

General Miscellany.

Mental and Physical Electropathy.

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With this view of the electrical relations of our bodies to the physical world, with the source from which they derive this element of life, and the manner in which it is received, we may proceed to speak more particularly of its operations in the system—its disturbance, or the causes of diseases, and some of the means employed in their cure.

Not two kinds of electricity, but one kind in different states, exists in the human economy. First a latent state, in which this element pervades the material of our bodies in common with all matter; and second, an active state, in which it is called into exercise for the support of voluntary and involuntary motion. The first is subject to the chemical changes common to the grosser elements. The second, by its connection with the nervous system, becomes the vitalizing force—the power of organic motion.

The nervous mass, which, according to Solly, constitutes the substance of the brain and nervous system, is the best possible conductor of this fluid, and its immediate recipient. In health, it is positively charged; the system strong, and the functions of every organ regular. The brain, constituting the principal bulk of this substance, becomes in the economy the great reservoir of this element, with the different nervous systems like distributing pipes ramifying therefrom, dividing and subdividing, that it may be communicated to every part. Through the action of this fluid upon the nerves, the functions of every organ are performed. Without it, like the telegraphic wires without the electrical action of the battery, there is no motion. With it, otherwise silent organs are made to speak.

A part of the functions of life are voluntary, but those upon which its existence chiefly depends are involuntary. Hence a part of the electricity in the system is under the control of mind, but a greater part is not. It may be exhausted by an excess of either voluntary or involuntary action. The stomach may be required to perform too much labour, thereby depriving the brain of its force, and rendering the mind sluggish, while too much mental labour produces indigestion and general derangement of the system.

Sadly, grief, care, anxiety, physical or mental excitement, by exhausting the same force employed in the performance of the more direct functions of life, induce derangements in those functions. The nervous system thus deprived becomes enfeebled, and the person is said to be nervous. The divine and the villain, by an excessive exercise of the mind, though on different subjects, suffer alike the dyspepsia, and give the same evidence of disease. The mourner and the lover, by brooding over the objects of their loss—the one by death, the other by voluntary desertion—lose alike the appetite, and perhaps pine away and die. Upon the principles of electrical action this is easily explained. The system receives a given amount of this element, according to the condition of the avenues described. Every physical action and mental emotion is performed through the action of this force. An excess not only exhausts its supply in the part exercised, but, to a limited extent the whole system. This is true of the exercise of individual organs, as well as different systems in the economy.

It is asserted by Marshall Hall, and the remark is generally approved by the profession, that "disease of a latent lobe of the cerebellum induces paralysis of the opposite side, and chiefly of the lower extremities. Disease of the middle lobe of the cerebellum is denoted by erection of the penis. Disease of the medulla oblongata indicates paralysis of the respiratory muscles, and consequently, when complete, instant death."

This disturbance in the functions of different organs by attacks made upon the brain, is as true in other respects as in those suggested by Marshall Hall; and in support of the view we have taken of the electrical action of the economy, nothing

can be more conclusive. The functions of the eye are performed through nerves connecting it with the brain, from which it derives its vital energy. If the brain be affected by injury or otherwise at the point where this connection takes place, the electrical action of the nerves and the functions of the eye are alike disturbed. When this action ceases entirely, the amaurosis becomes complete. The same is true of the auditory nerves, the olfactory, and indeed of the nerves through which every sense is enjoyed, or the functions of any organ performed. It is not difficult, therefore, to account for different local and organic affections, upon the principles of an electrical disturbance in the brain. And when we reflect that this organ is the immediate residence of the mind, and that the mind is dependent upon its electrical support or vital action, we can imagine how mental labour excessively performed exhausts the system and deranges its organic action. The perplexities of the counting room—the anxieties of relatives in sickness—the excitement consequent on great occasions—strong emotions of fear, anger, love, or grief, all lead to such diseases as have their origin in an exhausted state of the electrical forces.

The effect of such emotions is in some degree apparent to all in the increase and variation of the pulse; but in those who labour under local weakness or affections of the heart, the effect becomes positive, as it often causes instant death. It is an important fact, that in many such cases of sudden deaths, said to be from disease of the heart, that examinations of that organ gave no traces of disease, the calamity being entirely the result of a disturbance in the electrical element, itself invisible though its effects, as in many other instances, are palpable to all our senses.

But the exhaustion of this force is not always from excessive mental effort, nor is the brain always the organ first attacked. As has been intimated, the functions of individual organs may be too severely taxed. This leads to their exhaustion, and thus, by calling upon the system for an extra supply of the vitalizing force, enfeebles other organs, and debilitates and deranges the whole economy. How many suffer in this way from venereal excesses alone!

We have referred to the effect of a disease of the middle lobe of the cerebellum as noticed by Marshall Hall. With equal truth we may say, that excessive excitement of the genitals induces disease in the cerebellum, and thereby loss of nervous energy and muscular power. At the expense of such excitement the senses are often deranged, hearing lost, vision impaired, reason dethroned, and humanity sunk lower in the scale of being than the brute creation. The vital force, the element of life, cannot be exhausted in such excitement without depriving more vital organs and higher functions of their supply. It cannot be protracted without shortening life and debasing the soul.

The disturbance of this element in the economy is not from exhaustion by excesses alone. Changes in the grosser elements without, and their chemical action within our systems, have their effects in changing the relations of this more subtle agent. It is well known that if the Leyden Jar be charged, and placed in a dry atmosphere, it may retain the electricity for hours, perhaps a day. But if placed in a damp atmosphere, or if a damp current of air reaches it, the electricity escapes immediately and imperceptibly.

Through the avenues we have mentioned, our systems are ever being charged with the same element. When the atmosphere is dry and the heavens clear, this element of life invigorates and strengthens us. Even invalids suffer but little from their diseases, so fully charged are they with the vitalizing force. How sensibly do such feel the effects of the dampness of an east wind! The subtle element of life is imperceptibly diffused from the system, chronic pains are felt, the circulation enfeebled, and the lungs, if in the least diseased, are so deprived of vital energy as to be scarcely able to exercise at all. Such phenomena, though often witnessed, is still mysterious, unless explained upon the principles here presented. (To be continued.)

Family Circle.

Beautiful Allegory.

There was once a king who had a very beautiful garden, and grounds arranged with taste to please the eye, to afford refreshing shade, retired walks, commanding views; and besides all the delightful fruits that could be produced. There was one superb old oak, so high and grand that it could be seen for miles around. There were roses and lilacs, and flowering shrubs of every kind, in short nothing was wanting to make it a perfect spot.

One day the king's head-gardener came in, and exclaimed,

"Oh, king, pray come out and see what is the matter with your garden; everything is withering, drooping and dying." While he spoke, other gardeners came rushing up, and all had the same sad story to tell. So the king went out, and there, to be sure, he found it all as they had said.

He went first up to his grand old oak-tree, his pride and admiration, and said, "Why, oak, what's the matter with you, that you are withering and dying?"

"Oh," said the oak, "I don't think I am of any use, I am so large and cumbersome; I bear no flowers or fruit, and I take up so much room; and besides, my branches spread so wide and thick, that it is all dark and shady under them, and no flowers and fruit can grow there. Now, if I were a rose-bush, it would be worth while; for I should bear sweet flowers; or, if I were a peach or a pear-tree, or, even like the grape-vine, I could give you fruit."

Then the king went on to his favourite rose-bush, and said,

"Well, rose-bush, what's the matter with you; why are you so drooping?"

"Why," said the rose-bush, "I'm of no use; I have no fruit, I bear nothing but some flowers. If I were an oak like that grand one in the middle of the grounds, I should be of some use; for then I should be seen for miles around and should do honour to your garden. But, as it is, I might as well die."

The king next came to a grape-vine, no longer clinging to the trellis and the trees, but trailing sadly on the ground. He stopped and said,

"Grape-vine, what's the matter with you, why are you lying so dolefully on the ground?"

"Ah," said the vine, "you see what a poor weak creature I am; I can't even hold up my own weight, but must cling to a tree or a post; and what good can I do? I neither give shade, like the oak, nor bear flowers, like the shrubs. I can't even so much as make a border for a walk, like the box. I must always depend on something else, and surely I am of no use."

So on went the king, quite in despair to see all his place going to destruction; but he suddenly spied a little heart's-ease, low down by the ground, with its face turned up to him, looking as bright and smiling as possible. He stopped, and said, "You dear little heart's-ease, what makes you look so bright and blooming, when every thing around you is withering away?"

"Why," said the heart's-ease, "I thought you wanted me here; if you had wanted an oak, you would have planted an acorn; if you had wanted roses, you would have set out a rose-bush; and if you had wanted grapes, you would have put in a grape-vine. But I knew that what you wanted of me was to be a heart's-ease; and so I thought I would try and be the very best little heart's-ease that ever I can."

Children, can you see the moral? God didn't want a grown-up, learned, rich, great man in the place where he put you; if He had, He would have made one. He wants each of you to be a child while you are a child; but he wants you to be a good child, and the "very best little heart's-ease that ever you can." Will you try?

The ruin of young people has often been observed to begin in the contempt of their parents, and the profanation of the Sabbath. Piety is the best parentage; and to be new-born is better than to be high-born.

Those are never likely to come to good that are undutiful to their parents.

Literary.

For the Wesleyan.

Mental Science.

NO. XX.

THE identity of the same man, as to his physical nature, according to Locke, consists, "in nothing but a participation of the same continued life, by constant fleeting particles of matter, in succession vitally united to the same organized body": whereas personal identity consists in consciousness, and in the identity of the immaterial spirit, whether it be or be not united to the same system of matter.

Here we discover again the difference there is between men and brutes. Brutes appear to us void of a consciousness of personal identity, or the sameness of rational beings. Intelligent beings can think, reason, reflect, and are conscious; and so far as this consciousness can be extended backwards to any past actions or thoughts, so far it reaches to the identity of their persons. They are really the same persons now as they were then; the very same persons, which are now reflecting on themselves, by whom the past actions or thoughts were performed. But this consciousness cannot be applied to animals. It is the special property of thinking, rational beings.

Man is a rational being; but brutes appear void of rationality. They are governed by instinct: he is capable of being governed by reason. There is a vast difference between instinct and reason. Instinct is that natural propensity or aptitude called into action, which all creatures have included within themselves, by which they move in conformity to some impelling cause.—Reason is that power or faculty of the human mind, by which those impulses, that instinct obeys, are controlled and counteracted. By their legitimate effects are, or may be defeated. Instinctive action, in this view, appears to be founded upon impulse, and that which is reasonable upon reflection.

By memory man accumulates vast stores of knowledge, and can reflect on that knowledge, independent of all external causes. Brutes doubtless possess memory; but with them foreign causes must operate, to call this and all their instinctive actions into exercise; for we cannot conceive that memory can exist with them any longer than the causes on which it depends continue to operate. In this respect it seems to be different from recollection. It finally appears, says Mr. Drew, "That more sensitive memory can only be excited by foreign causes; and that when these are totally done away, no power of associating its ideas, to recall what is past, can lie within the reach of the creature. While on the contrary, recollection may in numerous instances be recovered by man through the exercise of a power to which all mere animals are total strangers, even when a knowledge of what is past must otherwise be wholly unattainable."

Man can compare, compound, and abstract.—By comparison, two or more objects being brought at once into the view of the mind, their mental correspondences or relations are discovered. By composition, he joins together two or more simple ideas, and considers them as one picture or representation. And abstraction is the attention of the mind to those properties in an object which it possesses in common with others, while it overlooks those which are peculiar to itself.

But brutes compare imperfectly. How far they partake of this faculty, is not easy to determine; however it would seem they have it not in any great degree. They probably have several ideas which are sufficiently distinct; yet it appears to be the prerogative of the human understanding, that having distinguished any ideas, so as to perceive their perfect dissimilarity, to consider in what circumstances they are capable of being compared. It appears most likely that brutes compare not their ideas further than some sensible circumstance annexed to the objects themselves. The ability of comparing observable in man, to which belongs general ideas, and which is useful only in abstract reasoning, we may naturally conjecture brutes have not.

Brutes also compound but little. In this particular, we may conclude, they come far short of men. Though they attain, and retain together several combinations of simple ideas; we cannot believe that they do, of themselves, ever compound them so as to make complex ideas. And even, where we sometimes suppose that they may have complex ideas, it is perhaps, only one simple idea that directs them in the knowledge of several things, which they possibly distinguish less by their sight than we imagine. This much we are assured, that those animals, which have numerous broods of young ones at once, appear not to have any knowledge of their number; for if any two of them be taken away in their absence, or without their knowledge, they do not appear to miss them, or to have any consciousness of their loss.

Brutes, however, cannot abstract. Locke says, in this "I may be positive, that the power of abstracting is not at all in them; and that the having of general ideas, is that which puts a perfect distinction betwixt man and brutes, and is an excellency which the faculty of brutes do by no means attain to."