observed at mastoid process, but percussion produced vertigo. Ophthalmoscopic examination showed the fundus of the eye to be of a dark red, the redness augmenting towards the papilla of which it covers a large part on the internal side. Arteries normal, veins very dilated and sinuous; papillæ badly defined, of a dark red within; on the right papilla near to the point of exit of the central vessels, hemorrhage covering all the central part. Diagnosis: venous hyperæmia, extension to the meninges. Trephining was performed. The next morning no more vertigo on percussion or on irrigation. Patient feels well, no fever, appetite returned. The fourth day the internal part of the papilla is still very red, nevertheless the veins are notably narrower and the fundus of the eye much paler. The hæmorrhagic extravasation is smaller and the borders indistinct. On the 8th day sudden elevation of temperature to 41° cent. (=Fah. 105-4.) Ophthalmoscopic examination indicating no modification, all idea of new intra cranial lesion was ruled out; accidental complication was the view entertained. It was in fact a septic fever which subsided, and the cure was complete." This brief résumé permits us to form an idea of the importance that the ophthalmoscope will acquire in the study of diseases of the ear. Let us hope that thanks to it, the affections of the internal ear will be completely differentiated, the one from the other, studied and treated in a manner really scientific.

LESIONS OF THE CENTRAL NERVOUS SYSTEM, OF PERIPHERAL ORIGIN. BY CH. TALAMON, REVIEW BY DR. A. LEONE.

(*Translated from "Il Pisani Gazzetta Sicula, Palermo.*)

BY JOSEPH WORKMAN, M.D., TORONTO.

(*Continued from page 198.*)

CHAPTER III.

Of some symptoms or phenomena observed, following irritation of the nerves on the periphery.

We shall bring together in this chapter a large number of scattered facts, in which a centripetal irritation, acting on the nervous centres, is carried across either with phenomena of excitation, or of paralysis, without our being able in the present state of our knowledge, to specify the lesion produced by this irritation, in consequence of having from anatomical examination only negative results. We shall, in the meantime, admit that these alterations exist, because we cannot comprehend a functional modification without an organic one—a modification of very low relief in certain cases, more profound in others, the nature of which evades us for the moment, just as the nature of the anatomical substratum of infantile paralysis, of muscular autopsy, and of locomotor ataxia, escaped our predecessors. "Whenever no microscopic alteration is found," says Vulpian, "it is permitted to us to reserve a doubt, for the histology of the nervous system is yet but young, and certain modifications of the anatomical elements of the nervous centre may easily evade our means of investigation." It is, therefore, very probable that a modification of the cerebro-spinal axis may exist in the facts we are about to state. This irritation, we have said, is carried over by two orders of phenomena: *convulsive and paralytic.* Before entering into the clinical study of these facts, it is well to enquire as to what experimental physiology may be able to teach us in relation to the subject.

In this order of ideas and facts, the most notable have been brought under view by Brown-Sequard in his experiments on the epilepsy of *cobayes.* After finding that these animals became epileptic after section of the cords of the medulla, and above all, of its posterior cords, this physiologist demonstrated that the same result could be obtained by irritation of certain peripheral nerves; thus the stretching, crushing, or section of the sciatic, or the popliteus internus, as also the irritation of the visceral nerves, acted. Brown-Sequard, in fact, succeeded in rendering epileptic some *cobayes* on which he had cut the grand sympathetic in the abdomen. Facts of the same sort have been observed by Vulpian, and by Hayem on rabbits, cats, dogs, and other animals of the mammifera. Brown-Sequard brings in the vaso-motor nerves to explain the production of this artificial epilepsy. Prof. Vulpian, however, has combated this theory in his lectures on the vaso-motor apparatus. "Why," asks this author, "desire absolutely that the construction of the cerebral vessels should play so important a part in the production of this epilepsy, when the anatomical elements of the encephalon can be modified directly by the