Grey matter is three or four times as active as white matter in its ability to furnish dehydrogenases.

In avitaminosis B, the brain is unable to burn glucose or lactic acid at its usual rate; the addition of a small amount of vitamin corrects this. The lesion in polyneuritis appears only to affect the carbohydrate mechanism, no effect on the oxidation of succinic acid being found.

Possibly narcosis is linked up with the power of narcotics to inhibit glucose or lactic acid oxidations.

Brain has practically no effect on glycogen, whereas it can break up glucose very quickly. The synthesis of glutamine from glutamic acid and ammonia by the brain is invariably connected with the nervous system, and depends on glucose oxidation. G. W. T. H. FLEMING.

A Preliminary Note on the Appearance of Paresis in Adult Rats Suffering from Chronic Avitaminosis E. (*Biochem. Journ., vol. xxix, p.* 788, *Mar.*, 1935.) *Ringsted, A.*

The writer describes phenomena resembling those seen in rats suffering from vitamin A deficiency and in suckling rats from mothers on a diet low in vitamin E. The paresis in the writer's experiments was of flaccid type, accompanied by disturbances of sensation affecting deep-seated, and to a less degree, cutaneous sensibility of the legs and tail. Large doses of vitamins A, B and D had no curative effect on the paresis. There was no resemblance to the clinical symptoms in rats with experimental beri-beri or rat pellagra. All the rats in these experiments were suffering from lack of vitamin E of long standing and very high degree.

G. W. T. H. FLEMING.

Chemical Conditions of Mental Development. (*Irish Journ. Med. Sci., No.* 115, *p.* 302, *July*, 1935.) *Barçroft, J.*

The author describes in detail the mental phenomena observed in relation to extremes of body temperature, diminished and increased concentration of CO_2 and of hydrogen ions in the blood, and poverty and excess of oxygen. It was not until the chemical and physical condition of the milieu had attained to a fixity that the pattern of human thought was developed.

JOHN D. W. PEARCE.

Effect of Extract of Adrenal Cortex on Experimental Neurosis in Sheep. (*Arch. Neur. and Psychiat., vol. xxxiv, p.* 973, *Nov.*, 1935.) *Liddell, H. S., et al.*

The neurosis produced in sheep by two of the authors has persisted for more than five years. It is characterized by extreme excitement, unco-operative behaviour and spontaneous, nervous, twitching movements of the limbs concerned in the reaction. The administration of an extract of adrenal cortex was found to increase the conditioned reaction of the limb to a great extent, and at the same time to decrease the frequency of the nervous movements of the leg. Improvement in the other symptoms of the disturbance was seen.

The repeated administration of epinephrine in a concentration of 1 : 200,000 had an effect on behaviour exactly the opposite to that of adrenal cortex, increasing the vigour of the conditioned reflex in both the normal and the neurotic animals, and in the latter animals aggravating the nervous condition.

G. W. T. H. FLEMING.

Relationship of Unconsciousness to Cerebral Blood-flow and to Anoxæmia. (*Arch. Neur. and Psychiat., vol. xxxiv, p.* 1001, *Nov.*, 1935.) *Lennox, W. G., Gibbs, F. A., and Gibbs, E. L.*

By means of a thermo-electric blood-flow recorder inserted in the internal jugular vein of 22 unanæsthetized human beings, the authors found that unconsciousness supervened if the oxygen supply to the brain was suddenly reduced to such