

the contention that there are inhibitory centres as such; but rather that the same area may give rise to inhibitory or exciting reactions.

W. MCC. HARROWES.

*The Cerebral Circulation. XIV. The Respiratory Quotient of the Brain and of the Extremities in Man.* (*Arch. of Neur. and Psychiat.*, Oct., 1931.) Lennox, W. G., and Leonhardt, E.

The authors, on 120 occasions, obtained blood from an artery and an internal jugular vein, and calculated the respiratory quotients by comparing the oxygen and carbon dioxide content of the blood. The average respiratory quotients of the portion of the body represented were: of the brain .95, of the arm .86, and of the leg .72. This would appear to indicate that the respiratory quotient of certain ectodermal tissues (brain and skin) is higher than that of muscles. More dextrose disappears from the blood in its passage through the brain than in its passage through the extremities.

G. W. T. H. FLEMING.

*XV. The Effect of Mental Work.* (*Arch. of Neur. and Psychiat.*, Oct., 1931.) Lennox, W. G., and Leonhardt, E.

In 15 instances blood from an internal jugular vein was taken before and during reading and the performance of problems in mental arithmetic. In two-thirds of instances there was an increase in the oxygen content and a decrease in the carbon dioxide content of the blood leaving the brain. The average increase in oxygen content was .9% by volume—an amount well outside the limits of normal variation. The observed increase is presumably due to a dilatation of cerebral vessels.

G. W. T. H. FLEMING.

*XVII. Cerebral Blood-flow in the Vasomotor Response of the Minute Vessels of the Human Brain to Histamine.* (*Arch. of Neur. and Psychiat.*, Oct., 1931.) Weiss, S., and Lennox, W. G.

The authors found that the minute cerebral blood-vessels in man respond to histamine dilatation. The sensitivity of the human cerebral arterioles to histamine is unusually great. The difference in oxygen content between the arterial blood and that in the internal jugular vein decreases during the administration of histamine, indicating an increased blood-flow through the brain. The vasomotor response of the cerebral vessels to histamine indicates that the local action of chemical substances, may play a rôle in the physiological and pathological regulation in man.

G. W. T. H. FLEMING.

*The Choroid Plexus as a Dialysing Membrane. (1) Observations in Experimental Hydrocephalus.* (*Arch. of Neur. and Psychiat.*, September, 1931.) Hoen, T. J.

The author produced artificial hydrocephalus in 18 dogs by blocking the fourth ventricle. As much as 15 c.c. of distilled water—an

amount almost equal to the volume of the brain—could be injected into the ventricle within two hours; after each injection the pressure returned to the original level. Immediate *post-mortem* did not reveal any œdema, so that rapid and complete absorption must have taken place directly into the blood-stream through the choroid plexus. On the other hand, ventricular fluid could be withdrawn repeatedly without lowering the ultimate ventricular pressure, if the salt content so withdrawn was replaced in the form of hypertonic saline solution. In all these experiments the choroid plexus behaved in a manner consistent with the conception that it functions as a semi-permeable membrane, permitting the passage of fluid in either direction in accordance with the laws of osmosis.

G. W. T. H. FLEMING.

*The Galvanic Skin Reflex.* (*Arch. of Neur. and Psychiat.*, July, 1931.) *Syz, H. C., and Kinder, E. F.*

This is a study of the content of the stimulus words eliciting psycho-galvanic responses in persons belonging to different psychopathological groups and in normal individuals. The authors found in the abnormal groups an emphasis on words relating to personal characteristics, to terms which imply a valuation of one's self, often with an undertone of expected failure, inferiority or guilt. There was a slightly greater emphasis on depressive topics among the depressed patients. The paranoid schizophrenics showed almost the same general reaction as the depressed ones. As the psycho-galvanic response may be taken as an indicator of emotional activity, it appeared that there was more emotional activity in the schizophrenic than in the depressive group. The results go to confirm that schizophrenic development often does not mean a decrease of emotional assets and activities, but rather a disturbance in the constellation and application of emotional trends. In the normal persons there is less emphasis on egocentric anxieties and concerns, but there is a marked predominance of reaction to sex words; this is due largely to a socially induced sensitiveness.

G. W. T. H. FLEMING.

## 2. Psychology and Psycho-Pathology.

*Symbolism as a Mental Process.* (*Psyche*, No. 46, October, 1931.)  
*McConnel, Ursula Hope.*

A study of the Totem in the Wik-Munkan tribe, with a critical survey of the Freudian interpretation of the symbolism of primitive societies.

S. M. COLEMAN.

*A New Approach to the Problem of Psychoneurosis in Childhood.*  
(*Brit. Journ. Med. Psychol.*, November, 1931.) *Lowenfeld, M. F.*

Adopting the standpoint that a neurosis represents the reaction of the whole child to its whole circumstances, Miss Lowenfeld