pursuing scientific problems," but at the same time he is well aware that the science of comparative pathology is still too young for more than tentative conclusions to be possible in many directions. Enough has probably been said to indicate that his book is full of facts and suggestions that will be found helpful and stimulating to the student in any branch of pathology. HAVELOCK ELLIS.

Beiträge zur Pathogenese und pathologische Anatomie der Epilepsie [*Contributions to the Pathogenesis and Pathological Anatomy of Epilepsy*]. By Dr. L. W. WEBER. Jena: Gustav Fischer, 1901. Octavo, pp. 96, with 2 plates.

This monograph is an interesting and useful contribution to the pathological anatomy of epilepsy. It is based on a study of thirty-five cases, in each of which both the clinical history and the pathological changes found *post mortem* are summarised. The definition of epilepsy given by the author, following Binswanger, Jolly, and others, is as follows:—"It is a chronic disease of the nervous system, which depends on a general affection of the whole brain, but especially of the cortex, and manifests itself in recurring seizures of a definite character, disturbance of consciousness, and persistent changes in the psychical personality." This definition is necessary in order to have a correct basis for the selection of his material. Following Lüth, he divides epilepsy into two forms, the early and late, and gives the pathological changes associated with each. It is unnecessary to go into these in detail, as at the end of his work he states his conclusions regarding the correlation of clinical symptoms with pathological changes in the following terms:

1. Recent changes in the blood-vessels and cells (hæmorrhages, œdema, and proliferation of nuclei) are found in all epileptics who have died during a fit, in status epilepticus, from coma, or with marked mental confusion, and account in part for the irritative and paralytic phenomena observed in these states in the motor, vaso-motor, and respiratory organs.

2. Proliferation of the neuroglia in the form of spider-cells and cellular proliferation in the vessel walls are met with if epileptic seizures have been frequently present before death for a longer or shorter time.

3. A pronounced increase in the neuroglia, especially in the form of regularly arranged fibres, a connective-tissue increase in the vessel walls, and the disappearance of many nervous elements is the anatomical expression of a prolonged epilepsy leading gradually to dementia.

4. An irregular association of all these changes of the paralytic (G.P.) type is found occasionally in cases of rapid, steadily advancing epilepsy, in which a coarser and more acute disease of the cortex is not the cause.

Most investigators will agree with these conclusions. But one cannot help having a feeling of doubt as to whether these changes are the

cause of the clinical symptoms, or are not rather the consequence of the morbid agency which is the *causa causans* of the epilepsy. The author himself hints this, but goes no further. He refers to the toxic theory without any attempt to discuss it.

One important omission is apparent in his work. There is no reason to doubt that Bevan Lewis's description of a state of "developmental arrest" of the nerve-cells is the pathological basis of some cases of epileptic idiocy. The author describes such a state, but is apparently unaware of its significance and distinctive character. In this, as in one or two other places, he shows a want of acquaintance with English work. On the whole, however, the book is good, and well represents the present state of our knowledge of the pathology of epilepsy, so far as the changes in the nervous system are concerned.

JAMES MIDDLEMASS.

Épilepsie: Traitement, Assistance et Médecine légale [*Epilepsy: Treatment, Public Aid, and Jurisprudence*]. By PAUL KOVALESKY, M.D. Paris: Vigot Frères, 1901. Pp. 290, small 8vo. Price 3 f. 50.

In this well-printed book our corresponding member, the Russian physician, Dr. Kovalesky, states his conviction that for the successful treatment of epileptics it is necessary not only to combat convulsions by appropiate medication, but primarily to deal with the whole constitution of the patient. Diet and hygiene, in his opinion, are of greater importance than drug treatment; inasmuch as regeneration of irritable tissues is more effectual than merely calming their excitability by bromides (which, however, he does not dispense with). Dietary should be arranged so that the organism does not absorb that which will tend to sustain the abnormal activity of the nervous elements, while substances favourable to the regeneration of the tissues should form its groundwork. At the same time metabolism should be promoted by healthy exercise. After passing to review the experience of many authorities on the subject of diet Dr. Kovalesky ranges himself on the side of those who condemn the consumption by epileptics of strong meats. Hare is proscribed as specially hurtful, its flesh containing many extractive matters of an exciting character. A vegetarian *régime* with plenty of milk, care being taken that only a moderate quantity be given at a time, no alcohol, no coffee, and no tobacco seems to our author the best. He rightly insists on the importance of occupation of a suitable character both for children and adult patients. Drug treatment is discussed at some length, but we notice little that is original beyond the fact that Dr. Kovalesky commences his course by a combination of tincture of strophanthus with bromide of sodium, and he prefers the latter to the potash salt. The surgical treatment of epilepsy is described, without, however, much in the way of commendation. Nearly one hundred pages are given to a descriptive account of the various establishments for epileptics in Europe and America, and the author laments that in the whole Russian Empire, in which he estimates (on the bases cited by Shuttleworth and others) that there must exist at least