days later he had, in one day, repeated attacks of loss of consciousness. Still later he showed intense negativism, refused to speak and eat, and exhibited rigidity and cataleptic attitudes. There was no alteration of tendinous reflexes, no Kœrnig's sign, no pupillary changes, no symptom of infection. The condition remained unaltered until the patient's death, ten weeks after the initiation of his symptoms. Melancholia with stupor and encephalitis having been ruled out, a diagnosis of catatonia was made. Histological examination of the brain showed marked alterations in the basal nuclei, the red nucleus and the *locus niger*, and, to a lesser degree, in the cortex. These changes are illustrated by micro-photographs. Previous work on the subject is reviewed. Without attempting to settle the anatomical basis of dementia præcox on the findings in a single case, the authors believe that there is a relation between the symptoms and the cerebral lesions described. M. HAMBLIN SMITH.

Preparation of Intact Total Phosphatide-cerebroside. (*Helv. Chim. Acta, vol. xvi, pp.* 943–58, 1933.) *Escher, H. H.*

Brain or spinal marrow is coarsely subdivided and dehydrated by successive treatments with ether or acetone. The product is extracted at 37° C. with mixtures of 95% ether and light petroleum, b. 35–70° (1 : 1, 1 : 3 and 1 : 10 successively). By means of water, ether is removed from the extract, which is concentrated at 37° under vacuum and proportioned with acetone. The solid is triturated with successive quantities of acetone, whereby fats, cholesterol and its esters, and lipochromes are removed without considerable loss of total phosphatide-cerebroside, which forms additive compounds with acetone. The material is pressed into thin sheets from which acetone is removed at 37° at 1–2 mm., after which it can be preserved indefinitely in carbon dioxide. B. C. A. (Chem. Abstr.).

A Reducing Substance in the Brain Tissue. (*Nature, vol. cxxxiii, p.* 572, 1934.) *Young, F. G., and Mitolo, M.*

The alcoholic extracts of brain tissues of mouse, rat, guinea-pig and ox contain a substance which reduces 2-6-dichloroindophenol (used for the estimation of ascorbic acid in tissues), but with other properties differing from those of ascorbic acid. It does not prevent scurvy in guinea-pigs. Estimations of ascorbic acid in brain-tissue by the indophenol titration method are therefore incorrect. Isolation of the reducing substance is difficult, but solutions are somewhat stabilized by addition of cyanide; this suggests that sulphur may be concerned with its activity. A semicarbazone, m. 251–2°, may be a derivative.

JANET E. AUSTIN (Chem. Abstr.).

Pyruvic Acid as an Intermediary Metabolite in the Brain Tissue of Avitaminous and Normal Pigeons. (*Biochem. Journ., vol. xxviii, p.* 916, 1934.) *Peters, R. A., and Thompson, R. H. S.*

The authors found that the disappearance of pyruvic acid and bisulphite-binding substances accompanies the extra oxygen uptake induced by the action of crystalline vitamin B_1 in pigeon's brain tissue respiring *in vitro*. Pyruvate also disappears when substituted for lactate. The disappearance of pyruvate is an indirect effect of vitamin action. These results are consistent with the view that pyruvic acid is a normal intermediary in the metabolism of pigeon's brain tissue. In agreement with the Embden-Meyerhof fermentation scheme, it accumulates with respiring normal brain tissue in the presence of iodo-acetate and not of fluoride. G. W. T. H. FLEMING.

Cerebral Blood-flow Preceding and Accompanying Epileptic Seizures in Man. (*Arch. of Neur. and Psychiat., vol. xxxii, p.* 257, *Aug.*, 1934.) *Gibbs, F. A., Lennox, W. G., and Gibbs, E. L.*

By means of a thermo-electric blood-flow recorder inserted into the internal jugular vein of patients subject to epilepsy, the authors ascertained changes in the