REFERENCES.

(1) A. F. Chamberlain.—*The Child.*
(2) Thomson.—*Outlines of Zoology.*
(3) Foster and Shore.—*Physiology.*

TANJONG RAMBUTAN,
March 24th, 1918.

(1) Derived from Gr. *ἔκτρωμα*, abortion, and *μέλος*, limb.

A Record of Admissions to the Mental Section of the Lord Derby War Hospital, Warrington, from June 17th, 1916, to June 16th, 1917.(1)

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DURING the first twelve months of the admission of patients to the mental wards of the Lord Derby War Hospital there were 2,429 admissions and 1,466 discharges. The average number of admissions per month was 202, and the average number of discharges per month was 122. To those who have devoted their time to the admission and discharge of mental cases in large asylums in peace time these numbers alone will convince them that the condition of things must be very different to what they have been accustomed. The enormous amount of work in investigating these cases will also, I am sure, be appreciated, and those who, in addition, have any knowledge of Army Forms and the preparation of these before the final discharge of a patient from hospital will realise the amount of routine necessary before these 1,466 patients could be discharged.

I propose now to review the work done during these twelve months, and in doing so to briefly indicate the nature of the cases coming under the various groups.

Table No. I shows the total admissions to the mental section of the hospital during the period under review, grouped under the sources from which they came. It also shows the discharges under the same headings and their disposal.

Table No. II shows the cases classified according to the official nomenclature under the various forms of mental and nervous disorders represented by these cases.

Before further splitting up these figures into their sub-groups I should mention that on the opening up of the 1,000 beds provided at the Lord Derby War Hospital for the accommodation of mental cases a large amount of the room was very quickly used up by "home troops." By the latter term I mean cases who had not served overseas with an Expeditionary Force and who had shown mental symptoms sooner or later after enlistment. From the admission rate of these cases alone

TABLE I.—*Showing Totals Admitted and Discharged, and How Disposed of.*

France.	Medit.	Mesop.	Egypt.	Salonica.	U. K.	Officers.	Pensioners.	Cameroons.	East Africa.	Total.
					Admitted.					
1811	14	65	141	97	289	1	6	1	4	2429
					Discharged.					
995	10	37	93	66	257	1	4	1	2	1466
					How Disposed of.					
535	6	25	45	38	168	—	4	—	2	823 . Home.
176	1	7	32	21	8	1	—	1	—	247 . Duty.
197	1	3	10	4	9	—	—	—	—	224 . Other hospitals.
12	—	—	—	—	6	—	—	—	—	18 . Died.
75	2	2	6	3	66	—	—	—	—	154 . Sent to asylums.
					Remaining in Hospital (at end of twelve months).					
816	4	28	48	31	32	—	2	—	2	963
					Remaining in Hospital (four months later).					
322	3	15	30	15	2	—	2	—	1	390

it soon became evident that the accommodation would be insufficient, and it became necessary to limit the reception of cases to this hospital to men who had served with an Expeditionary Force. The home troops are now dealt with by other methods. The principle of dealing with them after their admission to this hospital was similar to that

TABLE II.—*Showing Total Admissions and Discharges according to their Mental Disease.*

Form of mental disease.	Totals.	Discharged to civil occupation.	Sent to asylums.	Transferred to other hospitals.	Sent to home duty.	Died.	Still in hospital.	Totals.
Cerebral syphilis	3	1	—	—	—	2	—	3
Epilepsy	20	14	—	—	4	—	2	20
Hysteria	5	3	—	—	2	—	—	5
Somnambulism	1	1	—	—	—	—	—	1
Mental deficiency	338	148	12	18	21	—	139	338
Mania	200	52	8	20	25	5	90	200
Melancholia	448	170	14	29	45	1	189	448
Mental stupor	54	4	2	12	1	—	35	54
Delusional insanity	371	118	19	31	26	1	176	371
Epileptic insanity	21	13	1	1	—	1	5	21
Moral insanity	6	4	—	—	—	—	2	6
Impulsive insanity	5	2	—	1	2	—	—	5
Acute delirium	26	10	—	2	6	—	8	26
Confusional insanity	251	74	3	32	40	2	100	251
Alcoholic insanity	30	12	3	4	2	—	9	30
G. P. I.	112	8	66	5	—	4	29	112
Dementia præcox	200	44	19	22	12	—	103	200
Secondary dementia	48	21	1	8	—	—	18	48
Mental instability	48	26	2	3	7	—	10	48
N. A. D.	25	—	—	17	6	—	2	25
Shell shock	68	26	—	8	21	1	12	68
Neurasthenia	145	71	4	11	27	—	32	145
Concussion of the brain	1	1	—	—	—	—	—	1
Tumour of brain	1	—	—	—	—	1	—	1
Locomotor ataxia	1	—	—	—	—	—	1	1
N. Y. D.	1	—	—	—	—	—	1	1
Totals	2429	823	154	224	247	18	963	2429

adopted by the Army authorities in peace time. They were admitted for the purpose of examination, observation, and diagnosis, and if considered mental cases and were not making rapid improvement they were certified, and sent to the county asylums to which they were chargeable. If, however, they showed signs of improvement they were retained in hospital till they were able to be discharged to the care of their friends. It will be noted below that only eight cases from the home troop group returned to duty. Of these one showed no

https://doi.org/10.1192/bjp.64.266.272 Published online by Cambridge University Press

appreciable mental disease, and the others had been on garrison duty abroad and had had very mild symptoms.

Home Troop Cases.

Table III deals solely with the home troop cases, and I will now proceed to discuss these in detail. Taking the classes represented in the official nomenclature separately, the largest one is that contained in the group of "Mental Defectives."

Table III.—*Showing Total Home Troops, Admissions and Discharges classified according to their Mental Disease.*

Form of mental disease.	Totals.	Discharged to civil occupation.	Sent to asylums.	Transferred to other hospitals.	Sent to home duty.	Died.	Still in hospital.	Totals.
Concussion of brain	1	1	—	—	—	—	—	1
Epilepsy	3	3	—	—	—	—	—	3
Somnambulism	1	1	—	—	—	—	—	1
Neurasthenia	26	21	2	—	2	—	1	26
Mental deficiency	53	42	10	1	—	—	—	53
Mania	13	7	4	1	1	—	—	13
Melancholia	37	22	10	—	4	1	—	37
Epileptic insanity	3	3	—	—	—	—	—	3
Mental stupor	2	1	—	—	—	—	1	2
Delusional insanity	43	27	12	2	—	1	1	43
Moral insanity	1	1	—	—	—	—	—	1
Impulsive insanity	1	1	—	—	—	—	—	1
Acute delirium	1	1	—	—	—	—	—	1
Confusional insanity	11	7	2	1	—	1	—	11
Alcoholic insanity	9	7	2	—	—	—	—	9
G. P. I.	16	2	11	—	—	3	—	16
Dementia præcox	24	12	12	—	—	—	—	24
Secondary dementia	10	7	1	2	—	—	—	10
N. A. D.	1	—	—	—	1	—	—	1
Mental instability	2	2	—	—	—	—	—	2
Totals	258	168	66	7	8	6	3	258

Mental deficiency.—There were 53 admissions (or 20 *per cent.* of home troop admissions). All types of mental deficiency were met with.

Speaking broadly with regard to the cases of this group, it is quite clear that they would be of no use for military purposes, and they are quite unable to come up to the standard required for military discipline. It is clear also that in most cases they have realised their deficiencies, and a great many have felt very acutely their inability to compete with their fellows. This has only aggravated their condition. The question as to whether, if they were collected into a special

https://doi.org/10.1192/bjp.64.266.272 Published online by Cambridge University Press

battalion, and treated on different lines to the ordinary soldier, they could be used for work as labourers under special supervision is a point for consideration. My opinion is that a great deal of useful work might be obtained from them under these conditions if they were properly handled. But under present conditions it is difficult to understand why so many are being enlisted and passed by recruiting medical officers as fit for duty. It is quite impossible to expect them to do the duties they are asked to perform in competition with other men of a much higher mental calibre.

Delusional insanity.—This represents the next largest group under home troop cases. There were 43 cases in all (or 16 *per cent.*).

In many of the cases of this class who were discharged from hospital to their homes the condition had evidently existed prior to enlistment, and although they might easily have been certified on discharge, one felt that they had carried on in civil life previously in spite of their delusions, and that they would probably be still able to do so. Many cases had only been in the Army one or two months prior to admission.

Next for consideration is the *Melancholic Group.* There were 37, or 13 *per cent.* classified as such. An example of this group will now be given.

No. 5399 Pte. K. G—, æt 41. Builder's labourer. Enlisted September 4th, 1916. Father committed suicide. Patient was brought under observation on September 10th, for throwing himself in front of a motor-car. He was in a state of extreme melancholia, and said he was afraid to be left alone. He wrote a letter addressed to his wife saying, "I am dying," and on the envelope was written, "when I am dead send this to my wife." Examination elicited the fact that he had been called up a week previously, and could not settle down to his drills. Became nervous, and imagined that he was going to be shot. His tongue and hands were tremulous, and his general condition one of extreme agitation, but there were no other neurological signs. He looked old for his age, and his arteries were thickened.

On inquiry into his personal history it was ascertained that he had always been a very nervous man, afraid to leave the house alone at night, and would be frightened at a piece of paper in the dark. He had had a "nervous breakdown" six years previously when he was looked after at home. He made a steady improvement under hospital treatment, and was able to be discharged to the care of his wife in November, 1916.

The above condition was no doubt produced by the stress of training in a mentally unstable individual with a hereditary predisposition to mental disease.

The ten cases who were certified were similar cases, in which the stress of military duties reacted adversely on them, and led to suicidal attempts. Alcoholic intemperance was an associated factor in several instances. These cases did not show any signs of rapid improvement,

and therefore had to be certified in accordance with Army Council Instructions.

The neurasthenics figure as the next largest group of cases among the home troops.

There were in all twenty-six cases, one of which still remains in hospital, and is undergoing a course of 606 and mercurial injections. As regards the two sent back to duty, of whom one was an R.A.M.C. orderly belonging to the L.D.W.H., both were mild cases, and were only eleven days in hospital. On the other hand, the two cases certified were very severe cases.

Of the twenty-one cases which were discharged to civil duties the following example will suffice:

No. 194982, Driver H. F—, æt. 36, music-hall manager. Enlisted August, 1916. About October 1st, 1916, whilst training he was kicked in the abdomen by a mule, and since that time he had been in bed. He was admitted to the Hospital on October 10th, 1916, with some bruising of the testicles and pubis and involuntary micturition. Examination by X rays failed to show any fracture. He was in a state of general nervousness and anxiety with regard to his condition, and fearful when questioned about himself. He slept badly, but showed no other mental symptoms. He rapidly regained his self-confidence, however, and his incontinence ceased. On December 28th he was brought before a Medical Board and discharged. This man's family record showed that his grandfather was in an asylum for ten years and died there. His brother was also of a highly nervous disposition, and the patient himself had a nervous breakdown two years previously after producing three revues in the music-halls for the War Relief Fund.

Dementia præcox occupies the fifth highest position and accounts for 24 cases (or 9 *per cent.* of admissions). Of these, 12 were discharged home and 12 were certified. The following cases represent types of this group:

No. 28686, Pte. S. T—, æt. 24. Enlisted June 13th, 1916. Previous occupation a labourer. This patient was admitted to the L.D.W.H. on September 13th, 1916, with the report from his regimental medical officer that he had done no duty since joining. On examination he was very resistive and his expression was sullen. He took no interest in his surroundings and had marked *flexibilitas cerea*, and a tendency to retention of urine. He would not answer questions, and was generally negativistic. On September 20th he assaulted one of the orderlies by striking him. During his stay in hospital he rarely answered questions and only then in monosyllables, and he remained in a state of inertia till he was finally disposed of by certification, and transferred to asylum care on November 14th, 1916. The father of this patient stated that there was no mental trouble on either side of the family, and the first indication they had of anything being the matter with the boy was when he was arrested for being an absentee. He stated, however, that he had always been of a reserved disposition and made no friends in civil life.

No. 6005, Pte. H. J—, æt. 32, fitter by trade. Enlisted March 16th, 1916. Patient was admitted to the Hospital from the detention barracks at Wakefield, where he had been undergoing a sentence of eighty-four days for insubordination. The official records showed that he had two previous periods of detention of twenty-one and fourteen days respectively for a similar offence. His history, obtained from his mother, showed that from November 21st, 1907, to September, 1908, he had been a patient in the Three Counties Asylum, which was corroborated on application to that institution. On admission to hospital from Wakefield he was rambling and inconsequential. He answered questions irrelevantly and took very little notice of his surroundings. He had an imperfect appreciation of time and place and no insight into his condition, and was generally apathetic and uninterested. He had no neurological symptoms and was in a satisfactory bodily condition. The more marked symptoms fairly rapidly cleared up and left him rather dull, stupid, and simple, and he was boarded out of the Army as permanently unfit for service a month after admission and allowed to return home to his friends.

Next come the cases of *general paralysis of the insane*. There were 16 cases (or 6 *per cent.* of the home troop admissions). Of these, 2 were in a very early stage, and their friends undertook full responsibility for their welfare. Eleven were certified for asylum care and 3 died in hospital. The cases were in all respects similar to those met with in civil asylums, and, therefore, no further mention will be made on this group of cases here, and the observations on the Wassermann reaction and other tests will be deferred till dealing with the Expeditionary Force cases.

I will, therefore, proceed to deal with the *cases of mania* as the next largest group. There were 13 admissions, 7 of whom were discharged home, 4 were sent to asylums, 1 was transferred to another hospital, and 1 was considered fit to return to home duty.

The transfer was an Australian, who was boarded and recommended for repatriation. Of the cases who were sent to their homes and civil occupations the following is an example:

No. 34040. Lce.-Corpl. P. A—, æt. 39, farm labourer. Enlisted August, 1915. This case was admitted to the L.D.W.H. on October 13th, 1916, with report that he had been noisy, restless, and excitable. It was ascertained that he had been twice previously in an asylum, the first time from February to May, 1913, and on the second occasion from July to December, 1914. He quickly quietened down after admission and in November, 1916, was discharged home to his wife.

The one patient returned to duty was a case who rapidly regained his mental balance. His age was 41, occupation architect. He had a good character from his Commanding Officer, and was allowed to return to duty on recovery owing to the mildness of the attack and at the patient's expressed desire.

The cases coming under the heading of *confusional insanity* total eleven. The following case was discharged home:

No. R/17280 Rifleman G—, æt. 30, engineer in ship-yard. Enlisted October, 1915. In June, 1916, patient was admitted to hospital. He was sleepless by night and suffering from visual hallucinations, and was generally in a state of mental confusion with a certain amount of clouding of consciousness. His bodily condition was weak, and he had some cough and expectoration. The latter was subsequently examined, but tubercle bacilli were not demonstrated. Physical signs of phthisis were not definite. The condition rapidly improved, and in November, 1916, he was discharged home to the care of his friends. In this case his mother was an extremely nervous woman, one of his maternal aunts and uncles died in an asylum, and his father's brother died of phthisis. The strain of training for military duties had been too much for a subject of this type.

We will now proceed to the cases of *secondary dementia*. There were ten returned as such.

Two of these, one of whom was an Australian and the other a South African, were transferred to other hospitals for purposes of repatriation. I will give one example:

A case taken home by relatives. No. S/956 Pte. S.C—, æt. 53, paper-hanger. Enlisted August 14th, 1915. Was admitted to the L.D.W.H. on October 20th, 1916, with a history that he had returned from India. He had been under observation for mental trouble since May, 1916, and had previously been in the Richmond Asylum, Dublin. He was sent to hospital as a case of mental deficiency, and it was reported that he was unable to do his drill, and could not look after himself or his equipment. It was necessary at once to have him scrubbed as he was in a verminous condition. There was no history of sunstroke, fever, or syphilis. He admitted indulgence in alcohol. On examination, he was disorientated in time and space. His memory was bad for recent and remote events, and his general intelligence of a low order. He was only able to do light work under supervision. Physically, his arteries were markedly tortuous and thickened, but his general condition and nutrition were fairly good. His hearing was defective. Pupils active, deep reflexes increased. The case seemingly was an ordinary case of progressive dementia with no marked characteristics, and, as the patient's father was willing and able to take the responsibility for his welfare, he was allowed to take him home.

Alcoholic insanity will now be considered. There were admitted in all nine cases. For the sake of illustration one example will be given.

No. 20725, Pte. B. R—, æt. 40, labourer. Enlisted April, 1915. He was employed on munitions in September, 1915, after he had completed his preliminary training. In January, 1916, he fell and injured his back. He was ordered to report for an examination but failed to do so, and on a visit being made to his home he was found to be under the influence of drink. He was admitted to the Hospital on January 22nd, in a dull, confused mental state. Did not seem to appreciate his

surroundings, and left to himself he would wander about in an aimless manner. He smelt of drink on admission, and physical examination revealed tremors of his tongue, hands, and facial muscles. His pupils were rather sluggish, but his reflexes did not show any deviation from normal. His Wassermann reaction was negative. The condition rapidly cleared up, and in March he was able to give a coherent account of himself, and was correctly orientated for time and place. He made no complaints, and behaved in every way rationally and sensibly. He was, therefore, discharged home.

In the *epileptic group* there were three cases without any marked mental symptoms, and three cases in which mental symptoms were present. They were all discharged to their homes. The following is an example:

No. 32504, Pte. C. T. J—, æt. 28. Enlisted February, 1916. No regular occupation formerly. At the age of 12 he fell downstairs. Following this fall fits at frequent intervals are said to have developed, He had previously enlisted in the Army, and was discharged in July. 1915, on account of his fits. He re-enlisted early in 1916, and in May of that year went to India. He was in November, 1916, again regarded as unfit for service owing to the increasing frequency of his fits. He had since his enlistment been in trouble for being drunk, using bad language, not complying with an order, and even striking his superior officer. He was sent back to England and admitted to the Lord Derby War Hospital, December 28th, 1916. On admission here he could give but a poor account of himself owing to his slow cerebration. He said his occupation in civil life had been distributing handbills, and that he earned about 14*s*. a week. His memory seemed very defective, and at times he would not answer questions, seeming to realise this defect. He was easily confused. He was unable to give the date or month correctly, said he thought it was November. He had three convulsive seizures whilst under observation, and was dazed all the following day. The condition was typically epileptic, and at times, whilst in hospital, he was inclined to be rather impulsive. His friends expressed a wish to take him home on their responsibility, and this they were allowed to do on January 17th, 1917. The case appeared to be an advanced case of epileptic dementia.

There were two cases recorded as *mental stupor*. One of these was a returned Expeditionary Force soldier doing home duty, who has not recovered sufficiently to justify his discharge, and is therefore still retained in hospital. The other case is as follows:

No. 32818, Air Mechanic L. M—, æt. 21, a turner. Enlisted June 16th, 1916. Patient was admitted to L.D.W.H. January 1st, 1917, with report that in the preceding August he became depressed and worried about being away from his mother. In September he became more depressed and went home on leave. He gradually lapsed into a semi-stuporose condition. On inquiry from his relatives no history of any nervous or mental trouble was admitted to exist in the family, and he was stated to have had no worries or previous nervous

attacks of any kind. On admission he was dull, stupid, and took no interest in anything. Had to be spoon-fed and have everything done for him, and was defective in habits. He rapidly improved, and was able to take an interest in things in an ordinary way. The condition was no doubt brought on by exposing a nervous young lad to the strain of ordinary military service. He was discharged to his civil occupation on January 15th, 1917, appearing to be in his normal state.

Mental instability.—Two cases were diagnosed as mental instability. These were both highly neurotic individuals who had a bad history of mental trouble in the family, and one or more mental breakdowns prior to joining the Army. They were both discharged to their civil occupations on recovery.

Only one case was admitted under each of the following headings:

(1) Concussion of the brain, (2) Somnambulism, (3) Impulsive insanity, (4) Acute delirium, (5) Moral insanity.

There was also one case admitted showing no appreciable mental disease, and he was returned to duty.

In addition to the cases already noted there were admitted three Australians who had only served in England, and also twenty-eight similar cases admitted from the Canadian Forces. These cases were all retained in hospital pending arrangements for repatriation.

The addition of these Colonials, therefore, brings the total number of cases dealt with under the heading of home troops up to 289.

Taking them as a whole, the above cases representing the home troops were a very poor type from the recruiting point of view.

Cases Admitted from the Expeditionary Force in France.

On reviewing the records of the cases admitted to the Mental Section of the Lord Derby War Hospital from the French Expeditionary Force during the twelve months from June 17th, 1916, to June 16th, 1917, I should mention that all cases were kept in hospital under treatment until they had recovered, except in the case of general paralytics, epileptics, and patients who, prior to enlistment, were found to have been in asylums. The cases shown as transfers to other hospitals were Scotch or Irish cases who were transferred to the special hospitals for mental cases at the Murthly War Hospital, near Perth, or the Belfast War Hospital respectively; also a few who were transferred to the County of Middlesex War Hospital, at Napsbury, near St. Albans, at the request of their relatives, in order that they should be nearer their homes. By reference to Table IV it will be seen that there were 1,652 admissions of which 536 were discharged home, 175 returned to duty, 143 were transferred to other hospitals, 75 were certified for asylum care, 11 died, and 712 still remained in hospital.

On looking into the various groups classified in accordance with the

https://doi.org/10.1192/bjp.64.266.272 Published online by Cambridge University Press

official nomenclature, we find that *melancholia* stands out as the largest group, and accounts for 18 *per cent.* of cases from the Western Front. Thirty-one had a comparatively short attack, and it was thought justifiable to give them a trial on "home service," with the understanding that they would not be sent overseas again within twelve

TABLE IV.—*Showing Total Admissions and Discharges of Cases from the French Expeditionary Force classified according to their Mental Disease.*

Form of mental disease.	Totals.	Discharged to civil occupation.	Sent to asylums.	Transferred to other hospitals.	Sent to home duty.	Died.	Still in hospital.	Totals.
Hysteria	4	3	—	—	1	—	—	4
Epilepsy	15	11	—	—	3	—	1	15
Neurasthenia	99	41	2	8	21	—	27	99
Mental deficiency	233	89	2	14	14	—	114	233
Mania	135	37	3	12	16	5	62	135
Melancholia	309	114	4	18	31	—	142	309
Epileptic insanity	11	6	—	1	—	—	4	11
Mental stupor	33	3	2	7	1	—	20	33
Delusional insanity	242	73	5	20	17	—	127	242
Moral insanity	3	2	—	—	—	—	1	3
Impulsive insanity	3	—	—	1	2	—	—	3
Acute delirium	14	6	—	—	1	—	7	14
Confusional insanity	179	60	—	18	29	1	71	179
Alcoholic insanity	19	5	1	4	2	—	7	19
G. P. I.	78	4	48	2	—	1	23	78
Dementia præcox	127	26	6	13	9	—	73	127
Secondary dementia	20	9	—	2	—	—	9	20
N. A. D.	20	—	—	14	4	—	2	20
Mental instability	39	21	2	3	4	—	9	39
Cerebral syphilis	3	1	—	—	—	2	—	3
Tumour of brain	1	—	—	—	—	1	—	1
Shell-shock	63	25	—	6	20	1	11	63
Locomotor ataxia	1	—	—	—	—	—	1	1
N. Y. D.	1	—	—	—	—	—	1	1
Totals	1652	536	75	143	175	11	712	1652

months. Four were found to have been in an asylum prior to their enlistment in the Army, and were, therefore, certified again for asylum care, and eighteen were transferred to other hospitals under the provisions already stated. The trying conditions under which men of the French Expeditionary Force live adequately accounts for the large number of cases of melancholia admitted.

The second largest group of cases amongst the troops in France are those classified as *delusional insanity*. There were 242 admissions under this heading.

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The following case was invalided from the Army, but able to be discharged to his civil employment :

No. 23987, Pte. S. G. W—, æt. 25, iron-moulder. Enlisted September, 1914, into the R.A.M.C., but was discharged after six months for varicocele. Started munition work, and in January, 1916, re-enlisted. Went to France July, 1916, and had some trench experience. Does not remember leaving the trenches, but woke up and "found himself" in some hospital. He then stated that an Indian had given him a yellow bead which had some mysterious properties. That this individual was following him to try and steal his wife and regain possession of the bead. He seemed to hear him outside the door, and during examination thought the Indian might hear what was being said. This was his condition when admitted to the L.D.W.H. on October 17th, 1916, and he was in a state of great agitation about the whole matter, evidently firmly believing in the story, and living in constant dread of the imaginary Indian. This man had been actually associating with Indian troops in or near the trenches in France, and was admitted to a stationary hospital, where he was diagnosed as a case of "shell-shock from mine explosion." The delusional state seems to have followed on his return to consciousness. At night in the dark he could see this Indian's face in front of him, and he was afraid to go to sleep on this account. Orientation for time and place were correct, and his memory was intact, but he had no insight into his condition. There were no neurological signs. This patient made a good readjustment, as his delusions gradually left him. He went out frequently with his wife who came to stay near the hospital, and conducted himself in a rational manner in every way. On June 21st, 1917, he was brought before a Medical Board and was discharged home.

The next largest group is represented by the cases of *mental deficiency*. This is only what one expected to find, knowing that the powers of endurance of these individuals is much below the average, and that they are to be looked upon in every way as "weaklings." I am quite aware that certain cases of mild degrees of mental deficiency have done remarkably well, and even gained promotion in rank in the present war, but they must be looked upon as the exception, and it cannot be too firmly asserted that this class of case is of no value as a recruit under ordinary service conditions. The total number of cases of mental deficiency was 233, or 14 *per cent.* of French Expeditionary Force admissions. Of these only 14 were considered fit to be tried on home service. I will quote an example of a case admitted.

No. 23092, Pte. C. E—, æt. 19, fish hawker. Enlisted April, 1915. Patient was the youngest of a family of fourteen, and his parents recognised that he had always been deficient mentally. He enlisted because he was the only one left at home, his brothers having already joined. He was in France about two months, and appears to have got as far as the trenches, but his regimental medical officer reports him as being extremely timid and quite useless. When he received any order

he appeared dazed, and a night's bombardment completely unnerved him. He was evacuated to England, and admitted to the L.D.W.H. on August 26th, 1916, where he was found to be a typical case of extreme hydrocephalic imbecility, being unable to read or write, and naming "London" as the biggest town in Lancashire after long consideration. Asked for the name of five animals, gave "sparrow," "dog," and "swan." He could only with difficulty repeat the months of the year correctly. The marked features of his physical condition were his stunted growth—5 ft. in height, and his head circumference, which was 23 in. He was sent home to his parents on September 26th, 1916.

The next largest group is the group of *confusional insanities*. There were 179 admitted, or 10 *per cent.* of admissions from France. An example will be briefly described:

No. 64585, Pte. L. J—, æt. 40, grocer's assistant. Enlisted August, 1915. One sister subject to attacks of depression, but has not been in an asylum. Maternal aunt was in an asylum. Patient has always been a healthy and temperate man. Married fourteen years; one boy age 13. Has had a good deal of business worry. Enlisted into the R.A.M.C. and went to France December, 1915. In the early part of June, 1916, patient was overworked, and was often for three nights in succession deprived of rest. On June 22nd he was noted as being depressed. The condition became worse, and he was evacuated to England, and admitted to the L.D.W.H. June 4th, 1916. On examination, the symptoms displayed were frontal headaches, confusion, and delusions, *e.g.*, that men were accusing him of drunkenness, cowardice, and espionage, and that he was going to be shot. These were, no doubt, the result of auditory hallucinations. Inquiry elicited that his health had been gradually failing, that he had become constipated, and could not sleep owing to noises in the head. Disorientation for time and place were present. There was some exaggeration of his tendon reflexes, but no other neurological signs. The case did well with rest and liberal diet. While convalescing he was employed in the hospital stores, and in March, 1917, was brought before a Medical Board and discharged to his civil occupation, having made a good recovery.

The next largest group is represented by the cases of *mania*.

There were 135 admissions, 37 of whom were discharged home, 3 were certified, 5 died, 16 were returned to duty for home service, and 62 still remain in hospital. The remaining 12 were transferred to other hospitals.

We will now proceed to consider the *dementia præcox group*.

There were 127 cases classed as such. The following example will be quoted:

No. 22358, Gnr. L. I—, æt. 20, an iron-worker. Enlisted April, 1915. Father was in an asylum. Patient went to France January, 1916. Was admitted to the L.D.W.H. August 12th, 1916, diagnosed as a hypochondriac. Whilst in France he said he had coughed up blood, and that he had a "choking feeling," that his bowels were seldom

open, and that the medicine given him was poisoning him. On admission, his facial expression was vacant, and at first sight he struck one as being unintelligent, but his degree of education was found to be well up to the average. He, however, made ridiculous remarks to ordinary questions, *e.g.*, asked against whom we were fighting, said "the devil." He had little insight into his condition, and his emotional reaction was very much blunted. Physically, he had rather a poor type of cranial development, and his sensibility to pin pricks was considerably impaired. *Flexibilitas cerea* was well marked, but there were no other neurological signs. Until March, 1917, the condition seemed stationary, and he required to be dressed and undressed, etc. From this time onward, however, he made considerable improvement, and on July 30th, 1917, this was sufficient to enable him to be brought before a Medical Board for discharge to his home.

This case is one of a group which have been returned as dementia præcox, and yet have made good recoveries, and I feel that in certain of them it would be more strictly correct to call them dementia præcox-like types of mental reaction, giving way under the strain of active service conditions. For the cessation of the strain seems to have removed the symptoms, and excellent readjustments have been made in cases in which an unfavourable prognosis would have been given from peace-time experiences.

The next group I shall consider is that of the *neurasthenics*. There were in all 99 cases. By reference to Table IV it will be seen that this group accounts for 6 *per cent.* of admissions from the French Expeditionary Force, and that of these 22 *per cent.* were returned to duty for home service. The following case is an example :

No. 2370, Pte. J. A—, æt. 22, clerk. Enlisted August, 1914. No history of nervous troubles in the family. Had medals for gymnastics, and was an assistant scout master two and a half years. Went to France in February, 1915. After five months' trench experience had a nervous breakdown, and was put on clerical duties. In the early part of 1916 was again sent into the trenches, and towards the end of June, 1916, he was reported strange in his manner and wandering about aimlessly. He was admitted to hospital in France, evacuated to England, and sent to the L.D.W.H. on July 21st, 1916. On admission, he was in an extremely nervous condition, complaining of pain over the precordia, and a difficulty in concentrating his attention on anything. Said his mind was continually wandering on the sights he had seen in the trenches, and he has, on one or two occasions, found himself crying without knowing why. His memory for recent and remote events was quite good. He had no hallucinatory disturbance, and he had good insight and judgment. Tremors were marked in his outstretched hands, and his deep reflexes were all increased. Pupil reactions were normal, and there were no other neurological signs. He rapidly improved, and in November, 1916, was considered fit to be discharged to home duty.

The next largest group is that of the *general paralytics*. There were 78 admissions from France, of which 2 are shown as transferred to other hospitals, 4 were allowed to be taken home by their relatives, 48 were certified for asylum care, 1 died, and 23 still remain in hospital. It will be seen that general paralysis of the insane accounts for 4·7 *per cent.* of the admissions from France, or somewhat less than the percentage in the case of the home troops, which was 6 *per cent.* In Table II it will be seen that the total admissions of this form of mental disease from all sources was 112, or 4·6 *per cent.* (2)

This group occupies the premier position with regard to cases transferred to asylums. Out of the total of 154 cases so transferred up to the end of the first twelve months 66, or 42 *per cent.*, were cases of general paralysis. Lest there should be any doubt as to the accuracy of the diagnosis in these cases the clinical findings have been checked by the Wassermann test in nearly every instance, and I now propose to give the results. (Table V shows these in tabulated form.)

TABLE V.—*Wassermann Results in Cases of G.P.I.*

Blood examinations.—100 cases gave + reaction in 92 and — reaction in 8. Of these:

3 + fluid (bloods converted).
1 (?) fluid.
2 — fluid.
1 — fluid, — globulin, and — cell count.
1 fluid not examined.

Cerebro-spinal fluid.—In 92 cases examined there was + reaction in 84 and — reaction in 8. Of these latter

5 gave + blood reactions.
3 gave − blood reactions.

Globulin test.—In 39 cases examined the reaction was + in 38 and — in 1, corroborating all the other tests.

Cell count.—37 cases showed a leucocytosis out of 39 examined.

In only one case were all the results negative.

Both the blood and cerebro-spinal fluid were examined in most cases, and since February, 1917, the globulin test and cell count have been added. Out of the total of 112 cases the test was done in 100. The blood examination gave a positive result in all except 8. Of these 8 negative blood results, 3 were associated with the positive fluid reaction, and were evidently bloods converted by treatment. In a fourth case the fluid was a doubtful positive. In 1 case the fluid was not examined, and in 2 cases both the blood and fluid were definitely negative. In the remaining case the globulin test was also negative, and there was no leucocytosis.

The cerebro-spinal fluid was examined in 92 cases, and found positive

to the Wassermann reaction in all but 8. The 8 cases in which it was not examined had all positive bloods except 1. Of the 8 negative fluid reactions 5 were associated with positive, and 3 with negative blood reaction.

The globulin test and cell-count were done in 39 cases. The globulin reaction was negative on one occasion, corroborating the findings of the other tests, and positive in the 38 remaining. In one of these the blood was negative, and there was no pleocytosis, but the fluid gave a slight fixation. In another the blood was positive, the fluid gave a slight fixation, but there was no pleocytosis on the first occasion. On repetition of the tests two months later however, all were positive.

With regard to the cell-counts, there was a pleocytosis in all the 39 cases except for the 3 cases just mentioned, 1 of which, on repetition of the test, gave a definitely positive result. Any count over ·10 per c.mm. was looked upon as abnormal, but the average was 60 or over.

I have to thank Capt. W. Parry Morgan, R.A.M.C., the pathologist to this hospital, for the above results. (3)

The following case will serve as an illustration :

No. 20956, Pte. N. G—, æt. 39, blacksmith's assistant. Enlisted into the Army at the age of 19, and served in the South African Campaign in 1901. His medical history sheet shows that a month after his enlistment he contracted a syphilitic sore. In 1904 he went on the Reserve, and was called up again on August 5th, 1914, at the outbreak of the present war, since then his conduct sheet contains numerous entries for "absence without leave," "drunks," and "riotous conduct." There are seven such entries in one period of five months, and six in another similar period. He was wounded by shell at La Bassé in May, 1916, and in October, 1916, he was medically examined at Lucknow, and thought to be suffering from "shell-shock," for which he was evacuated to England. He was eventually admitted to the L.D.W.H. on February 24th, 1917. Here he was found to have all the signs of general paralysis. He had well-marked tremors of his tongue and facial muscles, his speech was unintelligible and inarticulate, and his mental condition was approaching dementia. His deep reflexes were much exaggerated, and his pupils Argyll Robertson in type. His Wassermann test gave a positive reaction in both his blood and cerebrospinal fluid on February 27th. There was a definite pleocytosis, and the globulin test was also positive. The case took the usual course. He showed rapid deterioration mentally and physically, and on March 14th, 1917, died in hospital.

This case shows the date of the primary infection fifteen years before the onset of the symptoms of general paralysis of the insane, as is frequently illustrated in cases where the Army medical history sheet covers this period.

"*Shell-shock*" will now occupy our attention.—There were 63 cases. The following is a typical example :

https://doi.org/10.1192/bjp.64.266.272 Published online by Cambridge University Press

No. 5928, Pte. Y. A—, æt. 42, sawyer. Enlisted August, 1914. Was twenty-four months in France, and his N.C.Os. give him the character of having always been a very smart soldier. Had only one period of three days' leave. Was buried by a shell in July, 1916, being the sole survivor of a blown-up traverse. He was sent down to the base through a Field Ambulance and Clearing Station on July 27th, 1916. On August 1st, 1916, he was reported missing, and on August 3rd found wandering at Amiens. On examination by Col. Myers, R.A.M.C., he was unable to give any account of himself other than his name, and was found to be in a confused semi-stuporose condition due to "shell-shock." On admission to the L.D.W.H. on October 14th, 1916, he was returning to his normal condition. He said he had been blown up and buried, and that when he was taken to hospital he was in a dazed condition. He was suffering from very severe pain in the head, and did not know what he was saying. He conducted himself well on parole for many weeks, and was finally discharged home on April 11th, 1917. (3).

The next largest group is that of the cases of *so-called mental instability*. This is a term that has been used to denote cases which are liable to recurrent attacks, and there were in all 39 recorded as such. Only 4 were returned as fit for service again, even for home duty, and 2 were sent to asylums, having been previously under asylum care.

There were 33 admissions of cases of *mental stupor*, and of these 20 still remain in hospital. Only 1 has been returned to home duty.

There were 20 cases of *secondary dementia*.

Of these, 9 were discharged to their home, 2 were transferred to other hospitals, and 9 still remain in the L.D.W.H. Time and space will not permit of any further consideration of these two groups. The type of cases included in them were in no way different to those so commonly met with in asylum practice.

The N.A.D. cases will, therefore, be next considered.

These cases were admitted as "Mental," but on examination and detention showed no appreciable mental disease. There were in all 20 admissions of this kind from the French Expeditionary Force or 1·2 *per cent.* of admissions. Of this number, 14 are recorded as having been transferred to other hospitals. They were really transferred to the surgical or medical wards in the L.D.W.H. according to their condition, which had been wrongly interpreted as mental. Four were returned to home duty, having nothing the matter with them.

Alcoholic insanity accounts for 19 of the cases from the French Expeditionary Force, or 1·1 *per cent.* of the total admissions. The small percentage of alcoholic cases reflects very great credit on the abstinence of our Army in the field. No case admitted to the L.D.W.H. since its opening seems to have had its origin whilst in war service. Lord Kitchener's advice has evidently not fallen on deaf ears as far as my observations have been able to discover.

The next group is that of the *epileptics*.—There were 26 cases. Fifteen did not show any marked mental symptoms, and 3 of these were given a trial on home duty. One was still in hospital at the end of the year awaiting transfer to an epileptic colony, and the other 11 were discharged to the care of their relatives. Eleven cases were of the nature of epileptic insanities, 4 of whom are still in hospital. One was transferred to another hospital, and 6 recovered sufficiently to justify their discharge to the care of their friends.

In only 2 cases of this group was there any history of "head injury," and in 1 of these the notes show that the fits developed after a fall of timber on the head whilst the patient was in a dug-out. On examination, however, no evidence could be detected of any damage to the skull, and, on further inquiry into the history, attacks of "petit mal" were found to have started seven years previously. Only one case, therefore, appears to be of the nature of a true "traumatic epilepsy," and I will quote this as an illustration.

No. 1775, Sergt. S. J—, æt. 30. Enlisted in November, 1902, and served in South Africa till 1904, when he went to India. Was there till 1909, when he returned to England. Took his discharge with the rank of Corporal in 1913. In August, 1914, he re-enlisted. At Loos, in July, 1916, he was severely wounded in the head by shell, and was unconscious till he arrived at Dover, and from there he was sent to hospital in London. On admission there on August 4th, 1916, he is described as having a healed semi-circular scar nearly the size of the palm of the hand over the posterior part of vertex of skull. He complained a good deal of pain in the back of the head, but had no paralysis. His pupil reactions were normal. Mentally he had a complete retrograde and partial anterograde amnesia. In December, 1916, he attempted to throw himself under a train, and later he was discovered with a razor hidden in his bed. He was eventually admitted to the L.D.W.H. with the report that he had become very depressed, and had expressed the idea that life was not worth living. On admission to this hospital he said he felt quite well, and blamed the nurses in the London Hospital for his transfer, saying that they did not understand him. He admitted that when he arrived in London he could not remember any details of his past life, and that everything seemed blank, but said that since then his memory seems to have come back all right. He did not complain of headache, or giddiness, said he slept well and felt well in every way. He denied having had any liquor since his head injury. On examination of his skull he was found to have a large depression in the upper and back part of his right parietal region extending right up to the vertex. The bone was absent over this area, and pulsation could be plainly felt on palpation. X-ray examination showed a trephine opening about 1¼ in. in diameter. No metal was present. Three months after admission he complained of biting his tongue frequently in his sleep, and a few days later he had a "fit" whilst in the hospital grounds, following which he was in bed for a few days with a definite paresis of his left leg. This passed off and he was

able to be up and about again as usual in a short time, but his mental condition became much more irritable, and he seemed to be distinctly developing the epileptic temperament. He still remains in hospital.

Out of the total number of epileptics admitted to this hospital during the period under review, *viz.*, 41 cases (see Table II), there was only one other case of true "traumatic epilepsy," and this was the case of a Canadian who died in the status epilepticus twelve months after a gun-shot wound of the frontal region from which an abscess had been evacuated by operation. In this connection I should like to mention that out of a consecutive series of over fifty cases of head injury received in action which I have investigated, the two cases here mentioned are the only instances so far of true traumatic epilepsy.

The next group is the one shown as *acute delirium.*

There were 14 cases recorded during the year. These were all of the post-febrile variety, following on some acute illness or suppurating wounds, and the following is an example.

No. 15/37904, Pte. C. T—, æt. 42. Enlisted April, 1916. A labourer. Went to France in July, 1916. Patient was admitted to hospital about February 10th, 1917, with pneumonia following an attack of bronchitis ten days previously. On February 17th his temperature reached 104·8° F., and he became acutely excited, rambling in his conversation, and quite irresponsible. His temperature came down by crisis on February 20th, and he was evacuated to England and admitted to the L.D.W.H. on March 2nd. Here he was found to be in a very weak, highly nervous condition, but his acute excitement had considerably quieted down. He could not remember anything of his acute attack except that he seemed "to lose his head." He progressed satisfactorily, and at the end of the year (June 16th, 1917), although still remaining in hospital, he was convalescent and awaiting his discharge.

Under the heading of *hysteria* there were grouped 4 cases. Three of these were discharged from the Army to their civil occupations, and one was returned to duty on home service.

The following illustration will suffice:

No. 9398, Pte. J. A—, æt. 21. A butcher. Enlisted September 13th, 1913. Went to France in August, 1914. Wounded in the shin in September, 1914. On December 15th, 1916, he stuck in the mud on the Somme for over twenty-four hours, and was quite exhausted when he was pulled out. On arrival at hospital he found he had lost the use of his legs. He improved with rest, and was able to get about a little after a week or two, but on January 2nd again became paralysed in the legs. He was evacuated to England on January 12th, 1917, and admitted to the L.D.W.H. Here he complained of pains in the back and legs, and great weakness in the grip of both hands. He also had severe attacks of headache at times. On February 18th he had a fit of an hystero-epileptic nature, during which he threw himself about and attempted to bite his arms. In March he was still in bed, and when

placed on his feet he at first slipped down and made no attempt to walk, but with the support of two orderlies he could walk quite well. There was no wasting of muscles and no tenderness in the limbs. He continued to have hysterical fits, chiefly at night, up to the end of March, but since then has had none. On May 25th he had completely recovered, and was discharged to his civil occupation.

There were 3 cases returned as "*Moral Insanity*," and of these 2 were discharged to the care of their friends, and 1 still remains in hospital. In one of these the moral side of his character seems to have been definitely affected since a gunshot wound of his head, received whilst sniping in a shell-hole near Guillemont in September, 1916. He was a boy æt. 19, who was unreliable in his statements and told lies in the most barefaced manner possible, which was stated by his father and schoolmaster to be a complete change from his former disposition.

For the other two cases there was a definite history of insubordination and moral deficiency prior to enlistment. One had been six years in a reformatory for larceny, and the other sent to a truant school for absenting himself from school as a boy. Both had run away from home as boys, had been discharged from the Army and re-enlisted, and had been arrested for desertion in France. One also effected his escape from this hospital. In one of these cases the family history was not known, and in the other the patient's maternal aunt was in an asylum. Both had degenerate faces, with coarse features and poor cranial developments, but both described themselves as feeling perfectly well; were alert and replied smartly to questions, and showed a fair amount of school knowledge. They were extremely plausible, and rarely at a loss to explain anything away which was contrary to custom. They seemed proud of their past criminal records, and at the same time professed good resolutions for the future. One boasted that a special Salvation Army pamphlet had been written about him, and was anxious that the doctor should read this. Neither of the cases seemed able to discriminate adequately between right and wrong, and could not be trusted in anything they did or said. It was certainly a wise proceeding to evacuate these cases from the Front, as it is impossible to estimate what mischief they might have caused. One had already obtained the distinction of throwing a bomb at an officer, and gave as an excuse that the officer swore at him.

There were 3 cases diagnosed as "*Impulsive Insanity*," and of these 2 were returned to duty for home service, and the other was transferred to another hospital. The following is a brief description of these cases:

One patient was in hospital suffering from nephritis, and because he was kept on milk and not allowed to have any ordinary diet he threatened to commit suicide, became emotional, refused all nourishment, and generally abused the medical and nursing professions.

The second case was on his way up to the Front, and entered the wrong train. On being ordered out of the railway carriage by an officer he threatened to shoot him. He was disarmed and sent to hospital, and became very excitable and emotional about being kept from joining his unit. He quickly quieted down again.

The other case had been gambling and lost his money, and as a result had attempted to shoot himself with a revolver. The kick averted the barrel, and the shot only hit his cap. He ascribed his depression to the loss of his money, and said that the thought of suicide came as a sudden impulse. He showed no further signs of loss of control whilst under observation and has returned to duty.

There were 3 cases of cerebral syphilis, of which 1 was discharged to his civil occupation, and 2 died. An example of the latter is as follows:

No. 503467, Pte. H. J—, æt. 28. Admitted to the L.D.W.H. August 31st, 1916, in an exhausted debilitated condition, lying motionless in bed, and requiring spoon-feeding and every attention. Had some left facial and upper arm paresis, and a left external rectus paralysis, but seemed to be able to move the left leg fairly well. Pupils equal, and reacted to light. Both discs well defined and of normal colour. Surrounding fundi normal. Mentally he was disorientated in time and space, and was in a generally confused state. Said he had been sent to hospital in France because a pole hit him on the head. Now asked permission to go to his depôt for money to buy some fruit, which he said would make him feel "good," and he was quite sure he could make the journey, although his bedridden condition was pointed out to him. His Wassermann reaction in the blood and cerebro-spinal fluid was positive. He was put on mercurial treatment, and on October 13th had a generalised convulsion with stertorous breathing and unconsciousness, lasting about ten minutes. This was repeated on the 23rd inst., and the patient was then obviously going down hill very rapidly. He gradually became weaker, and on December 10th died.

There was only one case of *brain tumour*, and this patient died in hospital when the diagnosis was confirmed at *post-mortem*, and the tumour found in the left temporo-sphenoidal region.

There was one case of *locomotor ataxia*, who had been six months in France, and returned to England with some memory defect and general mental deterioration.

The only remaining case to mention is that of a man returned from France as "shell-shock," the confirmation of which has not yet been established, and is therefore returned as not yet diagnosed (N. Y. D.).

The above groups account for the 1,652 cases admitted from the French Expeditionary Force, but there were in addition the following admissions from other sources:

The troops from Mediterranean, 14; Mesopotamia, 63; Egypt, 141; Salonica, 97; East Africa, 4; Cameroons, 1; Pensioners, 6; Officers, 1.

The latter was taken as an emergency case owing to lack of accommodation elsewhere.

The above admissions, added to those from the French Expeditionary Force, brings the grand total of admissions from overseas forces during the year to 2,140.

In comparing the various forms of mental diseases in the different expeditionary forces as just enumerated, it is found that the highest percentage of confusional insanity occurred in the cases from Salonica and France. There were 16 *per cent.* from Salonica, 10 *per cent.* from France, 7 *per cent.* from Mesopotamia, and 6 *per cent.* from Egypt. The cases from Salonica were all of the nature of exhaustion psychosis following attacks of dysentery and malaria, the latter being the more common.

Several of these were of the polyneurotic variety, exhibiting Korssakow's syndrome. The comparatively high percentage from the French Front is accounted for by the inclusion of cases which were probably true shell-shock. Owing to the absence of any definite history of shell-shock accompanying them from overseas in their records, however, it was not considered justifiable to diagnose them as such, and they were therefore returned as "confusional insanities."

Summary and Conclusions.

Admissions.—The total number of admissions from overseas was 2,140. This number, added to the total admissions figuring as "home troops," which has been shown to be 289, brings the full number of patients admitted to the mental division of this hospital for the first twelve months up to 2,429. Of this number 1,466, or 60 *per cent.*, were discharged, and 963, or 40 *per cent.*, remained in hospital at the end of the twelve months. This latter figure will be seen to be reduced to 390 four months later by referring to the last column of Table 1 (5).

Discharges.—Out of the 1,466 discharges 247, or 16·9 *per cent.*, were thought fit to return to duty again for home service. A circular letter was addressed to the friends of 170 of these cases some months after their discharge, inquiring into their progress. Replies were received from 123, and the information obtained showed that 68, or 55 *per cent.*, were keeping fit and well, and of this number 28 had already returned to France on active service. In 27 instances the reply showed that the men were still on duty, but in an unstable condition, and 19 were shown to be in hospital again. In 10 instances the reply was to the effect that the men had been discharged the service, and 5 replied that they could give no information.

The number of cases discharged from the hospital by a Medical Board to their civil occupations was 823, or 56 *per cent.* of the

total. Inquiries made from the other mental sections in England and Scotland showed that only 4 had been admitted there who had been discharged from this hospital, and the number of re-admissions to this hospital only amounts to 5. It was found necessary to certify 154 cases (10 *per cent.* of discharges, or 6 *per cent.* of the total admissions), and nearly half of these have been shown to be cases of general paralysis of the insane. The remainder had been in asylums prior to enlistment, or were cases associated with epilepsy.

Treatment.—The usual asylum treatment was adopted as a matter of routine, but the relatively larger proportion of medical staff to patients, and the greater facility for massage and any specialised treatment than is customary in present-day asylum practice, I feel sure contributed largely to the high percentage of recoveries. Much more individual care and attention was possible on the part of the medical staff. Each medical officer had his own room for private examination of cases, thereby assuring the patient that his statements would be treated in confidence. During the interview explanations could be given to each case as to the nature of his illness, and he could be shown how to regain his normal condition. Confidence inspired like this has proved a great help in early cases. Beds in the open air were provided for those to whom it was thought rest in bed would be beneficial. As soon as convalescence was established, patients were recommended for parole, and allowed to go about by themselves in the hospital grounds and into the neighbouring town, provided they returned to hospital at the specified time. This privilege was much appreciated, and very rarely abused. The average number daily having this freedom from lock and key was 150.

Occupation.—Employment on the farm and in the gardens of the hospital has been encouraged for suitable cases. About 80 to 100 patients daily have been so employed. Advantage has also been taken of the workshops belonging to the hospital, and any man having a special trade was given facilities for working at this during his period of convalescence, thus preparing himself for the work he was going to take up again in civil life on his discharge from the Army. This has helped in a large measure to establish the man's self-confidence, but I feel I should also add that the patient's convalescence must be first firmly established, otherwise it is sure to prove a failure, and the end result will be a confirmation to the patient of his disability and a protraction of the case.

Wassermann tests.—There were 269 cases so examined between September, 1916 (when this was first started at the Lord Derby War Hospital), and June 16th, 1917. Out of this number 209 cases had the examination done both in the blood and cerebro-spinal fluid, but in 60 the blood only was examined.

Conclusions.—The cases received were all in the early stages of mental disorder, with the exception of the mental defectives, and even in these cases many of them showed acute symptoms superimposed on the congenital defect. A fair comparison, therefore, of the percentages of recoveries with those of civil asylum statistics cannot be made. Further, many of the cases admitted would not have been certified for asylums in civil life, and this seems to be supported by the low percentage of general paralytics in comparison with the figures available from the report of the Commissioners in Lunacy. Many of the neurasthenics and shell-shock cases would not have been included in the uncertifiable, but it will also be seen that, strictly speaking, the only cases which did not show any mental symptoms amounted to 25, or only 1 *per cent.* of the admissions. Experience gained amongst this large number of uncertified mental cases in the early stages of the disorder convinces me that the treatment of such conditions in receiving hospitals other than asylums would, if properly and carefully organised, save a large number of cases from the stigma of certification. (6) The first essential would be an adequate medical staff to allow individual attention to every case. It has been a striking feature of the wards in the mental section of this hospital since its opening that where this was given the most contented patients were to be found. The mere visit of the medical officer to the wards and the official "walk round" is not the way to help any cases suffering from mental disorder. It is necessary to obtain a thorough insight into the nature of each case by confidential talks with the patient, and to find out the particular circumstances which have given rise to the symptoms presented. An explanation of the same to the patient will help him to gain an insight into his condition, and it is idle to pretend that such a procedure is unnecessary, and to urge, in extenuation of the omission to search for causes, that some cases recover under "quiet" and "rest."

I have to express my thanks to my colleague, Lieut. E. G. Grove, R.A.M.C., for much time spent in reviewing the manuscript of this article, and for many valuable suggestions and alterations. My thanks are also due to Lieut.-Col. Simpson, R.A.M.C., Officer Commanding the Lord Derby War Hospital, and Col. Aldren Turner, C.B., A.M.S., Consulting Neurologist to the War Office, for giving me facilities for compiling these statistics.

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Elliot Smith, Prof.—"Shock and the Soldier," *Lancet*, April 15th and 22nd, 1916.

Hotchkis, Major, R.A.M.C.—"A War Hospital for Mental Invalids," *Journal of Mental Science*, April, 1917.

Norman, Capt. H. J., R.A.M.C.—"Stress of Campaign," *Review of Neurology and Psychiatry*, August–September, 1917.

(1) Paper read at Spring Meeting of the Medico-Psychological Association (Northern and Midland Division) at the County Asylum, Rainhill, April 18th, 1918.—(2) The Commissioners in Lunacy's Report for the year 1913, Table XIX shows that of the total male admissions into all institutions for lunatics during the five years 1907–11, general paralysis accounts for 12 *per cent.*—(3) Flemming's method was used as a control to the findings obtained by the original Wassermann method, modified by the use of human blood instead of that of the sheep and guinea-pig.—(4) Further observations on cases associated with "shell shock" have been recorded in another article, see *B. M. J.*, April 13th, 1918.—(5) Of this number only 101 patients had been resident twelve months.—(6) See letter to the *Lancet* of November 24th, 1917, by Sir Robert Armstrong Jones, Major, R.A.M.C.

Clinical Notes and Cases.

Clinical Observations on the Various States of Excitement in Insanity.(1) By R. M. Toledo, M.D., Assistant Physician, Government Lunatic Asylum, Malta.

Mr. President and Gentlemen,—Of the many hundreds of insane, remitted annually to mental hospitals, the majority are admitted in an "excited state." They all exhibit in common several of the characteristic signs of what is known as "mania," yet very few of them are really "maniacals."

My object this afternoon is to point out to you certain signs and symptoms which may help to decide, as early as possible, of the true nature of insanity from which a patient, brought to us in an excited condition, is suffering from. It is evident how this is important for the proper treatment of the patient himself and for the protection of others.

Very often a patient is received exhibiting restlessness, resistiveness, and incoherence of speech. He may answer to your questions rationally or perhaps not. He generally succeeds to give you his name correctly and those of his parents or children.

Another patient, "excited" as the first one, fails altogether to answer you; he is unable to tell you his name or from where he comes. He does not even take any notice of you and of his surroundings, he utters