

two cases of paralysis agitans and two of dystonia musculorum deformans. In one of the cases of paralysis agitans rigidity was marked in all four limbs, but in spite of this the patient, who had been a light-weight boxing champion, showed astonishing grace and facility in shadow-boxing and sparring with an opponent. In the other case of paralysis agitans and in those of dystonia similar differences were observed. The authors consider the facts point to separate neuron patterns for given acts in both the neokinetic and palæokinetic systems, the probability being that the former are situated in the cortex, the latter in the corpus striatum.

J. L. FAULL.

The Relation between Carbohydrate Metabolism and the Function of the Grey Matter of the Central Nervous System. (*Biochem. Journ.*, vol. xxvii, p. 523, No. 2, 1933.) Holmes, E. G.

The capacity of the frog's central nervous system to respond to strychnine injections by convulsions is abolished by iodo-acetic acid, but perfusion for 1½ hours with 0.1% iodo-acetic acid is necessary for complete abolition. Perfusion for the same period with a concentration of 0.01% reduces the lactic acid content to a very low level. The abolition of central nervous system function by iodo-acetic acid is partially prevented by the presence of 0.5% sodium lactate and 0.05% methylglyoxal. The "labile phosphorus", presumably representing the phosphocreatine of the central nervous system, is reduced by iodo-acetic acid more rapidly than the function of the tissue is affected.

The author suggests that the effect of iodo-acetic acid may be chiefly on conduction in the white matter, and that the activity of the grey matter depends immediately neither on phosphocreatine breakdown, nor on lactic acid formation or oxidation.

G. W. T. H. FLEMING.

A Constant Motor Phenomenon of Normal Sleep: Physiological Hypnic Myoclonus [*Su di un fenomeno motorio costante del sonno normale: le mioclonie ipniche fisiologiche*]. (*Riv. di Pat. Nerv. e Ment.*, vol. xxxix, p. 481, May-June, 1932.) de Lisi, L.

The author draws attention to the presence in normal man and animals of slight movements during the first 10-15 minutes of sleep, which cease at the end of half an hour or so. They are rapid, small, wavelike, and quite unorganized. In some cases there may be almost a general convulsion. No part of the musculature is exempt, and the contractions are not influenced by any external stimuli or change in posture.

G. W. T. H. FLEMING.

2. Psychology and Psychopathology.

The Expression of Fear [*L'expression de la peur*]. (*L'Encéph.*, vol. xxviii, p. 1, Jan., 1933.) Dumas, G.

The manifestations of fear are divided by this author into two groups—passive and active. In the first the problem is one of the massive inhibition of Pavlov. Such an inhibition, it is suggested, may be brought about by vaso-motor disturbances causing local anæmias in the brain. The passive manifestations of fear consist of a general relaxation equivalent to paralysis, and specially noticeable in the muscles around the eye and mouth. The question of the paralytic effect of fear is not a new conception and was interestingly dealt with by Hudson the naturalist. In the active expression of fear there is a subdivision into apprehensive dread and actual realized fear. In these states there is argued to be a tension of the surrounding muscles of the eye and mouth in contrast to the hypotonus in the passive fear state. This is an exaggeration of the surprise expression. A third section is devoted to associated gesture, divided into submissive voluntary movements and involuntary movements which are protective.

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