

body; the brain cells, unsupplied, will fail to yield consciousness; a load of blood cast on the struggling heart, the first organ to be robbed by the shock of its arterial blood supply, will sink in its beat, and all the powers prostrate, there will be primary death, syncope or faint.

Pursuing this subject further, we have the "sensory system," specially adapted for bringing the nervous organization into communication with the external world, as exhibited by the "organs of sight," for condensing and focusing light, for receiving a picture on a nervous screen, and for conveying that picture to the brain; the "organs of hearing," for collecting atmospheric waves which cause sound, for receiving the impressions so collected on a nervous expanse, and for transmitting those impressions to the brain; the "organs of smell," a nervous surface for receiving the impulses which odorous particles impart to the nervous sense; the "organ of touch" at the tips of the fingers, a small nervous body containing a little gray matter and surmounting a filament of a nerve for receiving the special impressions conveyed by the delicate pressure of an external object; and lastly, we have the "organ of taste," a nervous expanse in a portion of the tongue and palate for the reception of impressions conveyed by foods, drinks or other substances which may enter the mouth.

Anatomy teaches that in every instance the design is carried out on the same principle, though differing in detail. There is in all instances a collecting part of the organs for bringing together the vibrations that have to be absorbed; a receiving nervous surface for taking up the impressions; a special nerve originating in the nervous receiving surface and going to the brain, for conveying the impression; and a receiving part within the brain itself, by which the impression is finally brought into the physical domain of thought and consciousness.

When we reflect upon this wonderful mechanism of which I have given you a very superficial glance, we can readily understand the influence the mind can exercise over the functions of the body. And our experience teaches us that the effect of an emotion varies with the impression or shock producing it. There are divergent theories regarding the seat of the emotions. Without discussing that point, I shall use the word as expressing the result of impressions upon the brain.

An emotion may, and often does, act upon all the sensations, upon the voluntary and the involuntary muscles, and upon the organic functions.

It would lead me into a discussion beyond the scope of this paper, were I to enumerate the many and various disorders that may and do originate in emotion. It is sufficient to say that it does not directly cause pain, but it often arrests it; that its influence upon the voluntary muscles is seen in joy, fear, grief, anger, etc.; and upon the involuntary muscles by its action upon the heart, the circulation, the skin, the uterus, the bladder and the urethra. It may, and often does, excite, modify, or suspend the organic functions, causing changes in nutrition, secretion and excretion.

"Pain" is believed to be the result of stimuli applied to the sensory nerves, and its varieties are as manifold as its degrees, depending upon the nerve supply to the part and the excitability of the individual. No satisfactory account has yet been given as to the molecular changes accompanying it, consequently its essence cannot be defined.

Emotional excitement often prevents the perception of pain and occasionally banishes it. Persons have been wounded in battle without being aware of injury until the excitement of contest was over. The severest injuries have been inflicted upon lunatics without their exhibiting the slightest expression of pain.