

suits its own welfare ; and the mechanism whereby this is effected is the neuro-muscular system. Those kinds of movement going on in the external world which are competent to evoke responsive movements in the animal body are called by physiologists stimuli. When a stimulus falls upon the appropriate sensory surface, a wave of molecular movement is sent up the attached sensory nerve to a nerve-centre, which thereupon issues another wave of molecular movement down a motor nerve to the group of muscles over whose action it presides ; and when the muscles receive this wave of nervous influence they contract. This kind of response to stimuli is purely mechanical, or non-mental, and is ordinarily termed reflex action. The whole of the spinal cord and lower part of the brain are made up of nerve-centres of reflex action ; and, in the result, we have a wonderfully perfect machine in the animal body considered as a whole. For while the various sensory surfaces are severally adapted to respond to different kinds of external movement—the eye to light, the ear to sound, and so on—any of these surfaces may be brought into suitable relation with any of the muscles of the body by means of the cerebro-spinal nerve-centres and their intercommunications.

So much, then, for the machinery of the body. We must now turn to consider the corporeal seat of the mind, or the only part of the nervous system wherein the agitation of nervous matter is accompanied with consciousness. This is composed of