grasp reflex is present. Scopolamine caused a marked prolongation of the effects of bulbocapnine. Carbon dioxide had different effects, depending on the dosage. In from 15-25% concentration administered for from 1-2 minutes, it caused an increase in the length of time that the animal hung, after the gas was discontinued. In from 35-50% concentrations it caused a decrease in the hanging response with a subsequent increase. The effect of the higher concentrations closely resembled that on the catatonic symptoms of man. The authors subsequently found that both carbon dioxide and scopolamine when given alone elicited the grasp reflex and the hanging response. As scopolamine relieves the muscular disturbances in paralysis agitans, this action would appear to be different from that after bulbocapnine has been given.

G. W. T. H. Fleming.

Use of Carbon Dioxide Mixture in Stupors Occurring in Psychoses. (Arch. of Neurand Psychiat., vol. xxix, Feb., 1933.) D'Elseaux, F. C., and Solomon, H. C.

The authors administered gaseous mixtures containing from 5--35% of carbon dioxide and from 20--30% of oxygen, the remainder being nitrogen. No single factor, whether it be acidosis,  $CO_2$  tension, etc., appears sufficient to explain the temporary arousal from stupor. The fact that the procedure is a shock to the system appears to the authors to play a part; several patients expressed a wish not to die. A variety of psychological factors enter into the problem, and may alter the response. The authors conclude that no adequate explanation has been advanced.

G. W. T. H. Fleming.

Surgical Relief of the Headache of Migraine. (Journ. of Nerv. and Ment. Dis., vol. lxxvii, Jan., 1933.) Dickerson, D. G.

The author, after discussing some of the theories bearing on migraine, describes his results from ligation and section of the middle meningeal artery in 7 cases of patients suffering from headache diagnosed as migraine.

Three out of four cases operated on for migraine were cured, and in the other case the headache was cured on the right side, but not completely on the left. In three other cases operated on for serious head injuries a previous recurrent headache, apparently migrainous, was cured by the operation.

G. W. T. H. FLEMING.

Improvement in Nervous and Mental States under Cortin Therapy. (Journ. of Nerv. and Ment. Dis., vol. lxxvii, Jan., 1933.) Hartman, F. A., Beck, G. M., and Thorn, G. W.

The authors used "cortin" therapy with varying success in three cases of Addison's disease, three showing fatigue without demonstrable adrenal insufficiency and five organic neurological cases. Two cases of myasthenia gravis were treated but showed no improvement.

G. W. T. H. Fleming.

Intraspinal Therapy in Neurosyphilis [Terapia endorachidea della neurosifilide]. (Il Cervello, vol. xii, Jan., 1933.) Riquier, G. C., and Quarti, G.

The authors treated 48 general paralytics, 5 tabo-paretics and 21 tabetics with an oily suspension of alkaline bismuth tartrate (trépol) given intraspinally. The dose given was 25–50 mgrm. of trépol. Of the 48 general paralytics 18 showed a moderate remission, 7 a good remission, and 3 an extremely good one. The expansive type responded best to the treatment. All cases received subsequent treatment with bismuth and arsenobenzols. Amongst the 5 tabo-paretics, in 3 there was some improvement. Amongst the 21 tabetics treated with 2–5 injections, 14 showed some improvement.

G. W. T. H. Fleming.

Diathermy in Treatment of General Paresis. (Amer. Journ. Psychiat., vol. xii, Nov., 1932.) McKay, H. A., Gray, K., and Winans, W. C.

A series of 32 patients treated by diathermy in conjunction with chemotherapy is presented. The Victor super-power diathermy apparatus was employed. The

course of treatment has been completed in 28 cases. Of these 28 complete remission was produced in 3, almost complete remission in 8, partial remission in 7, and no improvement in 6 cases; but the patients in the last-named group are quieter and cleaner. There were 3 deaths during treatment; and one of these deaths is regarded as being due to the diathermy.

M. Hamblin Smith.

## 6. Pathology and Biochemistry.

The Histopathology of the Brain in Dementia Præcox and the "Racemose Areas of Disintegration" during 1929–31 [Istopatologica dell encefalo di dementi precoci e "zolla di disintegrazione a grappolo" nel triennio 1929–31]. (Riv. di Pat. Nerv. e Ment., vol. xxxix, March-April, 1932.) Buscaino, V. M.

From an extensive review of the literature during the triennium 1929-31, the author concludes that dementia præcox as a pathological process sui generis is an organic disease of the central nervous system. Encephalograms go to confirm this. The disease is essentially of degenerative origin. In none of the cases on which these opinions are based were tubercular lesions present, and the cases were not of long standing. Cellular lesions were most frequent. In recent cases there was vacuolar degeneration and atrophy; in chronic cases, fatty degeneration and sclerosis. He considers that the "racemose areas of disintegration", from their staining affinity for mucicarmine, contain galactolipoids. The lesions are mostly in the cortex, but also in the subcortical regions, according to the type of case. In catatonic cases the lesions in the striatum are more pronounced. The frontal lobe is frequently affected. The third cortical layer of cells is usually attacked, and sometimes the fifth and sixth. The lesions vary enormously from one area to another. The author considers that the irregular distribution of the lesions explains the "dissociation" of the disease.

G. W. T. H. Fleming.

Effect of "Habituation" on Blood-pressure in Schizophrenia. (Arch. of Neur. and Psychiat., vol. xxix, Jan., 1933.) Freeman, H.

The authors, on studying the systolic and diastolic pressures in 50 cases of schizophrenia in three periods, three months apart, found that both pressures were lower in the second than in the first period. The systolic pressure stayed at approximately the lower level in the third period, but the diastolic pressure rose to an intermediate level. The fall in systolic pressure on repeated determinations is ascribed to habituation to the environmental situation.

This observation seems to emphasize vascular hypotension as a characteristic of the schizophrenic psychosis.

In repose the schizophrenic shows an unusual slump in blood-pressure which the normal individual does not show.

G. W. T. H. Fleming.

Researches on the Cerebro-spinal Fluid in Dementia Præcox during 1929-31 [Le recerche sul liquor dei dementi precoci nel triennio 1929-31]. (Riv. di Pat. Nerv. e Ment., vol. xxxix, March-April, 1932.) de Giacomi, U.

The author finds from his survey of the literature during 1929–31 that in more than 50% of cases of dementia præcox the fluid presents changes generally small, but nevertheless of importance. These changes consist of a decrease in meningeal permeability and in the rate of reabsorption of the fluid. There is also a slight increase in the protein without any lymphocytosis. These changes are more often found in the hebephrenic-catatonic types than in the paranoid, and in chronic cases more often than in recent ones. The general findings give support to the view that there is in dementia præcox a slow disintegration, slight but progressive, of the cerebral parenchyma, with accumulations of the products in the cerebrospinal fluid.

G. W. T. H. Fleming.