The article is accompanied by a very large bibliography and contains many references to the literature.

The author quotes a number of cases, personal and otherwise. Many of them present the common enough characteristics of loss of consciousness with a seizure and more or less rigidity, but without any of the signs of pyramidal disturbances which are associated with ordinary epileptic attacks, and his thesis is that such conditions are due to some disturbance of centres lower down in the hierarchy of nervous activity than the cortex. He suggests that the pallidum, the lenticular area and the corpus Luysii, which are responsible for convulsions in infants, are also the seat of the lesions producing this type of epilepsy.

W. McC. HARROWES.

Vagotonia and Cortical Epilepsy [*Vagotonie et épilepsie corticale: recherches expérimentales*]. (*L'Encéphale, July–August*, 1929.) *Santenoise, D., Vare, P., Verdier, H., and Vidacovitch, M.*

This work is an indication of the strong tendency in French psychiatric circles to invoke disturbance of the vaso-vegetative system as a mechanism in a great many types of disturbance. Here the authors attempt to relate epilepsy and organo-vegetative disturbances. In this connection previous work on the relation between the oculo-cardiac reflex and epilepsy is mentioned, and hyper-vagotonia has been supposed to play a pathogenic *rôle* in the production of epileptic crises. Animal experiments by these authors have indicated that smaller electrical stimuli are sufficient to produce epileptic crises in vagotonic animals, or where the cerebral excitability has been influenced by pharmacodynamic agents acting on the vagus. They have discovered that as a general rule vagotonics have a low, and hypo-vagotonics a high chronaxy, and that the relation between the chronaxy and the amount of electrical stimulation necessary to produce an epileptic seizure is one of direct proportion. They show that the vagus has some influence upon the general chronaxial level by conditioning the production of what they call a thyro-hormone, and that under the influence of this, different degrees of excitability are produced. Their experiments can be grouped under various headings. They give the results of vago-section, the effect of pharmacodynamic agents producing vagotonia, and the effect of the administration of thyroid extracts. They feel that the results of their experiments indicate definitely that there is a connection between vagotonia and epileptic predisposition, partly by the action of the vagus in some indirect way upon psycho-motor centres, partly by the action of the vagus in producing a thyroid secretion, which influences the chronaxy of the psycho-motor centres. In short, there is a parallelism between the excitability of the pneumogastric nuclei and the excitability of the motor cell areas. The research has all the appearance of being extremely painstaking and has been very carefully worked out. It is felt, however, that their original thesis with reference to the oculo-cardiac reflex detracts from the value of their work. This reflex is definitely

modified in katatonia, and it would be interesting to note whether similar vagotonic alterations might not be discovered there also.

W. McC. HARROWES.

The Anatomic Substratum of the Convulsive State. (*Arch. of Neur. and Psychiat., May*, 1930.) *Spielmeyer, W.*

The author gives an account of his own work, especially on the sclerosis of Ammon's horn. This area of sclerosis when stained by Nissl's method shows a loss of ganglion cells. In the earliest stages of this condition, there is a loss of cells and an increase of glia cells of the rod form on the border between the area attacked and the normal tissue. These changes are almost as frequent in the cerebellum, where there is a proliferation of the fibroglia in the molecular zone. Spielmeyer considers these changes to be closely related to the epileptic attacks and probably of circulatory origin. He found similar changes in arterio-sclerosis, thrombosis and embolism. The localization in Ammon's horn and in the cerebellum is due to the unsatisfactory blood supply of these areas. One of Spielmeyer's co-workers, Neuberger, has demonstrated recent destruction of muscle elements in the heart without organic changes in the coronary arteries.

G. W. T. H. FLEMING.

The Problem of Localization in Experimentally Induced Convulsions. (*Arch. of Neur. and Psychiat., May*, 1930.) *Pike, F. H., Elsberg, C. A., McCulloch, W. S., and Chappell, M. N.*

The authors believe that both the rubro-spinal and pyramidal systems are concerned with the control of movement. The pyramidal is the main motor system responsible for clonic convulsions. Before the pyramidal fibres have become myelinated and attained their full functional capacity, clonic convulsions arise from lower motor mechanisms. When the central nervous system is otherwise intact, clonic convulsions are of cortical origin. Tonic convulsions arise from the lower motor mechanisms in the period immediately succeeding an injury to the cortical motor mechanisms. They are absent in the early post-operative stages in animals in which the midbrain has been split longitudinally in the mid-line, while clonic convulsions persist if the pyramidal system is intact.

G. W. T. H. FLEMING.

Diagnostic Significance of Sensory Auræ in Epilepsy. (*Brit. Journ. of Med. Psychol., May*, 1930.) *MacCurdy, J. T.*

The author investigated the auræ of a large number of patients at the Manhattan State Hospital and the Craig Colony. The first conclusion he came to was that no such thing as a pure motor aura existed. The idiopathic aura is either sensory or psychic, and is invariably accompanied by an emotional reaction which is always of a painful nature, and is usually fear. Every patient with a