ulcer of the leg that will not respond to this method: most of them can almost be commanded to heal, but a few require coaxing—malleolar ulcers with pads, larger ulcers with ambulatory skin grafting, and the largest ulcers of all with strapping over elephant plaster to prevent cutting (Fig. 13). Arterial disease of senile or diabetic origin precludes strapping of the whole leg.

Ulcers which are obviously not due to gravity and circulatory imbalance should be separated off for treatment directed to the special origin of the ulcer (syphilis, mycosis, ischaemia, etc.).

Varicose Veins and Military Service

It is wise to have a proper perspective on this subject at the present juncture, and to realize that the case with any signs of complications in the form of oedema, pigmented, eczematous, or ischaemic malleolar patches, ulcer scars, etc., is much more apt to give way under stress than the case which has long cords of varicose veins but no signs of secondary effects. Furthermore, the latter type of case will get a very good result from treatment, whereas the former may have a deeper trouble and not turn out so well. The case with long numerous varicose veins could be regarded as Class II and could be made Class I by treatment, the case with pigmented patches or slight eczema and lesser degrees of oedema Class III, and the case with much oedema, recurrent phlebitis or ulcer, extensive pigmentation and scarring, or active ulcer Class IV.

FEIGNED EPILEPSY IN WARTIME

BY

REDVERS IRONSIDE, M.B., F.R.C.P.

Neurologist, West London Hospital; Physician to Out-patients, Hospital for Nervous Diseases, Maida Vale

In previous major wars certain unwilling conscripts and military misfits have feigned epilepsy with the object of avoiding service. Prisoners of war may also feign epilepsy. It is not unlikely that simulation of epilepsy may be attempted in the present war, and the profession as a whole, and particularly those on medical boards, should be alive to the possibility of fraud when epilepsy is alleged as a bar to military service in those of conscriptive age. An unwary doctor seeing such a patient for the first time and supplying a medical certificate in good faith may all too easily find himself an unsuspecting party to deceit.

Techniques of Simulation

Sham fits produced by a histrionic effort aided by soap in the mouth to make froth and pricking of the gums to draw blood are no longer fashionable. A technique more subtly ingenious and convincing may be adopted which only becomes evident after its regular appearance in a consecutive series of individuals. Convulsant drugs—for example, monobromate of camphor, cardiazol, insulin, etc.—which produce convulsions closely resembling those of epilepsy are too dangerous for use in relatively unskilled hands.

Post-epileptic stupor, however, may be simulated by a full dose of a hypnotic drug by mouth, the clothing and floor on which the individual is found lying having been wetted previously with water or urine. A large enough dose of barbiturate will produce stupor, confusion, pupils which react imperfectly to light, and even an extensor plantar response. An incision made by a confederate on the tongue or lip will heighten the illusion

that the patient has had a genuine convulsion. Subconjunctival haemorrhages are less easy to fake, but there is, in fact, no symptom or sign of epilepsy which could not be produced by artifice. To complete the picture an accomplice may supply in considerable detail the entirely fictitious but convincing history of chronic epilepsy in the subject of the alleged "fit."

Case 1: Alleged Post-epileptic Stupor in a Soldier.—A soldier of foreign extraction, aged 21, was seen in his own home in consultation with Dr. A., who had not previously attended him. The patient had been in bed in a state of katonstic stupor for three weeks following an alleged fit on leave. A history of chronic epilepsy since infancy was given, with epilepsy affecting several sibs (two dead of epilepsy in childhood, the others not at home). His Service record was healthy and no details of previous treatment were forthcoming. The day after his admission to hospital, without any treatment, the patient recovered from stupor and remained mentally and physically normal, with normal spinal fluid, for a week. One morning at 5 o'clock the nurse could not rouse him, although no fit had been observed. The previous day he had been visited by a woman, now believed to be a confederate. This second stupor lasted twelve hours. It was subsequently ascertained that a previous attempt to obtain discharge from the Army on compassionate grounds had failed.

It will be evident that such complex simulations may require the co-operation of several individuals. Techniques are not usually thought out separately by individuals, but may be laboriously acquired from an instructor or instructress who is thoroughly familiar with every medical aspect of the real disease and can provide a story which rings so true that it will deceive even the most alert. Sham fits are not commonly simulated before the patient's regular doctor, but before a practitioner who is hurriedly called to see the patient for the first time.

Difficulties in Recognizing True Epilepsy

The relatively constant sequence of events in a true epileptic fit is diagnostic enough when witnessed in its entirety by an experienced observer. Unfortunately the doctor is often largely dependent on the account of an inexperienced eyewitness of the attacks, and he is then accustomed to rely on the veracity of what is told him. It is only occasionally that the examining doctor is fortunate enough to witness a petit mal attack or a major fit.

There are no pathognomonic interparoxysmal symptoms or signs of epilepsy. In taking the history stress will rightly be laid on the story of a lacerated or swollen tongue after the fit, blood on the pillow, incontinence of urine, or subconjunctival haemorrhages. But one should be alive to the possibility that such "unequivocal" signs of an epileptic fit may be simulated or invented by the patient. Examination of an epileptic patient in the interparoxysmal periods often reveals no abnormality. The dull greasy facies epileptica with its poverty of emotional expression does not always exist. Some 30 per cent. of epileptics will show scars on the head, tongue, or limbs, but these are mostly relics of the patient's pre-treatment days. After treatment is begun falling attacks may cause bruising only. Old scars on the tongue are difficult of detection; those on the lips are easier to see, and occur as puckered or depressed areas on the buccal surface of the lips. Burns are commoner in female epileptics who work a considerable part of the day over a cooker or stove. In males they are usually insignificant cigarette burns.

Electro-encephalography shows abnormal tracings in all cases of epilepsy during the fit and immediately afterwards. Direct clinical observation of the fit should supply information of no less value, and in doubtful cases the apparatus or the expert required to interpret the encephalogram might not be available at the time or place of the seizure. This method, however, may prove to be of considerable value in suspicious cases; but further research

is required to elucidate possible abnormalities in the records taken from epileptics between their attacks.

Thus we see that unless an actual fit is observed by the doctor the diagnosis of some cases of true epilepsy may cause considerable perplexity if the history is confused or insufficient.

Differential Diagnosis of Feigned Epilepsy

A simulated post-epileptic stupor will have to be differentiated from several conditions, notably status epilepticus, head injury, and hysteria. Wherever doubt or suspicion exists the patient should be kept under isolated observation in hospital, the skull should be radiographed for fracture, and spinal fluid withdrawn and analysed after estimating its pressure.

If produced by hypnotics a simulated post-epileptic stupor may last for days or weeks, so long as the drug is being administered by the patient's confederate. *True post-epileptic stupor* lasts minutes or hours only. Drug stupors differ from *status epilepticus* in that they are unheralded and unaccompanied by any convulsion or clonic twitchings of the muscles. They can, however, only be diagnosed with certainty by recovering the narcotic from the patient's body. A visible external injury on the head or the presence of any unilateral neurological sign should lead to the suspicion of *intracranial trauma*, and necessitates a full radiological and serological investigation, including spinal manometry. Such conditions as *katatonic stupor* in schizophrenia (its association with fits is extremely rare indeed) and *cerebral cysticercosis* may have to be excluded.

Between their attacks malingerers may simulate a state of imbecility and "dress the part" by omitting to shave or sleep for some days. We know that a few epileptics become demented in the course of their malady, and that in some cases epilepsy is engrafted on an imperfectly developed brain. The apparent imbecility of the malingerer may be revealed by some discrepancy or incompatibility apparent to the trained observer. For example, a patient with a seemingly idiot mentality will find his way to the doctor alone and assert that he dressed himself unaided that morning. Some incompatible symptoms may be introduced redundantly—for example, amnesia, which is so easy to simulate. Amnesia for past events is not a symptom of the mentally retarded epileptic.

Case 2: Apparent Imbecility in an Alleged Epileptic.—A smartly dressed young man, aged 24, on the eve of conscription attended hospital with a note from Dr. B., who had not seen the patient before. A temporary address was given; frequent fits since childhood were alleged, but no details of previous treatment could be ascertained. The patient appeared not to comprehend fully what was said to him; there was amnesia for past events; he answered in monosyllables; and his apparent mentality was that of an imbecile. He mentioned that he had dressed himself unaided that morning, and he agreed that he had travelled some ten miles to hospital alone. A certificate was refused. Neither Dr. B. nor the hospital has seen the man again.

Hysteria or Malingering?

The diagnosis from hysteria may prove exceedingly difficult. The hysteric as well as the malingerer may have a fit just before being called for medical examination or when he is faced with some unpleasant duty. It should be remembered that hysterical symptoms may occur in epilepsy.

There are all gradations between hysteria and malingering: the malingerer, however, is deliberately attempting to deceive others, while the hysteric is not. The demonstration of trickery may depend upon finding (1) contradictions in the patient's own story; (2) discrepancies between his story and a separately obtained story from a relation or friend; or (3) a clumsy refusal of treatment or attempt to suppress details of previous treatment.

Suspicious Circumstances

The suspicion of malingering will be aroused by certain "suspicious circumstances" relevant to the patient himself, and by certain clinical anomalies in the history revealed by careful case-taking. Doubts may occur in the case of soldiers (1) if the patient was not certainly known to be epileptic in pre-war days; (2) if a man with a previously healthy record of service develops a fit on leave; or in the case of civilian males of conscriptive age (3) if the patient has temporarily changed his address to be near a doctor whom he has not seen before.

Case 3: Unexplained Change of Address in an Alleged Epileptic Conscript.—A recently married man aged 24 came with a letter from Dr. C. He gave a temporary address in a town near London, admitting that his home was in London. Dr. C. had seen the patient for the first time the previous day when he was in a stupor alleged to be post-epileptic. No fit had been observed, but his clothes appeared to have been wetted. No cogent reason could be given for the sudden temporary change of address. The usual story of familial epilepsy and frequent fits since childhood was ascertained. The patient was accompanied not by his wife, who was in fact in London, but by the same woman referred to in Case 1, at whose request the patient had been sent for a certificate and who glibly furnished most of the history.

Case-taking

The suspect must be examined apart from his relatives and friends, and the separate stories compared for contradictions and discrepancies. Relatives or friends must never be present during the examination of the patient, and in all cases a separate history should be obtained from some eyewitness of the fit or from someone familiar with the patient's previous history. Especial care must be taken to avoid putting leading questions during case-taking—for example, never to ask, "Did he snore as he was coming round?"; but rather to say, "What did his breathing sound like as he was coming round?"

In case-taking the following points may suggest the possibility of simulation:

(1) The same history occurring in an epidemic of similar cases: epilepsy being so amazingly wide and diverse in its manifestations in different individuals.

(2) Contradictions in the patient's own story, if he can give one; or discrepancies between the patient's story and that of a relative or eyewitness.

(3) Over-elaboration of the history. The history may be embellished with a story of familial epilepsy or of deaths from epilepsy among sibs. Familial epilepsy is extremely rare; probably it occurs in not more than 20 per cent. A family history of migraine, on the other hand, is common in organic epilepsy. Death from epilepsy is extremely rare indeed. When it occurs it is usually in those over 60 years of age.

(4) Suppression (through amnesia or some other irrelevant reason) of details of previous medical treatment. The alleged epileptic may assert that he could never take the medicine "because it had a salty taste," or that he refused to go to a doctor because of some personal bias against the profession. Most epileptics, however, prefer to take medicine, distasteful though it be, rather than have attacks.

(5) A history of constant steady employment in a patient who is alleged to have frequent severe attacks is suspicious. One of the characteristics of the epileptic is that he is constantly losing his job because of the fits.

Case 4.—Anomalous History in an Alleged Epileptic.—A civilian, aged 24, on the eve of conscription presented himself for a certificate of unfitness through epilepsy with Dr. D., who had not previously attended the patient. The man's appearance was haggard and unkempt. Although it was alleged that he had had frequent severe fits since childhood he had been in constant steady employment, and he asserted that he would never have treatment from a doctor

because he did not like the taste of medicine. There was marked amnesia for past events. He was advised to put himself under the care of Dr. D. for further observation without treatment; a certificate was refused and Dr. D. was warned. Three days later Dr. D. rang up to say that the man had been found unconscious after an alleged fit by yet another new doctor in a town near London, and a certificate of unfitness to attend a medical board had been given.

Medical Certificates of Unfitness

The whole question of the supplying of medical certificates of unfitness for service or unfitness to attend medical boards in persons of conscriptive age is one which requires great consideration. In all cases where the doctor has no certain knowledge that the patient was truly epileptic in the pre-war period the greatest caution should be exercised. When doubt exists it is better to withhold any certificate, and instead to ask the examining medical officer to get into personal touch with the patient's usual medical practitioner.

IMPERIAL CANCER RESEARCH FUND

The annual general meeting of the governors of the Imperial Cancer Research Fund was held at the Royal College of Surgeons on April 17, with Sir HUMPHRY ROLLESTON in the chair. Lord Halifax was re-elected president, Sir Holburt Waring treasurer, and four additional members of council were approved—namely, Professors H. R. Dean, H. W. Florey, C. A. Lovatt Evans, and John Beattie.

Mr. HUGH LETT, P.R.C.S., made a statement on the work of the Fund, which, he said, was started in 1902 for the purpose of carrying out fundamental research on the nature and causes of cancer. The scientific staff might have devoted themselves to anatomical studies with a view to helping surgeons to devise operations, or perhaps to comparing the microscopical characters of malignant tumours. But such lines of investigation were limited; they did not lead directly to the essence of the problem. Therefore the staff had been encouraged to adopt a wider view and to make cancer research a general biological investigation. This policy had placed the Fund in a high position scientifically which was recognized in every civilized country.

One great advance was the final determination by Dr. Bashford and Dr. Murray, working under the auspices of the Fund, that cancer was at first purely a local condition originating in groups of cells. They had shown that if the growth could be operated upon in its early stages while it was still small and localized there was every reason to hope that it would be removed entirely and the patient would be cured. Work done by Dr. Bashford had also shown that cancer was not increasing at the alarming rate suggested by the Registrar-General's returns, but that the apparent increase was due to improved diagnosis. These and other discoveries were now past history, but it was well to recognize that they formed a central part of our knowledge. Cancer research had expanded beyond all expectation. It had been shown that cancer could be caused by the application of certain pure chemical substances or by physical agents, and therefore some forms could now be prevented if appropriate precautions were taken. A recent development was the evidence that hormones might be a decisive factor in the genesis of cancer of the breast, and the story of the research which led to our present knowledge was a perfect example of international co-operation in scientific work. Further investigations into this subject were being actively carried on in the Fund's laboratories.

In conclusion Mr. Lett touched on the work of Peyton Rous on fowl tumours and the subsequent description of more than fifty virus tumours. Dr. Gye, the present director, bore an honoured name in this research. The Royal Colleges, as founders of the Fund, had much cause for satisfaction in the work which had been accomplished in its laboratories, and with this satisfaction was mingled a deep appreciation of the ability and devotion of the scientific staff.

Reports of Societies

CHEMOTHERAPY IN SURGERY

At the meeting of the Section of Surgery of the Royal Society of Medicine on April 17, Mr. ZACHARY COPE presiding, the subject of discussion was "Chemotherapy in Surgery."

Mr. NORMAN C. LAKE said that he believed the sulphonamide group of compounds to be specific in their action, in some cases remarkably so. Sulphanilamide was effective in surgical gonococcal infections; he gave examples from his experience. The results in staphylococcal infections were less remarkable. In acute osteomyelitis both sulphanilamide and sulphapyridine had proved of little value, but uleron had been a powerful remedy in cases in which there could be no doubt about the diagnosis. The signs and symptoms usually disappeared within three or four days. In general each compound appeared to have a special activity against certain types of organisms, and much less or no action against others. Nevertheless, the specific action was not absolute, and did not always run along parallel lines for different parts of the body. No general answer could be given to the question whether they were sufficiently reliable to replace other long-established methods of treatment. There were some awkward pitfalls to which over-enthusiasm might lead. In dealing with streptococcal infections particular caution was necessary because they were prone to terminate by crisis at the end of a few days. Nor must the results obtainable with antitoxic sera be overlooked; they were sometimes brilliant, and in many cases could replace completely the older forms of treatment. As to any deleterious effects of the chemotherapeutic products, minor complaints such as headache, nausea, and general lassitude had been frequently observed. Some cases, though not personally known to him, had developed agranulocytosis. Scientifically these products should be given for the treatment of appropriate infections only after bacteriological proof of their nature, but if this principle were strictly adhered to the treatment would be denied to many cases in which it would be of the utmost value. If bacteriological proof could be obtained easily and rapidly this should be done, but in other cases a careful clinical diagnosis should be sufficient to warrant a trial of chemotherapy. Mr. Lake discussed the use of chemotherapy in secondary infections associated with discharging sinuses, which often showed great improvement under such treatment. He had used rubiazol in several cases of diverticulitis in which there were recurring attacks of inflammation of less severe character, and had gained the impression that this was a valuable treatment. It had been authoritatively stated that chemotherapy had little prophylactic value, the presence of organisms being necessary for the development of the powers of these substances, but he had always found it difficult to reconcile this view with clinical experience, and he had not hesitated to use the products in pre-operative administration.

Contraindications

Mr. A. J. GARDHAM said that knowledge of the mode of action of the sulphonamide group of remedies was now reasonably precise. It was known, within limits, what blood concentration was necessary to allow them to act and what time must be allowed for this concentration to be attained and stabilized. Even when the drug was employed empirically the dividing line between success and failure was fairly sharply defined. So long as the empirical use of sulphonamides was justifiable, the first essential for the practising surgeon was to have clearly in mind the febrile diseases in which the drug should not be used. He did not give these drugs if he thought there was a localized collection of pus and was not quite certain where the collection was. He did not like using the drugs in a case in which there was renal impairment; this generally excluded the use of the sulphonamides in the post-operative complications of prostatectomy, but not in most *B. coli* infections. He believed it was quite wrong to use the