#### EPITOME.

was often slight compared with other instances in which there was little or no distension of the ventricles. The majority of this series of cases showed undoubted signs of increased intracranial pressure, and the authors believe that this factor with or without ventricular distension operates directly or indirectly in slowing cerebral circulation, diminishing conscious receptivity of environmental stimuli and producing somnolence.

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

## Psycho-galvanic Studies in Schizophrenia. (Arch. of Neur. and Psychiat., December, 1926.) Syz, H. C.

The average electrical resistance in catatonic stupor was found to be more than twice as high (280,000 ohms) as it is in normal persons (111,000). The average resistance of paranoid schizophrenics was similar to normal persons (120,000). In a group of 15 depressives the average resistance was high (216,000). In considering the galvanic reactions the author recognized direct reactions occurring in less than 4 secs., late reactions in 4-8 secs., and disconnected reactions after 8 secs. Disconnected waves of lesser amplitude and occurring in groups were classed as spontaneous waves. Spontaneous and disconnected waves occurred in almost all paranoid schizophrenics (78%), and also in a fair number of catatonics (38%)and depressed patients (32%). Direct reactions occur less frequently (22%) than in normal persons (34%). In depressed patients they are only 19% and in catatonic patients 5%. In paranoid schizophrenics there are fewer reactions closely connected with outside stimuli, but many waves appear spontaneously, quite independent of environmental influences. In catatonic stupors there is greatly diminished galvanic activity. In one case even sensory stimuli like pin-pricks and sounding a motor horn did not cause a deflection of the galvanometer string. The galvanic records of persons of the same reaction type show features which are typical and fairly consistent.

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

# Manganese Toxæmia; with Special Reference to the Effects of Liver Feeding. (Brain, March, 1927.) Charles, J. R.

The clinical manifestations of manganese poisoning are lack of energy and mental languor, bodily fatigue on exertion, emotional instability with excessive smiling and hilarious laughter. The face at rest shows a Parkinsonian mask, although sometimes on this is superimposed a set, spastic smile. The voice is low in tone and monotonous. There is marked rigidity in all the muscles of the limbs and trunk. The patient walks with a stiff gait on a wide base. Retropulsion is almost constant in advanced cases. There is atrophy or alteration in the electrical reaction of the muscles. Tremors of a coarse type are seen in the head and limbs. These vary from fine twitching of the hand to rhythmical movements of the head, limbs and trunk. No changes in sensibility were noticed, but cramps were common. The deep reflexes are increased. Because of the association of cirrhosis of the liver and lenticular degeneration, some of these cases showed hepatic inefficiency, and feeding with raw liver was tried. The results, although not startling, suggest that benefit had accrued from the treatment. The author thinks that there may be a hepatic hormone which has a beneficial action on the cells of the nervous system.

G. W. T. H. FLEMING.

# 3. Treatment.

The Malaria Treatment of General Paresis. (Journ. of Nerv. and Ment. Dis., March, 1927.) Ferraro, A., and Jong, T. C. C.

Three methods are given for transporting the malarial parasites :

(a) Sodium citrate method: 5 c.c. of malarial blood are mixed in a sterile tube with 5 c.c. of  $\cdot 5\%$  sodium citrate solution. Tube closed with a rubber cork and hermetically paraffined.

(b) Agar blood method: 10-15 c.c. of malarial blood are defibrinated with small glass balls, then transferred to a tube containing agar blood distributed on an inclined plane. Closure of tube as in (a).

(c) Gelatinization method: 2 c.c. of malarial blood are put in 10 c.c. of sterile chemically pure gelatin. The gelatin must be dissolved at 30° C. in a water-bath. The blood and gelatin must then be shaken for a few minutes and left to solidify.

The average number of malarial attacks allowed was 12; in some cases as many as 20 were permitted. Of the 120 cases treated, 26% have shown very good remissions, 27% a marked improvement.

When the different types of cases were considered, the authors found the greatest number of good remissions in the expansiveparanoid type; next in order came the depressed type and then the manic type. The demented type showed the least improvement. Gerstmann found the best results with the simple demented cases, Kirschnaum, Pilcz, Herzig and Joosmann and Stienaerts with the manic cases. The older the patient the less probability there is of improvement from malarial treatment.

There is quite a marked prolongation of life in the unimproved cases. Serologically the authors found between two and three years after treatment that 86% had a negative blood Wassermann and 68% a negative fluid Wassermann. The pleocytosis is the first element to show improvement; this occurs a few days after treatment. The globulin reaction and the colloidal gold reaction are more persistent. The paretic curve tends towards the syphilitic type.

Within 35 months there is a close correlation between the serological and clinical improvement. In four cases there followed on the treatment a typical "præcox" reaction, with auditory hallucinations, paranoid ideas, mannerisms and a more or less pronounced negativism. Generally speaking the reflexes did not show any great improvement; in the unimproved cases they were often worse after treatment. Co-ordination, ataxia, tremors and speech