amelioration but rather the reverse, the headache, Kernig's sign, and retraction of the head all being more pronounced, it was decided to try the effect of intrathecal injections of the man's own blood serum, in the hope that antibacterial substances might be present in sufficient quantity favourably to influence the supposed infection of the meninges.

Accordingly about 50 c.cm. of blood were removed from a vein in the arm into a bottle which was then allowed to stand overnight in ice-cold water; 20 c.cm. of the resulting serum, after being warmed by placing the container in warm water, were then slowly injected into the subarachnoid space by lumbar puncture after removal of the same quantity of cerebro-spinal fluid. This proceeding was repeated on the three following days; only 12 c.cm. of serum, however, was injected each day as the cerebro-spinal fluid was under less tension and no more could be conveniently abstracted. A further 5 c.cm. were injected two days later (June 14th). From June 9th 10 grains of helmitol were given every four hours until June 14th, when the appearance of a considerable quantity of blood in the urine led to its being reduced to 5 grains every four hours. This haematuria quickly cleared up, and though the urine contained a trace of albumin until June 21st it was subsequently free; there was no evidence to the naked eye of bacteriuria, and the reaction was acid.

On admission to hospital the patient gave the impression of being desperately ill, and for the next two days the symptoms increased in severity. Headache was intense, there was delirium at night, the retraction of the head and Kernig's sign became more pronounced, and flesh was lost at a truly astounding rate. Improvement set in from the time of the first intrathecal injection, though headache was still sufficiently severe to require morphine hypodermically on the nights of June 9th, 11th, and 13th, and he continued to lose flesh. On June 15th and 16th there was incontinence of urine. From this time a striking feature of the case was the rapidity of convalescence.

After admission to hospital the temperature kept between about 100° and 102° until June 14th, when it fell by lysis, becoming normal on June 18th. There was a rise the following day, June 19th, to 101°, but subsequently, except for an evening rise to 99° on June 25th, 26th, and 27th, it remained normal till his discharge from hospital on August 3rd. In September he resumed work as a valet and has since remained perfectly well.

The failure to find micro-organisms in the fluid withdrawn by the first lumbar puncture was repeated in examinations, both by smears and cultures, of that withdrawn on subsequent occasions.

Had cultures been available of the four different groups into which the meningococci most commonly met with have been divided by Gordon, it would, perhaps, have been possible by the agglutinative reactions of the patient's blood serum to have determined which particular group was responsible for his illness and to have administered the appropriate antiserum. As they were not available, it was decided to proceed as above, and though it may be urged that the mere removal of the cerebro-spinal fluid or the administration of helmitol, which by some is claimed to exert a bactericidal action in the cerebro-spinal fluid when given by the mouth, may be factors in producing the favourable result, the recovery—and perhaps one might add the rapid recovery—of a case which at one time appeared to be hopeless is recorded in the hope that the measures adopted may be of use in similar cases where the exact nature of the infecting organism cannot be ascertained.

McKenzie and Martin¹ in 1908 reported twenty cases of cerebro spinal fever treated by intrathecal injections of the patient's own serum or of serum from other patients convalescent from the disease. Of these four were chronic cases and all died. Of the sixteen acute cases ten recovered, and of these two were treated by injections of their own serum, though in what quantity is not stated.

In conclusion, my thanks are due to our president, Dr. King Martyn, for kindly supplying me with the details of the earlier period of the patient's illness.

REFERENCE.

¹ *Journ. Path. and Bact.*, 1908, xii, 539.

ACCORDING to the *Boston Medical and Surgical Journal*, it has been established that the sum of 15 million dollars must be raised throughout the country in order to carry out the work already begun in supplying food, clothing, and medical aid in countries devastated by the war and for continuing the health campaign.

MRS. H. M. PLAYER, of Redland Park, Bristol, who died in October last, has bequeathed £500 to the Bristol General Hospital and £250 each to the Bristol Eye Hospital and the Bristol Royal Hospital for Sick Women and Children. The Bristol Royal Infirmary is to receive the remainder of her estate after the various bequests enumerated in the will have been distributed.

FORGETTING: PSYCHOLOGICAL REPRESSION.

BY

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THOSE who devote themselves to the treatment of functional nervous disorders, especially so-called neurasthenia—which term as used by the services and the pensions boards really conceals various hysterical manifestations among which anxiety states predominate—are constantly confronted by the patient with the statement that doctors have advised him to pull himself together, exercise his will power, and forget all about the incidents which proved his undoing. Such an attitude was taken up by Sir William Hale-White,¹ who stated explicitly that "talk should never be about past war experiences," but the patient should be helped to forget them by the aid of easy games of cards, light reading, croquet playing, etc. It is unfortunate that, in spite of the experience gained during the war in the special military neurological hospitals, this attitude should be so prevalent. The forgetfulness thus advised is nothing other than repression, and psychological analysis invariably reveals the fact that the patient's anxiety condition is directly attributable to it. This is due to dissociation and displacement of the affect, which then tends to attach itself to suitably associated presentations.

The more successful he is in repressing the memory of his unbearable experiences the more severe become his symptoms. Roughly, one may note three grades of repression or forgetfulness.

First, there is the degree in which the idea of the original incident is so unbearable to the ego as to be immediately and completely repressed. In this case the patient attempts to defend himself by complete amnesia for the event, which amnesia often includes, as an additional security, a considerable lapse of time in which the unbearable event is contained. For example, a patient may remember nothing after an explosion until he "comes to life again" in hospital a month or so later. Such a patient has most effectively practised the method of forgetfulness, but his condition is pitiable in the extreme.

One such case recently under my care was discharged from the army in 1916 as permanently unfit. Instead, however, of improving with lapse of time, he became progressively worse and had to give up work altogether. Recovery of the amnesia showed the unbearable incident to be that while lying semi-conscious upon a stretcher he had been robbed, and when he had offered such feeble resistance as he was capable of had been struck on the jaw and told to lie still. The recovery of the amnesia—in August, 1919—produced a remarkably steady effect upon the patient. Other apparently forgotten events were subsequently in a similar way revived and the patient's attitude towards them readjusted, with the result that he lost his anxiety symptoms and has been comfortably back on full work for the past two months.

The second degree of repression is that in which a patient remembers and is able to talk about most of the events in his military life, but has incompletely repressed certain of them on account of their highly disagreeable nature. Cases of this sort are particularly apt to deceive one and thus run a protracted course.

As an example I might mention the case of a man who had seen three years' service in France and to all outward appearance carried on satisfactorily until slightly wounded just before the armistice, after which he had to be invalided home with "neurasthenia." With a little encouragement the patient could discuss his military history apparently in detail. A good deal of perseverance was required to bring to light the pathogenic event. This proved to be the death by shooting, under tragic circumstances, of a close friend with whom he was constantly associated as a sniper.

The resistance which the analyst experiences in bringing such a repressed incident to light is considerable, as is also the emotional reaction of the patient at the moment, but the rapid recovery which follows is equally gratifying to both parties.

The third degree of repression is found among pensioners to be the most common and the most troublesome to deal with. In it there is no event of particular moment; the subjects of it deliberately try to exclude the whole of their military service from their minds, and desire to live as though the experiences contained in it had never been. In this group of patients especially one may notice a latent period intervening between the disagreeable experiences and the onset of the symptoms. Thus, a considerable

number of the men in this group make no claim upon demobilization, their symptoms having developed later and after they had resumed civilian employment. Analysis of these patients generally shows that their powers of adaptation were never good, and that prior to military life they had a marked tendency to expect external conditions to be made comfortable for them rather than strive to adjust themselves and to dominate their environment. As their environment naturally refuses to comply they endeavour to ignore everything which does not suit them. When confronted with their failures, they tend to explain these as due to lack of physical strength on their part or as due to the injustice of a system or of persons with whom they were brought in contact. Here again treatment resolves itself into getting the patient to face external reality, to remember and assess his past failures, disagreeable experiences, etc., at their true value. The success or otherwise of treatment depends very largely upon the intelligence of the patient.

It should be borne in mind that the making conscious of the forgotten—repressed—material is only a necessary first step, our ultimate aim being to readjust and re-educate the patient. This cannot be accomplished while his mind is refusing either consciously or unconsciously to deal with past unpleasant experiences, for these tend to cast a baneful influence over all the reactions of his subsequent life; hence the necessity for the removal of the resistance.

Limitation of space forbids my entering into the psychic mechanism involved in these cases, but I have dealt with this more fully elsewhere.¹

In conclusion, I would say that the remarks here made apply with equal force to civilian psychoneurotics, though the latter are as a rule more difficult to deal with, and require of the doctor a greater experience in the preliminary bringing to light of the repressed material. I feel that, at the present time, when so large a number of these cases are demanding treatment, it would be a great advantage if the profession as a whole realized the pathogenic effects of repression. The task of those who are engaged in the treatment of the conditions above referred to is rendered all the more difficult if the patient is fortified by medical advice in his efforts to forget.

REFERENCES.
¹ BRITISH MEDICAL JOURNAL, August 23rd, 1919. ² Brit. Journ. Psychol., vol. x, Part I.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

GASTRIC ULCER AFTER GASTRO-JEJUNOSTOMY.

In the BRITISH MEDICAL JOURNAL of November 29th, 1902, I made a brief reference, among other cases of gastric ulcer, to that of a man, aged 51, from Lancaster upon whom I performed pyloroplasty and gastro-jejunostomy on December 12th, 1901, on account of two ulcers; one near the pylorus I excised, and did pyloroplasty to widen the narrowed pylorus. The other ulcer, deep in the pylorus, could not be excised owing to complicated adhesions, but as an additional safeguard gastro-jejunostomy was performed at the large curvature of the stomach. A very good report was made in my hospital case-book by the dresser, Mr. A. B. Sykes, now of Formby, near Liverpool. The man made a good recovery and continued in good health and vigour nearly three years.

However, a report was made to me by Mr. C. W. Dean of Lancaster that the man had died on August 14th, 1904, having been admitted moribund into the (now Royal) Infirmary of that town. *Post-mortem* examination showed perforation of a fresh ulcer of the jejunum, where attached to the stomach. This last illness had lasted a couple of days, and the man might have had a chance if he had applied at first, when an operation would have been done, with good prospect of success, by the Lancaster surgeon.

The remarkable thing about this occurrence was the ulceration of the jejunum at its point of attachment to the stomach, and entirely away from the two gastric ulcers previously relieved.

Liverpool.

RUSHTON PARKER.

TREATMENT OF DELIRIUM TREMENS.

DR. F. WYATT-SMITH's note in the BRITISH MEDICAL JOURNAL of December 6th, 1919, raises several interesting points. Before the war it was my lot in twenty years of asylum work to treat many cases of this disease, and I cannot recollect one that did not respond to the old mixture of potassium bromide 30 grains, chloral hydrate 20 grains, and tincture of digitalis 10 minims, every four hours, with a calomel and saline purge to start with; nor do I remember losing a case, unless complicated by pneumonia. But since whisky drinking has become expensive the disease has practically vanished.

Dr. Wyatt-Smith's remarks on hyoscine and sulphonal should not be allowed to pass without a warning. Hyoscine hydrobromide is the most reliable sedative in states of acute excitement, and in doses of $\frac{1}{4}$ grain, combined with $\frac{1}{2}$ to $\frac{3}{4}$ grain of morphine, is my sheet anchor in such cases. But I have notes of three cases in which hyoscine given over extended periods had a cumulative effect, ending fatally.

Dr. Wyatt-Smith says he never met anyone who had seen a case of haematoporphyrinuria the result of sulphonal. I have had three cases in my own experience, two ending fatally. One was in the early days of sulphonal, when it was boomed as an absolutely safe hypnotic, and occurred in the case of a strongly built girl the subject of chronic mania. She had sulphonal in 20 grain doses night and morning for some weeks, developed haematoporphyrinuria and died. The other fatal case arose in a young man after only two doses of 20 grains each, and was obviously due to an idiosyncrasy to the drug. I have also seen alarming coma result from a single dose of 20 grains in a woman. She was unconscious for twenty-four hours and needed strong stimulation with caffeine, etc., to bring her round.

I find veronal in doses of 7 to 10 grains preferable in every way to sulphonal and now rarely employ the latter drug. It is of the utmost importance, when prescribing any of these drugs over extended periods, to keep the bowels well open.

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CALCIUM CHLORIDE AS A HAEMOSTATIC.

A SHORT time ago (November 8th, 1919, p. 597) Dr. Gwillim Davies related a case in which he had used calcium chloride with success as a haemostatic. On the first occasion he injected from eight to ten grains of the salt in solution into the gluteus, and on the second four grains. He mentioned that he was indebted to Dr. W. R. Grove of St. Ives for a knowledge of the value of the drug in this respect. We have received a communication from Dr. Grove expressing the opinion that the doses given by Dr. Davies were unnecessarily large, and, in fact, bordering on the unsafe.

Dr. Grove described his method in the *Guy's Hospital Gazette* of May 18th, 1918. He uses a solution of fused calcium chloride made up 1 in 4. If, as is the case when hard water is used, there is a precipitate, this is shaken up. Four minims of the fluid are drawn into the syringe, and boiled hot water is drawn up afterwards to the 20 minim mark; this is injected deeply into the gluteal muscles. The injection is painless. Dr. Grove has sometimes made the injection in patients who have been going about; these got slight stiffness afterwards down the leg. No external signs remained. He states that some years ago, at a meeting of the Cambridge Medical Society, Professor Dixon pointed out that while the value of salts of lime for increasing the coagulability of the blood was well known, their absorption from the intestine was practically nil. He therefore suggested a hypodermic injection, and recommended a dose of 1 grain. The hypodermic injection, however, produced sloughing of the skin, and therefore it must be given intramuscularly. Dr. Grove states that he has used the drug in the dose and in the manner described not only in haemoptysis, but also in haematemesis, in a case which presented signs of peritoneal haemorrhage after abdominal hysterectomy, and has found it useful also in certain cases of metrorrhagia. He states that it will be found of value in ruptured extrauterine pregnancy, before operation, and in typhoid haemorrhage. He also mentions having used it in a case of aortic aneurysm with apparent benefit. He points out that evidence as to the rate at which the salt is