

the in-going impulses that reach the centres by the vestibular nerve are cut off by the destruction of the semi-circular canals, when not only locomotion but maintenance of the erect posture is impossible. The tabetic subject is still more inco-ordinated when the impulses reaching the centres through the eyes are cut off. Ewald astonished us some years ago by showing that destruction of the semi-circular canals leads to a loss of muscular *tonus* with corresponding difficulty in the maintenance of equilibrium. As you will see by the slides to be shown presently, the pathus by which the nervous connections essential for the comprehension of this result are now known. So that we may say that the tone of muscles, the maintenance of equilibrium, successful progression, as well as much more of vital importance to the organism, is absolutely dependent on these impulses that reach the centres from divers paths, the relative importance of which is probably different in different species of animals and in different individuals. We are all aware by experience of variations in our physiological condition caused on the one hand by the excitement of a large city, and on the other by the calm of the country, but the cause of this has perhaps not been adequately considered. When we think of the multitudes of stimuli that act on the eye alone in a single hour in any large city, as we walk the streets, and remember that these call for a constantly changing action of both the intrinsic and extrinsic muscles of the eye, with the necessity of sundry nervous discharges; that the latter give rise to reflex actions causing expenditure of energy by all the muscles of the body to a greater or less extent; when we add to this a corresponding effect through the ear, owing to ceaseless noises so that we are exposed to a veritable fusillade of sounds; and when we take into account the effects of very varying and often, in these days excessive light stimuli falling on the eye; when we reckon with the concussions from hard pavements, etc., without any other considerations, such as the necessity for sudden movement and sudden inhibition of movement with the constant use of not one but all the centres implied in such matters as "catching a car" or avoiding one or perhaps several, is it not possible and easy to understand why people these days incidentally seek refuge like hunted animals from the above-mentioned enemies of physiological peace and harmony by residence in the suburbs, by ever lengthening or more frequent vacations, by giving up a large part of Sunday to rest if not to sleep, etc. And, if insanity is really on the increase, herein must we seek for a part of the explanation at least, that is in those uncounteracted, irregular, excessive stimuli; or, as I would now express it, in afferent impulses that are too numerous, too frequent, too varied or too powerful. Contrast with this the soothing effect of the few but large stimuli that pour