

Inoculation experiments with the *B. paralyticans* were made on white rats, dogs, and goats; all the animals subsequently exhibited characteristic symptoms, varying from drowsiness, stupor, muscular irritability, ataxia, reeling and stumbling gait, and partial paralysis, up to congestive seizures and death. In the brain of one of the goats and two of the dogs were found cortical changes closely resembling those found in early stages of paralytic dementia. In one instance, during a congestive seizure, the organism was recovered from a vein of the affected dog, and successfully grown again. The virulence of the organism can be increased by passage through a series of dogs; also by growth on a recently devised culture-medium containing a certain percentage of cerebro-spinal fluid. Further details are given of experiments in the use of an anti-serum; of the injection of vaccines made from the *B. paralyticans*, isolated from the patient and injected under the guidance of the opsonic index; and finally of a method of combined active and passive immunisation. Summarising the results of his observations and experiments O'Brien writes:

"We are led to believe that general paresis is a bacterial infection, and that the *B. paralyticans* is the chief ætiological factor, as evidenced by the experimental inoculation of animals with material obtained from cases of paresis and the successful production of a train of symptoms and the pathological picture similar to that of paresis. The protection afforded animals by the use of a bacteriolytic serum lends colour to the fact that an anti-serum will undoubtedly play an important part in the treatment of this disease. This fact is, we believe, further corroborated by the improvement actually observed in certain cases thus treated. Out of eighteen cases under treatment eight have shown considerable improvement. At present we believe the combined treatment to be most effective."

M. EDEN PAUL.

The Use of Isopral in Insane Patients. (*Rev. de Psychiat.*, Oct., 1908.) Vallet, A.

Isopral is a hypnotic belonging to the chloral group of drugs. It has hitherto been little used in France. Chemically it is a tri-chlor-iso propylic alcohol; it is in the form of prismatic crystals, readily soluble. After giving details of its employment in more than twenty cases of mental disorder the writer summarises his results as follows: The drug is a useful auxiliary to chloral and one which patients take readily; it induces tranquil sleep. In the doses employed no influence on pulse or temperature was observed, and there were no unpleasant symptoms of any kind. At first it was given in doses of from four to eight grains, but these were found to be rather too small. It may be given without anxiety in an initial dose of ten to fifteen grains.

M. EDEN PAUL.

A "Protective Bed" for Insane Patients in States of Excitement [*Ueber ein "Schutzbett" fuer erregte Geisteskrankte*]. (*Psych. Neurol. Wochens.*, Oct. 10th and 17th, 1908.) Walter, F. K.

One of the greatest difficulties which confronts the alienist in the practical discharge of the duties of his calling is the care of the insane when in a state of motor excitement. A human being in a state in which

words have ceased to influence him is to have his urgent tendency to excessive movement checked, and this as far as possible without resort to force. Had we any "chemical means of restraint" the employment of which brought no evil in its train, the difficulty would be at an end; the only force employed would be that required for the administration of the drug. But the "chemical strait-waistcoat," as at present available, entails disadvantages and dangers no less serious than those entailed by the mechanical strait-waistcoat.

In considering what is called "mechanical restraint" we must, of course, always distinguish clearly whether the mechanism employed forcibly restrains movements which the patient actually attempts to make, or whether, on the other hand, it so influences the patient that he no longer attempts to make the movements. In the former case only have we true "mechanical restraint"; in the latter case, though the restraint is ostensibly mechanical, we are really quieting our patient by psychical means. Those who reject with horror all possible means of mechanical restraint will be found, on close inquiry, to be those who entirely fail to recognise this profoundly important distinction. Of course we must not forget that the same means will act on different patients in different ways, so that what is to one patient real mechanical restraint may to another be a psychical calmative. The despised strait-waistcoat itself may often enough be a true psychical calmative.

After discussing certain alternative modes of dealing with excited patients—the continuous bath, the wet-pack, and the isolation-cell—Dr. Walter goes on to describe the new "protective bed" designed by Dr. Wolff (a great improvement upon some which have to a small extent been previously employed), which has recently been extensively utilised in suitable cases at the asylum at Basle. Imagine a child's "crib" magnified to the scale of a full-size hospital bed. The sides are twenty inches high, the head and foot fifty inches high. *Inside* the iron bars forming the sides, head, and foot, is attached a fine-meshed wire netting. Hinged to the top bars of the sides are two additional frameworks of iron bar and wire-netting, thirty inches wide, which can be swung inwards between head and foot, to meet in an inverted **V** and form a roof to the bed. The lever-mechanism which controls the working of these flaps is, of course, outside the foot of the bed, so as to be inaccessible to the patient. The side flaps can be worked independently of each other. They can be turned right down outside, so as to leave an open, low-walled crib; they can be extended vertically upwards, so that the sides of the crib become fifty inches high; they can be fixed leaning towards each other, but with a gap about three inches wide along the "roof," reaching from head to foot; or, finally, can be fixed in contact, so that the roof is entirely shut.

It will be seen that this bed occupies an intermediate position between the isolation cell and the strait-jacket, while avoiding the disadvantages of both. The patient remains in bed, under continual observation in the ward, and in human companionship; thus are at once avoided all the dangers of the isolation cell, and the protective bed should be preferentially employed in all cases in which the isolation cell would otherwise be requisite. Here we have in view, above all, all patients dangerous to others; all "criminal lunatics" and all "insane



A "protective bed" for insane patients in states of excitement.
(Dr. Wolff's.)

TO ILLUSTRATE EPITOME BY DR. EDEN PAUL.

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criminals" in states of maniacal excitement. The protective bed leaves the patient the comparatively free use of his limbs; he cannot, indeed, stand or walk, but he can lie or sit at pleasure, and can move his arms and legs freely. Of course for those who would bite themselves, tear their own flesh, or destroy their own eyes, even this small measure of freedom is impossible; but such cases are extremely rare.

Besides all these patients, dangerous to themselves or others, there are a great many others in every asylum suffering from motor excitability for whom the protective bed is most useful—patients who should be kept in bed, but whom it is difficult or impossible to keep in an ordinary bed, such as katatonic patients with negativism, senile demented, patients in confusional states, etc. With such as these it is often unnecessary to close the bed completely; it will be found sufficient to use it in its form of a high-walled crib.

In actual practice, during two years at the Basle asylum, a number of these beds have been employed, with results which have not disappointed the expectations formed on theoretical grounds. One of the most interesting results of experience in their use has been that—altogether apart from the indication furnished by motor excitability—in patients suffering from anxiety, especially in connection with hallucinations, treatment in the bed has had a calmative effect, because the patient felt relieved from the source of his fears.

In all, in one year the beds were used for 72 patients, the cases being classified as follows: dementia præcox, 36 cases; mania, 6; melancholia, 3; paralytic dementia, 7; senile dementia, 6; alcoholism, 5; epilepsy, 6; hysteria, 3. Of these, 30 were males and 42 females; the average number of patients in the asylum was 290. The number of protective beds in use was at first two, but during the latter half of the year was increased to eight. The number of individual applications of the beds was of course considerably greater than the number of patients, since many of the patients had periodical attacks of motor excitement, but in the quiet intervals these occupied ordinary beds.

Of all the patients for whom the beds were used, three only made serious efforts to get out. Of the others, a comparatively small number, about a third of the women, remained restless and noisy in the bed, and a much smaller proportion of the men were similarly affected. On all the other patients, that is to say on the very large majority, the calmative effect of the "protective bed" was most marked from the beginning of their confinement in its interior, that is, in these cases it was not "mechanical restraint" in the narrower sense of the term; the bed acted as a psychical calmative agent. There was not a single case in which confinement in the bed appeared to be the direct cause of increased excitement and noisiness.

A detailed description of the effect of the treatment is given in a number of cases, and a few of these may be briefly summarised.

F. S—, æt. 21, katatonia. The patient was always put in the bed when his attacks of excitement came on, for he then became extremely violent, screamed, swore, and spat. The quieting effect of the bed was instantaneous. While in his ordinary bed, he was held with difficulty by three attendants, making all the time a horrible noise; on being put into the protective bed he at once lay quite still, and ceased to shout.

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Although the bed was often employed for these attacks, the patient never definitely resisted being put into it.

A general paralytic with hallucinations and maniacal excitement was kept in the bed for four months. As he had then become quieter, and the bed was wanted for another patient, the paralytic was removed, much against his will, to an ordinary bed. When the patient who had dispossessed him was taken out for a few minutes to go to stool, the first patient climbed into the protective bed and closed the roof himself!

Three other patients begged to be put back in the protective bed after having been taken out. One of these was a reputed paralytic dement with stuporose anxiety consequent on hallucinations. In another patient, a paranoidal dement, the calmative effect of the bed was most marked, evidently because when in it he was no longer afraid of the other patients.

An additional advantage of the protective bed is that by its means the advantages of "rest in bed in the open air" can be given even to excited and aggressive patients. In violent cases which for one reason or another have to be treated in private houses, the possibility of using the bed to advantage is also obvious.

[It must not, however, be forgotten that the possibilities of such an appliance being misused are greater in a private house than in a public institution.]

Dr. Walter concludes with the hope that other institutions will give the protective beds a trial, and that by their use the need for the employment of isolation cells and of hypnotics will be diminished. Many, indeed, will be inclined to condemn the protective bed *a priori* as simply a new means of "mechanical restraint," and will regard its use as a revival of antiquated methods long since justly abandoned. He hopes, however, that he has brought forward sufficient theoretical justification for the use of the protective bed, and considers that if it is to be condemned this condemnation must be based on further actual experience of its use.

M. EDEN PAUL.

Asylum for Special Treatment [Das Bewahrungshaus]. (Psych. Neur. Wochens., No. 37, 1908.) Wickel, C.

The building of a special house for the care and treatment of criminal lunatics seem to Dr. Wickel to be the best provision that could be made for dealing with this class. These houses, he says, are becoming more popular, and he names Buch, Langenhorn, and Neustadt i. H. as places where they have been erected.

The morally insane and degenerate are suitable patients.

The points to be observed in building are :

- (1) The house should be secure from access and egress.
- (2) It must be planned in divisions to accommodate small groups of patients likely to live agreeably together.
- (3) One or two small day-rooms, which can be observed from without, are necessary to accommodate about four patients each, during temporary periods of excitement, ill-humour and bodily illness.
- (4) A single room should be provided for each patient.
- (5) Work-rooms or shops are necessary.