

The explanation may lie in the inherent difficulty of the subject itself, for it is generally admitted that we are dealing here with a class of cases amongst the most difficult within the scope of medicine. It is possible, on the other hand—and it seems to me reasonably apparent—that certain pre-conceptions on the part of the writers and investigators of the subject have gone some way towards producing this difference of opinion. It seems, for instance, now to be generally admitted, implicitly if not explicitly, that in dealing with shell-shock, neurasthenia, and allied conditions, we are dealing with disorders intimately associated with the emotional activities of the personality. It is not surprising, therefore, that a certain reluctance, from both egoistic and patriotic motives, should show itself towards admitting that emotions of a certain class should be capable of producing disability amongst our soldiers.

This point will be referred to later. At present it is desired merely to point out that in the scientific investigation of a subject the disagreeableness of a fact should be no obstacle in the way of its acceptance, once it is shown to be a fact. A further partial factor in the production of this indefiniteness of opinion on the subject seems to be that the name "shell-shock" appears originally to have been coined with no clear or adequate conception of the condition it was designed to describe. It was applied indiscriminately to cases incapacitated through shell explosion or other sudden shock of war, without showing sign of visible injury. In consequence, particularly in the earlier stages of the War, cases the most diverse and varied were admitted into hospital under the common label "shell-shock"—fractures of the skull, injuries to the spine, concussion, hysteria, psychasthenia, and several others, and descriptions of some at least have found their way into the literature on the subject. In particular, no attempt seems to have been made to form any conception of a constantly recurring clinical condition which might be said to represent the disorder resulting from the stresses and strains of warfare. In a fairly recent publication it has been affirmed, in fact, that "if by any stretch of the imagination we could speak of a specific variety of disease called shell-shock it would be new only in its unusually great number of ingredients" [1].

That does not accord with my view. The accumulated evidence from several months' experience in the trenches, and subsequent observation of over two thousand cases of the psychoneuroses of war at an advanced centre in France, have led me to the conclusion that a number of definite clinical conditions of psychological origin regularly occur from the stresses of warfare. It may be true to say, as has been stated, that none of the symptoms of these conditions is entirely new. Their combinations, however, into definite syndromes of habitual occurrence form a series of specific entities with a definite common mental pathology, the recognition of which gives a basis for the formation of a prognosis of considerable practical value.

In the consideration of the evidence for the above view, the first problem it is necessary to settle is whether the conditions commonly called shell-shock and neurasthenia are neurological, or mental, or a combination of the two. In the early stages of the War the view seemed to be widely held that these conditions were essentially neurological in nature, the result of damage to the nervous system. This is obviously an important point to settle at the outset, and one of the difficulties in the way seems to have been the general belief that a shell exploding near an individual—particularly a high explosive shell—could not avoid producing damage to the nervous system on account of the liberation of the tremendous forces of compression and decompression. This opinion is, in my view, like the postulated shell, exploded. The fact has been abundantly proved that a shell may explode near an individual and even cause him to be blown up or buried, without producing damage or disturbance in any way important, except a more or less marked mental disturbance. The explanation is, according to the opinion of several artillery officers, before whom the problem was placed, that a shell does not explode equally in all directions. Theoretically this is the ideal aimed at, but in practice it is never found to act. The explosive forces of a bursting shell are distributed, not regularly and equally all round the area of explosion, but in an irregular and unequal manner. In consequence certain sectors in the area of explosion may be missed by the explosive energies, others

may receive only partial and irregular effects. An individual, therefore, in one of these sectors may escape everything but the psychological reaction. It is, further, a fact that frequently men blown up or buried by a shell are not incapacitated, but continue on duty without reporting sick.

The chief suggestions brought forward as affording an organic basis for the conditions under consideration are, so far as can be judged from the writings on the subject, that they are due to concussion or to "commotio," to punctate hæmorrhages, to some minute microscopical damage to the nervous system, or to poisoning by gases. It is considered, too, that they may have some bio-chemical explanation, or may be due to derangement of the ductless glands.

There is, in my opinion, no sufficient evidence that can be discovered on repeated examination of the patient to bear out any of the above views. Undoubtedly cases of concussion, poisoning by fumes, ductless gland disorders, &c., do occur, and may be so indefinite as to present many difficulties in diagnosis. But that there is a constant relation between the suggested pathological changes and the clinical conditions known as shell-shock, neurasthenia, &c., is a view entirely unsupported by the evidence at hand. Apart, however, from the lack of direct evidence for the existence of an organic basis, there are several additional arguments which go still further towards excluding this hypothesis. In the first place there is the well-known fact of the frequent sudden disappearance of the symptoms; in the second place there is the fact of the mutability of the symptoms, one set of symptoms not uncommonly disappearing, others arising to take their place; thirdly, there is the large mass of evidence to show the effect of psychological treatment in curing or ameliorating the symptoms; and lastly, there is the fact that precisely similar conditions are produced in those who have never been subjected to exceptional exposure in any way likely to bring about organic damage.

The above arguments, in my view, render the neurological hypothesis untenable, and, further, they directly suggest the probable correctness of the psychological explanation. Clinical observation, in fact, of the conditions, and the results of treatment and investigation, in my experience, completely substantiate the psychological view, as I hope to show later in the article. This it is apparent is becoming more clearly and widely recognized, and, in particular, the part played by the emotions as the important factor in the production of these disorders. Emphasis has been laid in recent articles on the "emotivity" exhibited by these patients. This, to my mind, however, can scarcely be considered an adequate explanation of an emotional condition. "Emotivity" would seem to be an undue or abnormal tendency towards the arousal and manifestation of emotions, but, in order to clarify our ideas on the subject, it is necessary to ask which emotion, or emotions, shows this abnormal sensitiveness.

#### THE INNATE DISPOSITIONS OF MAN.

Man is born into the world with a certain mental equipment in undeveloped or rudimentary form. It is the synthesis of this with later acquired factors which forms the personality of the individual. Both series of elements play their part in the production of the psychoneuroses of war, as will be shown later, but at the moment we must endeavour to discover more precisely the nature of the inborn or innate factors. McDougall in his reasoned and convincing exposition of the subject has pointed out that human activities, both mental and bodily, are only to be explained or understood by tracing them back to a number of innate dispositions. These innate dispositions are the instincts, "the springs of human action, the impulses and motives that sustain mental and bodily activity and regulate conduct" [2].

Considerable difference of opinion still exists on the subject of the nature and number of the instincts. Leaving out of consideration certain general innate tendencies, there are at least twelve principal instincts, including anger, curiosity, self-assertion, the sexual, the social instinct, disgust, and fear. An emotion is the central affective aspect of an instinct, aroused by its special stimuli and producing its special conative effects [3]. We may, however, if necessary for the purpose of the argument here advanced dispense with this disputed subject, and simply take as our postulate the fact that there are in man a number of emotions capable of being aroused by certain stimuli. In other words, there is in every normal