Abstracts.

NEUROLOGY.


A discussion of the biochemical and bioelectric changes which subserve conduction within the neurone and transmission of activation across the synapses. The author points out that the elaboration of specific biochemical substances is characteristic of all protoplasm, but with the differentiation of function some of these are specialized to act at a distance, while others are relatively circumscribed and local in their action. The endocrine organs are at one extreme of the scale, elaborating distant acting substances, while the synapses represent the other end of the scale, since the substances secreted at these points are extremely localized in their effect.

R. G. Gordon.


This article furnishes a review of the evidence in favour of the double nature of the efferent nervous system, comprising static and kinetic mechanisms which co-operate in the functions of movement and position.

So far as movement is concerned, three functional divisions of the nervous system may be recognized—the segmental spinal system subserving reflex movement, the basal ganglionic system subserving automatic associated movement, and the cortical system subserving isolated synergic movement.

Each of these functional divisions may be further divided into a kinetic and a static mechanism. Ramsay Hunt believes that the kinetic of posture is presided over by the cerebellum, which shows functional divisions analogous to those of the cerebrum, the nuclei of the vermis corresponding to the basal ganglia and the cerebellar hemispheres to the cortex. This latter ‘neostatic’ system is under the control of the cortex of the opposite side through the intermediary nuclei of the pons. Evidence from researches in histology, anatomy, physiology, pharmacology and other branches of study is adduced in support of this thesis. The author holds that in the vegetative system the sympathetic division subserves posture, while the parasympathetic division subserves motility.

R. G. Gordon.