

spinal fluid from the lumbar region it was .5--.76 mgrm.%. In manic-depressive psychosis the corresponding values were often slightly lower. In 20 diverse pathological cases plasma bromine varied from .11--.98 mgrm.% ; serum bromine was slightly lower, and corpuscle bromine .19--.41, average .27 mgrm.%.

L. E. GILSON (Chem. Abstr.).

*Relation of the Oxygen and Nitrogen Contents of Cerebro-spinal Fluid to Barometric Pressure.* (Amer. Journ. Physiol., vol. cvii, p. 164, 1934.) Cunningham, C. J., Rand, J. H., and Weckesser, E. C.

The oxygen content of the cerebro-spinal fluid is a little more than doubled and the nitrogen content is trebled when the barometric pressure is increased from one to three atmospheres.

J. F. LYMAN (Chem. Abstr.).

*Sugar in Cerebro-spinal Fluid after Ingestion of Carbohydrates.* (Z. ges. expl. Med., vol. lxxxii, p. 128, 1932.) Dobrev, M., and Saprianov, T.

The administration of 100 grm. glucose in 200 c.c. of water to 28 patients with nervous diseases led, in the majority of cases, to an increase in sugar in the spinal fluid. This was nearly always less than that in the blood, but in some cases the rise in the former after the glucose was negligible even when the blood-sugar rise was very marked. The rise is a normal physiological process.

G. G. (Chem. Abstr.).

*The Effect of Activated Ergosterol Administration on the Calcium of the Cerebro-spinal Fluid.* (Trans. Roy. Soc. Can., vol. xxvii, p. 87, 1933.) Johnston, C. R. K., and King, E. J.

Oral administration of activated ergosterol to adult dogs increased serum calcium, the maximum being reached in 48-60 hours. The calcium content of the spinal fluid increased only after the serum calcium had reached the maximum value. Five to eight days after ergosterol administration, a secondary increase in serum and spinal fluid calcium was observed. This was attributed to an observed vacuolization of the cells of the parathyroid gland.

W. G. ROSE (Chem. Abstr.).

*A Note on a "Proteose-like" Substance in Spinal Fluid.* (Amer. Journ. Psychiat., vol. xiii, p. 1083, March, 1934.) Schube, P. G., and Whitehead, R. C.

A new reaction and a hitherto unnoticed substance in the spinal fluid are described. The spinal fluid from 37 unselected cases was studied. The fluids were both normal and pathological. In all of them the ether-alcohol reaction was positive, and a proteose-like substance was isolated, regardless of the quantity of fluid used. The end-product of the reaction is a flocculent material. No relationship could be established between this reaction and the amount of spinal fluid protein or sugar, or between the reaction and the positive or negative Wassermann or gold-sol reactions. The ether-alcohol reaction was present irrespective of whether these chemical substances or reactions were normal or pathological.

M. HAMBLIN SMITH.

*A Study of the Total Protein of the Cerebro-spinal Fluid in Uncomplicated and Untreated Neurosyphilis.* (Amer. Journ. Psychiat., vol. xiii, p. 1085, March, 1934.) Schube, P. G.

The total protein was estimated, in mgrm. per 100 c.c., in 449 cases of uncomplicated and untreated neuro-syphilis. There were 357 cases of general paresis, 48 cases of tabes without psychosis and 44 cases of cerebro-spinal syphilis with psychosis. The average value of the total protein was 75.4 for all cases, and 79.0, 57.9 and 65.68 respectively for the three sub-groups. The middle 50 % of the cases contained protein ranging between 43.70 and 114.30, 37.06 and 78.74, and