NEUROLOGICAL AND MENTAL EXAMINATION OF STATE
TROOPS OF THE NATIONAL GUARD

By Major Graeme M. Hammond, M.D., M.R.C.U.S.A.

Major Hammond gave a general review of the work he had been doing in the examination of the troops of the National Guard in this city and at the camps. When he received orders in August from the Surgeon-General to examine all the militia in the vicinity of New York City, he was at first unprepared to act, for he realized his own efforts would be a minor part in such a tremendous task. So he enlisted the interest and assistance of twelve able neurologists and psychiatrists who agreed to help him in the work and they formed themselves into an examining board.

The troops were scattered throughout the armories here and in camps in the Bronx and Van Cortlandt Park, but the work was started, beginning with one regiment. The army surgeons with the troops could give little information as to the mental soundness of the men, though they knew all about their physical condition, but it was soon discovered that the non-commissioned officers could give a certain amount of such information, so these men, usually sergeants, were asked to make lists of the men whom they believed would not make good soldiers. That helped a great deal. Soon experience showed that many of the candidates could be passed at a glance on the appearance they presented, but others were given a more careful examination. The intention was to dispose of those who would not make good soldiers, who would not obey orders, or who could not understand them, those with no idea of discipline, those with organic disease of the nervous system and the mentally unstable cases. Certain regiments were found to have higher types of men than others; very few were rejected from some regiments, but in one regiment, from a distant part of the country, of those examined sixty-three per cent. were rejected. After the Rainbow Division left nearly 40,000 men had been through this examination.

At the camps the work was not easy, for large numbers had to be examined in a day, though some of these men were of an exceedingly high class and one had no difficulty in deciding that they were all right. But some were delinquents, though not mental defectives; others were manic depressives; there were cases of dementia præcox, epilepsy and migraine, a few spinal cases, some of progressive muscular atrophy, though only one of cerebro-spinal syphilis. No cases of tabes were seen. In some regiments many cases of goiter were seen, a few exophthalmic. Unless they presented constitutional symptoms they had not been rejected; only when they showed evidence of tremor or of physical weakness, so that they could not keep up with their work, were they considered unfit for duty.

One could hardly realize the amount of work this meant. The large number of men that had to be rejected had proven a revelation. The army was full of incompetents who should have been stopped before they entered if the men on the exemption boards had done their duty, and it was deeply to be regretted that such a state of affairs should exist in this age and at this crisis. In the officers' training camp there were many whom it was found necessary to reject, men of the highest type, college men and those who had held important positions, men of affairs. Those from the West compared very favorably with those from New York State, but in one regiment of men from a large city a number of the men had been in jail or a reformatory. The cases of migraine were of interest, mostly all giving a significant family history, usually the mother having suffered from it. Those who had slight attacks were passed, but those in whom the attacks lasted two or three days accompanied by severe pain and prostration were rejected.

Epileptics were not rejected unless they were seen during a seizure by a member of the board or by someone on whose testimony the board could rely. A proportion of those would probably be heard from later. There was no doubt that a certain number of cases of all kinds that should have been rejected got through. They were careful in going over the neurasthenics and those with hysteria, in recognition of the Surgeon-General's opinion that such men were not desirable.

As far as the militia, the volunteer regiments, were concerned, they would undoubtedly prove a high type of soldier; but in regard to the National Army as a whole one could not be so enthusiastic. In one day seventeen men were dismissed from the Service who had been under observation in the Psychiatric Hospital at one camp for a number of days. This was where the heroin cases were seen, some of them coming in voluntarily because they could not obtain the drug and others sent in by the commander. It was a matter of astonishment how frequently these men were secretly supplied with this substance by visiting friends and relatives. Of the seventeen rejected men referred to, four were cases of dementia præcox, four epileptics, eight heroin habitués and one was undiagnosed.

With persistent and self-sacrificing work, however, on the part of all the medical officers, under the present plans of the government, the United States would in time have an army that had never been equalled in the world, and the world would be the better for it.

Dr. Bernard Sachs, referring to the number of uniformed commissioned officers present in the audience, expressed the hope that a civilian's opinion was still of value, particularly as some of the civilians, like himself, remained such, not from choice, but because of age limitations. It was a source of satisfaction to hear from Major Salmon that there was work for all neurologists and psychiatrists to do; he himself believed there would be a good deal of work for them to do in New York alone and he knew they were all anxious to do what they could for the government.

So far as the neurological and psychiatric program was concerned, the one part that needed discussion was the manner in which those selected for the work were to be prepared to meet the huge preponderance of war neuroses. From all the accounts of the various armies in Europe, these conditions presented a large number of peculiar and interesting problems. The opportunity to study them was better than any which Charcot's clinic presented thirty-five years ago; yet, though more intense to-day, they would probably present many of the same characteristics that were elicited in those far-off days.

The speaker's own point of view regarding the attempt to educate some of the members of the Medical Reserve Corps in neurology and psychiatry was that in order to appreciate the importance and peculiarities of the neuroses, it was necessary that they have proper training in organic nervous diseases or they would regard every manifestation of nervous involvement as a neurosis and perhaps many serious organic troubles would not be recognized. It would be deplorable for the neurologist not to recognize the early onset of tabes or general paresis, particularly in those cases returned from the battle line after injury, and to diagnose, for instance, purely functional paralysis instead of a myelitis. It was very important that those men have excellent training in organic nervous diseases.

Dr. Hunt's presentation had brought up that very point. He spoke of his cases as exhaustion pseudo-paresis, which diagnosis might be accepted for the time being. But nevertheless these cases showed the extreme importance of being able to exclude the presence of cerebrospinal involvement which later on would develop into true paresis or pseudo-paresis luetica. They showed so many of the symptoms of early onset that in spite of the

fact that they did not present the physical characteristics of increase of cells and positive Wassermann, one might well hesitate to say they were not marked for paresis. After all, nothing more had happened in those cases than had happened in dozens in civil life when under emotional strain the symptoms of general paresis first appeared. Under camp conditions, the mental and nervous strain had been unusual, the physical strain great, and so the lack of resistance was first made evident. Such men should not be returned at once to military life even though the symptoms disappeared after a week. They should be exempted from the army for seven or eight months, or even a year, and kept under observation; if they then showed no return of the symptoms they could be returned to the army.

As regarded the aftercare of the cases of neuroses arriving here, that would be a matter in which all took an interest. One of the points of interest that had been observed abroad was the great improvement that appeared when treatment was undertaken as early as possible and as nearly as possible to the battle line, which showed that the greater stimulus of the desire to return to the fight was a helpful factor.

Of all the points covered by the papers of the evening, the one which the speaker wished to emphasize was this: Every possible opportunity should be taken and every use made of every opportunity to train the men who were going to see these neuroses in as thorough a knowledge as possible of organic nervous diseases. Once the men were able to discriminate between organic and functional disease they would advance their studies of the neuroses still further and would acquire an insight into war neuroses and "shell shock" that would lead to a better knowledge of what was to-day a very important and puzzling condition.

Dr. M. Allen Starr felt he represented the sentiment of the audience in expressing indebtedness to Major Salmon and Major Hammond for the information they had given of what the army was actually doing in the work of examining the soldiers. It seemed appalling in its extent; the examination of one or two million men, as would have to be done, was a feat that was tremendous, and it was probable that every physician sooner or later would be called upon to share in the work.

From the beginning, the speaker had been of the opinion that it was a mistake on the part of the medical authorities of the army to reject the services of men who were competent to make examinations, but who were unwilling or unable to give their whole time to it; but it was probable that a part-time service was destined to come to everyone, and there was no doubt that everyone would be ready to give that part-time service when the occasion arrived. The occasion would probably arrive as soon as the soldiers came back wounded and invalided from the front. The situation at present in New York was an evidence. At one of the base hospitals in America recently the speaker met one of his former students in charge there who said they had seven or eight cases they did not know what to do with because of the difficulty of deciding if the diagnosis was organic or functional. None of the physicians in charge was really qualified to pass a psychiatric opinion and they were anxious for advice. Giving advice in such instances was the kind of part-time service many could readily render; they had been doing it all their professional lives in hospitals and why should it not be done for the army?

It was a difficult matter to eliminate the neurasthenics from the army. The speaker had in mind three individuals who had slipped through into the training camps; they had been privately recommended to leave, but had refused to do so because they were patriotic; they were in active service but actually incompetent to be soldiers, all three being cases of dementia præcox, one the son of a dementia præcox and a replica of his father, yet he had

slipped through three different examinations, deceiving one of the best examiners on the Board of Mental Hygiene. He was incompetent and would show it in any emergency or under excitement. Yet many like him had passed through; they were in the opposite class to malingerers, yet it was equally important to detect them. The army examiners should be on the lookout for that type of individual. The percentage of these was interesting. Statistics of the first eighteen months of the war in Germany showed there were three and a half per cent. in one division alone near Hamburg which had been rejected, which showed the Germans were as badly off as the English in the numbers they had to release from the service. The average in the American Army would probably be higher. The average class in the College of Physicians and Surgeons numbered about 120 and in each class there were usually three men suffering from neurasthenia or dementia præcox. This was nearly three per cent. That was a good example of what existed in the community. A large number of these men would be found to be incompetent in the army and it was the business of someone to weed them out and as fast as possible.

The point Dr. Sachs made seemed to be valid, that it was important to educate the medical personnel and impress on these young men the great incidence of functional nervous disease and the importance of differentiating it from organic nervous disease.

When the time came for the establishment in this country of the new hospitals Dr. Salmon spoke of, it was to be hoped the men would be made use of who had kept abreast of what had been learned up to the present time about "shell shock." In connection with the study of war neuroses, to be conducted by the new committee for this purpose that Dr. Tilney had just appointed, a mass of accurate information would be gathered together in available form which would be of infinite service in dealing with these cases when they returned from the front.

Dr. Edward D. Fisher thought that possibly too much weight was put on neurasthenia; when the men were in active service this would largely disappear. He agreed with Dr. Sachs that the distinction between organic and functional diseases must be carefully made. It was very important, therefore, that the examining physicians be thoroughly trained for such work.

Dr. L. Pierce Clark wished to stress only one point and that was this: To exclude these neuroses from the organic group was not a sufficient training for the men entering into this work; in addition to having an organic understanding they should have psychiatric training and a modern conception of the functional neuroses. He was glad to know that the men weak in either qualification were being sent to appropriate places so this lack could be made good before they actually engaged in the work.

Dr. John T. MacCurdy was particularly interested in Dr. Hunt's paper and the mental symptoms he described. It was safe to exclude these cases from the group of true paretics. It was not impossible that the war would furnish groups of cases from the mental standpoint very like paresis. In London the speaker had occasion to examine a case following concussion; the most striking thing was not only his intellectual defect, but he was without insight into his true condition and showed the type of carelessness one saw in paretics. If there had been no history of concussion and without the negative serological findings, the institutional examination would have resulted in a diagnosis of paresis.

Dr. J. Ramsay Hunt felt he must reply to Dr. Sachs. He could understand that a critical attitude might be assumed toward the possible parietic features of these exhaustion cases. It had not seemed possible, however, that any clinician of experience could possibly regard them as true cases of paresis, in view of the normal serology and subsequent course.

The point that he had wished to emphasize was the existence of a group of cases developing under intensive military training, with pathological pupillary response to light, coarse tremors of the face, tongue and hands and a slight dysarthria closely simulating that of early paresis. He had tried to make clear that the mental and general cerebral symptoms were not characteristic of paresis, but in conjunction with the somatic symptoms were suggestive and corroborative. Furthermore, the disappearance of all symptoms, general cerebral, mental and somatic, after a period of rest, and the normal serological findings, left no other interpretation than that of fatigue or exhaustion of the central nervous system.

Dr. Hunt again stated what he had previously emphasized, that he had never encountered the condition reported in civil life, and any importance or significance which attached to this fatigue syndrome was, he thought, limited to the exigencies of military life. He thought it not unlikely that cases of this description which showed thus early a tendency to exhaustibility of the sensory nervous system might be the type of case which later, under greater provocation of stress and strain, might pass into the more severe neuroses or neuropsychoses of war.

These men were not recommended for discharge for the reason that they were quite willing to resign voluntarily from the camp, realizing from their experience that they were unfitted for the mental and physical strain of the life. Under conditions where the candidate was unwilling to resign and yet presented such a striking picture of fatigue, the question of the recommendation for discharge would have to be settled on the individual merits of each case.

CHICAGO NEUROLOGICAL SOCIETY

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The President, DR. ARTHUR W. ROGERS, in the Chair

A CASE OF "QUADRANTIC BLINDNESS"

By Brown Pusey, M.D.

The man consulted Dr. Pusey complaining of defective vision. He was able to read ordinary print slowly. Examination of the fields of vision showed blindness of each eye in the lower right quadrant. The fields otherwise were normal. The refracting media and fundi were normal. The case was shown because of the very great rarity of the condition. Dr. Pollock described the case further.

History.—(October 29, 1917.) The patient stated that he was apparently well until a week ago, when he complained of severe pain in the head. He went to work, but returned at four o'clock, his headache having been worse. He rode a block past his house and then walked back. From then on he was unable to see distinctly. He vomited once that afternoon and was unable to work the next day because of severe frontal headache. His memory was so affected that he had forgotten where he lived.

Previous history negative. Denied lues; Wassermann reaction negative. Did not drink, smoked moderately.

Physical Examination.—A well-nourished male, aged fifty years, 5½ feet tall. Chest negative; abdomen and contents negative; extremities and genitalia negative. No gross loss of power in any of the extremities; no tremor. Motor and cranial nerves all normal. Heat and cold, touch and