The ergograph affords an important test, not only for delinquents, but also for more ordinary defectives, especially when the question arises of their capacity for work in the ordinary world.

The Psycho-galvanic Reflex Test.

Reference may be made to the investigations of Dr. E. Prideaux in the Psychological Laboratory at Cambridge in regard to the psycho-galvanic reflex test. Dr. Prideaux says that:—

"The factors which are responsible for the variation of polarising resistance in different persons is yet to be determined, but the evidence tends to show that the skin polarisation effects are correlated with the functions of the brain. So far as my experiments go at present, persons of the mentally deficient class tend to give a low psycho-galvanic reflex."

He also states:—

"It is certainly my experience that the reactions in subjects of poor intellect, as evidenced by their low standard at school, are rarely so marked as in my intellectual subjects, and I have attributed this to the fact that the intellectual subject has usually a much greater control over his emotions, and has a wider range in the association of ideas."

The Need for a Series of Tests.

It is important to employ some series of tests in all examinations of defectives; in high-grade cases and criminals this is essential. When time is very limited, and a rough-and-ready estimate is all that is expected, I find that fairly definite indications can be obtained from the use of the following three tests: (1) The vocabulary test, as presented in the Terman Revision. This gives a rough indication of the mental age. (2) Healy's form board, which indicates the capacity for mental work. (3) Pictorial completion, which may give a clue to the moral character and type of mental make-up.

The mental examination in the American Army consisted first of the Binet-Simon tests or some modification of them, and, in addition, a large number of other ingenious tests which were divided into two sets according as to whether the recruit under examination was a "literate" or an "illiterate." The "literate" group, of course, were those who could read and understood the English language fairly well.²

It is interesting to note that American psychologists applied the army mental tests later to certain other groups. When used in *prisons* it was found that their use would lead to the segregation of the feeble-minded, but did not solve the problem of criminality. When *prostitutes* were examined it was discovered that 53 per cent. had a mental age under 10, and that 10 per cent. should have been in custodial institutions. A large percentage of those with a mental age over 10 had marked mental instability or actual mental disease. Only a small number were mentally normal. *Conscientious objectors* were found to have a mental age above the average. When applied to *industry* the conclusion reached was that the examination was very useful.

² Some of the American Army tests were shown, having been copied from "Mental Tests in the American Army," compiled and edited by Clarence S. Yoakum and Robert M. Yerkes, published by Sidgwick and Jackson, Ltd., London. Some of the Maze tests which have been found to be valuable were included in the American Army tests.

MENTAL AFTER-CARE ASSOCIATION.—A well-attended meeting of this association for poor persons convalescent or recovered from institutions for the insane was held at Bridewell Royal Hospital on Feb. 23rd by permission of the governors of that hospital. Sir Charles Wakefield presided, and made an eloquent appeal for further support. He alluded to the last year's accounts, which showed a deficit, and promised to give a donation which would wipe out the amount. After Dr. H. Rayner (chairman of the Association) had read the report, which showed the great increase in the work which has taken place during the last 12 months, Sir William Byrne moved its adoption, speaking in high terms of the way in which the association performed its duties and urging the great need for its ministrations amongst those patients who are discharged from mental hospitals. Amongst the other speakers were the Right Rev. the Lord Bishop of Barking, Dr. Hubert Bond, the Hon. John Mansfield (Lord Chancellor's Visitor in Lunacy), Mr. C. Gabain, Sir George Savage, and Mr. Ernest Sanger.

Clinical Notes :

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

A CASE OF

ENCEPHALITIS LETHARGICA COMPLICATING PREGNANCY.

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AND

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NEVER having seen any reference to encephalitis lethargica occurring in pregnancy, we felt that a permanent record of the following case would be of interest.

The patient, a primigravida of 31, in the thirty-sixth week of pregnancy, was seen by one of us (J. B. B.) on Dec. 27th, 1920, in consultation with Dr. Pearson, of Hornsey, under whose care she had been for the previous nine days. She had been perfectly healthy up to Dec. 18th, when she went to her doctor complaining that she could not sleep, but had felt very heavy about the eyes for two days. On a routine examination being made nothing abnormal was discovered, and a sedative mixture was prescribed. Two days later (on the 20th) she complained of being unable to keep awake, of great pain when she raised her eyelids, and of slight tremors in the hands.

Other symptoms gradually developed, and when she was seen in consultation the general condition was as follows:—

A rather frail-looking woman in the thirty-sixth week of pregnancy. Complexion somewhat muddy and tongue furred. A very definite bilateral ptosis was noticed, and slight weakness of the right side of the face; pulse 110, temperature normal. She answered questions rationally; no definite twitching was noticed anywhere. Her relatives stated that the mental condition has varied from time to time. No headache or vomiting throughout the illness; knee-jerks exaggerated, that on the right being the brisker; apparently a slight loss of power in right arm and head.

A tentative diagnosis of encephalitis lethargica was made, and it was decided to transfer the patient to Queen Charlotte's Hospital for further investigation and treatment.

From her friends certain other points were elicited in addition to the changeable mental condition. They noticed very early in the disease a slight unsteadiness in gait which had become gradually more marked, while during sleep they had observed what they described as a "scrubbing" movement of the right hand. Her speech also had become less distinct and more halting day by day, while she had complained of "seeing double" on the third day of the illness. Constipation had been marked throughout.

On admission, the most apparent feature was a bilateral ptosis of a marked degree. There was an internal strabismus of the right eye. Horizontal and vertical nystagmus was elicited, the latter being very marked indeed. The pupils reacted to light and accommodation sluggishly and slightly; hippus was present; some irregularity in outline of the left pupil, but no anisocoria; discs normal. The face was mask-like, and the lower left quadrant appeared to be less mobile and more flattened than the opposite side; left angle of mouth was noticed to be twitching in a lateral direction. The tongue was protruded naturally, and was not tremulous; levator-palati contracted equally strongly; muscles of mastication and deglutition appeared unaffected; special senses not impaired, except the sight as already detailed.

Mentally the cerebration was slow; speech drawn and slurred, with an attempt at tailing off the sentences into a whisper; voice at no time normal in quantity, giving the impression of a lazy and effortless response. The intensity of the mental stimulus, although varied, could not influence the rapidity or the thoroughness of the reaction. Only at times was the patient noticed to be irrational in her replies.

The skin was dry and harsh, pulse rapid (110 on examination); katatonica could not be elicited. Reflexes all exaggerated; abdominal reflex not obtained, but because of the stretching of the parietes by the pregnant uterus much importance could not be attached to this fact.

The left upper limb (patient right-handed) appeared somewhat stronger than the right; no weakness detected otherwise. Triceps, pronator, and supinator jerks were obtained and were brisk. The right arm grips were all sustained and gave no impression of being lethargic in inclination. There was a peculiar pronatory movement of the right forearm, and the fingers were held in the position of writing. The rhythm appeared regular, but the frequency was not timed. The lower extremities appeared of equal and average strength; reflexes exaggerated, but clonus could not be elicited; plantar response slightly flexor; there was a marked protective reaction and the extensor fascia lata was noticed to contract. Sensation normal throughout; dermatographism present to some extent. Rombergism not present, though the patient was very unsteady on attempting to provoke the sign. No ataxia. The patient had some hesitation in turning, comparable to the Parkinsonian manœuvre, and it was very apparent there was a definite list to the right side. False

pointing to the outer side of an object was noticed. In certain respects the case was of the paralysis agitans type, showing some involvement of basal nuclei and red nucleus, mask-like expression, tremor (though this was not typical), increased reflexes, difficulty in turning, and the monotonous element in the speech. There was some indication of cerebellar involvement shown by the nystagmus, the false pointing, and the list in the gait.

The rapid pulse might be possibly construed as a removal of vagal control, though vagal function was not investigated. It was noted also that though the lungs were free from disease, respiration was rapid and noisy, though the accessory muscles were not brought into use. Lumbar puncture was performed on the fourteenth day of disease; anaesthesia with chloroform was employed for a lumbar puncture, without any untoward effect. The cerebro-spinal fluid was under pressure, and 30 c.cm. were withdrawn without completely relieving it; the fluid was clear and colourless, and bacteriologically sterile. The Wassermann, Nonne, and Lange tests were all negative. The cells were much increased, 348 per c.cm. being counted (48 per cent. polynuclear). The urine was free from albumin, casts, sugar, acetone, and diacetic.

Puncture was not repeated. The pregnancy was terminated by induction on the sixteenth day of disease. The child was perfectly healthy. A second anaesthetic had to be employed to end the second stage by the use of forceps. The pains were insidious and very effective, and the child was delivered nearly four hours after induction with two gum-elastic bougies.

The treatment besides this was the four-hourly use of 10 gr. of urotropine (which gave no rise to toxic symptoms) and the production of a fixation abscess in the thigh by the injection of 20 mm. of turpentine. The patient's mental state improved after delivery of the child on Jan. 2nd, 1921. The change, however, was short-lived: incontinence of urine and faeces commenced on the 5th, lethargy increased, tremors became more marked, pupils ceased to react to light, and deglutition became very difficult. The patient died on the 7th, three weeks from the onset of the disease.

Post-mortem was not obtained. The whole course was apyrexial except for slight rise to 100° F. a few days after the setting up of the fixation abscess.

The induction of labour was decided upon in view of the following facts: (a) The patient's condition was becoming continually worse; (b) the baby was alive; (c) it was hoped that the removal of the foetus might influence the patient's metabolism for the better. The very definite improvement for the first 36 hours after delivery gave rise to great hopes of recovery, but the experience of this case leaves the question of interference with the pregnancy sub judice. It would be instructive to obtain speculations upon the advisability or otherwise of terminating pregnancy in cases such as the one under consideration.

A CASE OF ACUTE DIVERTICULITIS.

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THE following notes may be of interest, as they deal with a disease which I believe to occur more frequently than is generally supposed.

Mrs. P., aged 57, wife of a publican, was first seen for dyspnoea by my partner, Dr. E. F. Clowes, in March, 1919. She was a short stout woman, lived a rather sedentary life, and drank ale but no spirits; there were no apparent signs that she was an excessive drinker. She was not constipated and had no digestive symptoms. Dietary and treatment improved her so much that she was not seen again until Feb. 2nd, 1920, when she had an attack of diarrhoea and sickness, apparently caused by eating tinned salmon. A dose of castor oil and a bismuth mixture soon cleared this up and she did her usual work on Feb. 3rd. On Feb. 4th, whilst cleaning a fire-grate, she was suddenly seized with pain in the lower abdomen, so severe that she fainted. When seen at 3.48 P.M., about a quarter of an hour after the onset of pain, she was very collapsed, sweating, had a temperature of 97.4° F., and very small pulse, beating 146 per minute. She was vomiting at intervals of a few minutes a dark bilious fluid, and had hiccough. The abdomen was distended generally and did not move to respiration; it was rigid and very painful over the whole area below the umbilicus. The patient was removed as soon as possible to a nursing home. I saw her at 8.30 P.M. and decided to perform an operation; this was begun an hour later. She was then in such a collapsed condition that Dr. C. Sherris, the anaesthetist, considered a general anaesthetic inadvisable; the patient was extremely nervous of feeling any pain, so a whiff of ether was given, and a spinal anaesthetic administered. On opening the abdomen by a median incision I found a large quantity of purulent fluid with much recent peritonitis in lower part of cavity, especially the left iliac fossa. After mopping away the fluid I discovered the appendiceal epiploicae were very much enlarged, being arranged on the convexity of the gut in two rows; they were of washleather colour, about the size of small grapes, and looked much like bunches of the latter. The large intestine from the rectum to the caecum was affected in this way, but the sigmoid and lower part of descending colon was the part where the condition was most marked. The large bowel was very red, thickened, and rigid. A coil of small intestine was found attached by recent lymph to a small bunch of epiploicae from the sigmoid, and here a leakage had evidently taken place. The condition of the large bowel and the great length affected made it impossible to do any kind of plastic operation, so the abdomen was washed out and drainage-tubes inserted.

Patient stood the operation well, considering her very collapsed condition, and on the following day was fairly comfortable but vomited frequently. This ceased on the second day, and she remained comfortable till the fourth day; diarrhoea and vomiting then set in again, continuing more or less until she died on March 3rd, 28 days after the operation.

Unfortunately, I was unable to obtain consent for a post-mortem examination, which would have been most instructive. The appearance of the enormously enlarged epiploicae and the way they were arranged when first seen at the operation gave the impression of malignant growth, and it was only on carefully examining it that its real condition was found out.

A NOTE ON

A CASE OF SCHLATTER'S DISEASE.

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AN account of the following case is given here as it may prove of interest to casualty officers and outpatient surgeons at hospitals, besides recalling attention to a relatively rare condition.

A boy, A.W., aged 13, limped into the surgical extern of the Royal Berkshire Hospital one morning and complained of pain in the left knee of nine days' duration, idiopathic in origin. On examination the usual signs of inflammation were found in the region of the tibial tuberosity, and my first thoughts were of tuberculosis and of bursitis. The latter was soon ruled out, and as no other evidences of tuberculosis elsewhere were found, an X ray examination was made. An antero-posterior view of the knee appeared normal both on the screen and on the plate, but a lateral view revealed the typical appearance shown in the accompanying illustration. There is an irregular

Radiogram of a case of Schlatter's disease.

outgrowth of the tibial tuberosity somewhat resembling a forward displacement of the upper epiphysis, and this is quite characteristic. No history of injury could be obtained, although the boy played football for his school.

Although the aetiology and pathology of the condition are still obscure, the treatment, which is therefore largely empirical, is usually quite satisfactory, comprising (1) rest, (2) back-splint, and (3) patience. The general consensus of surgical opinion is against operative treatment except in very marked or advanced cases. The most recent reference to this condition, as far as I know, occurs in the *Archives of Radiology and Electrotherapy* for May, 1920, where two somewhat similar figures are given.

The X ray plate was taken by Mr. A. L. Watson, radiographer to the hospital.

Reading.