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  $\cdot 95$ , of the arm  $\cdot 86$ , and of the leg  $\cdot 72$ . 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  $r\delta le$  in the physiological and pathological regulation in man.

#### G. W. T. H. FLEMING.

## The Choroid Plexus as a Dialysing Membrane. (i) 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