

health, industrial health and social medicine, psychiatry, or chronic rheumatism, was inaugurated during the year, and four fellowships have been awarded out of eighteen applicants. Ten Dominion travelling fellowships in medicine were awarded during the year to students from Australia, Canada, and the other Dominions, enabling them to study in Great Britain for one year.

A large section of the report is occupied with the work which the Nuffield Foundation has undertaken on behalf of the aged. It is stated that during the past five years the Foundation and the National Corporation for the Care of Old People which it sponsored and helped to endow have assisted by grants the establishment of 150 homes providing accommodation and care for over 3,000 old people. The change in the age-composition of the population is calling with increasing urgency for some diversion of medical research to deal with degenerative disease. The Foundation is sustaining support for the study of differentiation and growth, maintenance and renewal, as a contribution to fundamental knowledge about ageing.

Committee for the Advancement of Medicine

Together with the Foundation's report we have received a supplement to the *Oxford University Gazette*² containing the report of the Nuffield Committee for the Advancement of Medicine. It is devoted to routine reports of the various departments at Oxford, the staff changes, the lectures and research, and the clinical work. One feature of special interest is the record department which was established some years ago for the improvement of clinical records at the Radcliffe Infirmary and other hospitals associated with the scheme. Even before the National Health Service was introduced the Radcliffe Infirmary was one of the largest hospitals in England, as measured by the number of in-patients admitted each year. Complete figures are now more difficult to obtain, but it is claimed that as compared with London hospitals more in-patients are admitted. In 1949 at the Radcliffe Infirmary and its annexe, the Churchill Hospital, just upon 19,000 in-patients were admitted. In one month the total of in-patient notes issued in the Records Department was over 2,000. The financial support to the Records Department has continually increased, at present amounting to approximately £10,000 a year, and the Nuffield Committee's annual subvention is tending to be used solely for research in connexion with clinical records.

Reports of Societies

ROYAL MEDICO-PSYCHOLOGICAL ASSOCIATION

The one hundred and tenth meeting of the Royal Medico-Psychological Association was held at Crichton Royal, Dumfries, from July 10 to 13. Some 200 members attended, as well as delegates from U.S.A., Canada, Australia, and the Continent. The visitors were given opportunities of inspecting the work of the hospital, and, in addition to small sectional meetings, three well-attended sessions were held. *There were also a number of successful social entertainments.

Preventive Psychiatry

In his presidential address Dr. P. K. McCOWAN surveyed recent trends in psychiatric practice and research. Dealing with preventive psychiatry, the speaker warned against the enthusiastic application of psycho-analytical concepts to human relations and world affairs. A more modest and local effort in this field had shown that in a rural area the proportion of intellectual subnormality in the school population was as high as 11%. As these subjects were seen to become efficient and contented workers on the land, the need for a practical type of education was obvious. The

survey also had indicated that provision for mental defectives might have to be even greater than was at present envisaged. Education of the public in psychiatric matters seemed a worth-while contribution to preventive medicine, and a successful course of lectures recently held in Dumfries was described. In discussing child psychiatry, Dr. McCOWAN noted that the psycho-analytic approach was not the only one available. He recommended the fuller employment of lay psychotherapists, working under medical supervision. In-patient clinics for maladjusted children were a comparatively recent development in Britain. The first Scottish clinic of this type had been opened at Crichton Royal a few months previously.

Theory of Action of Shock Treatment

The president's interest in the biochemistry of the brain was evident in his hypothesis of the action of the so-called shock treatments. In his view, these, by various means, produce anoxia. There was evidence to suggest that they were selective in their site of action. After their application a more normal level of cerebral metabolism was restored temporarily, and with repetition sometimes permanently, with cure of the psychosis. It was not the anoxia itself but the brain's reaction to it which restored normality, whether the autonomic system, the pituitary mechanism, or the hypothalamus be involved. A psychosis might well be an "adaptation disease," and A.C.T.H. and cortisone might augur methods of psychiatric treatment more refined than those in current use.

Finally Dr. McCOWAN reviewed recent progress in the fields of biochemistry, neuropathology, and biophysics, and discussed the present position of academic psychology.

Effects of E.C.T. on the Personality

Psychological changes due to E.C.T. were discussed by Mr. R. HETHERINGTON. A comprehensive battery of tests was used to assess intellectual capacity, efficiency, and retentivity. In a small series of depressed patients tests were given during treatment, as well as before and after, and the results indicated that important psychological changes take place during E.C.T. The performance of tasks involving reasoning and retention appeared to be impaired during treatment, while the performance of tasks depending on "personal tempo" (natural pace of working) and muscular skill was improved. There was evidence that it was the process of assimilation rather than retention which was impaired, and remembering as well as reasoning might well suffer from the lack of concentration and increased distractibility so common during treatment. On the other hand, the increase of personal tempo argued the removal of retardation, and so explained the improvement in muscular skill when no reasoning was required. The results suggested that E.C.T. in depression produced simultaneously impairment of clear thinking and an increase in the speed of work. Which of these two effects predominated depended upon the type of work attempted.

Electrical Changes in the Brain after E.C.T.

A theory of E.C.T. action based largely on the results of an electroencephalographic investigation was put forward by Dr. M. ROTH. Serial studies had shown that during a course of E.C.T. there was a progressive transformation of the E.E.G. under barbiturate anaesthesia, the changes preceding and outlasting those to be observed in the routine record. The characteristics of these changes and of those elicited by sensory stimulation and their evocation by barbiturate suggested a cumulative influence on a diencephalic midline structure with access to all cortical areas, though with some special relationship to the frontal lobes. This was possibly homologous with the thalamic reticular system studied in animals by Morison and Dempsey and by Jasper. In association with the E.E.G. changes were rapid alterations in sleep rhythm, appetite, etc., suggesting a concerted response from the centres

regulating vegetative function in the diencephalon. Such a homeostatic response was consistent with the evidence that the action of E.C.T. was non-specific, as it tended to eliminate qualitatively new and recently acquired behaviour patterns in general, rather than any one tendency or symptom. The total changes produced by E.C.T. acquired in this light a biologically purposeful character, for they appeared as a concerted response by homeostatic centres, directed towards the restoration of the most stable pattern of cerebral and metabolic functions hitherto attained. The role of the E.E.G. changes in this process was possibly to exert a selective action on neuronal activities subserving behaviour patterns as yet poorly integrated into the personality. The findings necessitated an inquiry into the possible physiological role of epilepsy. There was evidence suggesting that the epileptic fit might have some function in relation to the maintenance (under extreme metabolic and other stresses) of a relatively stable pattern of activities in the brain.

Immediate Effects of Leucotomy

Dr. R. KLEIN described investigations aimed at clarifying the immediate mental changes after standard leucotomy. Twenty patients were examined daily for 8 to 10 days, and, later, at longer intervals for 2 to 12 months. Attention was confined to those symptoms common to every case. The amnesic syndrome included retention defect, anterograde and retrograde amnesia, and a disorder of the appreciation of time. This constellation of symptoms had special features which distinguished it from acute amnesia of other origin. Of greater significance in determining the post-operative change was the discontinuity of pre-operative ideation. What might be called the "ideatory scheme," the organization of a basic attitude peculiar to the individual, was abolished or blocked, and there was no background on which to elaborate a given situation. Without the background no tension could arise, and the patient felt unconcerned. Objectively he might seem uncontrolled, childish, and selfish. Because he lacked the necessary driving force to approach or explore a situation he appeared passive and apathetic. A lesion which disrupts the ideatory scheme must necessarily have a beneficial effect on many psychiatric conditions. The more systematic and integrated the scheme, the more striking would be the post-operative result. No definite correlation had been found between the initial complexity of the post-operative picture and the subsequent altered behaviour. There was, however, an impression that, the more protracted the amnesic symptoms, the more permanent was the result; there might also be a similar relationship to the degree of blocking of the ideatory scheme.

Follow-up of 238 Leucotomized Patients

A paper by Dr. H. GILLIES, Miss HICKSON, and Dr. W. MAYER-GROSS described a follow-up study that had been made on 238 patients who underwent the operation of prefrontal leucotomy at Crichton Royal between the years 1943 and 1948. The mortality rate from the operation had been 3%. The incidence of post-operative epilepsy, including isolated single fits, had been 8%. Over 80% of the patients had been cases of schizophrenia, and all the patients were believed to have had no chance of spontaneous recovery. Only 13 of the patients had been ill for less than two years. In all cases full courses, sometimes repeated courses, of the appropriate physical therapies had been given and had failed to induce sustained remissions. The average time between the operation and the follow-up inquiries had been four and a half years. Of these prognostically hopeless cases almost one-third were living a normal or almost normal family life and more than one-fourth were usefully and gainfully employed. Of those who remained in hospital almost half were much improved; they were happier and easier to nurse.

Statistical analysis of the material for prognostic factors showed that the best results had been in those whose pre-operative personality was left more or less intact, who had been well adapted before their illness, had been only a short

time in hospital, and had retained emotional tension. Long duration of illness, as distinct from long duration in hospital, did not prevent success of the operation. The patient's response to electric convulsion treatment before operation afforded a relatively reliable indication of the likely therapeutic response to leucotomy, otherwise the prognostic criteria for leucotomy were still those well-tried criteria that had held so long for untreated psychoses.

In the discussion that followed, Sir DAVID HENDERSON and Dr. T. P. REES described similar therapeutic results from their own hospitals. Sir David had seen many excellent results in long-standing psychotics so long as emotional tension was still present at the time of operation.

The Patient's Attitude to His Leucotomy

Dr. E. STENGEL spoke about the leucotomized patient's attitude to the operation and its effects. He had questioned 224 patients one to five years after operation. Thirty-one, mostly schizophrenics, had denied that they had ever had the operation. Many patients were unaware of marked personality changes, but there were many with a very definite awareness of losses and gains. The majority of patients approved of the operation, some were indifferent, and another group, about one-ninth of the total, thought that the operation should not or need not have been undertaken; but they did not voice this opinion spontaneously. Patients who had observed changes in their emotional reactions did not resent them, although they described them as losses. The patients did not balance the gains against the losses. The operation never became the source of a delusion or the centre of hypochondriacal preoccupations, even when the result was unsatisfactory.

Hospital Treatment of Alcoholism

Hospital treatment in chronic alcoholism was described by Dr. J. HARPER in a paper which aimed at providing control material with which the results of treatment by "antabuse" could be compared. A follow-up was carried out at Crichton Royal on 84 cases of alcoholism which had been treated on conservative lines alone. Two to five years later 16 patients were deemed "much improved," 25 were "improved," 22 unchanged, and 15 had died. Nine patients of this last group were stated to be drinking heavily at the time of their death. In brief, almost half had benefited in some degree from their stay in hospital. Search for factors relating to the success of treatment had not been without results. No correlation was found between the patient's age and the response to treatment, nor was there evidence that the duration of addiction influenced the prognosis. In 20 cases the evidence suggested the precipitating cause of alcoholism to have been endogenous depression. The most interesting finding in this group of severe alcoholism, of whom four-fifths belonged to the wealthier classes, was the prevalence of a cyclothymic constitution among them. The best results were obtained in this group. Psychopaths were less numerous, younger, and unresponsive to treatment.

Antabuse in Chronic Alcoholism

Dr. J. N. P. MOORE assessed the value of tetraethylthiuramdisulphide (antabuse) in the treatment of chronic alcoholism. He discussed results in a series of 118 alcoholics treated at St. Patrick's Hospital, Dublin. These cases, presenting a wide variety of psychiatric problems, had been reviewed after a follow-up period ranging from six months to two years and five months. Of 71 patients about whom definite information had been received, 59 were abstinent. Of these, 36 had had no relapse of any kind. Thirty-eight patients were still taking antabuse regularly, 17 without relapse. Twelve were known to have stopped the drug and to be drinking regularly. The patients who had failed to reply to the inquiry, or who could not be traced, included a large number of cases of poor prognosis, but not all of these patients could be regarded as failures. However, even regarding the untraced cases as failures, the proportion of successful results for the whole

series would be 50%. The best results had been obtained in middle-aged men who, under stress, had progressed from social drinking to addiction. In hospital, and after discharge, the employment of antabuse has many advantages. It shortened the stay in hospital, and allowed greater freedom and a better therapeutic relationship. It provided the doctor with a technical procedure under cover of which psychotherapy and continued surveillance were readily accepted. It provided a simple daily objective action to reinforce the patient's decision. The anxiety of relatives was lessened, and the discontinuation of the drug might give useful warning of a relapse. The latter eventuality was not necessarily a bad omen—after a brief lapse the patient might be more convinced of his need for treatment. Antabuse should be used only with intelligent, co-operative patients. It was a useful crutch, but not a substitute for the attainment of a new orientation to life's problems.

Psychiatric Tests in the Clinical Assessment of Dementia

Mr. J. KELLY and Dr. P. PINKERTON described research undertaken to correlate psychometric and clinical data in senile and arteriosclerotic dementia. The case material was restricted to well-defined examples of these diseases, but even so the patients remained a heterogeneous group, and on this account their psychometric assessment presented some difficulty. To minimize this, tests employed were restricted to the Mill Hill Vocabulary Scale and the Board Form of Raven's Progressive Matrices (1947). The former was held to give a reliable index of the highest intellectual level previously attained, while the Matrices test measured current intellectual output. High reliability coefficients were obtained; variations in performance on re-testing were always associated with fluctuations in the patient's clinical state. It was not possible to measure deterioration by taking the difference between the vocabulary and Matrix score. Previous workers in this field had tended to avoid the difficulties involved by comparing averages, but there was reason to believe that treatment of psychometric data in the mass could lead to serious fallacies. The authors attempted a qualitative analysis by focusing attention on the patient's emotional reaction to the problem and his method of tackling it. Statistical treatment of the results showed that, while loss of ability to abstract determined the level of the problem difficulty which the patient could master, his total efficiency also depended on his emotional reaction to this loss. Both cognitive and affective factors determined residual efficiency in senility.

Corby is a "new" town in Northamptonshire which will ultimately have a population of 40,000 to 50,000, and it has no hospital services at all. It has already been decided, states the *Annual Report for the Year ended March 31, 1951*, of the Oxford Regional Hospital Board, that the specialist services, particularly for in-patients, will be provided by extending the hospitals at Kettering, which is quite close. There are, however, obviously some services which will have to be provided locally, such as those for maternity cases. Discussions have been going on for some time now with the Nuffield Provincial Hospitals Trust, the county council, and other bodies concerned, with a view to setting up at Corby a new kind of experimental centre, linking the board's hospital services with other health services to be provided locally; much progress has been made already. It is hoped to combine on the one site a maternity unit and a general-practitioner hospital, as well as a diagnostic centre providing facilities not only for consultant out-patient sessions but in addition for general practitioners from the area to see patients requiring special treatment. The Report also discusses the problems of the relationship between general practitioners and hospitals. One is administrative; it is essential to create adequate liaison between the board and the doctors in the region; secondly, the practitioner must be given ample opportunity to play a full part in the work of the hospitals, especially those who possess some special qualification.

Correspondence

An Unusual Transfusion Hazard

SIR,—The following transfusion hazard is so unusual and the consequences could be so disastrous that attention should be drawn to its occurrence.

A sample of blood was delivered to the laboratory with a request for grouping and for matching with two bottles of blood as soon as possible for a patient suffering a post-partum haemorrhage. On matching the sample it was observed to group as A Rh-negative, but it was noted that no anti-B agglutinins could be detected in the serum. Fortunately, this aroused suspicions, and inquiry revealed that there had been great difficulty in obtaining a sample of the patient's blood from a vein, and so a sample of the cord blood was collected and dispatched instead. Group O Rh-negative blood was sent from the blood bank, therefore, instead of A, to tide the patient over the emergency, and later grouping established the patient's blood group as O Rh-negative. A potential disaster from an incompatible transfusion was thus prevented by adherence to the necessity of a cell and serum check of the ABO group.

It is to be hoped that it is not a common misconception that a sample of the baby's cord blood is suitable for determining the mother's blood group. It is evident, however, that blood banks must be on their guard against errors of this kind. Likewise, it is a warning to obstetricians to ensure that should they request a non-medical assistant to take a sample of blood under similar circumstances resort will not be made to the more easily obtained cord blood.—I am, etc.,

Bristol.

GEOFFREY H. TOVEY.

New Sign of Foetal Distress?

SIR,—During a recent twin delivery I had unfortunately the occasion to notice in the breech twin a sign of foetal distress to which my attention had not previously been drawn.

The first twin (weight 6 lb.—2.7 kg.) was born easily in the vertex position, and is healthy. The second twin was known to be in the breech position, but, as this was the mother's seventh pregnancy (the third which I have attended) and all previous labours had been spontaneous and easy, it was hoped that the breech birth would also be easy. When the first foot of the breech twin came down, I playfully stroked the sole of it and elicited the usual prompt foetal response of an up-going toe. The body came down easily but there was an awkward delay with the head. At this moment I realized a possible value of the plantar response which I had just elicited. So long as this remained brisk and so long as no breathing movements were made, I felt I need not be anxious; the umbilical cord and heart were pulsating regularly.

But on changing the warm towel in which the infant's body was wrapped I felt the first inspiratory gasp. Within a minute or two the plantar response was much weaker and foetal attempts at respiration occurred several times. In a few more minutes the plantar response was absent though the heart was still beating. The foetal head was expressed by forceful help on the fundus, but the baby did not breathe and the heart-beat ceased in 12 minutes, in spite of our attempts to stimulate respiration. At necropsy the lungs were found to be filled with amniotic fluid; there was no intracranial damage nor any foetal abnormality, and death was due to asphyxia caused by antenatal respiration. The birth weight was 7½ lb. (3.5 kg.).

None of my general-practitioner or consultant colleagues with whom I have discussed the case can recall any reference to such a sign. It would be of interest to know if others have noticed this abolition of the plantar response as a sign of foetal distress, either antenatally in a breech or postnatally in cases of intracranial damage or asphyxia.—I am, etc.,

Peaslake, Surrey.

G. I. WATSON.

A Bronchial Whistle

SIR,—The unusual circumstances attached to the following case make it of interest, and worth publishing.

A boy aged 6 years was sent to see me recently with a history of having swallowed a whistle two hours previously. When I saw