.

Whatever increases the activity of the occipital half of the brain, increases the activity and circulation of the whole brain; hence active exercise is highly important to sustain mental activity, and we experience a remarkable increase of mental activity, especially in the perceptive faculties while engaged in appropriate exercise, as well as a considerable degree of dullness and mental oppression, when we have been too long deprived of our usual exercise. It is therefore true, that judicious exercise enlivens and strengthens the brain, and it is equally true, that extreme labor tends to oppress and paralyze it.

And as it appears that the demand for exercise arises from the activity of the occipital organs, it follows that the demand is greater in proportion to their developement. In men who have large occipital organs, giving them great force of character, connected with good muscular developement, the demand is very great, and sedentary confinement is peculiarly oppressive; but in men of moderate occipital force, consequently of moderate strength of character, no such demand for exercise exists. They are contented with a small amount of exercise of a gentle character, for that supplies all their spontaneous desires; and a large amount of exercise would be positively oppressive and injurious to the brain.

Hence in determining the amount of exercise necessary for men of intellectual pursuits, we should not be guided by any absolute standard of the amount most appropriate for the highest health and constitutional stamina in a symmetrical being, for many fall so far short of this standard of vigor, that they would be oppressed by taking exercise up to the high standard of health, while others who have led lives of great activity in the open air, might need for a time, even a little more than the healthy standard. But, as a general rule, all men of intellectual pursuits, need less than the healthy standard of exercise, and the longer they are engaged in sedentary occupation, the less demand do they have for exercise. Two hours of gentle, daily exercise, may be entirely sufficient for the health of persons in sedentary intellectual occupations, and many women maintain tolerable health with no more than this.

It is quite a mistake to suppose that health positively requires a great

amount of exercise, in all cases. The examples of Hindoo fakirs, and the history of St. Simon Styleites and his followers, prove that health is entirely compatible with a still and quiet life.

But although health, intelligence and virtue may abound in such a life, although one may attain thus the highest intellectual and moral worth, there are serious objections to a very quiet, sedentary life, for one of professional pursuits. Such a life diminishes the force of character, ambition, energy and capacity to attain an influential position in society, or even the professional success which one's merit may demand.

I would therefore say that every professional man ought to have from three to five hours of daily exercise, for although some may maintain their health with less, and preserve bright intellects, they cannot maintain their full manhood and force of character, nor have they that robust health and hardihood which is capable of enduring exposure, and resisting epidemic influences, and when they are attacked by disease, their constitutions will succumb much sooner to the attack.

I recommend from three to five hours of daily exercise, because that amount corresponds to the standard of vigorous health in a highly intellectual and moral organization. A greater amount may correspond to sturdy health, but not to the proper intellectual and moral predominance, which is becoming to one of professional pursuits. From two to three hours of daily exercise may be sufficient to sustain the health in intellectual pursuits, but less than two hours would be detrimental to one's manhood and constitutional stamina.

Our conclusions then may be expressed by saying that intellectual and moral health—the health of a man whose organization predominates very greatly in the frontal and coronal regions, may be maintained by two hours of daily exercise, but more efficient health, the health of a brain fully, but not excessively developed in the occipital half, such a brain as influential members of society must have, requires from three to five hours of active exertion daily. If we attempt to maintain health upon the smallest amount of exercise, it will be necessary to be proportionally temperate in food, unless we have an unusual capacity for digestion.

A *physician*, in active practice, has generally a sufficient amount of locomotive exercise, and often more than is necessary, especially in country locations, where he does much riding, or in the city, if he walks. But the exercise of the lower limbs and trunk in walking, is not the best for the brain, and it leaves him in want of exercise for the upper limbs. When he is relieved from the fatigue of excessive walking, by the use of a carriage, and when by gardening, sawing, cutting wood, or handicraft employment, he procures the necessary exercise for his upper limbs, he is in a good condition for sustaining cerebral health, and needs but one additional exercise, the exercise of the voice; and if by public speaking, singing, or conversing in a forcible manner, he obtains this stimulus in

addition to what has been mentioned, he is doing well for the health and vigor of his brain.

In the *legal profession*, there are better opportunities for the vocal exercise, but very little opportunity for general cultivation of the muscles, and a great deal of exhausting labor in study and the preparation of legal documents. Hence there is great necessity for a system of exercise or labor to sustain the health of a busy member of the legal profession. The same remark is applicable to the teacher and the clergyman.

As to the *species of exercise* most congenial to mental developement, it is essential that it should be sprightly or rapid, and agreeable or interesting.

The nervous system is distinguished by *delicacy* and *rapidity* of action, and in proportion as movements are delicate and rapid, they harmonize with the characteristics of the brain. Hence the brisk movement of dancing, running, fencing, and various other sports and exercises, imparts an animating influence to the brain, while slow, heavy and monotonous labor, produces dullness, as well as fatigue. Our delicate singing birds, which have a large amount of brain in proportion to their bodies, have a wonderful celerity of movement, while reptiles with small brains and lungs are distinguished by their slowness. Slow movement is favorable to the exercise of power, but intellectuality or spirituality, and physical or muscular power, are things of opposite character. Hence if one would cultivate the muscular system as a counterpoise to mental activity, or for the sake of relieving the brain, and sustaining its harmonious activity, light, rapid and graceful movements are the best.

That *exercise should be interesting* and not laborious or repulsive, is self-evident. The very purpose for which exercise should be recommended to professional men and students, is to gratify the natural activity of the occipital organs. Exercise which fails to do this, fails in its main purpose; but that which rouses and gratifies the occipital organs, accomplishes at once the object of benefitting the brain; and by means of the nervous energy which the occipital organs impart to the body, a great deal of invigoration and nourishment is produced. The body is strengthened as well as the brain. Thus, while the heavy, monotonous labor of sawing wood, or turning a windlass, produces dullness and fatigue, without cerebral exhileration, the animating pleasure of a fox chase, a fencing match, a game of foot ball, or cricket, &c., produces a healthy and harmonious excitement, the occipital organs being gratified, the brain enlivened, and the body invigorated, so that its powers increase, and its muscles grow. Exercise which affords this gratification, causes but little fatigue, and instead of leaving us exhausted and dull, it leaves the mind in a vigorous condition for action. The lively sports of boys contribute much to their mental vigor; and the labor of dancing to music, instead of fatiguing us as would a corresponding amount of exercise on the treadmill, is accompanied by remarkable and general activity of the brain,

by social feeling, refined taste, generous impulse, spirited action, observation, sagacity and wit.

Presuming it to be sufficiently obvious that exercise for intellectual vigor, should be brisk, sprightly, interesting and agreeable, we may next inquire into the merits of the different species of exercise.

[*To be continued.*]

THE REGION OF MYSTERY.

Nature conceals in inaccessible spots her deepest mysteries. In the human constitution they lie in the brain, concealed by the cranium, and giving few obvious indications. While the rest of the body is all sentineled with delicate nerves of sensation, to report the transactions of the minutest parts, the interior of the brain has no such sentinels to report its mysterious acts. There is no sensation there. In vain do we endeavor by thinking, to penetrate the seat of our own minds; in vain do we endeavor by consciousness, to know the changes which are occurring in the true home of thought. Dark, silent, and void of feeling as the planetary spaces, are the interior regions of the brain.

On the median line, and in the internal basilar regions, are the subtlest secrets of life. There we find the mysterious linking of the spiritual and material. There we find the inter-communication of the mind, brain and body. There the trinity of the human constitution has its animated center and theater of reciprocal action. From thence do we evolve the subtle powers which we see without eyes, hear without ears, and transcend all time and space, by the powers of a different mode of existence.

I have made many curious experiments upon this region, apparently severing the unity of the hemispheres, and producing remarkable mental phenomena in this unbalanced condition. One of the most interesting of these cases occurred (in the summer of 1843) with Mrs. L., a cultivated and accomplished lady, now deceased, upon whom I made nervauric impressions, on the median line of the head, disturbing the unity of the hemispheres, and at the same time concentrating the excitement upon the intuitive and clairvoyant region, upon the interior of the front lobe. A singular unbalanced condition of the body was produced. She leaned alternately from one side to the other, entirely unable to sustain the equipoise of the two halves of the body. Her eyes manifested a disposition to divergence, and she remained for some time in a state of intellectual abstraction, exceedingly sensitive, and reluctant to be approached, although it was necessary for her recovery. Against her will, it became necessary for me to restore the balance of the brain, to enable her

to go hmoe. Although the disorganization and debility was overcome sufficiently for walking, there was some tendency to a return of the same condition; and for some time afterwards she could perceive a tendency to a recurrence when she reflected over what had occurred.

Having requested from her a narrative of the experiment as it appeared to her, and her mental operations during its continuance, she gave me the following sketch. The deceased father to whom she alludes, was noted for his entire skepticism, and positive infidelity, as regards religious and spiritual doctrines.

STATEMENT OF MRS. L.

Having felt unusually well through the day, I entered Dr. Buchanan's lecture room with feelings of increased interest on the subject of Neurology. Listened to the evening's lecture with more than ordinary interest, and when the Dr. ceased, instead of feeling fatigued, which is often the case after mental exertion, I felt enlivened. After some experiments, the Dr., with my permission, attempted one on me, by passing the hand over the head on the line dividing the hemispheres. The first pass of the hand was pleasant as it passed backwards over the intellectual developement—the second brightening in its effect—the third straining and unpleasant to all parts of the mind. I thought the lights on the table were farther apart, and that the room was enlarging, and that the persons in it were scattered over a larger space than they had been. The influence was then thrown off. Shortly afterwards, at my own request, the experiment was again tried to a further extent. The first effects were the same, which on being increased by continued passes, strained my mind as if to a dividing point. Each eye wished to direct its own line of vision and in an opposite direction from the natural one. Each thought seemed to have an opponent ready to assert its rights; and at the same time that this seeming division of mind was going on, when the pass was made in front of the forehead, I felt an expansion of mind —a desire to see beyond the limits of the four walls by which my vision was confined. A grasping at, and for, things mighty and unknown. This state of mind in less than five minutes became truly trying—when by the Doctor's ready skill, I felt relieved from a part of the effects, but with great relaxation of body, and deep gloom of mind, and with a disposition to think, remaining. At my own request I was left without further interruption, for what time I am uncertain. At first I was conscious only of great dejection of spirits—deep gloom of mind without power to resist, indeed a wish to indulge it. I felt no cause for this sadness, until suddenly I saw before me the inanimate image of one closely connected by kindred ties.

Then, surrounded as I was, by those of earth, yet I had the consciousness that unearthly presences were shedding their influence around.

This consciousness, vague at first, became definite; and the earthly tabernacle, as it had appeared when the spirit left it, was before me. The cold and rigid features looked but reproach, that I had not performed a child's duty, and assisted in the observance of the last rites. Then it appeared possible that I could still do so and an acute conscientiousness be relieved. I then found myself in the funeral train, which wound its mournful way to the village graveyard. This I realized very distinctly, as carriages appeared before me in the train, which is very unusual here, but which I have since learned was the case in this instance. I saw the cold clay deposited in the narrow house, where as brother and sister and father, they go in their solitude one by one. But here the real was lost sight of in the ideal—here influences before imagined, but never before realized, hovered around me—space was then occupied by indescribable influences, and did not then seem, as now, the only place in nature not teeming with life. I realized then what I have always believed, that the bright and beloved spirits of the *past* are ever around us, and with us, and dispensing their monitory or encouraging presence over our minds. Definiteness and distinctness, it is true, these influences wanted—but what are shape and form to the spirit longing for the realization of the *ideal*? There was no cold and icy hand to grasp, 'tis true, —there was no blank and lustreless eye to meet the gaze of,—neither was there the stern and saddened voice to listen to—no—MIND met MIND responsive to the sympathetic cord of kindred ties. And what influence did that mind, once boastful of its own innate strength, convey to this gloomy and benighted spirit, which is forever struggling for skies more clear than ever meet its care clouded gaze? Alas! alas! the lesson was, that mind and strength and boasted power—a belief and practice in all that moralizes human nature, weigheth but as naught when put in competition with that "little mite of *faith*." But other influences breathed around me, and the troubled realization was calmed. Bright and beautiful was this phantom. Faith shone as a diadem, and patience and hope as a crown, and all the kindly virtues clustered around the gem encircled center. Radiant peace breathed its calm influence over my soul, for the seeming purpose of quieting, or giving a proper direction to those burning aspirations, those longing for kindred sympathies, and appreciation of sentiment, those thrilling wishes for a brighter and purer happiness than dawns upon us here, and impressing the mind with the belief that these feelings may not be gratified whilst we are bound by obstructions of clay to this sphere —that although happiness is ever hovering o'er, and bright hopes forever stir the air around us, still in air they stay, and never *rest*, but in a land of brighter sun, and on a calmer and more peaceful shore. And strong is the conviction left on my mind, that the troubled spirit will alone receive its purification where the font of "living waters" springs.

UNSEEN INFLUENCES.

A correspondent at Pittsburgh advances some ideas which may be interesting to those who are impressible to spiritual influences. I can readily admit that such things occur with those who are highly impressible, but cannot generalize the proposition and apply so extensively as my correspondent:

Dear Sir:—Enclosed please find $1,00 for the present current volume of your always original Journal of Man, which I welcomed with all my heart as an old friend, because it is to it I am indebted for the introduction into spiritualism, which has become the most favorite study with me. I have read with interest this your first number, and with your permission I will say a few words on it. I have in the course of my investigation come to conclusions different from those you have set forth. I am far from being a phrenologist, and have no doubt that the various organs of the brain are what you represent them to be, but my experience has taught me that these organs are but the instruments by means of which spirits rule and regulate our various actions, and all the free will that man may claim, consists in following the impressions which his conscience, or the crown of his head receives from higher spirits, or those impressions from lower spirits that are constantly active in irritating our lower organs or passions, causing impulses. Many, if not all, actions are controlled by other minds in and out of the body, so that frequently even the natural faculties or inclinations of a man do not come into consideration. For an instance, I have had a clairvoyant of a very stubborn character, a great opponent to spiritualism, who was living four miles distant from town. One day, while busily engaged at his pursuit, he had no rest at home from an urgent inclination which impelled him to go to town. With all his might he tried to counteract this influence, as he had no business in town, but in vain—he had to go. He came to me, and while relating this he went into the superior condition, in which he stated that he was made to come by a certain spirit for the purpose of giving a prescription for one of my children who was rather ill, and of which the clairvoyant knew nothing. This was one of the numerous examples in my experience. Often when I was head-strong to carry out those plans which I thought my duty to do, I met with disappointments and vexation; while on other occasions, when I remained passive and impressible, though the circumstances seemed to be quite perplexing, and to require some extra exertion—everything went right. This simple experience affords material for a long series of reflections on the guidance of a superior power and our submissiveness to it, for it is not as that

make our fortune, else all would be rich that are determined to be so. Is it not frequently the most simple minded man who reaches that without the least exertion, to which many strong and energetic minds constantly aspire, but in vain? I mean wealth. What I think of such an aspiration is another question.

That there are all kinds of spirits active in the various pursuits of life, you have given an example of so-called heroism, in the person of an English cavalry officer, and it is an excellent description of a "demoniac" possession. Believe them if "some fellows talk of it being demoniac," for it really is. We would not often meet with the so-called heroism in war, if you would allow men to reflect, leave to their conscience to act, and not subject them to the mesmeric influence of inspired officers and of demons, many of these good natured soldiers would say, "give me my man, and I will make it up with him amicably."

I will not trouble you with my impressions and instructions on the subject of war; but will relate an extraordinary occurrence that came under my observation last winter, and I will allow you to draw your own conclusions. I magnetized a young man. At once he began to ride on his chair like a hussar, swinging his sword, and cutting down his enemies; meanwhile he was shouting all kinds of warlike exclamations to the amusement of the company. At length his arm sank, and he would have fallen from the chair, had I not caught him. I asked him what had happened to him, he answered that he was killed by a musket blow. He slowly recovered, feeling with his hand on his occiput; presently he again became a little clamorous saying that the Russians had made him a prisoner. He was afterwards liberated again, and pantomimed many more situations of war, and declared that he was a Turkish officer. When he was in his natural state again, the first act he did was to feel his occiput, saying that he had severe pain there, as of a knock, and asking me to feel the large bump which he had no recollection when and where he had received it, for he did not recollect anything of his skirmishes. The company was astonished at the heavy lump that we all felt, and which was still there, and very painful even in the evening of the next day. Such, and very multifarious experiences and teachings which I have received, have moulded my philosophy on our present existence different from any that I have had opportunity to study."

That a mental impression may have produced a tenderness and swelling of the scalp is not all impossible. An English physician has recently published an equally remarkable case, in which a lady, by the power of imagination and apprehension, developed severe inflammation in her hand. In certain constitutions we can place no exact limit to the power of imagination.

GEOGRAPHY OF HELL.

As society grows more enlightened, the old idea of a physical hell—a burning lake beneath us—seems to have almost become extinct. A more spiritual view is generally entertained by enlightened believers in hell-fire.

Nevertheless the constitution of the human brain, and the operations of the human mind do evidently harmonize with the idea of a hell below and a heaven above. The pathognomic mathematical laws sanction this idea—our language has embodied it, and the facts of geology illustrate it by showing that beneath our feet intense and enduring fires exist. Still there seems to be no disposition among enlightened Christians to incorporate this contribution of geology with their theological system, and the first distinct recognition of the geological hell as a place for roasting sinners that I have met with, is that of a Roman Catholic priest at Manhattanville, near New York, whose discourse is reported as follows by a correspondent of the New York Evening Post:

"It was delivered on the evening of Sunday, March 25th, and the church, a tasteful and appropriate edifice, was densely crowded by a devout audience, composed almost exclusively of Irish Catholics residing in the neighborhood, over whom the Rev. Arthur Donnelly, their pastor, is said to exercise a most benign and wholesome influence. I was attracted thither, in great measure, from curiosity to hear the Rev. Mr. Walworth, the preacher of the evening, of whose zeal and eloquence the most favorable rumors had reached me.

"This gentleman, who is the son of the late distinguished Chancellor of the State, and, I understand, a recent convert to Romanism, having been formerly a candidate for orders in the Theological Seminary of the Episcopal Church in this city, is a young man, not above thirty years of age, I should suppose, with a figure rather above the middle hight, slender but well proportioned, and an eye of singular brilliancy, glowing with zeal and singleness of purpose; and his style of delivery, at once eloquent and sincere, accords well with his appearance, impressing you with the idea that the speaker possesses a most thorough conviction of the truth of what he utters. He was dressed in the habit peculiar to his order, a long, tightly-fitting black gown or cassock, fastened at the waist by a girdle, to which was attached a crucifi xand a rosary of rich and curious workmanship, and wore, while preaching, a black cap of singular form, one of the distinguishing features of the garb of the Redemptorists.

"His sermon was delivered orally, without the assistance of notes or manuscript, and from the impulsiveness of the delivery, as well as the

fearful topic of his discourse, seemed calculated to exert an extraordinary influence upon the class of hearers to whom it was addressed. His subject was the existence of a Hell, or place of future punishment, and much of his discourse was devoted to fixing its locality, and illustrating the torments to which the damned would there be subjected.

"He began by assuming that there was a Hell for the eternal punishment of unrepentant sinners, after death. This was a cardinal point of belief in the Church, adopted from its earliest formation, and incontestably proved by the Scriptures, and to be as fully recognized as the Trinity, or any other established article of faith. Where, then, he asks, was this Hell? Was it near or remote? Was it an imaginary place, or was it fixed, tangible, material; a place of physical as well as mental torment? Upon this point the Church had never formally passed; while recognizing the existence of a Hell, she had never imposed any belief in its locality upon Catholics as an article of faith: but he should show them by the evidence of the Scriptures, that, practically, his Hell was no imaginary place of torment, but fixed, actual, near at hand, beneath our very feet, in the center of this earth on which we tread.

"Some had supposed that one of the distant planets or fixed stars had been appropriated by the Creator for the abode of the damned; others that Hell was far away, beyond human sight and almost beyond human conception; but all our preconceived notions of it were at variance with these opinions. The Scriptures had invariably spoken of Hell as beneath us, not above or far removed. As Heaven was above, and the souls of the righteous were said to ascend to Heaven, so the damned descended—went down into Hell. Thus Korah and his companions, who rebelled against the Lord in the wilderness, went down bodily into the earth, which opened to receive them; they were not translated to another sphere to receive their punishment, but 'went down alive into the pit,' or in other words, descended into Hell on the very spot where they sinned. Again, the rich man, tormented in Hell, 'lifted up his eyes,' and saw Lazarus in Abraham's bosom, and to his entreaties for succor and intercession, Abraham had replied, 'between us and you there is a great gulf fixed.' So, too, Christ in the parable of the marriage feast said, 'take him and bind him hand and foot and cast him into outer darkness.'

"He cited many other texts from Scripture to fix this locality, and deduced, as a conclusion therefrom, that Hell must necessarily be in the center of this earth, as in no other way could our conceptions of its position beneath us, as defined in the Scriptures, be adequately realized; our ideas of what is above us might be infinite as space itself, but their could be but one 'beneath,' and that was subterranean.

"Having established this point, and fixed the locality of Hell in the bowels of the earth, he proceeded to inquire into its nature and physical condition. As it had a material position, it necessarily followed that it

was a place of material, bodily punishment, where the bodies and limbs of the wicked were to be subjected to an eternal torment, more acute than the most vivid imagination could hope to conceive; and he should prove by citations from the Scriptures—by the traditions of the Church and the writings of the Fathers, and by natural and physical phenomena and the evidence of philosophers and scientific men—that this punishment would be by fire, of which the interior of this globe was wholly composed.

"The Scriptures had invariably spoken of Hell as a place of torment by fire: 'Depart from me ye cursed, into everlasting fire, prepared for the devil and his angels,' were the words of Christ. The term 'Hell-fire,' frequently occurred, and, indeed, wherever reference was made to the punishments to be inflicted upon the wicked in Hell, it was always described to be by fire. He further illustrated this part of his discourse by copious quotations from the Scriptures, and by extracts from writings by the Fathers, who, he observed, had, with singular unanimity, given their testimony to the doctrine he wished to substantiate, both on this point, and generally with regard to the locality of Hell.

"Such being the evidence of the Scriptures and the Fathers of the Church, every good Catholic whose faith was sincere, should yield implicit obedience to this doctrine; but in order to silence any doubts which might linger in the minds of his hearers, he should proceed to show from the evidence of eminent natural philosophers, many of whom indeed were not even Christians, and from well known natural phenomena, that the interior of the earth was in a state of intense incandescence, scarcely conceivable to human understandings. In this connection he quoted extensively from Humboldt's 'Kosmos,' and mentioned volcanoes as an evidence of the fiery nature of the earth's interior.

"These wonderful phenomena of nature, in which molten lava and fragments of rock were ejected with great violence, accompanied with flames and dense volumes of smoke, it was now well established, were merely openings in the earth's surface, through which the subterranean fires, pent in below, found vent; and were intended both to exhibit the intensity of the hidden fires, and to afford a warning to the wicked of the terrible nature of the sufferings that awaited them, unless they should speedily repent. The whole surface of the earth, in fact, was but a shell, a thin crust, utterly insignificant in bulk, in proportion to the depth profound that yawned beneath our feet. We trod over living and everlasting flames, which might at any moment break forth with overwhelming power, and swallow us up forever.

"Had not the numerous instances of this been witnessed in the terrible earthquakes, so frequently occurring in South America, and in equatorial regions. What were these but evidences of the frail structure of this solid crust on which we dwell, which is continually cracking under

the influence of intense heat beneath? Nor were these phenomena local or isolated in their nature, but extended over the whole sphere. Thus the great earthquake of Lisbon, in 1756, in which the ground had opened and the flames had burst forth, had been distinctly felt over many parts of Europe, in Asia, and even in this country on Lake Ontario. Again, the hot springs swelling up to the surface of the soil in various parts of the world, and particularly in Iceland, where they were ejected in a boiling state several hundred feet into the air, showed conclusively that their source was in the neighborhood of igneous influences ; for how otherwise could they violate the course of nature by flowing in hot streams instead of cold?

" He then inquired into the degree and intensity of this heat, which almost passed the bounds of human conception. As a means of approximating to a result, however, he referred to experiments which had been made with a thermometer in Artesian wells and deep mines. Here it had been observed that with every fifty feet of depth one degree of Fahrenheit had been gained; consequently at this ratio of increase, it would only be necessary to penetrate the crust of the earth twenty-one miles, in order to reach a state of heat in which the granite would be molten. Water boils at 212 degrees Fahrenheit, but it requires 2,600 degrees to melt rocks. This, therefore, was the *minimum* of the heat of Hell, whose frontiers, therefore, lie twenty-one miles below the surface of the earth. He also cited a well authenticated miracle, related by one of the Fathers, to the effect that God once permitted a certain religious person to receive a visit of a few moments from one of the damned. In the course of the interview, the latter thrust his hand into a vase of water in the apartment, which was thereby so powerfully heated, that a bronze candlestick having been placed in it, was immediately melted. The illustrations would afford, perhaps, a slight conception of the fearful nature of the fires that were awaiting the guilty and unrepentant.

" And what would be the duration of that punishment and of those terrible fires? Here there was no room left for doubt—the Church, in concurrence with the awful testimony of the Scriptures, had pronounced them eternal; Christ himself had said, 'It is better for thee to enter life maimed, than having two hands to go into hell, into the fire that shall never be quenched.' It would be vain to attempt to conceive the duration of that eternity; the boldest intellects shrank appalled on the very threshhold of their inquiry. To illustrate the futility of any such attempt, he begged his hearers to picture to themselves one of those infinitely small animals, of which millions dwell in a single drop of water, and which only the most powerful microscope can reveal to our gaze.

" Let them suppose one of these infinitesimal creatures to consume the whole earth, to eat all the leaves of the trees, the fruits of the ground, the sand of the seashore, the mountains and the plains—to drink

up the oceans, lakes, and rivers, taking one mouthful in a thousand years, and then to devour in turn the sun and the planets, and all the visible creatures of the universe, and after this incalculable lapse of time, consider how much nearer they would be to the solution of this great mystery? Not one step—eternity would be as far beyond their contemplation as ever.

"In these eternal fires every limb and member of our bodies, every nerve and muscle and tendon, every part of us, in fine, over which the sense of feeling predominated, would be forever racked and tortured, and yet never consumed. And to these exquisite torments of the body would be the pangs of remorse and the stings of conscience. Mind and body would suffer alike, but upon those members wherewith we have sinned the most deeply would the keenest sufferings be inflicted, until the damned, amid this unspeakable agony, should long for those means to end his own sufferings which he had perhaps, employed against another while on earth.

"He continued to dwell with singular earnestness and fulness of illustration upon that terrible picture, and concluded with an eloquent and affectionate exhortation to his hearers to avoid these torments, of which he had presented but a feeble picture, in comparison with the reality, by repentance and supplication to God, through the intercession of Our Blessed Lady."

SINGULAR DREAM—THE VISIONARY AND THE REAL.

We lately read in the Cincinnati Times an account of a most singular dream which visited the slumbers of a lady in that city on the night of the 6th of December, which it afterwards appears was literally transpiring at the precise time, in a place 10,000 miles off. The dream was of the lady's brother in California. She saw him rise from bed in his low miner's hut, put his hand beneath the pillow and draw thence a bowie knife and revolver. The expression of his countenance was that of intense watchfulness; every pulse seemed suspended, and every heart throb muffled, while the eye was fixed upon a particular spot near the head of the bed, where through a small aperture, was a *human hand* grasping a dagger. The hand slowly sought the pillow, and passing downward to the supposed region of the heart, poised for a moment ere it descended and drove the knife through the old blankets. In that momentary pause, the brother advanced from his seat, and with a terrible blow of his heavy knife severed the hand which held the dagger completely from the assassin's arm. Then opening his door, he discovered writhing in agony, a Mexican whom he had sometime before made angry

and who had sworn vengeance against him. The vividness of this dream caused it to be strongly impressed upon the waking mind of the dreamer, and it was related to her husband. A few weeks afterward a letter was received from the brother, giving an account of an adventure he met with on the night of December 6th, which was the exact counterpart of his sister's dream.

The perusal of this recalls to us a singular dream and its fulfilment, which transpired in this city a few days ago. A lady who was an invalid, on awakening in the morning inquired for her watch, saying she feared it had been stolen, and was only satisfied it had not been when it was brought to her. She then related that in her sleep she dreamed it had been stolen, and that a young man who lived in the adjoining house was the thief. She had the most vivid perception of his identity as the thief; when the dream changed she saw the officers come to arrest him. They stood for some time at the door waiting admittance, which seemed to have been denied them; but finally the door was opened, the young man arrested and led away between them. A few minutes after the relation of her dream, the family learned that just at daylight the police had been to the house and precisely as narrated by the dreamer, arrested and taken away the young man. The only discrepancy between the visionary and the real occurrence, was in the matter about the watch; the crime for which he was taken having been the theft of a watch in another place. The young man is one of the criminals now awaiting trial in the Recorder's Court.

Were these things mere vagaries of the mind—vision—the offspring of ill health, or a condition of unrest in the sleeping? Or was the mind, the immaterial essential of life, freed from its narrow house, present and witness of what was going on in another country or place, the knowledge of which, on returning, it brought with it? Verily, philosophy, "of all our vanities the motliest," fails to instruct us in the commonest phases of this mysterious thing called life. Some people affect to disbelieve the miracles narrated by the inspired teachers. Did it ever occur to such that in the nature of sleep is presented a greater marvel than is told of between Genesis and Revelations?

"Sleep hath its own world.
And a wide realm of wild reality,
And dreams in their developements have breath,
And tears and torture, and the torch of joy;
They leave a weight upon our waking thoughts,
They take a weight from off our waking toils;
They do divide our being—they become
A portion of ourselves as of our time,
And look like heralds of eternity.
They pass like spirits of the past—they speak
Like sybils of the future, they have power—
The tyranny of pleasure and of pain;
They make us what we were not—what they will,
And shake us by the vision that's gone by,
The dread of vanished shadows.—Are they so!"—*Chicago Times*

THE WEST AND SOUTH OF IRELAND.

The west and south of Ireland are saturated with Romanism and poverty; the north, chiefly Protestant, however, sends forth no groans; petitions not as a mendicant for charity, yet each quarter of the "Green Isle," is alike subject to British dominion and law! Those whom the most intelligent of Ireland deem to be the authors of this moral, mental and physical ruin—the Hierarchy—nevertheless continually prate about the government as the origin and proximate cause of the great social evils which afflict this beautiful Island, and have made its name the synonym of human degradation all over the globe.—*Cin. Times.*

The following picture is from the pen of Mr. DUFFY, the editor of the Dublin Nation:

"No words printed in a newspaper, or elsewhere, will give any man who has not seen it a conception of the fallen condition of the West and South. The famine and the landlords have actually created a new race in Ireland. I have seen on the streets of Galway crowds of creatures more debased than the Yahoos of Swift—creatures having only a distant and hideous resemblance to human beings. Gray haired old men, whose idiot faces had settled into a hardened leer of mendicancy, simious and semi-human; and women filthier and more frightful than the harpies, who, at the jingle of a coin on the pavement, swarmed in myriads from unseen places, struggling, screaming, shrieking for their prey, like some monstrous unclean animals. In Westport, the sight of a priest on the street gathered an entire pauper population, thick as a village market, swarming round him for relief.

"Beggar children, beggar adults, beggars in white hair, girls with faces grave and shrivelled—the grave stamped upon them in a decree which could not be recalled; women with the more touching and tragical aspect of lingering shame and self-respect not yet effaced, and among these terrible realities, imposture shaking in pretended fits to add the last touch of horrible grotesquesness! I have seen these accursed sights, and they are burned into my memory forever. Away from the town other scenes of unimaginable horror disclose themselves. The traveler meets groups and even troops of wild, idle, lunatic looking paupers wandering over the country, each with some tale of extermination to tell. If he penetrates into a cabin and can distinguish objects among filth and darkness, of which an ordinary pig-sty affords but a faint image, he will probably discover from a dozen to twenty inmates in the hut—the ejected cottiers—clustering together and breeding a pestilence. What kind of creatures men and women become living in this dung heap—what kind of children are reared here to grow up in a generation, I have no words to paint."