

4. Parts which are not common, seen monocularly, harmonise with binocular perception all the more easily that they are more distant on account of the predominance in the vision of the eye of the corresponding side.

H. J. MACEVOY.

*The Neuron and Cellular Memory* [*Le neurone et mémoire cellulaire*].  
(*Rev. Scient.*, September 9th, 1899.) Renault, J.

This is the subject of an eloquent introductory address given at the University of Lyons. The morphology of the neuron, "of which many people speak learnedly, without taking the necessary step of carefully studying it" is described, taken with its pole of reception and its pole of application (the extremity of the axon), and compared to a tree, such as the palm, the central nervous system as a whole being a forest in which the trees, shrubs, etc., intertwine their aërial and subterranean offshoots, without there being true continuity.

Concerning the fascinating theory of nervous amœboidism to explain the articulation of the neurons during the passage of the nervous wave, Renault recalls that it was in vainly searching for the pseudopodic movements in living nerve-cells that he found something else—the *beaded* appearance in the active branches of the neurons. With the aid of the admirable method of the injection of methyl blue in the blood of a living animal, the extremities of the processes of the neurons are found to be free, but at their extremity they are kept in a fixed spot by *adhesive contacts* (like the branches of ivy to a wall); and secondly, at the level of their active arborisations, a certain number of branches cease to be quite uniform and smooth like threads, and become beaded (hence Stefanowska's subsequent term "pyriform appendices"). Renault thereupon bases an hypothesis that one may consider the variations in the beaded disposition, which are innumerable, as corresponding to the conditions, equally variable, of an accommodation of the receptive nervous filaments to the passage of the wave projected upon them by the inducing filaments (an analogy with the consonance of two violins). Concerning the memory of cells, the author believes that one of the most remarkable properties of the neuron is the aptitude which it seems to possess of superposing in itself distinct memorial impressions. He argues also in favour of the presence of recognition as an attribute of the neuron. In conclusion he says, "I am led to believe that of all hereditary qualities, cellular memory, of which so little has been heard hitherto in biology, has nevertheless played the most important part in organic (and especially human) differentiations."

H. J. MACEVOY.

#### 4. *Ætiology of Insanity.*

*Heredity and Insanity.* (*Amer. Journ. Ins.*, 1897, vol. liv, p. 227.)  
Stearns, H. P.

He takes exception to the teachings of Du Bois Raymond and Weismann regarding the transmission of acquired characters. According to Weismann unicellular organisms are propagated by a division

into two, each part inheriting perfectly the characters of its parent. With regard to multicellular organisms, during the process of evolution there has occurred a division of the cell into germ cell and somatic cell. The former cannot be influenced by the changes in the latter, which are due to decay or hyper-development, because the ovaries are so thoroughly isolated during both embryonic and mature life. If influenced at all, the effect must be very slight. In other words, the production of apparent acquired characters cannot, or only in a slight degree, be transmitted to a future generation. Dr. Stearns makes a grave assault on this doctrine; he points out the undoubted influence of heredity in the production of insanity. He claims that the ovaries depend absolutely upon their connection with the brain in discharging their function.

Many arguments are forthcoming; and from many considerations, anatomical and otherwise, it would appear that the germ plasm, containing elements which constitute the representatives of future organisms, must be influenced by the continuous stream of nerve stimuli radiating from the brain, and thereby by the characters of the latter.

J. R. LORD.

*Relations between Neuralgia and Transitory Psychoses.* (*Alien. and Neurol.*, July, 1899.) V. Kraft-Ebbing.

Professor v. Kraft-Ebbing observes that neuralgia may simply co-exist with mental disturbance, or it may be related to it ætiologically. Pain as a cause may act psychically, producing a state of acute excitement or delirium; or it may act organically, *i. e.* by strong centripetal stimulation of the cortex, which results in a state of morbid excitability characterised by hallucinations, incoherence, and amnesia. Illustrative cases are given.

W. F. PENFOLD.

## 5. Clinical Neurology and Psychiatry.

*The Clinical Position of Melancholia* [*Die klinische Stellung der Melancholie*]. (*Monats. f. Psych. u. Neur.*, November, 1899.) Kraepelin.

Professor Kraepelin first points out how the term melancholia has become narrowed in its use by the exclusion of certain forms of depression. He believes ordinary melancholia is distinguishable from the depression of cyclical insanity. In his opinion, if a melancholia show great intellectual and volitional circumscription and no great affective disturbance, and occur before the thirtieth year, it is probably a cyclical melancholia. He believes that melancholia which is going to end in dementia præcox is more or less characteristic. Professor Kraepelin closes his paper lamenting the imperfect methods of psychical research at our disposal.

W. F. PENFOLD.

*Recurrent Insanity: an Analysis of Relapsed Cases.* (*Glas. Med. Journ.*, December, 1899.) Kerr, H.

A medical, psychological, and statistical inquiry into the causes, nature, symptoms, and results of "recurrent cases" of insanity.