Conclusion.

From such a small number of cases it is impossible to consider any conclusions as final, but one is impressed by the successful issue of as many as 10 out of 36 (27.7 per cent.), especially as four of the men are earning their living, and all the women useful in their homes. The chief points gained from a consideration of these 36 cases are:

- (1) That inoculation by malaria (*Plasmodium vivax*) at present seems a far more hopeful method of treatment than any other.
- (2) The age of the patient does not seem to influence the result of the treatment.
- (3) That a long-standing history of syphilis does not necessarily prejudice the result.
- (4) The shorter the period of pathological mental change before treatment, the better the prognosis.
- (5) The type or severity of the mental symptoms does not seem to affect the result.
- (6) The neurological signs do not change after treatment, even if the patient recovers mentally.
- (7) It is not necessary for the attack of malarial fever to be severe: a mild prolonged attack was effective in one case.
- (8) The strain at Hanwell was controlled by quinine in constantly repeated small doses for two months, and no febrile relapses occurred.
- (9) No difference could be detected in the course of the malaria whether inoculated by syringe or by mosquito bite.

The Hospital is very grateful to Lieut.-Col. S. P. James for his advice, and the interest he has displayed in the cases he supervised at Hanwell, and to the Director of the Pathological Laboratory, Maudsley Hospital, who supervised the Wassermann reaction tests.

These notes are published by permission of Dr. A. W. Daniel, the Medical Superintendent of the Hospital.

A Problem in Diagnosis. By Alan F. Grimbly, M.A., M.D., D.P.M., Second Assistant Medical Officer, Severalls Mental Hospital, Colchester.

On not too infrequent occasions one may encounter an instance of a disordered mind that baffles the combined efforts of the most astute diagnosticians, but the difficulties presented by the case described appear to be of unique rarity.

A.B—had served in the Army abroad during the Great War, and had apparently attained a high degree of proficiency and the rank of company sergeant-major. He was stated to have contracted dysentery at the Dardanelles, and with reference to his habitual disposition, he had been "peaceful and good-tempered normally, but high-spirited." He was sent to a military hospital in England early in 1917 and shortly afterwards transferred to another military hospital, where he remained for ten months. He was subsequently certified as being of unsound mind—"mentally enfeebled, dull, unoccupied and taciturn"—and he was admitted to Severalls Mental Hospital on February 11, 1918. Apart from the foregoing we have no evidence of the nature of the early manifestations of the psychosis. His age on admission was $40\frac{4}{12}$ years.

His mental state on admission was typical of katatonia. He was negativistic, mute, and sat always in one fixed position with his head down between his knees, holding on firmly to the seat of his chair. His muscles were taut, his hands were clenched, his toes flexed, and his insteps arched; his deep reflexes greatly increased. His face was screwed up and contorted, and his eyes were firmly closed. His face and his extremities showed a tendency to cyanosis, but were rarely cold. He resisted all attempts at passive movement. He walked with a shuffling gait, and held himself in a constrained attitude. When he exercised in the gardens his beat never varied, and he would continue to walk until led to a seat. Only on one or two occasions was he heard to speak, as, for instance, when he stumbled over some other patient and gave vent to a volley of oaths. The patient would feed himself when the food was placed in front of him; his habits were never defective.

This state of mind remained unchanged during the ensuing three years. Then, at a quarter to one in the morning of January 11, 1921, the patient awoke, complained of giddiness, and asked to see a medical officer, which request was immediately granted. He stated that he had dreamed that he was in a double bed at Acle with Sergeant A—. He noticed that an opposite bed, usually occupied by a batman, was vacant, and he called out in his dream, "Where's A—?" He then seemed to wake up.

On the following day he appeared to be perfectly normal. There was no apparent defect in his reasoning powers or judgment, and his remote memory was accurate; indeed, he showed a hypermnesia for events that had occurred during his service abroad and at home. But he exhibited a complete amnesia for the period between March, 1917, and January, 1921. His general intelligence was of a high order, and he was possessed of a fine sense of humour, referring to himself, when he had grasped the salient features of his case, as Rip van Winkle. On the same day he wrote the following letter to his brother:

January 11, 1921.

DEAR G——I am writing this note after it appears three years' oblivion. I compare the property of the proper

DEAR G—,—I am writing this note after, it appears, three years' oblivion. I can recollect things from the beginning of the war as far as March, 1917; the remainder is a blank. I awoke last night and discovered I was a patient in the above institution, where, strangely enough, we were billeted in 1915. I little thought then that I should return here to be taken care of for that long period. The attendants tell me I have not spoken a word since being here until last night, when I came to myself. I am thankful to be able to say that I am now quite compos mentis, and should be glad if you could arrange to take me out, so that I can resume duty in the outside world. Just a rough outline of my doings since we left England on July 25, 1915.

We embarked on the transport "S——" at D—— on 23.vii.1915, and sailed on the night of the 25th under sealed orders, and reached A—— by a circuitous route (on account of submarines), fourteen days later. We sailed again the next day and landed at Suvla Bay, Gallipoli, on Wednesday, August 11, and got under fire on Anafarta Plain on the 13th, where we received a rather warm welcome. Next day we started off on a forced march to relieve some of the —— Regt., who had been doing trench duty for some weeks, and rapid fire was the order of the day, during which march I was knocked over by a shell, but was fortunate to escape with a severe bruise only. We remained in the trenches a few days, lost our adjutant and several other officers and men, and were relieved by the —— Regt., on which we proceeded upon the razor-back known as "Walter's Ridge," and reinforced the —— there. Here we lost our C.O., wounded, M.O. Lieut. ——, killed, and about 12 N.C.O.'s and men wounded. Four days later another

forced night march along the beach of Suvla Bay and W. Beach, where we were for duty unloading lighters at the Engineers' Dump. While here the moved up and unfortunately lost forty men by one shell, 8 killed and 32 wounded; two days there and then off to Australian Gully, where we relieved the — and occupied the trenches until December 4, 1915, when we evacuated on the Trans-Atlantic cattle-boat "E——" and proceeded to Mudros, one of the Grecian Islands. After a week there we embarked on the transport "Msailed for Alexandria, from which port we marched to Mex Camp, about three miles. After spending Xmas week there we were sent up on the line of communication-Alexandria to El Debbar, I myself being at No. 14 Post, "Ikingi-Mariut" next move to Shallufar on the Suez Canal, and from thence to outlaying detached posts on the desert, vix., "Oldham," "Wigan," "Salford," named after north country towns by, I believe, the Manchesters. After about 10 months of desert trench digging and route marching in 120° heat, I am sorry to say I began to crack up. I hung on until I was ordered to go sick, and was then sent in to the —— Ambulance with several others; from there to a Convalescent Depot at Boulac, and thence to England vid H.S. "V——" to Sicily, then by the H.S. "A——" to Southampton. We then proceeded to Sheffield by rail, arriving at the -Hospital by the end of December, 1916. I was sent on sick leave about December 29 for eight days, and then reported to the reserve battalion at Wendover. I was taken queer while there, partly, I have no doubt, due to the extreme change of climate, and was then ordered to Aylesbury for a week, and to proceed home for another eight days; then I hoped to rejoin my regiment in Egypt. I entered a motor ambulance in the middle of March, 1917, and to the best of my knowledge had a smash-up. From that time until January, 1921, is absolutely a blank. That is my history from July, 1915, and I hope that you will endeavour to obtain my release from this institution as soon as possible. I am addressing this to your last known place of residence and trust it will reach you safely. Please give my best wishes to all at home.

Hoping to hear from you shortly,

I remain,

Your affectionate brother,

He remained in an apparently normal state of mind during the following day, but on the third day he gradually became clouded in consciousness, less accessible in progressive degrees, and ultimately reverted completely to his former stuporose condition less than seventy-two hours after his dramatic dream-entry into the normal life.

The case has been recorded up to this point by Dr. R. C. Turnbull, Medical Superintendent of the hospital (1), and it has been necessary to quote the above letter in full, in order to compare this stage with subsequent developments, and to complete the clinical picture.

At twenty minutes past one in the morning of July 13, 1923, after a period of stupor lasting two and a half years, the patient woke again.

The following is a précis of my notes made at the time:

Patient awoke at 1.20 a.m. to-day. He got out of bed and asked the attendant for a glass of water. He stated that the date was "January 12, 1921, Wednesday," and that "yesterday, January 11, 1921," he had written to his brother in Lowestoft, asking to be removed from this institution. He orientates correctly for his surroundings, and states that he had an interview with the Medical Superintendent "a few hours ago—yesterday" (11.i.21). 7.30 a.m.—He tells me that it seems to him that he spent yesterday in this ward talking to the other patients, but that he has now been convinced by documents that he has seen bearing the date, 13.vii.23, that he must have been asleep for over two years. It appears to him that he went to bed in this ward at 7.15 last night (11.i.21). He recollects waking up "on Monday night, 10.i.21," in a sort of dream. Seeing an empty bed close

to him, he called out in the belief that he was in an old billet in Acle, Norfolk, that he left in 1915. He remembers writing to his brother "yesterday," and is anxious to know if the letter has been posted. He tells me that he can remember nothing that has happened—

(a) Between the time of "a kind of crash" in a motor ambulance in the middle of March, 1917, and waking up in this institution on "Monday night, January 10, 1921."

(b) Between going to bed at 7.15 "last night" in this ward—i.e., on

11.1.21, and waking up at 1.20 a.m. this morning (13.vii.23).

His memory for events that occurred during his Army career is clear and

detailed.

9.30 a.m.—Patient remains clear in consciousness and rational in his conduct.
He has taken a good breakfast, and is at present writing a full account of himself to his brother.

In the course of the day he wrote the following letter, which invites careful comparison with the homologous letter of January 11, 1921:

July 13, 1923.

DEAR G—,—I regret to have to tell you, that since my last letter, dated Ir.i.21, I have had a relapse lasting until the present date. As I have up to now no definite knowledge as to whether you received it or not, I will endeavour to repeat it.

It contained an abridged account of my doings from the commencement of the war. After training in England for about twelve months, we embarked on the troopship "S——," and sailed under sealed orders, reaching Alexandria about August 7. We remained there until the following day and then sailed for Gallipoli, arriving there and landing on August 11, 1915. On the 13th we came in touch with the Turkish forces, and after a considerable engagement were ordered to retire. We lost several officers and men during this movement, the enemy shelling us from a flank; evidently they had the ground properly arranged. I had a narrow escape from a shell that burst immediately over my head, but fortunately it blew forward and I got off by being knocked down by the concussion. Next day we advanced up again and a shell came over and burst over our heads, killing one man, wounding another, and a bit caught me on the right brace of my equipment, and sent me spinning-on this occasion I escaped with a bruise which extended from my collar-bone to navel, and about three inches wide, and which showed up in all the colours of the rainbow. We pushed forward for the purpose of -, who had been holding their trenches for a considerable period. relieving the -During this advance we had to cross some well-ranged ploughed fields, where it fairly rained lead, and we lost several other officers and men. After being there for a few days we were relieved by the —— and made a move up on to a ridge known as the "razor-back," where we reinforced a detachment of the proceeded to march round Suvla Bay to a new position, and while there my platoon had a narrow escape.

We had been ordered on fatigue work and left our equipment on the shore close under a low cliff, and while away a company of the —— Battalion came up and occupied our place, in fact, on top of our goods. During the early morning the enemy sent over a large shell which burst right on top of them with a total of forty casualties, 8 killed, 32 wounded. A few days later we moved off and relieved the ——, having the —— on our left and the —— and —— on our right. We remained there until the evacuation and left on December 4-5, on the Trans-Atlantic cattle-boat "E-," arriving at Mudros, one of the Grecian Islands, a few days later. After about a week there we left for Egypt on the London boat "M-." From there we proceeded to Shallufar on the Suez Canal, and thence on to the line of communication Alexandria to El Debbar, my place being at a place called Ikingi-Mariut, about the centre of the line. We relieved the ——, who had been there several months. The fortification, however, did not suit our Brigadier, who soon got us to work on general alterations. This work, including day and night patrols, kept us fully occupied from 3.30 a.m. until we turned in about 11 p.m. After a few weeks' stay we left for the Pyramids training camp, and from thence proceeded to the outlaying posts on the desert about nine miles out from the canal. Here we relieved the --- Regt., who had named the posts after the north country towns-Salford, Wigan, Oldham, etc. On these posts all material, rations, etc., were brought by camel convoy, water being stored in long iron drums sunk in the sand. The heat was great, registering from 112° to 120° in the tents. From these

posts long marches were made for the purpose of locating the enemy. It was on one of these that I, unfortunately, broke down and was sent to El Shatt, where the job was guarding a large Prisoners of War camp. This only lasted a few weeks, and we returned to the Battalion and resumed the desert marching, which, with the aid of a heat wave, laid out pro tem half the troops, and sent about a dozen, including myself, back into hospital. I was passed on to a convalescent depot at Boulac, Egypt, and from there sent to the —— Hospital at Sheffield, home for eight days' leave, and then to Wendover Camp, Bucks, where I cracked up, and the medical officer sent me to hospital for a few days' treatment, and then to proceed home for another leave.

But on the way in a motor ambulance there must have been a smash, for I came to one night in bed at this institution about three years later. Last night, 13.vii.23, about 1.20, I became conscious, and with the impression that the date was 12.i.21, as in the first instance. This makes a total of five years and six months I have been here. I should be very glad if you could arrange to call here and see me, and also to arrange to take me out, as I am given to understand that you are the one person to accomplish this, being my next of kin. The authorities here tell me that I have been helpless during my spell of oblivion, but in no wise showing any signs of violence. By a coincidence I was billeted at this institution during the latter part of training in England—viz., early in 1915.

Will you please communicate with me at the earliest possible moment, as you can understand my present position is not exactly enviable. Hoping that you are quite well, I remain,

Your affectionate brother,

Α.

P.S.—Mr. C—, the ward charge attendant, informs me that my nephew, who from description must be H—, called some time ago to see me, but failed to make any impression. This must have been during 1920. I sincerely hope this present rally will be permanent.

The patient remained in a lucid and rational state of mind for the ensuing twenty-four hours, but between the 14th and the 18th of July he again gradually relapsed into a stuporose mental state, resembling his former phases, but not so profound in degree. From then until the present time he has shown no alteration in his symptoms. He sits on a settee in the ward in a rigid, semi-flexed condition, unoccupied, and quite indifferent to events in his environment. He is able to wash and dress himself and attend to the calls of nature. He takes exercise out-of-doors, and feeds himself at meal-times. On interrogation it is impossible to elicit any interpretable form of reply; he mutters unintelligibly, frowns, grimaces, and exhibits divers facial mannerisms. He has not spoken since July 18, 1923.

From the view that this case is extraordinary in the strictly literal sense, doubtless few will dissent. What will ensue in future months or years? From the preceding record it seems justifiable to predict that the patient will again awake some day as an outwardly rational, oriented being, but who will describe the events of July 13, 1923, as those of yesterday.

The chief points of interest in the case appear to be as follows:

(a) The patient was 39 years old when first certified of unsound mind. (b) He had previously been a well-educated, intelligent man. (c) The onset of the psychosis was preceded by an initial shock—a vague flash or explosion being the last recollected point. (d) The katatonic nature of the symptoms, apart from the short periods of remission. (e) The remote hypermnesia and complete recent amnesia exhibited during his lucid intervals. (f) The dream nature of the first awakening.

The question of the diagnosis is obviously difficult.

- (1) Superficially one would have little hesitation in classing the patient under the heading of katatonia. But there are many points in the history that seem fairly definitely to contra-indicate dementia præcox.
- (2) Is the patient living in a prolonged state of epileptic automatism? The absolute amnesia of the waking periods prompts the thought, but there is little else in the evidence to justify the assumption of epilepsy.
- (3) From a comprehensive survey of the history it appears that long ago, in March, 1917, the patient encountered some disturbing, explosive force that induced a disintegration of the personality, followed by a dissociation of psychic activity—a dissociation in series rather than in parallel.

Whatever may be the true diagnosis, the case appears to be of sufficient interest to warrant setting forth in some detail, and I wish to express my indebtedness to Dr. Turnbull for permission to quote his article and to publish the further notes of this case.

- (1) Turnbull, R. C., "A Case of Katatonia," Journal of Neurology and Psychopathology.
- A Case of Cerebral Hemiatrophy (?) or Unilateral Hydrocephalus (?). By Fred Wilson, M.B., Ch.B.Aberd., Assistant Medical Superintendent, Central Mental Hospital, Tanjong Rambutan, Federated Malay States.

A. M—, a Chinese girl, æt. 22, was admitted to the Central Mental Hospital on September 14, 1923. She was transferred from another hospital, in which she had been for one year. She was there diagnosed as an imbecile, and was reported as having frequent epileptic seizures and impulsive outbursts.

On admission she was a slightly-built girl, who looked about 14 years old. She was not fully developed sexually, and never menstruated while in hospital. She had spastic paralysis of the whole of the right side of the body. Right facial paralysis and right homonymous hemianopia were noted. The right upper extremity showed advanced wasting and contractures, and the right lower extremity showed the same to a less degree. She was able to walk with difficulty, dragging the right foot along the ground. She was unable to speak, but could make a few inarticulate sounds. She understood simple questions and commands, could feed herself and was clean in habits.

Soon after admission she had an attack of dysentery, and later she developed pulmonary tuberculosis. She became progressively weaker; the contractures and wasting of the lower extremity became more marked; she was wet and dirty in habits, and mental deterioration became more profound. She had no seizures, nor was she ever impulsive or troublesome while in hospital.

She died on November 13, 1924.

Post-mortem examination.—The skull was symmetrical and showed no abnormality. Dura was normal and non-adherent. There was some slight excess of fluid beneath the dura. Cerebellum, pons and medulla showed no gross lesion, nor did the right cerebral hemisphere, of which the membranes were natural; the right lateral ventricle was of normal size, and the brain substance healthy.

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