

to be demonstrated about bodily power by observing phenomena connected with it than merely enquiring into itself, we may proceed to our second condition, viz.: How is this power applied or supplied to each organ, or part of the body?

There are three different means of imparting stimulus to any part of the body, first, the voluntary, second, a demand by an organ, third the emotional nature. The voluntary is the most commonly used of the three means of supplying stimulus. The eyes, the tongue, the jaws, the arms, legs, and muscles of the trunk generally are under control of the will. This control is maintained only when the nervous system is in its properly regulated condition. When one is subject to epileptic fits, or when suffering from paralysis the will has not the proper command of the muscles ordinarily under its control. The exact connection between the will and the liberation or sending of stimulus along the nerves cannot yet be explained. Whatever that connection is, it is extremely feeble. This is shown by the efforts of a child trying, for the first time, to perform a movement, or by a right handed person trying to write with the left hand. The second means of calling forth stimulus is that by which the various internal organs such as the heart, lungs, stomach, intestines, kidneys, etc., are supplied. When the stomach has received a certain amount of contents, that fact is indicated by the sensory nerves at the seat of power, and stimulus is accordingly supplied by the motor nerves. The same is true of all the other organs.

There is another feature connected with the liberation of stimulus, either by the will or to the stomach. When one begins to use the legs as in walking or running, the distribution of stimulus is not particular to these members, but general to all the organs

of the body both external and internal. This is felt by the heart beating more quickly and the stomach also receives extra impulse, thus explaining how general bodily exercise is such a powerful cure and preventive of dyspepsia.

Again, when one is wearied by work or sickness, food being put into the stomach, the liberation of stimulus is not particular to the stomach, but again general throughout the body. So we have the voluntary means supplying stimulus to the stomach and other organs not under the will control when they have ceased to be able to call it themselves, and we have, on the other hand, stimulus supplied to wearied organs under will control when such can not get it by will command.

This is what is called "getting strength from food." The expression is quite erroneous, as we do not get strength from food. Blood is made from food, but strength is used in the converting of food into blood. It would be possible to show that strength is directly lost on food in place of being obtained from it. Of this we shall say more when treating of the third point, viz.: How is stimulus obtained?

Three conditions appear to be necessary in order to possess the proper amount of stimulus, first, a certain amount of good muscular tissue; second, a judicious use of the body in muscular activity; third, a proper amount of rest and sleep. Bodily activity cannot be engaged in sufficiently without the right kind and amount of muscular tissue; this use of bodily powers is the proper and only preparation for sound sleep, and sleep is the only means of getting a supply of strength for the coming day. With every contraction of a muscle there is a waste of tissue. Then on the principle of generating energy by impact it may be that the impact