A SURVEY of the WAR NEUROSES.

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A SURVEY of the WAR NEUROSES.

CHAPTER I.

INTRODUCTION.

The simplicity of the war neuroses has been the subject of observation by many writers. It is a remarkable fact, however, that the observed simplicity has not led to any unanimity of opinion on the actual constitution of the neuroses. The striking character of the symptoms, the ease with which they could be influenced by the most diverse methods of treatment, and the significance of the more obvious mechanisms were facts of common recognition. But there remains still considerable differences of opinion on the subject of the essential nature of the conditions.

There are writers who consider them the expression of neurological disorders; others look upon them as primarily functional or psychogenic: others again endeavour to
combine these differing views in the conception of a "functional" derangement of the cortical cells subserving the disordered organ.

Again although the great majority of observers are now agreed in recognising the war neuroses as psychogenic affections, there is no close concurrence of opinion as to the fundamental psychological features, or the relation of the varied mechanisms. Thus suggestion by one, dissociation by another, repression by another have respectively been accepted as the essential factors of the conditions.

In view of this disharmony, there is need for a unifying conception which will not only assist in the solution of the "shell-shock" problem, still with us, but will throw a light on to the more complex structure of the neuroses of civil life.

The war may be looked upon from one angle of vision as a psychological experiment upon a gigantic scale, one of the results of which was to produce a series of nervous functional disorders. The conditions of the experiment although they could not be known with the exactness of measurement, were nevertheless clear and definite enough in broad outline, and became more distinct and specific on personal experience. It was amongst those conditions that the neuroses of war mainly developed; it was there that they occurred in their simplicity and could be observed practically in the making.

The views in the succeeding pages are based upon the
accumulated evidence from several months experience in the trenches, and subsequent observation of over 4,000 cases of the neuroses at the 3rd Army Centre in France.

The advanced centres were established towards the end of 1916 as the battle of the Somme was drawing to a close. Until that time no adequate provision had been made for the treatment on systematic lines of these cases in France. There were at the Base, it is true, before that time, departments in several hospitals set apart for their reception. The circumstances, however, and the conditions of work were generally so abnormal that no methodical measures of treatment designed to arrest the enormous wastage from this source could be carried out.

In England by this time the problem of "shell-shock" had grown to tremendous proportions. How great was the actual number of casualties from this source it is impossible at present to say; but a recent writer has stated that "in 1917 it was calculated that one-third of the unwounded and one-seventh of the total discharges from the British army were permanently unfit on account of functional neuroses or mental disorders." (4)

It was in the attempt to stem this loss that the advanced centres were established. The opinion had been growing that in view of the disadvantages of treatment in England some such measures were essential for therapeutic success. The similar experiment in the French army had provided an encouraging precedent.
About this time there were on the subject of the war neuroses, three main views:—

(1). A purely neurological conception which regarded the neuroses as the result of damage to the nervous system.

(2). A view which looked upon "shell-shock" patients as malingerers or "degenerates".

(3). A view which regarded the conditions as psychological disorders, dependent upon a disturbance of the personality, and concerned more immediately with discovering effective methods of treatment than acquiring any detailed conception of their nature.

Manifestly, therefore, the first problem that presented itself was the attitude to be adopted towards the cases, for corresponding with the conception of the nature of the condition must be, or at least should be, the measures of treatment. It may be true to say, as has been frequently stated, that no one of the symptoms of the war neuroses was entirely new. Their combination, however, into syndromes of regular occurrence formed, as shall be later shown, a series of specific entities with a definite common pathology, the recognition of which provided a basis for the formation of a prognosis of considerable practical value. Leaving out of consideration the "degenerate" hypothesis as being obviously inapplicable to the majority of cases, two main theories remained, the neurological and the psychological. Having regard to the necessities of the situation at the time, the problem was
eminently one for the pragmatic test. Examined, therefore, in the light of their "cash-value" as James has phrased it\(^{(2)}\) by tracing their respective practical consequences, there could be little doubt which of the theories was the more valuable and productive of results.

One of the difficulties in the way of the psychogenic conception was the view, widely held at least in the earlier years of the war, that a shell exploding near an individual could not avoid producing damage to the nervous system from the liberation of the tremendous forces of compression and decompression. Cases were described of death following an explosion, without visible external injury to the body, but in which punctate haemorrhages or other damage to the nervous system was discovered on post-mortem examination.

On the other hand it was well known that numbers of men in the vicinity of exploding shells or even blown up or buried, were not incapacitated but able to continue on duty. Few men, in fact, who remained in the trenches for any length of time could have escaped being near to exploding shells. It was evident, therefore, in these cases that either damage was not produced to the nervous system, or if it was, it occurred in a negligible form. The fact that was obvious was that there could exist no constant relation between a condition of damage to the nervous system similar to the observed post-mortem changes in the few cases described, and the clinical symptoms of the neuroses.
The explanation of the differential effects of an exploding shell lay in the fact that it 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 unequal and irregular manner. In consequence certain sectors in the area of explosion may be missed by the explosive energies, others may receive only partial and uneven effects.

To illustrate by the following diagram of the area of an exploding shell divided as in a clock-face:—

![Diagram](https://via.placeholder.com/150)

an individual in sectors 12 or 4 or 8 may be killed, while another at, say, 2 or 6 or 10 may escape everything except the psychological reaction.

There was, further, a growing mass of evidence to show the success of psychological treatment in curing or ameliorating the symptoms. A significant point was the fact that precisely similar conditions were produced in those who had never been subjected to the action of an exploding shell. And finally, there was the patent fact that by far the commonest form of war neurosis exactly
corresponded in symptomatology with the effects of the emotion of fear.

These considerations and others of similar significance left little doubt as to the essential psychogenic nature of the conditions. The further problem then arose, however, which if any of the different psychological conceptions would apply to the elucidation of the war or neuroses, if a new conception was necessitated.
CHAPTER II.
SCHOOLS OF PSYCHOPATHOLOGY.

I.

In the evolution of ideas on the subject of hysteria, according to Janet there were three periods. The first began in remote antiquity and came to an end in the nineteenth century. It was "the period of sibyls, witches, convulsionists of all kinds, and of miscellanies of surprising facts about convulsions, somnambulisms, resurrections of lethargic people, extraordinary fastings, miraculous wounds, etc". The second was the "clinical period", and its most outstanding figure was Charcot. It was a period of "clearing away and classification" in which physicians sought to give a medical character to the disease. The third, the contemporary period, is the psychological stage, in which among mental phenomena the interpretation of hysteria is being sought. (3)

Charcot's main work lay in establishing hysteria as essentially a mental disorder, and by way of demonstration he produced many remarkable and dramatic effects under hypnotism. He described certain stigmata as characteristic of hysteria, and was the originator of the "fixed idea" conception, the precursor, we may say, of the modern theory of suggestion. (4)

Janet, a pupil of Charcot, further developed and applied the theory of the fixed idea. He devised the con-
ception of the "lowering of the mental synthesis", and the principle of "dissociation" as the essential factor in hysteria, and separated certain syndromes of the neuroses under the name "Psychasthenia". He further developed the idea of the stigmata in relation, especially, to suggestibility, absent-mindedness and alternation of symptoms, which he summarised in the conception of the "retraction of the field of consciousness". He defines, therefore, hysteria as a "malady of the personal synthesis." It is "a form of mental depression characterised by the retraction of the field of personal consciousness and a tendency to the dissociation and emancipation of the systems of ideas and functions that constitute personality." 

It is probably true to say that in his acute clinical studies Janet foreshadowed, if vaguely, many of the more recently evolved mechanisms of psychopathology.

More recently Babinski has elaborated the theory of Suggestion as the basis of hysteria. He disputes the existence of the mental stigmata described by Charcot and Janet, and states that in his opinion they are the result of medical suggestion. Hysteria he regards as produced by suggestion and as curable by suggestion, and he re-names the condition in consequence "Pithiatism". His definition is as follows: "Hysteria is a pathological state manifested by disorders which it is possible to reproduce exactly by suggestion in certain subjects and can be made to disappear by the influence of persuasion."
(counter-suggestion) alone". Neurasthenia he considers as constituted in its essential factors by the phenomena of exhaustion. The rôle of emotion, as also of traumatism, he states to be merely that of agents which predispose to the manifestations of suggestion. "They increase suggestibility and sometimes provide the element of an auto-suggestion." Under the name "Reflex Neurosis" Babinski has lately separated a condition considered to be midway between the pithiastic and the organic. This is constituted by the contractures, paralyses, amyotrophy, vaso-motor and trophic disorders etc. which follow upon various injuries. They are looked upon as being due primarily to irritation of the peripheral nerves, which transmit the irritation to the cord producing thus changes in the anterior horn cells. The evidence for this new syndrome, however, has not found corroboration at the hands of other observers, and as it is understood now to be repudiated by the author himself no further consideration need be given to it.

In "The Psychoneuroses and Psychotherapy" Dejerine and Gauckler lay emphasis upon the emotional factor which they consider the basic condition in the causation of neurasthenia and hysteria. While in both a nervous predisposition is considered to be present, superadded to this, in hysteria, emotional shock plays the chief rôle; in neurasthenia it is a long-continued emotional factor that is responsible - "emotional phenomena...long drawn out...
continually coming back again and adding to and multiplying their action. "Psychasthenia is considered by these authors to belong not to the category of the neuroses but to the psychoses. Hysteria is, further, distinguished by them from "Mythomania" - a condition which afflicts those individuals "who carry their really sick ideas so far as to allow themselves to be mutilated or to practise self-mutilation. Such patients are considered in reality to be "mental cases", and it is interesting to note that the authors are of the opinion that the views of Babinski on hysteria refer to mythomania and not to hysteria. 

An instructive comparison can, in fact, be drawn between the two last-named theories, of Babinski and of Dejerine, as illustrating two apparently contrasted views. Whereas Babinski considers that the phenomena of exhaustion constitute the essential characters of neurasthenia, Dejerine places the cause in long drawn out emotional factors, and states that fatigue plays a secondary part, reinforcing the emotional elements. Hysteria, as we have seen according to Babinski, is produced by suggestion and is curable by the same means. Emotion by itself, he states, cannot produce hysterical attacks. Dejerine, on the other hand affirms that emotion is the fundamental factor in the production of hysteria and maintains that suggestion is of quite secondary importance.

Of the different psychological conceptions of the neuroses, however, none can be said to be so truly
constructive as that of Freud. Freud's first work, "Selected Papers on Hysteria" was published in 1893 in collaboration with Breuer, and since that time the principles he expounded have undergone progressive development. In this book, from the symptom-complex of neurasthenia, he separates the "anxiety-neuroses", a conception which as we shall see plays an important role in the classification of the war neuroses. He describes how "we found at first to our very greatest surprise that the individual hysterical symptoms immediately disappeared without returning if we succeeding in thoroughly awaken­ing the memories of the causal process with its accompanying affect, and if the patient circumstantially discussed the process giving free play to the affect." (15)

From this observation was born the theory and technique of psychoanalysis. The memories with the accompanying affect were later unified in the conception of the "complex". From the fact that this complex, until its recognition, was unknown to the patient, Freud developed his theory of the unconscious. This he used to denote experience that is retained but cannot be voluntarily reproduced, as distinguished from the pre-conscious which includes the systems of memories not present in consciousness but capable of spontaneous or voluntary recall. From his observation of the resistance to recall of the complex, Freud objectivated, under the technical term "repression", a mechanism which has been of
the greatest service to psychopathology. It was only a step from this to the conception of psychical conflict.

Freud emphasises the essential importance of the affective factor in the dynamics of mental activity. This is conceived as having the attributes of quantity and as being capable of developing a certain autonomy. In consequence such mechanisms as "transference" or "displacement" of the affect to another idea, and "sublimation", the displacement to socially useful activities were made intelligible. "Conversion" is the mechanism by means of which the repressed energy finds an outlet in a bodily symptom. The method of free analysis he called psychoanalysis and is usually carried out by an analysis of the subject's dreams, into which Freud has made a detailed and very valuable investigation. (16)

His views have, naturally, been modified to some extent as the result of experience; in his substitution, for example, of infantile "fixations" as an alternative to the earlier theory of psychical trauma. The opposition his teaching has met with, more especially his conclusions on the importance of infantile mental processes and on the role of the sexual factor in the neuroses, is now a matter of history. Within recent years differences on matters of intrinsic principle have arisen among the pioneers of psychoanalysis, leading to the separation of Jung and Adler and the formation of their respective schools. An account of this has been given by Freud in "The History of the Psychoanalytic Movement". (17)
II.

Having made a general survey of the views on psychopathology we may now turn to the more special application of these to the neuroses of war and to the classifications of the different writers.

Babinski, as we have seen considers the war neuroses to be due to suggestion and his classification is one on purely regional lines, giving separate consideration to hysterical fits, Sensory Disturbances, Motor Disturbances and Disorders of the Special Senses.

Roussy and L'Hermitte consider the determining factors in the psychoneuroses to be both emotion and suggestion and the classification they adopt is for the greater part a regional one like that of Babinski.

Marr differs from most other writers on the subject in considering neurasthenia or Shell Shock to be "a functional affection of the cortical bulbo-spinal and sympathetic neurons" though he admits also the importance of the emotions and of the factor of suggestion. Neurasthenia he divides into (1) Simple, corresponding to a general or local weakness of the neurones; (2) Toxic or Hysterical, in which a toxaemia from the intestinal tract is super-added to a Simple condition; and (3) Organic, implying damage to the nervous system such as haemorrhage, rupture of nerve fibres etc. He considers the factor of pre-disposition of cardinal importance and states that a family history of nervous or mental disease or previous nervous
breakdown in the history of the individual patients are elicited in 80% of his cases.

Mott has described several cases of death occurring from shell explosion without any signs of external injury to the body, but in which, post-mortem, damage to the nervous system was discovered. To these, and to the cases indicating concussion or commotio he seems to confine the term "shell-shock". The psychoneuroses on the other hand, he considers to be emotional in origin, although he remarks the important part suggestion may play in the condition. Burton-Fanning's finding corresponds with his experience, that "the majority of cases of hysteria and neurasthenia owe their condition to an inborn temperamental disposition". These cases, Mott writes, "give a typical proof of Dejerine's dictum of the essential condition of neurasthenia being a continued emotivity and mental preoccupation". Regarding the mechanism of the "conversion" phenomena, as exemplified by mutism, he states that the mutism is caused by fear producing an emotional shock inhibiting the activities of the whole of the cortical structures connected with phonation and production of audible sounds."

Yealland frankly accepts the suggestion theory but is concerned chiefly with the means of effective treatment of the conditions rather than with their psychopathology.

McCurdy approaches the consideration of the subject along more purely Freudian lines, introducing many of the
mechanisms of Freudian psychology. He classifies the cases into two main groups (1) Anxiety States, and (2) Conversion Hysterias though he is careful to lay emphasis upon the factors of concussion and fatigue, and states that either fatigue or concussion is present to a greater or less extent in every case of anxiety neurosis. He gives also a special chapter on Heart Neuroses and suggests tentatively that of the neurotic hearts there are probably two types corresponding roughly to the anxiety and the conversion hysteria groups.

As regards psychological mechanisms at work, McCurdy assumes, in the first place, the existence of a primitive instinct of brutality and savagery. This in ordinary social life is kept repressed by the operation of the gregarious instinct. War, however, effects a sublimation of the above-named instinct; effective adaptation to the conditions of war, in fact, consists in the building up of such a sublimation enabling the citizen to become "less of an individual and more of an integral part of the society to which he owes allegiance", and to experience "joy in combat". Weakness of this sublimation is the first indication of an approaching neurosis. The soldier begins to experience fatigue, to be dissatisfied with his situation and to become sensitive to the horrors around him. The individual feelings begin to assert themselves, fear, shame, resentment etc. until the patient grows more unstable and begins to look for some relief from the
situation. Repression then sets in which according to McCurdy is the mechanism responsible for the production of the war neuroses. The conversion hysterias he considers as being the conversion of a wish for a wound or illness (as a mode of escape from the distressing situation) into the physical disability; the anxiety states as the conversion of a wish for death, though as he admits this latter speculation is not so easy to explain. (31)

Eder in a consideration of one hundred cases of "war-shock" correlates the phenomena even more strictly with the mechanisms of psychoanalytic psychology. In his experience, however, he has not found either neurasthenia or the anxiety-neurosis of Freud's conception among soldiers. He classifies the cases into (1) Conversion-Hysteria (2) Anxiety-Hysteria and (3) Psychasthenia, and finds that only 30% revealed neuropathic antecedents, hereditary or personal. In his view suggestion is all that is required in the treatment of the large majority of cases; it supplies, he states, especially under hypnotism, a temporary reinforcement of the patient's will power. (33)

Myers is of opinion that as regards the causation of the war neuroses "extreme emotion and conflicting complexes are by far their most important determinants" and that the symptomatology results quite apart from suggestion from functional dissociation arising from the loss of the highest controlling mental functions. In his view it is not the emotional but the unpleasant component
that is inhibited in repression. (36)

Hurst accepts the theory of suggestion and, like Babinski, denies the existence of hysterical stigmata. He lays emphasis on the frequency with which hysterical symptoms may be detected as complicating organic nervous disease. (38)

Brown accepts Dejerine's theory of pathogeny. He recognises the causal influence of emotion and especially that of fear, but emphasises also the factors of dissociation from conflict, of repression and of suggestion, which latter mechanisms, he says, come into play "in the fixation of the symptoms and in their later developments and multiplication".

Rivers attaches special importance to the mechanism of Repression. (40) This factor with suggestion, sublimation and habituation he considers to be the chief processes concerned in the training of the soldier and consequently in the production of the neuroses. (41) On this basis he has made a tentative classification into

I. Suggestion Neurosis, corresponding to the "conversion hysteria of Freud or the "pithiastic" condition of Babinski and

II. Anxiety Neurosis: (a) with Repression or (b) without "

Amongst other writers Wolfsohn has made a special investigation in 100 cases into the problem of predisposition. He found that in 74% of the cases studied
"a family history or neurotic or psychotic stigmata, including insanity, epilepsy, alcoholism and nervousness, was obtained, whilst a previous neuropathic constitution in the patient himself was present in 72%".
CHAPTER III.

PSYCHOLOGY.

I.

In the short summary we have given of present-day views on psychopathology and of their application by various writers to the war neuroses, it is very evident the wide discrepancy of opinion that exists as to the essential nature of the conditions. As we have before observed a rational correlation should exist between the recognised psychopathology and the measures of treatment adopted. In the interests, therefore, of a lucid consideration of the subject it will be necessary to endeavour to reach some sort of clear conception of the nature of a psychological explanation; to consider what is the precise connotation of the term as applied to psychology, and if at the present time real precision of explanation is possible. As this must depend on one's conceptions of psychology a brief review of the essentials of this subject must be undertaken.

It is interesting to note that until recent years no correlation between normal and abnormal psychology would have been deemed possible. The mechanisms, for instance, of psychoanalytic psychology were elaborated and described with no reference to the psychology of normal life. As Jung has observed psychology had little
to offer to the psychiatrist until Freud's discoveries.(43)
Within the last decade or so, however, psychology has
made very considerable advances especially in the work of
William McDougall whose principles coordinate in a re-
markable way with those of Freud in abnormal psychology.

If, as McDougall teaches, "human activities, both
mental and bodily are only to be explained or understood
by tracing them back to a number of innate dispositions", (44)
these dispositions or instincts become at once the
central problem of psychology. Out of the complicated
interaction of the various activities of mind he has
separated certain fundamental dynamic forces from the
working of which all others arise and with which all other
mechanisms must be correlated. These are the instincts,
and the different activities of perception, recollection
or reasoning on the one hand, of emotional activity or
feeling on the other, or again of volition, resolution
or desiring, depend on which aspect of the process is
dominant at the moment. According to McDougall an in-
stinct is "an inherited or innate psycho-physical dis-
position which determines its possessor to perceive, and
to pay attention to, objects of a certain class, to ex-
perience an emotional excitement of a particular quality,
upon perceiving such an object, and to act in regard to
it in a particular manner, or at least, to experience an
impulse to such action". (45)

As a definition this may be, as has been said, "heavily
weighted with psychological implications". Other de-
finitions are definitely physiological concerned with the
motor tendencies and the prearrangement of the nervous
system. Herbert Spencer for example conceives instinct as
compound reflex action a view which is accepted by
William James, Lloyd Morgan and others. As McDougall
again points out however, "if we neglect the psychical
aspect of instinctive processes, it is impossible to under-
stand the part played by instinct in the development of
the human mind and in the determination of the conduct
of individuals and societies; and it is the fundamental
and all-pervading character of their influence upon the
social life of mankind which alone gives the consider-
ation of instinct its great practical importance." (47)

One of the most important features of McDougall's
work is his demonstration of the relation between instinct
and emotion. James and other psychologists describe them
as separate activities. McDougall showed, however, that
emotion is the central affective part of the instinct-
disposition, linked on the one hand to the cognitive or
afferent part and on the other giving rise to its char-
acteristic conative or efferent effects.

As to the number of the instincts, opinion again
differs. A familiar classification is that into Self-
preservation, Nutrition, Sex, and the Social or Herd
instinct. The inadequacy of this list resides in the
vagueness in the conception of instinct and in an over-
simplification in the consideration of number McDougall's classification which in practice is found to accord more with the facts of experience is as follows:

1. The instinct of Flight and the emotion of Fear
   - Repulsion, Disgust
2. " Repulsion, Disgust
3. " Curiosity, Wonder
4. " Pugnacity, Anger
5. " Self-abasement, Subjection
6. " Self-assertion, Elation
7. The Parental instinct and the Tender emotion.

Other instincts with less well-defined emotional tendencies are:

- Reproduction or Sex
- Gregarious
- Desire for Food
- Acquisition
- Construction

Drever agrees in the main with McDougall's classification. He has developed and amplified it, however, in a way which considerably enhances its value, and his modifications will be most clearly seen by giving the complete table from his book:-(51)
Drever differs also from McDougall in considering the affective factor in instinct to be of the nature of "interest" which only becomes emotion on the development of "tension". It is not, however, a factor of any great practical importance, the influence on the essential conative relation being one only of degree and not of kind. The James-Lange theory of emotion is now generally recognised to be inadequate and need not be further considered. The features of emotion which are of essential importance from the practical point of view are (1) its conative tendency. Emotions are considered to be the
source of all human behaviour. As Morton Prince observes, "Without the impulse of a linked emotion ideas would be lifeless, dead, inert, incapable of determining conduct". This view is, of course, quite incompatible with the theory of ideo-motor action, and similarly with any theory of "fixed idea" or suggestion which attempts to disregard the emotional factor. (2) The fact that it takes on a characteristic quality in each of the primary emotions - a fact which as we shall see later renders conceptions such as Dejerine's of "emotion", or the "psyche" or "libido" of psychoanalytic writers vague and unsatisfactory. (3) The fact that of the 3 parts of the instinct mechanism the central or emotional part is the one that remains always unaltered, "persists throughout life as the essential unchanging nucleus of the disposition", while both the afferent and efferent parts undergo continual modification and complication in the process of development and character formation. The value of this fact lies in the suggestion it gives for the acceptance of the primary emotions as we shall later consider, as the basis of classification of the neuroses.

From this conception of instinct McDougall by a continuous development of the subject passes on to the consideration of sentiments and the part they play in the formation of personality and character. He describes how the instinct process becomes modified and altered in the course of development. This takes place in 4 principal
modes: (1) On the cognitive side by association and by specialisation, the original excitants of the emotion undergoing a process of selection whereby some only of them retain the power of arousing the emotion, and on the other hand other stimuli by virtue of association through similarity or contiguity acquiring the power to arouse the emotion. By way of illustration of this important mechanism I may quote from a previous article: "In my own experience an interesting extension has taken place. Commonly the idea of the trenches excites the emotion of disgust. By the principle of association by contiguity, butterflies and poppies have become associated with the trenches, from experience in the summer of 1916, when they were strikingly in evidence. It happens now that butterflies and poppies directly excite the emotion of disgust. This is, from another aspect, the mechanism of "indirect expression of the complex" or "transference of the affect"." 

The second mode by which modification of the instinct takes place is by complication and modification of the body movements in which the instinct finds expression. The third mode results where, as frequently happens, two or more instincts are simultaneously excited. The fourth method arises from the fact that the instinct tendencies become more or less systematically organised about certain objects or ideas.

Drever has formulated these into a series of laws or principles of human character, viz.

(26)
1. The Law of transference of impulse.
2. The Law of complication of behaviour.
3. The Law of fusion of emotions.
4. The Law of Inhibition by habit.

He adds a 5th, like No. 4 taken from James, viz. " Many instincts ripen at a certain age and then fade away".

A sentiment according to McDougall is "an organised system of emotional dispositions centred about the idea of some object" and the first fact that strikes one as of importance in the correlation of the normal with the abnormal is the identity of this conception with that of the "complex" of psychoanalytic psychology. Bernard Hart describes a complex as "a system of emotionally toned ideas". Jones defines it as "a group of emotionally invested ideas partially or entirely repressed". Morton Prince uses the term in a wider sense and seems to include within it a system or series of sentiments. In all of the definitions, however, the essential psychological structure is the same; beginning with the simplest consisting of "a single emotional tendency, associated with an idea or idea complex", and progressing through all stages to the most complicated with an elaborate life-history, linking many emotions such as a sentiment of love or the great "self" sentiment. As McDougall states " When any one of the emotions is strongly or repeatedly excited by a particular object there is formed the rudiment of a sentiment".
For the sake of clearness and accuracy, then, it is important to emphasise that the "organisation" of a sentiment in its simple form means simply the linking or association of the idea with the emotion; the formation, in other words, of what we shall call a "conator" between the idea and the emotion. The more complex sentiments imply the linking up of a series of such conators. This seems to be a conception of cardinal importance for psychopathology and psychotherapy. Morton Prince writes on the subject: "This linking of an affect to an idea is one of the foundation stones of the pathology of the psychoneuroses. One might say that upon it "hangs all the law and the prophets". As a matter of fact, it will be observed that the instinct itself is simply a combination of two such relations or conators, a cognitive or afferent, and a conative or efferent as shown in the following diagram.

We shall return to this conception later; at present we must resume our consideration of the further psychological factors.

A sentiment being of such a nature, it will be evident that the greater part of our psychological
experience consists in the formation of these organised systems, and the linking of new experience to previously formed sentiments. Sentiments, in fact, are the basic factors of the developed mental structure. In virtue of its organisation which gives it a certain independence and autonomy, the sentiment has a negative as well as a positive aspect. While the sentiment naturally tends to bring to completion its conative tendencies, at the same time it has the effect of inhibiting or repressing antagonistic impulses. This may be said, too, of the action of the instinct mechanism and indeed of any mental activity. With the sentiment, however, its organisation gives it much greater controlling power, and its practical importance lies in the fact that it forms the basis of the "repression" and "dissociation" activities which play so large a part in abnormal psychology.

This bears in an important way on the question of the homogeneity of mind. Although as Hart points out (64) we assume an ideal unity and homogeneity in the mind, in reality no individual is found to possess it. Morton Prince is emphatic on this point: - "Consciousness," he writes "is not a unity in any sense that the term has any significant meaning beyond that which is a most banal platitude. The "unity of consciousness" seems to be a cant-expression uttered by some unsophisticated ancient philosopher and repeated like an article of faith by each successive generation without stopping to think of its
meaning or to test it by reference to facts. Neither a reference to the evidence of consciousness or to its manifestations gives support to the notion of unity. The mind is rather an aggregation of potential or functioning activities some of which may combine into associative functioning processes at one time and some at another: while again these different activities may become disaggregated with resulting contraction of personality, on the one hand, and conflicting multiple activities on the other. Janet's view of the "equilibration" of consciousness seems to be a more useful idea. Dissociation, in fact, is implied in the conception of sentiment and is, consequently, as Jones, Hart and others have pointed out as normal an activity of mind as suggestion is recognised to be. In every-day life it is seen in the action of traditional beliefs, prejudices, discrepancies between precept and practice, and other examples of the "logic-tight compartment".

From the development of the sentiments, their interaction and relations in the individual, McDougall builds up his conception of personality and character. He shows how as the mental growth of the individual proceeds, a hierarchy of the sentiments is formed; one sentiment comes to assume a dominant place. This is the sentiment organised about the idea of the self, or the "self-regarding" sentiment and the importance of it arises from the fact that it is the basis of will, volition or self-control.
It is the self-regarding sentiment adding itself to the weaker motive which enables the latter to prevail over the stronger. As McDougall states "we may, then, define volition as the supporting or reinforcing of a desire or conation by the cooperation of an impulse excited within the system of the self-regarding sentiment". (68)

This conception of self-control it need hardly be pointed out is a very informing one for psychopathology as for psychology. On the one hand it links up the difficult and disputed question of will with other recognised factors of psychology. As Drever observes "though control of primitive impulse becomes more and more complex, it is always a control by that which draws its controlling force, ultimately and fundamentally, from primitive impulses, never a control ab extra". On the other hand it supplies a theory of repression and control which proves illuminating to a remarkable degree in psychopathology and psychotherapy.

There are certain other activities which McDougall calls General or Non-Specific Innate Tendencies. The most important of these for our purpose are Sympathy, Suggestion and Imitation. Sympathy, according to McDougall, is exactly what the word implies "a suffering with, the experiencing of any feeling or emotion when and because we observe in other persons or creatures the expression of that feeling or emotion". (79) It is explained on the assumption that each of the instinct dispositions
has a special adaptation on the receptive side by which it becomes excited by perception of the expression of the excitement of the same instinct in other persons. Imitation, an activity also of the utmost importance in social life, McDougall explains by the same mechanism, the formation of a special adaptation of the instinct disposition on the sensory side.

Of the three, however, suggestion is of much the greatest importance for our inquiry. As we have seen Babinski has built up a theory of the neuroses on the basis of suggestion which is accepted by many neurologists. It is essential, therefore, to try to obtain a clear and definite conception of its nature.

McDougall defines suggestion as "a process of communication resulting in the acceptance with conviction of the communicated proposition in the absence of logically adequate grounds for its acceptance". He describes four conditions which influence the degree of suggestibility, namely, (1) abnormal states of the brain; (2) deficiency of knowledge or convictions, in the case, for example, of children and savages, by whom a proposition may be accepted "for lack of any system of critical belief and knowledge that would conflict with it"; (3) the impressive character of the source of the suggestion, producing what McDougall calls prestige suggestion, and (4) peculiarities of the character and native disposition of the subject, especially the predominance of the impulse of submission.
The activity of the impulse of submission McDougall considers to be the basis of suggestibility: "In so far as the impulse of submission predominates we are suggestible towards the person whose presence evokes it".\(^{(72)}\)

Jones, as exponent of Freud’s teaching, considers suggestion an affective process due, especially in hypnosis, to a transference of the affect on to the person of the physician or operator. It is, he writes, "a rapport which depends on the transference of certain positive affective processes in the unconscious region of the subject’s mind; these are always components or derivatives of the psychosexual group of activities."\(^{(73)}\)

Bernard Hart criticises McDougall’s definition. He points out that the process of suggestion depends on the absence or neglect or inhibition of the conflicting forces which should normally be present in the mind. He amends, therefore, McDougall’s definition as follows: - it is "a process of communication whereby a proposition is communicated by one person to another and is accepted with conviction by the latter in the absence of logically adequate grounds for its acceptance, and owing to the fact that conflicting processes which are or should be present are inhibited".\(^{(74)}\) He concludes that suggestion is due to the action of a complex - it is a variety of "complex-thinking" - and suggests that the term should be restricted to the cases in which a direct relation between persons exists.
Babinski denies the existence of an emotional factor in suggestion. A closer examination of his views on the subject, however, would make it appear that there is not so much divergence from the theory of emotion as at first may be apparent. He admits that a certain affective element exists in pithiatic conditions, although he distinguishes this from emotion and states that it plays only an accessory part. He acknowledges that "all ideas even the most abstract possess a certain affective element," and that in pithiatic conditions the ideas have an extremely rich affective content. The morbid idea which the hysterical subject conceives is realised only when it becomes implanted by its systematised affective elements. "The role of the systematised affective elements is then clearly revealed: they establish the idea and give it the power of a plastic realisation." It would seem, therefore, that without the affective element the idea would not be "established" or "given power of plastic realisation" - a conception which we may judge to differ little from the emotional theory.

We may conclude, therefore, that in contemporary opinion the majority of observers are agreed in accepting the factor of emotion as the essential feature of the suggestion process, and not any motive force inherent in the idea itself. We shall, however, have occasion later to refer further to this subject.

The theory of acquired mental dispositions is another
conception which plays a highly important part in psychology. Psychological experience does not cease to exist when it is no longer an actual mode of consciousness. It has a continued existence "as a persistent condition of possible consciousness or as a persistent possibility of consciousness". It persists as an unconscious mental trace or disposition - "the abiding after-effects of previous experience". As Stout points out "by far the greater part of our mental acquisitions are owned by us as mental traces or dispositions" and McDougall observes that there is a disposition for every kind of object or relation we can think of. These dispositions are regarded as "constituting a sort of mental structure which is constantly being formed and modified by conscious process and is in its turn constantly contributing to determine and modify subsequent conscious process.

This bears directly on the question of Retention and Memory, and in relation to this Morton Prince's work on "The Unconscious" contains investigations of very considerable practical and suggestive value. Stout limits the definition of memory to ideal revival. Prince, however conceives memory as "a process...the whole mechanism through the working of which (this) past experience is registered, conserved, and reproduced, whether such reproduction be in consciousness or below the surface of consciousness". He shows from the evidence obtained in automatic writing, in abstraction, hypnosis, dreams
and artificial hallucinations, that the extent of conservation is very much wider than had hitherto been believed. "It matters not" he writes "in what period of life, or in what state experiences have occurred, or how long a time has intervened since their occurrence; they still may be conserved. They become dormant but under favourable conditions they may be awakened and may enter conscious life...... Yet of the vast numbers of mental experiences which we have during the course of our lives we can voluntarily recall but a fractional part. What proportion of the others is conserved is difficult, if not impossible, to determine....... Still if we take the evidence as a whole its cumulative force is such as to compel the conviction that a vast number of experiences, more than we can possibly voluntarily recall, are conserved, and that it is impossible to affirm that any given experience may not persist in a dormant state".

The mechanism by which experiences are thus conserved Prince considers to be purely physiological, by means of neural traces or dispositions which he calls "neurograms". He points out the necessity for greater precision in the use of the words "unconscious" and "subconscious". That considerable difference of opinion still exists on this subject is very evident from a recent symposium on "Instinct and the Unconscious".

Prince uses the term "subconscious" as a general name to include both the "unconscious" and the "co-conscious".
The former he restricts to the conception of neural dispositions or "neurograms" and to functioning neural processes. By "co-conscious" he indicates subconscious ideas or processes. Without binding ourselves to his theory of "neurograms" we may, provisionally, accept as a useful hypothesis his evidence for the existence of "co-conscious" states and processes. He describes how subconscious activities may attain any degree of complexity from the formation of simple associations to the organisation of subconscious complexes and the development of secondary personalities.

Conflicts consequently may arise between conscious processes, or between subconscious processes, or between an activity which is subconscious and another which is conscious. He evolves a principle or law of dissociation to the effect that "when a specific idea or psychological function (memory, sensation, perception, instinct) is by any force dissociated, the exiled idea or function tends to carry with itself into seclusion other ideas and functions with which it is systematised. The dissociation is apt to involve much more than the particular psychological element in question in that it "robs" the personal consciousness of much else". (85)

Meaning, a subject of closely-related interest, Prince finds is determined by the "setting" of the idea, that is, the accumulation of past experiences associated with the idea. The same idea, therefore, may have different
meanings - or settings - for different people from the
different experiences of each. "Out of these experiences
respectively a complex was built and conserved in the mind
of each". According to Stout, an idea includes image plus
meaning. Meaning he divides into Primary, and Secondary
or Revived. Primary meaning occurs on the first reception
of a series of items of experience; it is the "relation of
the specific items of the series to the whole of which
they form a part". Secondary meaning is the subsequent
arousal of the cumulative disposition left by an experience
or series, by one item which acts as the starting point.
Imageless thought is the arousal of meaning minus image
and it is instructive to observe that the activity of sym-
bolism finds a general explanation in this conception. When one
item or image of a complex definition, or setting, or mean-
ing is aroused and, as we say, has meaning, it denotes that
it "stands for" or is the symbol of the whole complex or
setting. It suggests, further, how for an extensive setting
a great number of symbols may be used.

Dr ev er in his consideration of the subject traces the
process back to the emergence of meaning in its most rudiments-
tary form. He finds this is prior to the "acquirement
of meaning" as dealt with by Stout, and affirms that mean-
ing on its first appearance is affective and not cognitive.
This is no doubt the case: but in psychopathology and
psychotherapy, apart from the arousal of emotion in the
instinct and sentiment, it is meaning as acquired or
secondary meaning that is the important type. We see, in fact, from our investigation of the subject, that "meaning" as a disposition the residuum of previous experience, is of essentially the same psychological structure as "complex" or "sentiment"; in the last analysis a composite of "conatons"; the only difference being that, according to the nature of the object, the affective element may be reduced to a minimum.

From the facts we have considered of instinct, sentiment and the derived activities McDougall build up his conception of character. He makes a clear distinction between character, disposition and temperament. Temperament is to a large extent a matter of bodily constitution, the complex resultant of many factors, chiefly the influence of the bodily organs (especially the ductless glands) and the general functional peculiarities of the nervous system. Disposition is the sum of all the innate dispositions or instincts, and differences in dispositions are due to differences in the strength of the impulses of the instincts natively given or induced by use. Character is the sum of acquired tendencies built up on the basis of disposition and temperament. (89)

Armed now with these considerations from our somewhat lengthy study, we may turn again to our original question and ask what is meant by a psychological explanation. We have seen that different writers have explained the occurrence of the neuroses by the use of
different concepts such as suggestion, dissociation, conflict or repression. We have to enquire what is the criterion that will enable us to recognise an adequate psychological explanation.

As we have pointed out the conative dispositions must be regarded as the ultimate facts of psychology. Every item of mental activity must be looked upon as a component or derivative of the instinct mechanism. Knowing is merely the servant of action; "the function of cognition is to initiate action and to guide it in detail". McDougall, therefore, states that "in order to explain or understand any action we have to exhibit it as the expression of some single conative disposition, or of a conflict of, or of some conjunction of, such tendencies, according to the plan of organisation of the character". *(90)*

"when, and not until, we can exhibit any particular instance of conduct or of behaviour as the expression of which conative tendencies are ultimate constituents of the organism we can claim to have explained it". *(91)* As the essential factor of the conative tendency is the emotion and as this we have shown to remain always unchanged it implies tracing the condition back to the particular and specific emotion or emotions concerned or, according to our own conception, to the specific conators or conflict of conators or combination of them.

( 40 )
In the light of this criterion we may now endeavour to estimate the theories of the various authors. Djerine's conception of emotion is seen to be vague and indefinite. He does not differentiate the separate emotions but speaks simply of "emotion" and "emotivity". It is true that he divides the emotions into asthenic and asthenic but it is not clear to what particular tendencies these names respectively refer. Although it is not anywhere explicitly stated, his discription of preoccupation seems to refer in most cases to conflict. It is difficult also to accept his theory of the extent to which emotion manifests itself differently in different people. To a limited extent this is, of course, true; no two people give expression to emotion in quite the same manner. But in the radical and universal sense in which it is expressed, that the "modality of physical disturbances brought about by emotion and the nature of the emotion itself" are chiefly a question of individual reaction, and that "the hysteric who later will show functional paraplegia, has always felt, no matter what may be the emotion that she is experiencing, that her legs were giving way beneath her", except from the influence of acquired association, it is impossible to accept.

Indefiniteness in the theory of emotion seems also to be the weakest point in psychoanalytic teaching. Emotion is referred to almost invariably as "psyche" or
"libido" which is used to denote the sexual energy. When other emotions are considered, such as fear or anger they are looked upon as components or derivatives of the sexual energy. The doctrine too of "free", "disposable" energy is apt to be misleading unless used in the sense of "loosely associated" as employed by Jones. Other mechanisms of psychoanalytic psychology as we have indicated correspond in a remarkable way with McDougall's teaching. Complex, for instance, we have seen to be identical in structure with sentiment: conflict is the opposing action of antagonistic conative tendencies and cannot be said to be precisely apprehended until the specific tendencies or "conators" are clearly exhibited. Repression, the adjusting of conflict through the suppression of one of the opposing factors by the victory of the other, again requires a clear and definite appreciation of the opposing factors. Dissociation we have seen to be an implication of the activity of the sentiment, and transference of the affect is included in McDougall's modes of modification of the instinct disposition by association.

Suggestion as a theory of explanation has been employed on so wide a scale that its value has been reduced practically to a minimum. As Bernard Hart has pointed out "It explains everything and therefore explains nothing". Babinski's theory we have found to be unsatisfactory in that it fails to distinguish between the respective roles of idea and affect. If the essential component of the
process is the affective factor it becomes then identical with the theory of emotion: if on the other hand the idea is looked upon as the source of conative energy it runs counter to contemporary teaching on the subject.

McCurdy has found it necessary to postulate an instinct of savagery and brutality for which in our view there is no necessity and no sufficient evidence. He considers stability in ordinary life to be obtained by the repression of this instinct by another, namely, the herd instinct, which is again an explanation lacking in sufficient definiteness. If we suppose the existence of the state of affairs postulated by McCurdy, the repressing force would presumably be that which exercises the general controlling influence over consciousness, the great self-sentiment. It is true that this sentiment is built up through the action and interaction with other individuals, a process in which the social or herd instinct plays a part. But to describe the mechanism as simply the herd instinct gives a very imperfect notion of its nature.

McCurdy's use of the word "anxiety" is also open to objection. According to McDougall anxiety is the arousal of anticipatory pain at the loss of the object of love, anticipation of sympathetic pain, tender emotion and perhaps a little anger, all excited within a sentiment of love. This is obviously a very different conception from that in the anxiety neurosis of Freud. Here is meant intense morbid dread, which shows no essential difference
from the emotion of fear; the distinction between normal and morbid fear resting on the disproportion between the intensity of the emotion and the occasion of its occurrence. McCurdy uses the term at one time in a loose colloquial sense as when he describes a patient being "tired of the situation in which he found himself and (was) anxious to receive some sort of an injury"; and at another time in a context such as "He approached the trenches feeling quite anxious and, on arrival immediately got into a panic" in which it is plainly synonymous with fear. The use of euphemism of this kind may be of value under certain circumstances but it is difficult to reconcile with the necessity for a clear and definite psychopathology.

It follows also that such conceptions as repression and dissociation are insufficient in themselves to form a satisfactory explanation, though usefully descriptive as secondary or derivative phenomena. As regards conflict, when it is stated as a broad theory that the neuroses of war depend upon conflict this will meet with little opposition. But when, as Rivers affirms, the conflict is between "the instinct of self-preservation and certain social standards of thought and conduct", or between the "instinct of self-preservation and a simple conception of military duty", we recognise here the indefiniteness which we are seeking to avoid.
Turning now to the practical consideration of our subject, if we investigate the effects of war upon our mental reactions we shall, no doubt, discover that they are of varied and complex nature. Trotter has well described the effect of the stimulus of war upon the ordinary citizen. In regard more especially to the fighting man we may say that to such instincts as the combative instinct (anger), curiosity, self-assertion, and the social instinct, war makes a strong appeal. But without any doubt amongst those in the zone of active warfare, it is upon the instincts of fear and disgust that the strain of war is most heavily experienced. When we consider the fact that an instinct or an emotion is an inborn disposition, that it subserves a definite biological function, and can no more be got rid of by willing, repressing, or training than the liver, the thyroid, or any other organ of the body, that it is excited by certain special stimuli, it is not surprising that when the special stimuli appear the associated emotions should be aroused. It would be surprising and, in fact, incredible if it were not so.

Modern warfare has lost all of the amenities that convention had previously laid upon it. It consists largely of an environment of fear and horror-inspiring stimuli.
When an individual, therefore, leaves an ordinary civil occupation, and after a few month's training finds himself in surroundings the most fear-inspiring that the ingenuity of man can create, it is hardly a matter for wonder that the corresponding emotion of fear - being a biological mechanism necessary to human nature - should be set in action. When we consider these aspects of the problem it becomes evident that one of the most striking facts demonstrated by the war is that the ordinary individual is capable of withstanding active war conditions to an extent never before supposed; in other words, that his power of resistance or of adaptation has been shown to be enormously greater than was ever hitherto believed. Few people before the war would have believed the average man capable of emerging mentally unaffected, if physically so, from a bombardment of the intensity so common during the war.

How did the individual react to this? How was he enabled to withstand it? According to McCurdy he adapted himself by building up a sublimation of the postulated instinct of brutality whereby it evaded the repression and gained a certain satisfaction. There is, in our view, no sufficient evidence to substantiate this conception. What, however, was manifest was that the great instinct continually being aroused and calling for repression was the instinct of fear. The adaptation mechanism was, in fact, an adjustment between the constantly stimulated emotion of fear and the repression exercised by the self-control or self-
regarding sentiment the great source of self-respect.
A diagram may serve to make this clear:-

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    E

R.
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E representing the emotion of fear and R the repression or self-regarding sentiment.

In the individual in whom adaptation took place the two processes reached a certain balance or equilibrium in which the repression activity proved itself the dominant factor, enabling the man thus to "carry on". Different individuals naturally varied in their powers of adaptation, according to the strength or weakness of the respective factors. In all who lived under the conditions of actual warfare it was undeniably the fact that the mental system was more "highly strung", working with more internal strain, more delicately balanced; in other words, the balance or equilibrium of the adaptation-mechanism was in a state of potential if not actual instability. If it is true that "everyone is a little hysterical" it was still more true in the trenches.

Having regard therefore to the psychological factors of the adaptation mechanism a classification could be made, into the Normal, i.e. those in whom the self-control was sufficient to repress the fear emotion; and the Subnormal, i.e. those with deficient control, or an unduly excitable fear disposition, or both - from various causes such as
inheritance, previous nervous disease, faulty early training and education, etc. Individuals of the subnormal type broke down after their appearance in the zone of active operation or even frequently before they arrived there. In the normal type breakdown occurred under two sets of circumstances; either from sudden intense shock - which in effect meant a sudden inrush of the fear-arousing stimulus - or from long continued strain.

It was a failure of the adaptation mechanism from one or other of these causes which was responsible for the occurrence of the commonest form of war neurosis, and as an introduction to the consideration of the clinical types, a description of a raid may fitly be given which was carried out by the battalion to which the writer was medical officer.

On Dec. 5th, 1916 a raid, which took place in a sector of the line held by another regiment, was planned and attempted by about two hundred men. The party had gone over the top, when the sky cleared and the moon gave the situation away. Accordingly they were ordered back into the trench, which, being held by other troops, was now crowded. The enemy thereupon started firing trench-mortars, one of which fell and exploded right in a bay filled with troops. An officer and four men were killed, three men were wounded, and eleven men reported to the writer shortly afterwards with "shell-shock", having been in the interval ordered into a dug-out. They were seen in the support trench by the light of the moon; all of them were con-
siderably "shaken up", nervy, jumpy and tremulous and one man was suffering from aphonia. As the raiding party were being sent back for 48 hours rest none of these patients were sent to hospital. It was intended to see them the following morning. This, however, was rendered impracticable by the battalion being moved into the line, and it was two or three days later that the cases were seen individually. By that time two of them had reported sick to a Field Ambulance and been sent to hospital. The following is a report of the remaining nine men.

Case 1, Private A.G.S., aged 20, stated that he was in the same bay in which the trench-mortar fell. He felt the concussion of the explosion but remembered no more until he found himself, sometime later, partly buried, picking himself up. He was dizzy and shaking all over, could not keep still and felt "jumpy" when shells came over. He waited on the fire step in the front line until ordered to the dug-out. Service in the army 18 months; in France 9 months. Occupation before the war, messenger. There was no history of any previous nervous or mental disease. As regards family history, two brothers and two sisters had died from fits. When seen the shaking had gone, and he stated that he felt practically well and was now carrying out his ordinary duties with his company.

Case 2, Private E.S., aged 22, stated that he was in the next bay but one when the trench-mortar dropped. He was knocked down and another man thrown on top of him. He
got up shaking all over, couldn't keep still, his ears were ringing and he felt dizzy. There was no amnesia. Shortly afterwards he was ordered into the dug-out. Service 2 years 4 months; with the battalion 12 months. Occupation before the war, portmanteau maker. He had a previous attack of "shell-shock" in April, 1916, when four mines were blown up at Hulluch. Sent to hospital for a month and then discharged to his unit. Family history negative. When seen he still complained of some shakiness and nervousness when shells came over but was able to carry-on with his company.

Case 3, Private C.N., aet. 23, stated that he was ordered to go out and bring in the tape which had been used in the operations. He had just got a yard or two over the parapet when he heard the trench-mortar coming. He lay down and thought it was going to land on his back. He was blown by the explosion against the wire and covered with dirt. He must have forgotten something, he said, for the next thing he remembered was crawling back over the parapet shaking all over, his ears "all of a ring", and his head "all of a buzz". He remembered hearing a voice cry "Help me out!" and he began to dig with his hands until he got the man out who was buried, and led him to the dug-out. Service 2 years and 4 months; with the battalion 2 months. Wounded twice. Occupation before the war, gardiner. There was no history of any previous nervous or mental disease, the family history was clear. When seen
he stated that he felt slightly deaf in the right ear and occasionally felt somewhat shaky when shells were coming over. He was much better, however, and improving, and was able to carry on quite well with his company.

Case 4, Private H., aet. 20, stated that he was in the next traverse when the trench-mortar fell. He was partly buried by the explosion and got up "all of a shake" and restless, couldn't keep still, mouth and throat were very dry. There was no amnesia. Service 10 months: with the battalion 5 months. Occupation before the war, bricklayer. There was no previous history of nervous or mental disease. As regards family history an aunt had been in an asylum. He reported, when seen, that he felt much better, though a little of the shaky feeling was left: he complained chiefly of headache, but was carrying on quite well with his company.

Case 5, Private J.B., aet. 26, stated that he was in the bay in which the minenwerfer burst. It made him shaky and tremulous so that he could not keep still. He was set to digging the buried men out but it made him so sick that he had to be sent back. He stated that he thought it was fright that made him sick. There was no amnesia. Service in the army 10 months; with the battalion 5 months. Occupation before the war, labourer. He stated that he had had slight sunstroke about 3 years before. Family history, negative as regards nervous or mental disease. He reported at the interview that he was much better, but got
somewhat shaky and sick at times. He was, however, quite able to continue with his company.

Case 6, Private T., aet. 20, stated that he was at the end of the bay in which the trench-mortar dropped. He felt, he said, "shaken up a bit". There was no amnesia. Service in the army 9 months; with the battalion 6 months. Occupation before the war, labourer. No history of any previous illness was obtained and no family history of any nervous or mental disease. When seen he stated that he felt all right again.

Case 7, Private W.A., aet. 29, stated that he was moving along the trench when the trench-mortar exploded. He saw the flash, and in addition to rendering him shaky and nervous he became blind for a little while. About ten minutes later when order to the dug-out he found he could not speak above a whisper. There was no amnesia. Service in the army about 15 months; with the battalion 4 months. Occupation before the war, gardiner. No previous history of nervous or mental disease, and the family history was negative. When seen the shakiness had passed off and the aphonia, though present to a slight extent, was better and was improving. He was able to carry on quite well with his company.

Case 8, Private E.A.J., aet. 25, stated that he was in the adjoining bay when the trench-mortar exploded. He saw the flash and heard the noise of the explosion and was blown against the trench. After that he remembered no
more until he "came to" and found himself in the dug-out and heard an officer say "This way all men who want to see the M.O." Possibly an hour elapsed; he was feeling shaky and somewhat faint. The completion of the history of this case from the evidence of another soldier is of very considerable interest. Private H. stated that he was with Private J. in the dug-out. J. went "straight off" and lay stiff for about five or ten minutes. A stretcher-bearer came and gave him water, then the patient began to mumble and shortly afterwards began struggling and shouting "Kill all men with white faces to-night" (the faces of the raiding party were blackened). He gave the impression that he saw Germans running away for he kept struggling and shouting "Bomb them, bomb them! Don't let them get away!" He also attempted to strangle a man next to him. As his pockets were full of bombs he had to be held down. For all this the patient had a complete amnesia. Service in the army 9 months; with the battalion 7 months. Occupation before the war, engineer. There was no history of previous nervous or mental disease. Two uncles had committed suicide, one, an alcoholic, who hanged himself; the other died from cut-throat during an attack of depression. At the interview he reported that he was well except that he felt somewhat faint occasionally. He was "carrying on" in the usual way with his company.

Case 2, is similar to the last described. Private J.G.D., aet. 33, stated that he was in the same bay in
which the trench-mortar exploded. He was thrown down and buried and remembers someone pulling him out. After that he has no recollection until he came to himself, he thinks about half an hour afterwards, in the dug-out, shaking all over so that he could not keep still. Private W.D.G. stated that he was on the step of the dug-out with D. The latter seemed to be very excited and not to know what he was saying. He kept shouting that he wanted to get at the Germans, wanted to throw bombs at them. He was struggling so much that he had to be held down. He gradually became quieter. Of this delirium the patient himself had no recollection. Service in the army 7 months; with the battalion 2½ months. Occupation before the war, labourer. There was a history of a previous nervous breakdown four year before, after an accident when he was nearly run over by an engine on the railway. His mother had had two paralytic strokes, a brother had "St. Vitus's Dance" and an aunt had "nervous debility". When seen the patient stated that he still felt somewhat shaky when shells went off and somewhat weak. He was carrying out, however, his ordinary duties in his company. There was no sign in any of the cases of organic derangement of the nervous system.

**TYPE I.**

Several interesting features are brought out from a consideration of these cases. The first and most striking is the fact that the nine cases were able to return to duty after 48 hours rest a fact especially impressive in the
case of the two men with delirium. None of them asked or expected to be sent to hospital. Secondly, none of the cases had any special form of treatment. The number was, of course, much too few to generalise upon but the chief point it is desired to emphasise is the actual nature of the symptoms. All of them showed general tremulousness, nervousness and "jumpiness", varying in degree, and the mental condition associated with the arousal of the emotion of fear. This is the commonest type, and, in the writer's view, the basic feature of all the forms of the war neuroses; and to make this still more evident several other cases will be described which were examined under more favourable conditions in hospital.

Case 10, Private G.A.S. aet. 30, was admitted to hospital on 30/3/17 in a general shaky, tremulous condition with ringing in the ears, a frightened nervous feeling, and headache. The history was that about 10.30 a.m. on the same day while in the reserve trenches a shell exploded about 3 yards away, on the parapet. Patient was buried, and when helped out was shaking all over, felt terrified, and couldn't keep his limbs steady. He was helped to the aid-post and sent to hospital. There was no history of previous attack nor of any nervous or mental disease; family history was negative; occupation before the war, farmer. Service in the army 4 months, in France 2 months. On examination, beyond the general tremulousness, consequent slight inco-ordination and some exaggeration of the reflexes there was no abnormality in
Case 11, Bmbdr. A.E.W., aet. 26. was admitted into hospital on 5/4/17. He was in a mildly tremulous, nervy condition, complained that his "nerves were gone", and that he was jumpy and frightened at the least thing. He stated that about a fortnight before while with a party digging an advanced gun-position they were subjected to some shelling. One shell exploded fairly near wounding one of the men. Patient said that his nerve then gave way, and since that time he had not been able to stand shelling; he had become shaky, nervy and jumpy, and apparently had been going about his work in such a frightened condition that he was ordered to report sick. There was no history of previous attack nor of any nervous or mental disease. Family history: mother was alcoholic. Service 2 years 6 months: in France 9 months. Occupation before the war, plumber. On examination there was no evident abnormality of any of the systems.

Case 12, Rfn. W.B., aet. 25, was admitted into hospital on 25/3/17 in a general tremulous condition and complaining that he "can't stand the trenches". He felt nervous and shaky in the line, had tried to "pull himself together" but could not do it. This had been the case since shortly after he went into the line. Now he can't keep his mind away from the trenches and the guns, he is continually thinking of them, and says he will go mad if he is sent back. He stated that a few days before while in the
trenches during a bombardment he heard a shell coming, as he thought, towards him. He "came over" nervous, faint and frightened and began to shake all over. After that he remembers no more until he found himself being helped down to the aid-post by two stretcher-bearers. There was no family history of nervous or mental disease. He stated that he had always been nervous, but there was no history of any definite nervous or mental disorder. Service in the army 1 year 10 months: in France 7 months. Occupation before the war, cook. On examination there was generalised tremor, and the reflexes were brisker than normal, but there was no sign of organic disease in any of the systems.

Case 13, Sgt. F.O.A., aet. 27, was admitted into hospital on 28/3/17 complaining that he could not keep steady in the trenches, he was always trembling. The least shelling and even the sound of our own guns made him so jumpy that he could not control himself; he felt as if he wanted to run away. He was continually worrying about being killed, imagined shells were dropping all round him, and felt as if he were going mad. He complained also of aching on the top of his head and sleepiness. He had not been blown up or buried or subjected to any exceptional exposure recently. He had been attached to the engineers and reported sick three days before admission with his "nerves" and sleeplessness. He stated that about three months previously while in the trenches, a shell had dropped about four yards away from him. He was smothered.
with mud but not knocked down. He was rendered shaky and nervous then, but was not bad enough to report sick. He has been worse, however, since that time. There was no history of previous nervous or mental disease. He stated that he had always been nervous. As regards family history, two cousins were insane, one on father's and one on mother's side. Service with the army 2 years and 4 months in France 4 months. Occupation before the war, Storekeeper. On examination, beyond a very slight tremor of the hands there was no abnormality in any of the systems.

These cases are probably sufficient to illustrate the commonest form of war neurosis representing a typical neurrose d'effroi, or fear neurosis. They all show the same syndrome of symptoms in varying degree, viz. tremulousness, nerviness, jumpiness, excitability, subjective sensations of headache and giddiness. Frequently some mental confusion, sundry visceral derangement such as incontinence of urine, dryness of the mouth and throat, excessive perspiration, etc. and the characteristic mental attitude associated with the arousal of the emotion of fear. No indications are discoverable on examination of any damage to the nervous system. When, however, a careful comparison is made between the symptoms of this condition and the manifestations of the emotion of fear a similarity becomes evident too marked to be ignored. The tremors, which may increase to spasm or even convulsions, the accelerated heart and respiration, the excitability, the well-known
organic effects on the mouth, bladder and intestine, and in the voice, all find their exact counterpart in the mental visceral and kinaesthetic signs of the emotion of fear and the associated excitement.

As McDougall observes, apart from the specific impulses to flight and concealment there is great variety and variability of the symptoms of fear. "The sudden stopping of heart-beat and respiration, and the paralysis of movement in which it sometimes finds expression are due to the impulse to concealment; the hurried respiration and pulse, and the frantic bodily efforts, by which it is more commonly expressed, are due to the impulse to flight", and again "Terror, the most intense degree of the emotion may involve so great a nervous disturbance ... as to defeat the ends of the instinct by inducing general convulsions and even death".  

The state of affairs now existing may be represented by the following diagram:-

![Diagram](image)

where E, the emotion is seen to have overwhelmed R, the resistance or control.

The significance of this clinical type has not, in the writer's opinion, been sufficiently recognised. In the
French army it apparently did not occur with the same frequency, other types especially those showing paralysis and contractures were of more common occurrence. These trembleurs, however, formed the type which occurred in about 70% of the cases admitted into the 3rd Army centre. It has been observed that the war neuroses seemed to be a corollary of modern methods of fighting. It is interesting, therefore, to record Macaulay’s vivid description of a case of the type we have considered which occurred at the siege of Namur in 1695 in no less distinguished a person than the Duke of Maine. "At first glimpse of danger" he writes "the bastard’s heart had died within him. He had not been able to conceal his poltroonery. He had stood trembling, stuttering, calling for his confessor while the old officers round him with tears in their eyes urged him to advance".

The following cases illustrate the more marked semi-convulsive form of this type of fear neurosis in which "fits" or "crises nerveuses" were present.

Case 14, Private F.H.S., aet. 22, was admitted into hospital on 21/2/17 in a condition of extreme tremulousness, shaking from head to foot. Respiration was irregular and he could speak only in jerky tremulous accents. He was a recurrent case having had two previous attacks similar but less severe. He had rejoined his unit after treatment for a previous attack on 3/2/17. On 12/2/17, while at work in the trenches the enemy began
firing trench-mortars and rifle grenades. One fell close to the patient's party, how close he could not say. It made him go "all of a shake", so that he could not stand, and he was sent to hospital. There was no family history of nervous or mental disease and apart from the previous attack of "shell-shock", no previous history of nervous or mental disorder. Occupation before the war, engineer's apprentice. Service in the army 2 years 6 months; in France 17 months. On examination there was no evidence of organic derangement of the nervous system. Four days after admission the writer was summoned with the message that the patient "seemed to have gone out of his mind". On arriving at the scene, he was found being held down by several patients. He was in what seemed to be an extreme condition of terror, apparently oblivious of his surroundings. His eyes were fixed and staring at some evidently terrifying vision, he was struggling jerking his head and limbs in a frantic inco-ordinate way, and making inarticulate noises with his lips and tongue. He was given hyoscine and slept fairly well during the night. The following morning he was calm and composed and when questioned regarding the occurrence of the evening before, said that he remembered sitting on the edge of his bed, when suddenly his surroundings changed and he thought he was back in the trenches working with his battalion. He felt terrified at something he could hear coming at him, he thought it was a shell. The phantasmagoria was, the patient said, as vivid...
and clear as reality.

Case 15, Private C.F.C., aet. 20, was admitted into hospital on 8/3/17. He was in the typical tremulous, nervy, jumpy condition and in addition complained that when he sat up an "attack" or "fit" occurred. The history was that about 8 days previously while in a dug-out a shell hit the end of it and burst it in. He was told to go for stretcher-bearers and while on his way another shell hit the trench five or six yards away and knocked him down. He felt shaken and nervous but proceeded towards the stretcher-bearers dug-out and just as he reached the entrance he fell, his senses left him and he remembered no more until he found himself in the Field Ambulance, about 24 hours later. There was no evidence in the nervous system of organic disease; no history of previous nervous or mental disorder. As regards family history his mother, he said, was hysterical. Shortly after admission a "fit" was elicited by making the patient sit up in bed. He sat up and at once closed his eyes, clenched his fists and began to tremble. Then he fell back in bed and went through a pantomime expressive of terror, holding his arms up as if he were warding something off. This lasted for a few minutes. The patient stated that during the attack his surroundings changed, he thought he was back in the dug-out, that shells were falling on it and he was trying to get away from them.

It was very noteworthy the strong opposition that
existed against admitting the existence of the emotion of fear. Amongst, of course, the general body of the citizens at home a strong preconception was present from patriotic motives. The tradition in the army that "the soldier knows no fear" was again a source of strong suggestive force that in fact rose superior to the most obvious incompatible facts. The dissociation that resulted was very striking — an object-lesson of the extent to which self-deception may occur. The ordinary "shell-shock" patient admitted in the most evident condition of terror would deny in the most sincerely indignant way that he was suffering from fear.

The following dialogue is typical of many that took place on purpose to bring out the dissociation:

**Medical Officer** (to very tremulous patient entering office) *You look as though you've got the "wind up" my boy*

**Patient** (indignantly) *I haven't got the "wind up", sir; I've never had the "wind up" in my life!*

**M.O.** "All right, come and sit down here and tell me what you were feeling like when the shell knocked you over".

**P.** "Very bad, sir."

**M.O.** "What do you mean by 'bad'?"

**P.** "Very queer,sir"

**M.O.** "What do you mean by 'queer'?"

**P.** "My nerves all shattered, sir."

**M.O.** "What does 'shattered nerves' mean? You can't mean that the nerves in your body have actually been shattered?"

**P.** "I suppose it must be concussion, then, sir."
M.O. "I have examined you and there is no sign of concussion. Tell me if this describes your feelings: when the shell exploded it made you feel very shaky?" 

P. "It did, sir."

M.O. "And very nervous, and you could hardly stand?"

P. "That's it, sir."

M.O. "You thought every shell was coming straight at you, and you were feeling terrified?"

P. "That's just it, sir."

M.O. "What is the difference between that, then, and getting the 'wind up'?"

P. (after a pause) "I don't suppose there is any, I never thought of it that way before."

The dissociation existed in different individuals in different degrees. Thus one patient stated that he "had a dread on him... didn't know what it was... couldn't sleep for it, he lay sweating all night." Another said when asked to account for his shaking he "thought it might be the cold." Another stated that he did not know what he was afraid of. When asked "Are you afraid of shells?" he replied "In myself I'm not, but as regards my control - I can't control myself. I start to shake and after that things become a blank." Most patients admit they have "nerves" but deny the existence of fear. The essential importance of the dissociation lay in the fact that it implied an attitude of detachment on the part of the patient who looked upon his
condition as one beyond his control.

The value of overcoming the dissociation, rearranging the patient's ideas, making him face the situation and endeavour to assume control will be made evident in our consideration of treatment. That the necessity exists for emphasis upon this common type of war neurosis is seen when we recognise that there are writers on the subject who deny the causal influence of fear. Babinski, as we have already noted holds the view that emotion by itself cannot produce hysterical attacks. 

Hurst writes: - "During a heavy bombardment a man often remained terrified for hours together. If the tremor, inability to move the legs, and speechlessness persisted all this time, it was natural that these symptoms of fear, which were not in any way hysterical, should so greatly impress the soldier’s mind that the idea of a permanent condition of tremor, paraplegia, and mutism suggested itself to him, with the result that when the original emotion had disappeared its physical expression persisted as hysteria."

This view ignores the essential factor and concentrates on an element of secondary - and doubtful - value. In correlating the occurrence of fear in the war neuroses with the basic sexual principle of psychoanalysis, Jones, as expounding Freud's teaching, maintains that the "developed dread" that arises from situations
of real danger is an abnormal response akin to the
neurotic symptom of morbid anxiety. Sexual energy,
or libido, being differentiated into the "object-
libido", the sexual impulses that are directed out-
wards, and the "ego-libido" or narcissistic portion
that is directed inwards and constitutes self-love,
the developed dread found in situations of real dan­
ger is considered to arise from the narcissistic part
of the sexual hunger that is attached to the ego.\(^{109}\)

When we realise that we are dealing here with one of
the strongest emotions in human nature, it is not sur-
prising, that its arousal in an intense degree would
produce a severe clinical condition. It might seem
that there would be a constant correspondence between
the severity of the stimulus or experience and the
resulting clinical condition. This, however, was not
borne out in practice. It was a matter of common oc­
currence for equally severe conditions to be met with
in those who had had no exceptional experience to ex­
cite them. It implied that an internal stimulus or-
iginating in the mind could prove as effective in
arousing the emotion as the strongest external
stimulus.

Occasionally a precisely similar type of con-
dition was met with arising from the instinct of
diagnosis.
Case 16. Corporal S.M., was sent into hospital suffering from sickness and vomiting. On admission there was a slight tremor of the hands; he stated that he felt better. The history was that for the previous five weeks he had been engaged in deepening the front line trenches on the Bullecourt sector. They came across a number of dead bodies which had to be dug out and removed. He started vomiting, was unable to retain his food and was sent to hospital. On examination, there was no evident organic disorder of any of the systems. No history of previous nervous or mental disease. Family history negative. He rapidly recovered under treatment and was soon able to rejoin his unit. A condition of this kind was not common in the pure state. More frequently the fear and disgust instincts were aroused together.

TYPE II.

When we consider the effect on the mind of the arousal in intense degree of a strong emotion we are given the key to the explanation of another of the clinical types of the war neuroses. This form consists of the confusional and stuporose conditions which are, in the writer's view, different degrees of the same type. It is a matter of common observation that the excitement of most
emotions in any fairly considerable degree will produce a certain mental confusion. The arousal of the emotion of fear as McDougall has observed "tends to bring to end at once all other mental activity, riveting the attention upon its object to the exclusion of all others". It is "the great inhibitor of action". When sufficiently intensely aroused it fills and dominates the mind, disorganises the normal balance or "equilibration" of consciousness, inhibits the perceptive, reasoning and controlling activities, producing thus a form of mental confusion or mental paralysis corresponding to the dazed or stuporous cases not uncommonly met with.

In many cases of the first type a slight degree of dazedness existed. The following cases illustrate conditions in which confusion or stupor was the dominant factor:

Case 17, Private W.D., aet. 22, was admitted into hospital on 10/4/17. He was in a dazed condition, dull and slow in apprehension, and impaired markedly in his appreciation of time relations. His condition varied somewhat; at one time he was fairly clear, at another he was stupid and dazed, scarcely knowing where he was. He complained of throbbing headaches, stated that he seemed to "lose his head" now and again and "didn't know what he was doing", and had frequent dreams of smothering. He remembered going across a field taking water-pipes up to the trenches, but after that could recollect no more until he
"came to", two days before admission, since when he had been confused. There was no family history of nervous or mental disease. He had been wounded twice but there was no history of previous nervous or mental disorder. Occupation before the war, colliery engineer. On examination, there was no evidence of any organic derangement of the nervous or other systems.

Case 18, Private C., aet. 32, was admitted into hospital on 11/3/17. When seen the following day he was completely confused, disoriented in time and place, and incoherent in speech, so that no sustained conversation could be held with him. He seemed slow in apprehension and it was difficult to hold his attention for more than the briefest period. It was reported that during the night he had been restless and strange in conduct. He got up once and passed a motion into his boot. On 13/3/17 he was much improved, clear in mind, orientated accurately and seemed to have recovered his normal mental activities. He was somewhat weak and complained of headache and giddiness. He stated that he had been on working parties at night for eight hours at a time. He began to be troubled with headaches and giddiness and reported sick on 9 or 10/3/17 - he was not sure which. There was no evidence on examination of organic derangement of the nervous or other systems. There was no history of previous nervous or mental disease; as regards family history his father was in an asylum. Service in the army 1 year; in France 6 months.
Occupation: painter. During the following weeks he made steady progress without relapse.

The record of the following case is unfortunately incomplete. The essential features of the condition can, however, be described.

Case 19, Private W.B., aet. 19, was admitted into hospital about the beginning of May 1917. He was in a state of complete stupor, staring constantly in front of him apparently oblivious of his surroundings, did not respond to questioning, and was evidently unable to apprehend what was said to him. He was to all intents and purposes an automaton, requiring to be led about and assisted in the performance of ordinary duties. No notes were sent down with the case. On examination, there was no evidence or organic derangement of the nervous system nor of any of the other systems. He remained in this condition until May 25, 1917.

It had been noted that violin music produced an emotional reaction in the patient. On the evening of the above date he was taken into the office and the violin played to him. It first seemed to induce a pleasure in him similar to that of a child; later he became more emotional, developed spasms of the facial muscles and tears came to his eyes. Finally the vacant expression gave place to one of normal intelligence; he passed his hand across his forehead as though to "collect" himself. He took up a cigarette and for the first time smoked it with evident...
enjoyment. The first words he spoke were "Mother's a long
time in coming, isn't she?" On interrogation it became
evident that the stupor had passed off and that he be-
lieved himself to be in England in hospital having been
sent across from France and was expecting a visit from
his mother. He conversed readily, and refused to believe
that he was still in France, and stated that he had never
seen the medical officer before. He remembered leaving
England for France on the 13th January, 1917, and arriving
at Havre; they marched from village to village until they
reached ---- Wood. He recollected being on his way up to
the trenches talking to a friend. He did not know what
happened to him but after that he remembered walking along
a railway with a man who had hold of him, why, he did not
know. There his memory stopped. The following morning
he woke up clear and bright in mind, oriented accurately
in time and place but unable to remember how he had arriv-
ed in hospital. He had no recollection of "coming to" the
night before, of the violin playing or of his interview
with the medical officer. An amnesia existed from the
point when he found himself walking along the railway un-
til he woke up that morning in hospital.

It is evident that this type is merely the intensi-
fication of type I; the emotion being aroused to an ex-
treme and more overwhelming degree. It may be illustrated
by the same diagram:
the circle E being represented proportionately larger
to indicate the intenser action of the emotion.
CHAPTER V.

CLINICAL TYPES (Continued).

TYPE III.

The next group to be considered is an important one, usually termed the "conversion" group and consists of cases showing symptoms such as paralysis, mutism, contractures, dysarthria etc. These, in terms of Freudian psychology are the result of the conversion of the psychical energy into the bodily symptom. The conditions may be very varied as shown by the following cases:

Case 20, Private W.J.P., aet. 22, was admitted into hospital in a somewhat tremulous, nervy, jumpy, condition and completely mute. Beyond the tremulousness and scars on the back and right arm there was no evident abnormality in any of the systems. Shortly after admission, by strong urging and persuasion partial power was restored to the voice and further treatment by faradism completely cured the condition. The history was that on the day before admission his battalion had gone "over the top", had taken their objective and were digging in. One of our shells dropped short - about 5 or 6 yards from the patient - and buried him. When extricated by the help of two other men he was shaking all over, tremulous, giddy and completely unable to speak. There was no history of previous nervous or mental disease; though he stated that he had felt nervy in the line occasionally. He had been wounded in the right arm and back in July, 1916 and had been 3 months in
hospital. There was no family history of nervous or mental disorder. Occupation before the war, engineer.

Case 21, Private C.W.R., aet. 23, was admitted into hospital on 2/4/17 in a mildly tremulous condition and unable to utter a sound. There was no evidence on examination of organic disease of any of the systems. Treatment by faradism restored the voice within a few minutes. The history was that on 29/3/17 he was with a party digging an advanced trench and a shell exploded seven or eight yards in front of him. He felt his rifle blown out of his hand, and after that an amnesia existed until he woke up the following morning in the Field Ambulance. He then felt giddy and nervous, jumpy at the sound of guns and found he could not speak. There was a history of two previous similar attacks each time with mutism, in Sept. 1916, and in Jan. 1917. As regards family history his mother's sister had died in an asylum. Service 2 years 8 months; in France 12 months. Occupation, carpenter.

The dissociation activity producing the mutism may become very marked, and may develop a sort of autonomy as shown by the following case:

Case 22, Private F.H.C., aet. 22, was sent into hospital because from time to time he became suddenly mute without evident cause. He came to France in May, 1915 and remained well - with the exception of a slight wound his first day under fire - until he went on leave in July 1916. He noticed then that his voice became
hoarse, but as it was cold at the time he attributed the impairment of voice to this cause. The first night at home his voice, he said, "seemed to go a bit strange". Three days later while in a London theatre suddenly everything seemed to swim, the place seemed to be falling on top of him, and he found himself totally unable to speak. He remained in this state until the end of his leave and insisted on returning to France. There he was sent to hospital, and his voice returned after three weeks. Some time later while sitting over a fire his voice suddenly left him again and came back two or three days later. These attacks, he stated, had continued at intervals ever since. He stated that he could not believe he was nervous though he admitted that while at a sniping post on one occasion "a sensation came over him" so that he felt that the dug-out was falling in on him. On another occasion when a shell had dropped near him it "gave him a bit of a shaking up". His father, he stated, died from an apoplectic fit at the age of 50. His mother and sister were "nervous" and had had nervous breakdowns.

Aphonia was less common than mutism, but occurred nevertheless in considerable numbers:

Case 23, Gunner W.D., aet. 21, was sent to hospital as he was unable to speak above a whisper. He was able to articulate clearly enough, and there was no stutter, but the intensity or force of voice production was deficient. He was clear in mind and declared that with the exception of some indigestion there was nothing the matter
with him apart from the loss of voice. There was no evidence, on examination, of derangement of the nervous system or of the vocal apparatus. He stated that about four days previously while riding up to the battery position a shell burst about a hundred yards away. The horse threw him; he landed on soft ground, was dazed for a little while afterwards, and then found that he could not speak above a whisper. There was no history of previous nervous or mental disease and the family history was negative. Service in the army 2 years; in France 1 year. As he did not improve under ordinary methods of persuasion he was placed under seclusion treatment, and in one day his voice was completely restored.

Case 24, Private J.C., aet. 26, was admitted into hospital in a very nervy, tremulous and jumpy condition and aphonic—able only to make inarticulate noises. Apart from the general tremulousness and some consequent inco-ordination there was no evident abnormality of any of the systems. Faradic stimulation in a few minutes completely restored the voice. He stated then that the day previously while in the front line trenches during a bombardment a shell burst a few yards from him. After this there is a complete amnesia until he woke up in hospital the following day. It was his first day in the trenches. He stated that he suffered from "fits", though none were observed during his stay in hospital. His mother, he said, was in an asylum and two sisters were "nervous".
Of the different speech disorders, however, dysarthria was certainly the most common. Scripture has described in some detail the various elements in the condition, the hypertonicity and spasms of muscles, directly and indirectly concerned in speech, mental flurry, lack of confidence change in the "melody plot" etc. He states that in his view "stuttering is a disease marked by the following cardinal symptoms: 1. psychic hypertonicity and spasms of the muscles of speech, 2. anxiety (embarrassment or fear), 3. fixation of these conditions by habit, and 4. the existence of these symptoms only in the presence of other persons". In the present writer's experience recent dysarthrias aroused by war conditions were simpler in structure than those met with in civil life; and if seen early enough displayed only the first of the symptoms mentioned above. There were two general types: the first in which the disorder arose as the result of the general tremulousness and inco-ordination, affecting the speech muscles - in other words as a part of the general picture of the direct fear neurosis (type I.). The other type corresponded to the "conversion" conditions; of similar mechanism to that in mutism, deafness, contraction etc. It was found useful to note three separate forms, viz. 1. the reduplicatory - a running reduplication of any or all of the syllables of a word with little or no difficulty in articulating the individual syllables. 2. the explosive - an obstructive or explosive difficulty in articulating syllables, commonly very marked on the first syllable.
3. the combined form, a combination of 1 and 2. The practical value of the classification lay in the fact that the reduplicatory form was considerably more easily influenced by treatment.

Case 25. Driver W.I., aet. 35, was admitted into hospital on 7/2/17 complaining of nervousness and giddiness. He stated that from time to time he got "fits of the shakes for no reason". The chief feature of his condition, however, was a marked dysarthria which consisted mainly in a repetition of syllables after they had been uttered. There was, in addition, a slight obstructive or explosive difficulty in articulating the first syllable of words. The history of the case was that in September, 1916, patient was blown up twice in the same day by the explosion of shells, being thrown on the second occasion on his head. He then began to shake all over felt jumpy and terrified and started stuttering. He was sent to hospital and after four weeks treatment returned to duty. He still suffered apparently, however, from headaches, sleeplessness and occasional giddiness. His stutter, too, gradually became worse, and he was sent to hospital again on 2/2/17. He stated that he had had a previous "nervous breakdown" seven years before from over-work and domestic worry. The family history was clear of nervous or mental disease. Service in the army, since May, 1915; in France, since June, 1916. Occupation before the war, engineer's fitter. On examination, there was no sign of organic disease of the
nervous system. After two days treatment by seclusion the speech was made **practically** perfect again.

Case 26, Private J.H.S., aged 35, was admitted into hospital on 17/1/17 with P. U. O. and transferred to the "shell-shock" department on account of a very marked dysarthria. The history was that on 18/12/16 while in the trenches he was partially buried by the explosion of a trench-mortar. When extricated he was uninjured, but had great difficulty in speaking. He continued on duty for some weeks but the stutter did not improve, and ultimately he developed an attack of pyrexia and was sent to hospital. There was no history of previous stutter nor of any nervous or mental disorder. As regards family history, his eldest brother had been twice in an asylum with excitement and an aunt on the mother's side was also in an asylum. There was no evidence, on examination, of organic disorder of the nervous system. The stutter was an extremely marked example of the explosive type. Great difficulty was experienced in articulating especially the first syllable of a word. In longer words of three or more syllables frequently the obstructive difficulty appeared as well on one of the later syllables. On testing, the same difficulty was experienced with practically all the phonetic symbols, especially the sibilant consonants v, th, z, and sh. Accompanying his attempts to articulate there was a lateral shaking of the head and marked spasms of the muscles of the head and neck. Treatment in this
case though effecting some improvement was unsuccessful in producing cure.

The following case is instructive as showing the readiness with which the current conflict links itself with the complexes of early life - an example of the principle of "regression". Private J.S. was admitted into hospital with the common history of breaking down in the line, suffering from, in addition to the usual symptoms of nervousness, a very marked stammer of the combined type. He stated that as a boy of six he had, in common with most children, a dread of tramps and beggars, and in particular was afraid of a scavenger who was in charge of the drainage of the neighbourhood. This fear was apparently without any real cause but patient's mother, aware of his dread of the scavenger, used to threaten him if troublesome, by saying "I'll send for old John!" One day patient was with some playmates and a thunderstorm commenced, with heavy rain. For fun they began to choke the drains with clay and paddled in the water. Unexpectedly, someone caught the patient by the neck and said: "I've caught you this time". Patient turned and saw "Old John" in his oilskins, with his long brown beard and "evil eyes". The thunder then began; patient shrieked "Mother", ran and was caught by his mother in her arms, and, shaking and terrified was carried into the house. He was put to bed and that night seen by a doctor and was sent to hospital with scarlet fever. He was there for three months.
and during that time a bad stammer developed. As he grew older the stammer decreased considerably but on the slightest emotion it tended to recur. Since the "shell-shock" attack it had returned in a more marked form than before. He stated that now he felt frightened if he thought of the scavenger, and would "die of fright" if he appeared before him.

Of the varied functions of the body that were affected in this way many writers have given descriptions. We may conclude our consideration of this clinical type by a brief report of the following cases.

**Case 27, Private A.M., aet. 23,** was admitted into hospital on 24/2/17 in a completely mute and deaf condition. He was given paper and pencil and asked to write down what had occurred to him. He stated that two days before he had been partly buried by the explosion of a trench-mortar. When he got up he was shaking all over, gasping for breath found he could not utter a word nor hear a sound. There was no evidence, on examination, of any organic derangement and after a few minutes treatment by faradism speech was restored. A few days later as the deafness still persisted he was placed under seclusion treatment and the following day hearing had become normal. There was no history of previous nervous or mental disease though he stated that for some years hearing in the right ear had not been so good as in the left. Significant features in the family history were that his grand-father
was deaf and an uncle deaf and dumb.

Case 28, Gunner R.F., aet. 24, was admitted into hospital with paresis of both legs. He stated that a few days previously he had been partially buried in a dug-out by the explosion of a shell. He was helped out, felt weak and useless, nervous and frightened. He had been able to walk to the aid post, but his legs had been partially paralysed since then. On examination there was no evidence of any organic derangement and a few minutes treatment by faradism cured the condition. The patient afterwards made the not uncommon request to be given leave to England.

Case 29, Private C.B., was admitted into hospital with a slight gunshot wound of the left ear and contusion of left shoulder. In addition the left arm was fixed in a right-angled position at the elbow, only a very slight amount of flexion and extension movement being possible. He stated that five days before while in the trenches he was buried up to the waist by the explosion of a shell. He struggled out by himself, had a tiny wound in the ear and found that he could not move his arm. No sign of organic derangement could be discovered on examination and faradic stimulation in a few minutes restored complete function to the limb.

Turning to the psychological mechanisms responsible for the symptoms of this type, it was to these conditions especially that the theory of suggestion was applied - a theory which we have found inadequate. In the language
of Freudian psychology we may say that a "complex" has been formed about the memory or anticipation of the painful experience. If, however, we are to adhere to the criterion of tracing the condition back to the particular "conator" or "conators" concerned, it is evident that "complex" as an explanation will not be sufficiently explicit. Each particular emotion is capable of being aroused originally by its own special excitants or stimuli and of producing its own special effects. Dejerine's view that the physical disturbances brought about by emotion are chiefly a question of individual reaction we have found reason to reject except in so far as it applies to the acquired modification of emotional reaction by one of the laws we have already considered.

We have seen that by the principles of association by similarity and by contiguity other perceptions or ideas previously unconnected with the emotion may take on, so to speak, symbolic value, and become capable of arousing it. It may happen thus that different stimuli of any or all of the sense organs may, in different individuals, serve as the excitant of an emotion previously aroused only by a few. For example, in one individual a sensation of touch formerly indifferent may, as the result of a particular experience arouse the emotion of fear. In another individual it may be a sensation of smell.

In regard to the explanation of mutism, there is already pre-existing a special relation between the emotion
of fear and the function of speech. Horatio in his description of the effect of the appearance of the ghost on Marcellus and Bernardo:— "While they, distill'd al­most to jelly with the act of fear, stand dumb and speak not to him", has placed this on record in immortal words.

A priori it is possible that the mutism might be caused either by the paralysing action of the emotion of fear intensely aroused, or by a subsequent process of re­pression. In cases of stupor with mutism it is the direct paralysing effect of the emotion which is responsible. In cases without stupor, however, from the perseveration of the symptom without any sign of the paralysing influence of the emotion on other functions it is evidently due to repression. In our view, in those individuals who develop mutism, the relation between the emotion and the function of speech is more marked than normal. At the moment of the emotional experience the relation becomes intensified, that is, the effect of the emotion is felt particularly in the function of speech, it may be as a momentary paralysing ef­fect or in the production of a cry, or merely in the kine­aesthetic sensations of an unformed sound. The result is that a relation or "conator" is formed between the emotion and the function of speech such that in the attempt to speak the emotion is stimulated and the painful experience consequently aroused. By the psychological law of re­pression of painful experiences this arousal is inhibited, and, on account of the fixity of the relation (between the
emotion and the function of speech) the whole relation (including the speech function) must be repressed as a unity. We may represent the mechanism by the following diagram:

\[ E \rightarrow F \rightarrow R \]

\( E \) indicating the emotion, \( F \) the function, \( E-F \) the conator and \( R \) the repression. In this connection it is instructive to recall Janet's fifth law of dissociation which states that "the dissociation bears on the function that was in full activity at the moment of a great emotion". (#3)

The repression seems to act involuntarily and to be maintained subconsciously. What the precise nature of the repressing element may be, remains somewhat obscure. As, so far as can be judged, it occurs involuntarily the repressing mechanism cannot be the great "self" sentiment, the usual mechanism of self-control. This becomes more evident when we consider that the repression is the resistance the patient has to overcome in the cure of the condition, and success in the treatment consists in supplying an adequate motive which will stimulate him to make the necessary effort to dissociate the relation and overcome the repression. It is more probable that the actual repressing force is a sentiment subconsciously
organised in connections with the emotions of fear and disgust aroused by the existing situation, with the corresponding desire for relief - what may be called a sentiment of dislike or repugnance and which comes into action as the occasion arises. Morton Prince had described many similar mechanisms. (1/4)

By the same mechanism, repression of a fixed relation or conator, paralysis, contractures and the various other "conversion" phenomena can be explained, and a rational basis provided for their treatment. In case 29 for instance, the contraction is considered to be due in the first place to the formation of a fixed conator between the emotion of fear and the function of the elbow such that the functioning of the limb tended to arouse the painful experience. This is repressed by the action of a sentiment such as has been outlined.

As to the linking-up process with earlier experiences - the "regression" of psychoanalytic psychology - the principle on which this occurs seems to be that of "emotional congruity" described by James in connection with association. (1/8) We may formulate the principle by saying that complexes developed within a particular emotional disposition (e.g. fear, or the sexual), tend to become associated into a system.

TYPE IV.

The next clinical type to be considered includes the
complete amnesias, and fugues or "wandering attacks". Disorders of memory were of common occurrence in the neuroses of war; they were restricted chiefly, however, in the writer's experience, to a general impairment consisting of a difficulty in remembering, for example, names, dates and instructions, and to the definite amnesias. Paramnesias such as the fabrications met with in Korssakow's psychosis and in G.P.I., the phenomena od pseudologia phantastica, the excessive reminiscence in mania and in senile dementia were not met with apart from the above-mentioned conditions. Localised amnesia as we have seen in our descriptions of cases was a frequent symptom, but the type showing as the chief feature complete or general loss of memory occurred in the writer's experience in a very small number. It was a condition not uncommonly simulated by the malingerer as we shall later see in our consideration of this subject.

Janet classifies amnesia into 1. Systematised, loss of remembrances affecting a certain system or group of ideas.

2. Localised, loss of remembrances belonging to a certain period of life, and separated into (a) Retrograde, including events before the causal shock, and (b) Anterograde comprising events after the shock.

3. General, complete loss of all memories acquired during the life of the patient.

4. Continuous, which Janet considers is a loss of the faculty of acquiring remembrances. Prince names them
Broadly speaking, we may say that amnesias differ in extension and intensity, varying, on the one hand, from the loss of a few ideas to the complete obliteration of personality; and on the other hand differing in the intensity with which the obliterating mechanism acts. With different series of ideas this may act with different severity. In case 19, for instance, even after all the other memories of his past life had been restored there still remained a short/localised amnesia dating from the time of the presumed shock. In regard to the general or complete amnesias with which we are dealing in this section an important feature was the confusion or dazed-ness which invariably ushered in the condition.

Case 30, Private F.E.B., aet. 19, was admitted into hospital on 22/8/18. He had a blank, dazed expression, was markedly confused, unaware of the nature of his surroundings and unable to comprehend what was said to him except the simplest words. He was quite mute on admission but by the aid of strong persuasion and suggestion speech was restored. Memory was found to be entirely suspended. He was unable to give any information about himself, his age, regiment, recent history, family etc, and could not read or write. When asked to write his name he copied "R.G.A." from a card lying near. He replied to questions with "I don't know"; and his only spontaneous utterance was "Dead bodies". Familiar automatic activities such as walking, buttoning his tunic and other such co-ordinated
movements were present.

He remained in much the same condition for about a fortnight. The confusion then disappeared, he brightened up considerably, began to take an interest in things about him but the memory disorder remained unchanged. He was taught the alphabet, numbers, names of objects etc. by patients in the same ward. He learned quickly, "picked up" things easily, and retained tenaciously. He readily learned to do things that had once been shown him, and was taught to be neat and systematic. He was lacking, however, in initiative and spontaneity, in the ability to understand new things and in the power of adapting himself to new conditions without previous explanation. He had a ready sense of humour which was, however, childish and undeveloped. He was, for instance, greatly amused at a sergeant's bald head. He was very interested in a black man in another ward, and wanted to know all about him, but seemed unable to understand the difference. He received a letter from his mother at this time and was childishly proud of it, as he had seen other men in the ward also receiving them. He was unable to read it, could spell only a few of the simpler words, and did not understand the word "mother". It awoke no answering "chords" or emotions in his mind. In fact, apart from curiosity, the ordinary appetite tendencies and a sense of humour, his emotional life seemed apathetic, indifferent and neutral. His speech was very primitive consisting chiefly of
substantives, verbs and adjectives. As the days went on he became brighter, displayed keener interest in things and he began to improve in his powers of speech. His curiosity was aroused by hearing a baby cry outside the ward (a French civilian's child). He went out to investigate and came back and said: "Baby - doctor - no bon". Other examples of his conversation were: "Concert - laugh", "Me - walk - fields - trees", "Concert - you - see - walking", and "Band - bon". In attempting to explain things he made much use of gestures. He was taught to make himself useful in the ward and given certain simple duties to perform; in particular a cupboard which was given over to him he kept with the utmost tidiness.

He gradually began to read and was very fond of picture papers. One day he came across the word "Malvern" and at once became excited, rushed to his locker and produced two visiting cards of people who lived there. This suggested a focus from which to start a reassociating process, but no success was obtained by this means. He proved insusceptible to hypnotism and every effort to arouse memories of his home, his mother etc. was unavailing. When asked to think, with his eyes closed, of his mother he said that "it was all dark - with lights - like the lights in the ward" and further associations were simply those connected with the hospital. Each attempt at re-association merely led to thoughts of his immediate surroundings where he was spending his life. He also proudly pointed out his own surname which he saw in the paper.
It was evident that the particular tastes, prejudices, ideas, sentiments or "complexes" which made up the personality of the original were in abeyance. The various "mes", or "selves" (of James) had disappeared off the scene. It was interesting to speculate regarding the type of individual the real might be, if he were an assertive, dogmatic, forceful individual, or shy and retiring -"tender-minded" or "tough-minded", and "extrovert" or "introvert" (Jung).

About a month after admission he developed rather a boisterous mood in which the dispositions of play and imitation were very marked. He became mischievous, played jokes on the other patients in the ward; boxed and wrestled with them, imitated the medical officer, mischievously put the ward sister's watch on his wrist etc. At this period his ideas of time were still unformed. He did not know how long he had been in hospital, had no proper appreciation of what a year meant, or a week or month etc. He said he knew he was 18 because he had been told so, but had no real understanding of what it meant. Asked where he stayed before he came to hospital, he did not understand, but said he had always been there. His speech continued to improve; he was able to make use of connected sentences such as "Me say'sister had you a good lunch?" sister say me 'delicious'."

The following day the boisterousness had given way to a mood of mild depression. He was quiet and dull, did not mix with the others, but kept by himself and sat most
of the day with his head on a pillow. He was sensitive, ready to take offence at small matters and seemed to be pondering and puzzling things out. These two moods alternated, but he continued to make steady though slow progress. The following letter written on November 8th, 1918 shows his condition after a period of two months:

"Dear Captain Dillon,

Sister asked me to write and tell you how I was getting on. Well I am getting ever so much better I can talk and read and write. I don't understand all I read but a lot I do. I am reading a book of "Kings Letters from The Early Tudors." They start with "Right trusty and well-beloved." Captain....... is ill in bed. Is it nice in London? I should like to see London, they say I will soon but it seems a long time. I wrote a long letter to my mother some days ago to tell her I was better, and ask her to tell me all about the people at home and herself. Is it not funny I don't know and other people do. I sing too. Will you tell me about London? The Colonel is on leave. I have got a dog at home called "Teddie", I should like to see it. I feel sad now I don't know why and my arm and neck hurts me. I am in .... ward now there is nobody in .... ward. There is a lot I want to know. It had been raining here, they say the war is over and we all sang and danced why I don't know. I think we were like .... ward. Do you know "The Rosary" it is a beautiful song we sing it here. I can remember all
that has happened to me since I have been in here. I had tea with Sister.... and Sister... and the Padre this morning. It is cold here now. Why, when I come to London I will tell you a lot more about things here. Have you seen my dog? I am going to write two more letters. One of the men has just been altering this letter where it was wrong telling me where to put stops he calls them.

Trusting you are keeping well since your arrival in England.

I remain, yours,"

The psychological explanation of these amnesias has not been clearly worked out, and it will help us in our consideration of the subject if we recapitulate some of the facts of memory. Memory considered as a process may be said to have three main aspects, viz. reception, retention and reproduction. Some psychologists do not consider the memory process complete unless with the addition of recognition. James states that no memory is involved in the mere fact of recurrence; a farther condition is required, viz. that the fact be expressly referred to the past. Lloyd Morgan writes "There must be in all true memory a recognition". Prince, following Ribot, considers recognition as "only a particular phase of memory". We have seen that Morton Prince has demonstrated that our powers of retention are practically illimitably wide, that any or all of a series of memories may be retained for an indefinite length of time. Reproduction is the
process by which these conserved memories become conscious through the operation of the laws of contiguity, and similarity, which may activate spontaneously or through voluntary effort. Another useful fact which we may recall is the distinction into the Conscious, the one or more ideas etc. immediately before the mind, the Pre- or Fore-conscious, that is, the retained experiences which are capable of being voluntarily recalled, and the Unconscious, the enormous aggregation of experiences retained in mind but beyond the power of voluntary control.

The type of amnesia we are considering may be represented diagrammatically somewhat as follows:

Childhood  Youth  Manhood  Present time

---------------------------------------- A. Hospital

---------------------------------------- B.

A representing the normal stream of consciousness, B that in F.E.B's case, the dotted part indicating the amnesic period. From what is known of similar conditions it is evident we have to deal not with a complete or absolute obliteration of the memory traces, but a temporary suspension of the memory process. From the evidence of similar amnesias in the hypnotic state, in alternating personalities, and from the recoveries that take place spontaneously or by appropriate means it is clear that the lost memories are not totally effaced. This is most distinctly shown in the fact that the amnesia does not interfere with mental functions dependent on retention, such as speaking and
the capacity to see jokes etc. Amnesic patients are not stupid and unintelligent as if bereft of experience but bright mentally (after the initial confusion has disappeared) and they relearn with great rapidity.

Actually, it seems that the whole of the fore-conscious has been put out of action. As we have seen that this does not indicate any real effacement of the experiences it is evident that the disorder must be located in the mechanism of reproduction or recall. There must be a block in the process of association: the natural channels of communication between consciousness and the fore-conscious have become obstructed - there is something that is inhibiting the natural action of the association mechanism. Janet considers the explanation of amnesias to reside in the loss of "personal perception of the remembrances" the absence of their assimilation to the personal consciousness, and he call them in consequence amnesias of assimilation. This is the same as James' process of recognition. There does not seem, however, to be sufficient basis for this view, at least in the case of B; as no definite experiences of his past life could be revived, even "unrecognised" experiences.

A consideration of the generally-accepted facts of forgetting does not help us much in an elucidation of the case. According to the Law of Dissolution of Memory recent events fade before remote, ideas are forgotten before actions, and in the sphere of language, proper names are
lost first, then common names, adjectives, verbs, and last of all interjections. Freud, however, has evolved a theory of forgetting which is of great importance in the explanation of amnesia. In time, he states, the memory material succumbs in general to two influences, condensation and disfigurement. He shows how, at least in many cases, the forgetting of names or words or resolutions, absent-minded acts, slips of the tongue, etc. are not due merely to a passive process of forgetfulness but to an active process of repression, from the existence of conflict caused by a repugnant complex.

Our reasoning has led us to the conclusion that in amnesia the disorder lay in a block or inhibition of the association process, and this seems to be of the nature of a repression mechanism similar to that we have met in the "conversion" phenomena and that which produced the acts of forgetting we have noted above. We may ask then what is the nature of the repressing force? The cause of the repression can be easily understood. The emotion of fear is recognised to be at high intensity the most horrible of all experiences. After such a terrifying incident the mind must, therefore, make use of measures correspondingly strong and thorough to deal with it if mental integrity is to be maintained. It does this by means of the mechanism of repression, in accordance with the psychological law relating to the repression of painful experiences.
In the case of B. the horrible experience had become so widely associated as to include the personality, which, accordingly was repressed. We have already noted Morton Prince's law of dissociation, that when a specific idea or psycho-physiological function is by any force dissociated it tends to carry with itself into seclusion other ideas and functions with which it is systematised. B. was first of all overwhelmed by fear, or probably horror, to such a degree as to produce a state of confusion. When this subsided the personality, that is, the self-regarding and other associated sentiments (forming part, by association, of the horrible experience) were repressed, leaving no memory of his past life.

As regards the actual repressing factor the evidence suggests that it is the same activity that produces the dissociation and suspension of function of the conditions of type III. viz. mutism, deafness, paralysis, etc. It is the formation of a subconscious sentiment which we have called a sentiment of repugnance acting more widely and intensely. We may consequently use the same type of diagram to represent the condition:

```
P    R
```

P denoting the personality and R the repression drawn correspondingly larger to represent the intenser action.
Certain further considerations suggest themselves in conclusion. We may say that amnesia is only a certain mental phase, a condition of mind in which the memories are in abeyance: they do not link up in the normal way with the present consciousness and so restore the personality as it was before. The problem in treatment is to get beyond or lift the repressing force and allow the natural process of association to take place. A priori we should expect a natural tendency for the buried memories to rise into consciousness by the ordinary laws of association, from the attraction of the multifarious associations occurring in daily life. This seems, in fact, to be the process which occurs in the majority of cases; the continuous action of the linking up tendencies ultimately, so to speak, wears down the repression and sets the normal association mechanism into activity. In consequence, in most cases of complete amnesia in the writer's experience, the memories had begun spontaneously to return at the end of four or five weeks.

The following is a case of systematised amnesia:

Case 31, Private C.A.J., aet. 22, was admitted into hospital on 29/12/17. He was in a somewhat dazed condition, incompletely aware of the nature of his environment and of time relations. He did not recognise the medical officer though the latter recognised the patient as having been under his care before. Within a few days the confusion disappeared and orientation returned, but
he was left with a marked amnesia and a slight stutter. He stated that the last recollection he could call to mind was being at Southampton on the way back to France from leave. He stayed at Southampton two or three days, as there was no leave boat, but he had no memory of crossing to France. The next clear recollection he had was of "waking up" in hospital. Previous to arriving at Southampton he had been on leave for fourteen days. He remembered leaving his regiment at Bapaume travelling down to the Base and ultimately arriving at his home in Aberdeen. All the ordinary incidents of his period of leave he recollected clearly except the journey from his home to Southampton. This had completely dropped out of his memory. Further, it became evident that he had lost all memory of his life in France except the journey from Bapaume to the Base on leave and a brief, dim and indistinct recollection of being on sentry duty in the trenches at Mailly. All his earlier life was clear - his school-days, occupation, family, his joining the army in November, 1915, the incidents of his training in England, etc. The condition was a definite systematised amnesia affecting practically the whole period of his life in France and may be diagrammatically represented:

Life previous to coming to France. Mailly Bapaume Hospital on leave

the dotted portions indicating the amnesia.

It seemed a priori to correspond with the theory we have adopted by repression of the painful experiences,
and further interesting corroboration was obtained by experiment with the Association method. He had previously been under the writer's care in April 1917 with an attack of "shell-shock" of Type I and in common with the other lost memories of France he had forgotten this. For about three weeks the memory condition remained the same. A fact that puzzled him, he said, and which indicated the action selective of the repressing mechanism, was that he did not think of the trenches with feelings of fear. If he were asked to describe them he could not do it; he knew what was meant by the trenches, but could not call up any definite images of them. The following list of words was read out to him and the reaction-words and times noted. The latter, of course, were recorded only roughly with an ordinary watch:

<table>
<thead>
<tr>
<th>STIMULUS WORD</th>
<th>REACTION</th>
<th>TIME in seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>bank</td>
<td>money</td>
<td>1.75</td>
</tr>
<tr>
<td>body</td>
<td>head</td>
<td>2.5</td>
</tr>
<tr>
<td>wire</td>
<td>string</td>
<td>2.0</td>
</tr>
<tr>
<td>emotion</td>
<td>fear</td>
<td>1.5</td>
</tr>
<tr>
<td>watch</td>
<td>hand</td>
<td>1.5</td>
</tr>
<tr>
<td>pleasure</td>
<td>football</td>
<td>2.5</td>
</tr>
<tr>
<td>crush</td>
<td>squeeze</td>
<td>2.5</td>
</tr>
<tr>
<td>courage</td>
<td>(no reaction)</td>
<td>-</td>
</tr>
<tr>
<td>click</td>
<td>snap</td>
<td>1.0</td>
</tr>
<tr>
<td>metal</td>
<td>iron</td>
<td>2.0</td>
</tr>
<tr>
<td>breath</td>
<td>(no reaction)</td>
<td>-</td>
</tr>
<tr>
<td>electric</td>
<td>shock</td>
<td>2.5</td>
</tr>
<tr>
<td>----------</td>
<td>---------</td>
<td>-----</td>
</tr>
<tr>
<td>power</td>
<td>army</td>
<td>4.</td>
</tr>
<tr>
<td>cool</td>
<td>ice</td>
<td>2.5</td>
</tr>
<tr>
<td>will</td>
<td>a will</td>
<td>8.</td>
</tr>
<tr>
<td>pain</td>
<td>fear</td>
<td>7.</td>
</tr>
<tr>
<td>earth</td>
<td>damp</td>
<td>5.</td>
</tr>
<tr>
<td>control</td>
<td>electricity</td>
<td>4.5</td>
</tr>
<tr>
<td>weak</td>
<td>(no reaction)</td>
<td>-</td>
</tr>
<tr>
<td>fall</td>
<td>hurt</td>
<td>3.</td>
</tr>
<tr>
<td>life</td>
<td>good</td>
<td>3.</td>
</tr>
<tr>
<td>sound</td>
<td>noise</td>
<td>2.</td>
</tr>
<tr>
<td>love</td>
<td>home</td>
<td>22.</td>
</tr>
<tr>
<td>need</td>
<td>want</td>
<td>2.5</td>
</tr>
<tr>
<td>hope</td>
<td>none</td>
<td>5.</td>
</tr>
<tr>
<td>dangerous</td>
<td>fear</td>
<td>6.</td>
</tr>
<tr>
<td>lost</td>
<td>(no reaction)</td>
<td>-</td>
</tr>
<tr>
<td>wish</td>
<td>home</td>
<td>8.</td>
</tr>
<tr>
<td>afraid</td>
<td>(patient doesn’t feel afraid)</td>
<td>15.</td>
</tr>
<tr>
<td>member</td>
<td>family</td>
<td>2.</td>
</tr>
<tr>
<td>longing</td>
<td>home</td>
<td>2.5</td>
</tr>
<tr>
<td>wonder</td>
<td>nothing</td>
<td>2.</td>
</tr>
</tbody>
</table>

Making allowance for the unavoidable inexactness of the experiment from the absence of proper apparatus, if we agree to regard as significantly lengthened all reaction-times above 3 seconds, it is impressive that in 32 words there are 14 "complex-indicators". On further
investigation of the complex indicators by the free-association method practically every one was found to lead to a complex either of fear or of desire to be home. Thus power led the patient by a series of associations to the fear of death, Hell and its torments. Will led also to the ideas of fear and death. The reaction word to pain and the failure of reaction to courage are both significant. Control brought back a series of memories of an incident in his early life in which he was nearly drowned, and how very frightened he was at the time. Week led him after a number of associations to admit his anxiety to get home. Hope, dangerous, lost and afraid indicated the same fear complex, and love and wish his home complex. We have discriminated two complexes, connected with "fear" and "home"; it is evident, however, that they are but different aspects of one complex - repugnance to his life in France and the corresponding desire to be away from it.

In view of Jung's statement that "Words actually represent condensed actions, situation, and things. When I give a stimulus word to the test person which denotes an action, it is as if I represented to him the action itself, and asked him, "How do you behave towards it? What do you think of it? What would you do in this situation", it forms an interesting result. It was instructive to compare the application of the experiment with the same series of words to other patients. Another "shell-shock" patient (of type I.) without amnesia, out of the 32 words showed
8 complex indicators, 6 of which were the same as those of J. (viz. courage, breath, pain, earth, wish and afraid).
In a control experiment with a patient suffering merely from a bruised shoulder only two complex indicators were obtained, namely, emotion and breath.

The patient's memories ultimately came back gradually. He remembered leaving Southampton and reaching his regiment again at Bapaume. They were in a camp at the time behind the line. A few days later the enemy bombed the camp. One bomb exploded outside patient's hut and he became terrified. He saw a sergeant covered with blood, "felt a rising in his throat" and after that remembered no more until he found himself — feeling as if he were awaking from sleep — in a motor ambulance on the way to hospital. With the exception of this short localised amnesia all his lost memories had been recovered.

Fugues, or somnambulisms, were of fairly common occurrence in the war zone. They were, however, from the circumstances of military life, of much graver importance than the other types of war neuroses. A man who wandered away from his unit committed a crime against military law. Consequently the unfortunate victim of a fugue commonly found himself under arrest, or even under the extreme sentence of a court-martial. It was of the utmost importance, therefore, to endeavour to obtain a clear and adequate insight into the patient's state of mind. This was often no easy matter as the available evidence consisted for the most
part simply of the statements of the patients themselves.

Janet in his consideration of the subject affirms that there are two characteristics of the somnambulic state; first, a disturbance of memory, and, secondly, a degree of intelligence which persists up to a certain point as shown by the perception of outward phenomena and the ability to adapt the conduct to the surroundings. Each of these characteristics differs in different individuals.

From our experience in the war neuroses we can say that there was no absolute distinction between confusional conditions, amnesias and fugues; the difference was merely an arbitrary one of degree. Under the influence of an intense and dominating fear, for instance, a man became confused and wandered away in a condition of what may be called semi-consciousness, having a faint and indistinct perception of his surroundings, different from his normal clearness of mind and without any subsequent amnesia. A severer degree occurred when, after a "wandering attack", there was a complete amnesia, consciousness during the period of the attack being apparently in abeyance, the automatic activities taking control of the personality.

A still more marked condition was evident when not only was conscious control suspended and the subsequent amnesia complete, but a more or less complicated series of activities of the personality took place. These activities might develop to an extent as to produce double or alternating personalities. Short of this, however, the conduct of the
individual might be of the most serious nature. Janet has described many cases of this, that, for instance, of a woman who ran in a somnambulism to a window and tried to throw herself out. (105)

The chief point of difference, in the writer's opinion, between the fugues and other states is the fact that conduct may take place automatically. Regarding Janet's other point, the disturbance of memory, a certain derangement undoubtedly takes place, which, however, need not be a definite amnesia but occurs in varying degrees. In this regard Sir T. Clifford Allbutt's opinion is, as expressed in a letter to the Lancet of 5/7/19, with reference to crimes committed in states of automatism, that in the large majority of instances in his experience, the perpetrators had no recollection whatever of the act or series of acts imputed to him. In a few he has a vague recollection as of a dream, but would have been quite unable to confess the story plainly as a chain of facts in which he was concerned. The question of a definite distinction between the state of "vague recollection" and the ability to confess the story plainly as a chain of facts in which an individual was concerned is a subtle and difficult problem, and would be difficult to lay down as a test of responsibility. The problem with regard to the war neuroses was rendered clearer when it was recognised that the fugues were similar in kind to the other types we have considered i.e. an emotional disorder - a form of fear-neurosis -
differing from the others only in degree. Repression of the conscious personality took place as in the amnesias; the automatic activity being of the nature either of simple subconscious impulses or more organised sentiments.

The problem on the medical side was thus simplified but from the military point of view it was rendered embarrassing. In law the patient was responsible unless "labouring under such unsoundness of mind as made him incapable of appreciating the nature and quality of the act he was doing, or that such an act was wrong". It became in practice, however, difficult if not impossible to draw a dividing line between the case of the man who in a state of fear left his post and the man who wandered away from his unit in a condition of profound automatism. An approximately equitable judgment could only be obtained by the consideration of the circumstances in each individual case. The following cases illustrate the varying degrees of the condition we have mentioned: first a somnambulic state without definite amnesia; secondly the description of two similar cases with amnesia, and thirdly a somnambulic condition in which a self-inflicted wound was produced, in a definite attempt to commit suicide.

Case 32, Rfn. R.B., was examined while under arrest for being absent from his unit without leave. The history was that he was blown up and buried on May 3rd, 1917. A short amnesia existed after this until he found himself being dug out by two men. He was very shaky, nervy and
jumpy and had a dominating idea in his mind that he must not leave his dug-out until the Brigade relieved him. He remained, therefore, in the dug-out until discovered, in a dazed condition, four or five days later. He was sent to a rest camp in Boulogne and rejoined his unit on 24/5/17. On 27/5/17 he was absent from his unit without leave until 29/5/17 when he gave himself up at Boulogne. Sent back under arrest he broke this and wandered away again on 6/6/17 and gave himself up at M...... some miles away on 9/6/17. There was no sign on examination of any organic derangement of the nervous system. When he wandered away from his unit, he said, on 27/5/17 he did not appreciate what he was doing. He remembered doing it in a vague sort of way, but could only describe his condition by saying he did not seem to be himself and did not realise the significance or seriousness of his actions. Tennyson described the condition with much truth as well as art when he wrote "As in some mystic middle state I lay, Seeing I saw not, hearing not I heard." The patient was a Brigade runner and a picked man. He had always been looked upon as a stouthearted soldier until being blown up on 3/5/17. There was no history of previous nervous or mental disease. There were three girls and himself in the family. One sister had fits when a child, and his father had epileptic fits.

Case 33, 2nd/Lieut. F.H., aet. 35, was charged with absenting himself without leave from 2/6/17 to 9/6/17 after
being duly instructed to proceed to a Lewis gun school at Le Touquet. He states that he remembered getting into a train at the railhead on 2/6/17 to take him to the school. After that, however, his memory left him. He remembered vaguely and hazily being on the road to Amiens, but again his memory left him and the next clear recollection he had was of "coming to" on 9/6/17 on the road to his battalion at R....... a road he recognised as it was familiar to him. He got to his battalion, reported that he had not, so far as he knew, been to the Lewis gun school but had found himself on the road near R....... This was ten days or a fortnight before the school should have terminated. There was no family history of nervous or mental disease. A previous slight similar lapse, he reported had taken place twelve or thirteen years before, in Australia, when he disappeared from home for two days and could give no account of himself. He was wounded in August 1916 and at the same time suffered from "shell-shock". His nerves, he said, had never been the same since that time and his memory had been giving way. A similar case is the following:

**Case 34.** Private J.C., aet. 22, was admitted under arrest having been charged with "when on active service attempting to desert his Majesty's service in that he, when in the front line trenches on 2/6/17 left our lines and started to walk over to the enemy lines until turned back by two shots fired in front of him by our men". The
Patient stated that on 2/9/17 he had been in the front line for three days without any sleep, had been out the whole of the night before, and had very bad headaches. He remembered being at No. 4 post; then he "came to" in no-man's-land when the shots were fired. He had no idea at first where he was and had no recollection of how he got there. He looked round, found he was in no-man's-land, took cover and got back to the trenches as quickly as possible, where he was put under arrest. He had gone out to France in October 1914 and had been in and out of the trenches with his battalion since that time, with the exception of two months in hospital in France, with pains in the head and chest. He had never had the good fortune to be sent to England sick or wounded, and had only one leave of 7 days in November 1915. He had been "over the top" eight or nine times, had been at Ypres, Loos, all through the Somme and in the attack at Arras on April 9th, 1917. There was no family history of nervous or mental disorder. He had never had "shell-shock" though he stated that he occasionally had been nervous in the trenches, had sometimes taken "funny turns" when he did not know what he was doing. His comrades had told him occasionally that he had been acting strangely while he himself knew nothing of it. He reported that once at school, at the age of 12 or 13 he wandered away and found himself seven or eight miles from home and had no idea how he got there.

Case 35, Private J.B., aet. 23, was under arrest for
attempting to commit suicide on 29/4/17 by cutting his throat with a razor. The patient stated that he went "over the top" on April 9th, 1917. About April 29th, he remembered waiting in the reserve line expecting to go up to the front line trenches. He recollected being worried by different orders. At a certain point, however, his memory stopped; he remembered no more until he "came to" on his way to the Aid Post in charge of a corporal and two men and found that his throat was cut. He had no recollection of committing the act; all he could remember was having a "funny feeling" in him that he could not control, a feeling that if he did not do something to "get out of himself" he would go mad. There was a history of previous instability. He had apparently always been subject to fits of uncontrollable passion at slight causes, was easily rendered depressed and was apt to be impulsive if opposed. At the age of 17 he had attacked his stepfather with an iron rod and had been sent, in consequence, to a mental hospital for a year. His father had much the same disposition and had committed suicide by drowning. His brother was a cripple and also of the same temperament. There was no history of epilepsy.

Freud writes on self-mutilation that it may be semi-intentional or the result of unconscious intention. Self-inflicted injuries are, as a rule, a compromise between the impulse to self-destruction and the forces working against it. He states that the tendency to self-destruction
exists to a certain degree in many more persons than in those who bring it to completion. (129)

The mind, as we have seen, is not a unity in any exact sense of the word, but rather, as Prince writes: "An aggregation of potential or functioning activities . . . conflicting multiple activities", which exist in the normal mind in a state of "equilibration" - to use Janet's term. Conflict disturbs this equilibration, produces a state of affairs in which impulses or "conators" are ranged against opposing impulses, any one of which may suddenly, if the antagonistic inhibiting forces are relaxed, bringing itself to completion. Freud gives an example of the mechanism in the case of the father who tossed up his child - a dearly-loved child - and just missed injuring it. He explains the contradiction between the tendency of love and that to injure the child by referring the latter to the period when the child was the only one, and so small that the tender emotion had not been aroused. It had caused disagreement between himself and his wife and had aroused the thought in his mind that if it were not for the child he could have separated from his wife. (130)

It is this same activity that gives rise to the "manysidedness" of the behaviour in neurotic individuals and is responsible for the irrational, contradictory features in dreams. It is not difficult to realise that in a state of dazedness or confusion the inhibiting powers
will be in abeyance to an extent as to allow, so to speak, sporadic impulses or conators of different kinds to take effect.

**TYPE V.**

The fifth and last class of the war neuroses consists of the combined types, including, first, cases showing the symptoms of an organic disorder combined with one of the types of war neuroses we have considered; and secondly, cases in which a war neurosis has developed in conjunction with a pre-existing neurosis originating in civil life. The following is an example of the first class:

*Case 36.* Corporal W.P., aged 37, was admitted into hospital on 30/3/17. He was in a state of general tremulousness and complained of partial deafness and a slight stutter. He stated that he could not stand shelling - he became so nervous and jumpy he was unable to do anything; his heart "went thump" and he was unable to take food. Four days before admission while on his way to work on the road he came over "all of a shake", became giddy and felt so weak that he could not go any further. A few minutes before that a shell had burst some thirty yards away and had "given him a start". He joined the army in September 1914 and was transferred to France in June 1915. He dated his nervousness from March 1916 when a previous attack of "shell-shock" had occurred with similar symptoms from a shell bursting near him in the trenches. As regards family history,
sister had had "fits". He was a tall, clumsy-looking, large-boned individual, and on examination signs of pituitary disease became evident. There was enlargement of the hands and feet - the patient stated that he had recently required a larger size in boots - enlargement of the supraorbital ridges, kypho-scoliosis, loss of hair, admitted loss of sexual power, and diminution of the visual fields. The case was seen by the Consulting Neurologist who made the diagnosis.

The other class of the combined type, the composite neuroses, was more difficult to discriminate. The result-neurosis attained a double complexity from the synthesis of two psychopathologically distinct conditions. The recognition of the disorder, the disentangling of the factors, and the necessary adjustment of the treatment were naturally of very great importance. As an illustration, a brief résumé may be given of a previously published case:

Case 37. Private C.N., an intelligent young man of 23 of good social position was admitted into hospital on 21/7/17. He was in a mildly depressed condition, nervous and somewhat confused, and complained that his nerve had given way in the line. Various paraesthesiae were present in the head, it felt larger than normal and he had a difficulty in thinking clearly. In addition, after some hesitation, he stated that a certain image kept constantly recurring in his consciousness, obtruding itself no matter what he attempted to do. He could describe it in no other
way than by saying it was like a "spotted pudding".

He joined the army in October 1915 and came to France in March 1916. He remained perfectly well, acting as stretcher-bearer, until April 10th, 1917. On that day he was one of a stretcher-squad carrying a patient to a dressing station, a shell burst in the middle of them, killing three. Patient was left unwounded, and a short amnesisa exists for the events immediately succeeding this. He found himself some time later lying against the wall of a house, very shaky, nervy and jumpy. He walked down to the dressing station and was sent for a rest to the Base. He remained there a fortnight and then rejoined his unit. It was at that time behind the line and patient stated that he felt well and as they were out of the shelling area his "nerves" did not trouble him. Shortly after this he was sent again into the line at F...... Then he noticed his nerve beginning to give way, shelling made him nervous, he was jumpy, shaky and easily scared. About a week before admission he moved to a dug-out with a sign-board opposite. His nerves gradually grew worse. He began to have terrifying dreams and to feel confused and "silly". The following morning he had an attack of sickness and vomiting, brought on, he thought, by eating sardines from a tin previously opened, and he was sent to hospital.

There was no history of any nervous or mental abnormality in his past life, and, apart from the fact that his sister had been a sleep-walker for some years, his
family history was negative. On examination of the patient there was no sign of any organic derangement.

The condition showed clearly enough the symptoms of the commonest type of war neurosis. In addition, however, there was the recurring image of the "spotted pudding"; an over-weighting of a particular element in consciousness which was sufficient to show that we had to deal with a disorder more complex and severe than the common forms of war neuroses. The case was investigated chiefly by an analysis of the patient's dreams and a severe mental conflict was brought to light. Some time before the war he had fallen in love with and become privately engaged to a girl much beneath him in social position. His people were aware of the attachment and bitterly opposed to it. He was not in a position himself to earn a livelihood but was living with his people, and consequences would have been serious if he married without their consent. All his prospects were bound up with his people's goodwill towards him. Relations were, consequently, very strained at his home; an uncomfortable restraint had grown up between him and the rest of his family, and every meeting with his fiancée had to be arranged by subterfuge. A factor which considerably intensified the conflict was the estrangement from his mother for whom he had a very deep love.

At the first interview the analysis of the "spotted pudding" obsession was undertaken and led by a series of associations to the image of an Italian woman. At this point the patient became somewhat agitated and the treatment
discontinued. The next morning he brought the following
dream that had occurred to him during the night:
"I came out of a school (dirty old brick affair with
courtyard), rushed past L., who was standing in the yard
dressed in dark blue) and was carried some distance
against my will) into some side streets of an unknown
town. I felt that she was hurt with me and was half a-
frail to meet her, yet had a deep longing to meet her.
She apparently followed me (in a very dignified mmod).
She came down a narrow street to where I was standing and
the last I saw was a man in khaki trying to force his at­
tention on her while she was still resisting (I knew that
his attempt to force his company on her would be unsuccess-
ful).

It is interesting to observe how clearly the compon-
ents of the conflict are expressed in the dream. L., of
course, is his fiancée, manifested directly without sym-
bolic concealment. The phrases, "Rushed past L.," "Was
carried some distance (against my will)," "I felt that
she was hurt with me and was half afraid to meet her, yet
had a deep longing to meet her," very clearly indicate the
conflicting impulses of his state of mind. The school he
recognised to be one he used to pass every day when at
home; the dream, the story or reproduction of his mental
conflict, is given, in other words, in the first place
its natural or realistic setting. The Unknown town he
realised at once to be Arras; he could see, he said, the
wreckage and ruin about him. Arras had made a great impression on him. He was in the Arras sector when he broke down and had to be sent to hospital. It formed, in fact, a symbolic indication of the mental wreck he found himself as the result of the conflict. "She came down a narrow street to where I was standing"; this led him through a series of associations to a street - a narrow street - in his home town and a block of flats there, the sort of flat, he said, he would choose as a home if he could afford it - an interpretation whose significance is sufficiently apparent. The analysis of the "man in khaki" brought out further factors of the conflict. He proved to be the girl's present employer, who, patient said he had reason to believe, was forcing his attention on her; he had read between the lines of her letters. The dream furnished further the key to the solution of the "spotted pudding" obsession the analysis of which had been left incomplete. The Italian woman proved to be the patient's fiancee, L.

The following day - the second after treatment had begun - the patient reported that the "spotted pudding" obsession had disappeared. It went gradually, he said, after he discovered the Italian woman she took the place for a time of the "spotted pudding", and now the Italian woman had disappeared. Another obsession had taken their place and was constantly obtruding itself in the same way. It was the image of the sign-board that had been opposite.
the dug-out he occupied at F. . . .

This obsession was accordingly analysed and the associations as they came up were as follows:— "The colouring of the sign-board impressed him (it was an advertisement for Michelin tyres) — yellow with a bright blue edging — the French flag — colouring appeared round the word "F. . . ." it changed from green to blue — became dark, almost black — the word "F. . . ." resolved itself into a golden line — two vertical lines appeared at the edges of it — they widened to the extent of the board — it appeared like a handsome cab seen from behind — the coachman with tall hat and cockade — it is a wedding — through the window at the back he sees a man and a woman kissing — " After some hesitation he admitted that it expressed his own wedding. . .

At the end of this analysis the obsessions disappeared and thereafter ceased to trouble him. From that time as the investigation of the condition proceeded and one by one the varied and complex factors of the conflict were brought to light, although from time to time he showed transient fluctuations, he made steady progress towards improvement. Treatment extended over a period of six weeks and when evacuated practically all his symptoms had disappeared. The patient is now happily married to the central figure in the neurosis and is back at his former occupation.

From our cursory methods of recruiting it happened
not infrequently that many individuals with neurotic, to say nothing of mental, symptoms found their way into the army. Indeed it was remarkable the numbers of men of this type who volunteered. It was inevitable that most of these cases would prove incapable of adapting themselves to the strain of active warfare. From time to time consequently even complicated cases of psychasthenia of many years duration were admitted into the centre with the super-addition of a war neurosis - after vainly struggling to adjust themselves to the war environment. It is impressive to note, however, that not all of these individuals broke down, as we shall see later in our consideration of predisposition.

DREAMS.

Since Freud rescued the study of dream interpretation from the realm of superstition it has played an increasingly important part in the investigation of functional nervous disorders. He describes three general classes of dreams; first a clear and intelligible type of dream which, so to speak, carries its meaning along with it. Secondly, a type of dream which is intelligible but seems to have no rational correlation or agreement with the individual's conscious life; thirdly, dreams which appear entirely senseless and unintelligible. Freud demonstrates how the dream is seen to be composed on analysis into a manifest and a latent content and elaborates in considerable detail.
his views on dream work especially the four well-known mechanisms: condensation, displacement, dramatization and secondary elaboration. From his investigations he comes to the general conclusion that a dream is always the expression of a wish.

Dreams as they occur in the war neuroses are very largely of a terrifying nature. If we agree to interpret the term "wish" in the wide sense used by Freud as strivings to seek relief from psychical tension and to avoid pain by preventing accumulation of psychical energy (Jones), although it may seem anomalous to use the word for the conative tendency of the fear emotion, it becomes equivalent to our conception of "conator". A dream we may say, speaking broadly, is the expression of some significant emotional activity in the mind. According, therefore, to the particular emotion concerned will be the corresponding content of the dream, either the manifest or the latent content. We should expect, therefore, dreams of a frightening nature in conditions dominated by the emotion of fear, and that is what commonly occurs. On the other hand, frequently the dreams were the expression of the individual's desire to be back at home amongst his people.

Most of the dreams in the war neuroses were of the first two classes described by Freud. The following are examples of typical dreams which show the usual differences the result of the differing occupational factors; the first being that of an infantry-man, the second that of a gunner and the third from an air-mechanic in the R.F.C.
(1). "I dreamt that I was in action and when we were attacking the Germans I threw my steel helmet at one of them (he was not armed) and at the same time I fell over and injured my head which woke me up with a startled feeling; I was all of a tremble and my heart was beating fast. I got to sleep again and kept dreaming I was being run over in a busy thoroughfare."

(2), "I thought I was under shell fire. I saw the battery and the shells bursting. I saw the guns going up in the air. It seemed as if I couldn't get my breath. I saw and was talking to one I knew. I tried to shout just as a shell burst near me. This awakened me; I was in a cold sweat."

(3), "I dreamt I was in a big yard with a pony and trap when a most peculiar shaped machine swooped down firing a gun at me and overturning the trap I was in. I picked myself up and thought I saw a British machine come down over me and the peculiar machine vanished. I then woke with a queer sensation all over me. On going to sleep again I dreamt the same machine met me on a strange road by a river side, picked me and the trap up and dropped the whole lot into the river. I fancied the pony was making terrible noises, then I awoke with bad headache."

The following short dream is, in general outline, a frank expression of the patient's desire to be at home.

"I was riding with others in a four-in-hand at E..... (patient's home), was feeling fairly contented, when the
Duchess of A... passed us in quite an ordinary cart. She appeared to me to have been going through a very bad time. I felt sorry for her, knowing what a lot of good she had done in the past."

The theory of the invariable sexual basis in dreams, and the conception of fear in a dream as an inversion of the "libido" have been invalidated, in the writer's view, in the light of our experience with the war neuroses. In regard also to Freud's view of the fixed meaning of the symbols of dreams we are led to agree with Jung who teaches that there are no fixed symbolic meanings "the various dream-pictures have each their own peculiar value." (122)

Different writers have laid emphasis upon the value of dreams in the war neuroses, as an aid in estimating the progress of the condition. Core considers them the main guide and divides the progress of the case into four stages according to the frequency and intensity of the terror dreams. McCurdy states that in the anxiety neurosis as a preliminary symptom dreams of the occupational type occur with few nightmares. In the acute stage vivid nightmares take place with a purely war content and environment. A stage towards improvement occurs when the dreams grow less frequent and the setting changes in part to a peace environment, lastly in the stage of recovery the dreams show a change of attitude on the part of the patient in that he begins to show fight against his adversaries, and finally the dreams disappear.
In the writer's experience terror dreams occurred apart from the neuroses quite frequently in the trenches even amongst the stoutest soldiers. Many an officer whilst "carrying on" cheerfully in the trenches had dreams such as that he was being pursued to his great terror along the trenches by a ferocious German. As to their value as an aid in prognosis, the formulation of a comprehensive rule does not seem to be possible. No one factor seemed capable of being singled out as a criterion. An estimation of the activity and relations of the varied components of the conflict was the only secure guide.

**CONCLUSION.**

We may conclude this section by making a simple tabulation of the types of the war-neuroses.

We have seen that they are the result of the arousal in intense degree of the emotion of fear and the conflict with the personality which this excites. In many cases, it is true the emotion of disgust plays also a fairly obvious part and in the investigation of the condition due recognition must, of course, be given to it. But this corresponds so closely in its general effect with the emotion of fear that the two may, for purposes of classification if not for treatment, be conveniently considered together. According to individual differences in constitution, in preformed association and dispositional variation - differences, in short, in the detailed "make up" of the character, the
different forms of neurosis developed. Leaving aside the combined types we see that one great class is the result of the direct overwhelming action of the emotion itself. The other is the result of a reaction to the emotion in the form of repression. We may thus form the classification as follows:

FEAR NEUROSIS.

I. Direct Form.
   Type 1.
   Type 2.

II. Repression Form.
   Type 3.
   Type 4.

Several writers have made what seems to be too-clearly-separated a distinction between the anxiety states on the one hand and the conversion/conditions on the other. Considerable emphasis has been laid upon the fact of the relative frequency of the former in officers and the latter in men, and this has been made the basis of somewhat far-reaching distinctions between the two classes. McCurdy states that "anxiety in the pure state occurs almost exclusively among officers." In our view no complete or precise line of demarcation existed between the different classes; they shaded into each other and complicated each other to a variable extent. It was true that the direct form of the neurosis occurred with greater comparative frequency in officers than in men. But it was also true.
that the same condition occurred in men with much greater frequency than any other type. The proportions for the 4,235 cases dealt with at the centre were, of the Direct form (type 1), exclusive of definite cases of stupor 70% of the Repression form (type 3), 20%; the remaining 10% included composite cases, fugues, stupors and very marked amnésias.

In the psychological reaction of the war on the individual in the actual fighting zone, the effect on the fear disposition we have seen to be the dominant manifestation. Curiously enough it is in a very different milieu that a parallel can be found to this prolonged and devastating effect of fear on a large scale. Buckle in his "History of Civilization in England" thus describes the teaching of religion in Scotland in the seventeenth century: "Of all the means of intimidation" he writes "employed by the Scotch clergy, none was more efficacious than the doctrines they propounded respecting evil spirits and future punishment. On these subjects, they constantly uttered the most appalling threats. The language they used was calculated to madden men with fear, and to drive them to the depths of despair. That it often had this consequence, and produced most fatal results, we shall presently see. ------ It was generally believed that the world was over-run by evil spirits, who not only went up and down the earth, but also lived in the air, and whose business it was to tempt and hurt mankind. Their number
was infinite and they were to be found at all places, and in all seasons. At their head was Satan himself, whose delight it was to appear in person, ensnaring or terrifying every one he met. With this object he assumed various forms. One day, he would visit the earth as a black dog; on another day, as a raven; on another, he would be heard in the distance roaring like a bull. He appeared sometimes as a white man in black clothes; and sometimes he came as a black man in black clothes, when it was remarked that his voice was ghastly, that he wore no shoes, and that one of his feet was cloven. His stratagems were endless. For in the opinion of Divines, his cunning increased with his age: and having been studying for more than five thousand years, he had now attained to unexampled dexterity. Of his victims, some he prompted to commit suicide, others to commit murder. Still, formidable as he was, no Christian was considered to have attained to a full religious experience, unless he had literally seen him, talked to him, and fought with him. The clergy were constantly preaching about him, and preparing their audience for an interview with their great enemy. The consequence was, that the people became almost crazed with fear. Whenever the preacher mentioned Satan, the consternation was so great, that the church resounded with sighs and groans. The aspect of a Scotch congregation in those days, is, indeed, hard for us to conceive. Not unfrequently the people, benumbed and stupefied with awe, were rooted to their seats by the
horrible fascination exercised over them, which compelled them to listen, though they are described as gasping for breath, and with their hair standing on end. Such impressions were not easily effaced. Images of terror were left on the mind, and followed the people to their homes, and in their daily pursuits. They believed that the devil was always, and literally, at hand, that he was haunting them, speaking to them and tempting them. There was no escape. Go where they would he was there. A sudden noise, nay, even the sight of an inanimate object, such as a stone was capable of reviving the association of ideas and of bringing back to the memory the language uttered from the pulpit—To excite fear was the paramount object. The clergy boasted, that it was their special mission to thunder out the wrath and curses of the Lord—They delighted in telling their hearers, that they would be roasted in great fires, and hung up by their tongues. They were to be lashed with scorpions, and see their companions writhing and howling around them. They were to be thrown into boiling oil and scalding lead. A river of fire and brimstone, broader than the earth, was prepared for them; in that, they were to be immersed; their bones, their lungs, and their liver, were to boil, but never to be consumed. At the same time, worms were to prey upon them; and while they were gnawing at their bodies, they were to be surrounded by devils, mocking and making pastime of their pains. Such were the first stages of suffering, and they were
only the first —— So refined was the cruelty, that one hell was succeeded by another; and lest the sufferer should grow callous, he was, after a time moved on, that he might undergo fresh agonies in fresh places —— In that vast expanse there was no void, for the whole of it reverberated with the shrieks and yells of undying agony. They rent the air with horrid sound, and, amid their pauses other scenes occurred, if possible, still more excruciating. Loud reproaches filled the ear; children reproaching their parents, and servants reproaching their masters. Then, indeed, terror was rife, and abounded on every side. For, while the child cursed his father, the father consumed by remorse, felt his own guilt; and both children and fathers made hell echo with their piercing screams, writhing in convulsive agony at the torments which they suffered, and knowing that other torments more grievous still were reserved for them— The people, credulous and grossly ignorant, listened and believed —. No wonder that, with these ideas before them, their reason should often give way, and that a religious mania—should set in, under whose influence they, in black despair, put an end to their lives."

The late Lord Kelvin observed that we begin to know something of a particular thing when we can draw a picture of it and take measurements. Measurement as yet plays but a small part in psychology. In an endeavour, however, to obtain clear and distinct ideas of our subject, starting
from the basic conception of instinct and of the unchang-
ing character of the emotion-component, we have attempted, so to speak, to standardise the conception of the essential conative factors of the personality in the figure of the "conator". This gives at once - an analogy with the pro-
position on the intellectual side - the particular emotion, the object or excitant of it and the relation between the two. An argument, further, is suggested for the abolition
of the traditional names hysteria and neurasthenia, to make way for a new nomenclature based upon the essential emotional factor. The conception of the Anxiety-Neurosis was a step in this direction but is open to the objection we have discussed, of its ambiguity. According to our original definition the strictly psychological explanation must be made in terms of the primitive emotion, which re-
quires the tracing of the condition back to the innate instinct-disposition.
CHAPTER VI.

DIFFERENTIAL DIAGNOSIS.

From time to time cases other than those we have described were sent down under the common label "shell-shock" or "N.Y.D.N." Cases of paralysis agitans, tabes, progressive muscular atrophy, fracture or the skull; peripheral neuritis and others thus found their way into the centre. Such differentiated cases as these did not present great difficulty in diagnosis. With regard, however, to the occurrence of concussion the problem was more involved. Concussion occurred with surprising infrequency at least in forms which could be definitely recognised. A priori considerations based upon the necessary consequences of a bursting shell, we have seen to be inapplicable. Most men who served in the trenches for any length of time, and certainly most men who went "over the top" in the later stages of the war, when the practice of "barrage" had reached its acme, came necessarily in close proximity to exploding shells. Very few of them, however, developed concussion. In the rest we are forced to conclude, therefore, that either concussion did not occur, or that if it did, it occurred in a form which did not incapacitate and was, consequently, unimportant.

The chief difficulty arose in the separation of cases of concussion from the confused or stuporose type we have
described. In well-marked cases with unconsciousness, flaccidity of the muscular system, insensitivity of the conjunctivas, pallor of the skin, relaxation of sphincters, etc. the picture was generally fairly typical. In the less severe degrees, however, with merely an initial transient period of confusion or unconsciousness, the problem was more delicate. In cases in whom a definite history of violence of some sort was obtained when confusion had passed off, the following symptoms were looked upon as significant of concussion: flaccidity of the muscular system, pallor, absence or insignificance of generalised tremor and of the actual fear element in consequence, marked fatigue, severe headache, perhaps a fairly marked memory impairment. Finally, as McCurdy has also observed, there was an obvious attitude towards returning to the line between the two cases.

Pierre Marie has laid emphasis upon a condition of "commotio" or diffuse micro-traumatism of the nervous system which is recognised chiefly by examination of the cerebro-spinal fluid. This may contain blood or may be simply xanthochromic. In the majority of cases it shows a modified formula in that the quantity of albumin is increased up to perhaps 1 gram, the number of cells diminished to about 0.3 or 0.7, and a slight tendency is present to hyperglycosis.

Another form of neurosis which it was necessary to separate from the strictly war neurosis was that similar
to the type seen commonly in civil life in which fatigue seemed to play a preponderating rôle. The position with regard to the relation of fatigue to the neuroses appears at present to be curiously obscure. Dejerine, as we have seen, considers fatigue to be a purely subsidiary manifestation, reinforcing the basic emotional factor. Babinski considers on the other hand that in exhaustion the essential characters of neurasthenia are found. Freud mentions fatigue as a typical symptom of neurasthenia as distinguished from the Anxiety-neurosis. At the same time we may observe it is generally admitted that there is a group of the psychoses which is attributed to exhaustion.

In the war neuroses very commonly there was an element, variable in degree, of fatigue. McCurdy considers that fatigue of both physical and mental type plays a part especially in the "anxiety-neurosis. He states, in fact, that in every case of anxiety-neurosis either fatigue or concussion was present to a greater or less extent. The form of neurosis we are distinguishing occurred in individuals chiefly of the administrative branches subject to a prolonged period of intensive routine work. They ultimately broke down with symptoms of great fatigue, inability to concentrate, sleeplessness, impairment of memory and other familiar symptoms, but without any active or marked signs of fear. The condition seemed to be the result of the strain of protracted over-work, and signs of nervousness, irritibility, depression or other "emotivity"
were, so far as could be judged the secondary result from impairment of the higher controlling sentiments.

With regard to epilepsy the system in the army by which no case was diagnosed as epilepsy unless a characteristic attack had actually been observed by a medical officer, greatly reduced the possibility of erroneous diagnosis.

MALINGERING.

The most important conditions, however, to be distinguished from war neuroses were the simulated states. The neuroses being, as we have seen, conditions dependent on the arousal of the fear emotion a natural consequence was a reluctance to return to the fear-inspiring situation. This showed itself in a prolongation or exaggeration of the symptoms and in a general attitude of hypochondriasis. "Conversion" symptoms were not common as forms of malingering and, in any case, were unimportant from the ease with which they could be cured. Although these were the common sequelae, from time to time creations of a more or less elaborate kind appeared which presented no small difficulty in diagnosis. Simulated symptoms are generally considered to be the expression of a conscious and deliberate intention on the part of the individual, whereas those of the neuroses are looked upon as the result of subconscious motivation. The distinction between the two is, however, by no means sharply delineated, and it is not uncommon, for a malingerer, especially one who has
undertaken the simulation of an easily sustained disability, to become in the end more or less persuaded of its reality - in much the same way as the man who recounting, say, an exaggerated story of his prowess so often, in the end comes to believe it. The memory content has altered from the images of the actual incident to the form of words used in describing it.

Case 38, Private A.N., aet. 28, was admitted into hospital on 13/3/17 accompanied by the following note from the regimental medical officer:

"Reference Private A.N. sent back as convalescent from shell-shock from No... Hospital. Our heavy artillery opened fire last night and he became in a very bad state indeed. For the ordinary practical man, this patient should have been sent to England months ago, but our expert neurologists who are well acquainted with the war well back from any trouble apparently thought otherwise. This man is the result."

On being sent for, to see the patient shortly after admission, he was found to be in an intensely restless, excited condition. He gave the impression of being constantly overcome by terror, acting as though he heard shells coming at him and as if every sound sent him into an extreme state of excitement. He seemed quite confused and unaware of the nature of his environment; and took no notice of questions addressed to him. A whole hallucinatory phantasmagoria seemed to be present, both visual and auditory. He went through a frequent elaborate
pantomime; he would stare in terrified fashion in front of him, suddenly point ahead, utter some disconnected remarks such as "Germans!" or "Over the top!" then cover his face with his hands and fall back, or suddenly dive under the bed-clothes. He was given $\frac{1}{75}$ gr. of Hyoscine and quietened down at once.

Occurring as it did in a quiet period, a case of this kind naturally proved a source of considerable interest. The theatricality of the performance was impressive from the outset. For three days the condition was kept up and it was noted that the crises were particularly apt to occur when he was under observation. By that time suspicions had been aroused as to the genuineness of the condition. When he considered himself unobserved the confusion and terror disappeared only to recur again when he was approached. He was taken into the office and under careful and persistent questioning information was obtained from him which could not possibly have been given if he had been in the condition of confusion his pantomime indicated. Confronted with the situation, he broke down and confessed that on being sent back to the line after treatment for a previous attack of "shell-shock" he could not stand the sound of the guns, but relapsed, began to shake all over and was sent to hospital. He had had two and a half years service in the army and had been in France 6 months. About 6 weeks before, while with his regiment, he was sent out on patrol in no-man's-land with a party. The German artillery opened fire and the party were forced to lie on the ground with the
shells bursting round them for about twenty minutes. The patient stated that he did not remember any more until he "woke up" in hospital, very nervous and jumpy. After about five weeks treatment we was sent back to duty, but on his first day there broke down as described above and decided to develop a condition which he hoped would occasion his transfer to England. The patient stated that some time previously he had been recommended for a decoration for bravery in the field, and had in his possession a white Divisional card for good conduct in the field. He expressed his regret and put forward a request to be sent back to his battalion in the effort to "make good".

Case 32, Private C., aet. 20, had been admitted into hospital in July 1917 and remained for about three weeks in a state of apparent delirium. He sat up in bed most of the day staring fixedly in front of him, to all appearance oblivious of his surroundings and uncomprehending of what was said to him. He muttered continuously and unintelligibly, the only word that could be distinguished being "Mother". His temperature was normal and there was no evident sign of disorder of any of the systems. Physically he was strong. He had to be led about when necessary, and required to be fed. It was noted that when approached by the medical officer his pulse went up, his breathing increased considerably, he perspired freely and swallowed frequently; this combined with the fact of the unusual nature of the condition aroused certain misgivings. One day he was sitting out of bed and was being fed by the
ward orderly. The medical officer stood in front of him and carefully watched the proceedings. After some time his breathing became more rapid, his pulse increased, he began to show signs of agitation, and his face flushed. It was a reaction difficult if not impossible to reconcile with a genuine condition. He was taken into the office, soon broke down under examination, and confessed that he had become increasingly nervous in the line and had assumed the fictitious condition as a means of getting out of a distressing situation. He was overcome with shame at the failure of his deception; he covered his face with his hands and said: "What will the Sister think of me!"

This difficulty was smoothed over for him, but it created a small sensation in the ward when he walked out of the office a normal man again, and aroused no little bewilderment in the orderly who had been feeding him but a short while before.

Amongst malingerers loss of memory became a fairly well-used form of simulation, especially in the later stages of the war. With Alan Breck Stewart in "Kidnapped" they might say they had "a grand memory for forgetting."

Case 40. Sergeant McC. was admitted into hospital on 26/5/18 complaining of headache and loss of memory. He stated that he "woke up" in a field the day before and found that his memory was gone; the last recollection he had was of being at the docks at Karachi in August 1914, waiting to embark for France. A definite localised amnesia
seemed to be present extending over a period of nearly four years. All his early life before August 1914 he remembered, and gave a detailed account of it. From notes sent down with the patient there was no evidence of any initial period of confusion. In conversation he was alert and bright, oriented accurately and normally quick in reaction time. A series of test words was given him similar to those in case 31:

<table>
<thead>
<tr>
<th>STIMULUS WORD</th>
<th>REACTION</th>
<th>TIME in seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>green</td>
<td>grass</td>
<td>1.5</td>
</tr>
<tr>
<td>hammer</td>
<td>nails</td>
<td>1.5</td>
</tr>
<tr>
<td>whistle</td>
<td>train</td>
<td>1.5</td>
</tr>
<tr>
<td>nut</td>
<td>Spain</td>
<td>7.</td>
</tr>
<tr>
<td>smoke</td>
<td>fire</td>
<td>2.5</td>
</tr>
<tr>
<td>fill</td>
<td>box</td>
<td>2.</td>
</tr>
<tr>
<td>terrible</td>
<td>terrible to</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>lose memory</td>
<td></td>
</tr>
<tr>
<td>trick</td>
<td>cards</td>
<td>10</td>
</tr>
<tr>
<td>burst</td>
<td>bottle</td>
<td>3.5</td>
</tr>
<tr>
<td>pay</td>
<td>pay</td>
<td>10</td>
</tr>
<tr>
<td>for</td>
<td>ever</td>
<td>12</td>
</tr>
<tr>
<td>force</td>
<td>driving</td>
<td>2.</td>
</tr>
<tr>
<td>pink</td>
<td>handerchief</td>
<td>1.5</td>
</tr>
<tr>
<td>will</td>
<td>dead man</td>
<td>5.</td>
</tr>
<tr>
<td>deceive</td>
<td>wrong</td>
<td>13</td>
</tr>
<tr>
<td>explode</td>
<td>ball</td>
<td>4.5</td>
</tr>
<tr>
<td>continue</td>
<td>game</td>
<td>4.</td>
</tr>
<tr>
<td>danger</td>
<td>train</td>
<td>4.5</td>
</tr>
</tbody>
</table>
As in the previous experiment in Case 31 the reaction times were taken simply roughly by an ordinary watch. If for convenience, then we accept the same time limit of 3 seconds to the reactions as in the previous case described, we note at once the abnormal number of complex-indicators. This is rendered intelligible enough if we view the list, following Jung’s experiment in the detection of crime, as containing a series of "critical" words designed to stimulate a hidden complex. In the malingerer such words as "trick", "deceive", "danger" would naturally be expected to produce an emotional reaction. The significance of the number of complex-indicators will be rendered more evident on comparison with the same list tested on a patient in hospital with a
slight injury:

<table>
<thead>
<tr>
<th>STIMULUS WORD</th>
<th>REACTION</th>
<th>TIME in seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>green</td>
<td>fields</td>
<td>1.</td>
</tr>
<tr>
<td>hammer</td>
<td>steel</td>
<td>2.</td>
</tr>
<tr>
<td>whistle</td>
<td>blow</td>
<td>2.</td>
</tr>
<tr>
<td>hut</td>
<td>cracker</td>
<td>1.5</td>
</tr>
<tr>
<td>smoke</td>
<td>tobacco</td>
<td>3.</td>
</tr>
<tr>
<td>fill</td>
<td>my glass</td>
<td>2.</td>
</tr>
<tr>
<td>terrible</td>
<td>horrible</td>
<td>1.5</td>
</tr>
<tr>
<td>trick</td>
<td>trickery</td>
<td>3.</td>
</tr>
<tr>
<td>burst</td>
<td>up</td>
<td>1.5</td>
</tr>
<tr>
<td>get</td>
<td>to</td>
<td>1.25</td>
</tr>
<tr>
<td>four</td>
<td>five</td>
<td>1.5</td>
</tr>
<tr>
<td>force</td>
<td>high up</td>
<td>3.</td>
</tr>
<tr>
<td>pink</td>
<td>blue</td>
<td>2.</td>
</tr>
<tr>
<td>will</td>
<td>power</td>
<td>1.</td>
</tr>
<tr>
<td>deceive</td>
<td>never</td>
<td>1.5</td>
</tr>
<tr>
<td>explode</td>
<td>blow up</td>
<td>1.5</td>
</tr>
<tr>
<td>continue</td>
<td>your story</td>
<td>1.5</td>
</tr>
<tr>
<td>danger</td>
<td>in the line</td>
<td>1.25</td>
</tr>
<tr>
<td>tree</td>
<td>green</td>
<td>1.25</td>
</tr>
<tr>
<td>go</td>
<td>to</td>
<td>1.</td>
</tr>
<tr>
<td>beef</td>
<td>steak</td>
<td>1.</td>
</tr>
<tr>
<td>sentence</td>
<td>to death</td>
<td>4.</td>
</tr>
<tr>
<td>river</td>
<td>to cross</td>
<td>1.</td>
</tr>
<tr>
<td>bat</td>
<td>and ball</td>
<td>1.5</td>
</tr>
<tr>
<td>dislike</td>
<td>myself</td>
<td>1.25</td>
</tr>
</tbody>
</table>

(140)
As we have seen in the consideration of case 31, however, mere increase in the number of complex-indicators is not proof of simulation. Further investigation of the free association method brought out other significant evidence. None of the "critical" words was found on association to lead to any complex; to each, a series of apparently innocent associations was produced. Also significant was the prolonged delay between practically each association. If we indicate an abnormal delay by "x" the following is the series of associations as they were elicited to the word "deceive":

"Deceive - deception of any sort - x - someone telling a lie - xx - India - ordinary days - happiness - parades, stables, drills - x - thinking of going out there again if he gets the chance - x - wondering how long before he gets his memory back and gets out of hospital - x - mind seems to be jumbled up, thinking of home one minute, then of being in here, then of India - x - thinking of his brother, wondering whether he had enlisted or not - a walk on the road yesterday - when he came back was told the M.O. was looking for him - x - everything seems to get "boxed up"
now and again - thinking of two or three different things at the same time - football match this afternoon - x - wondering how long before he'll be cured - xx - concert last night - xxx (states there is nothing in his mind) - game of cricket he is going to have to-morrow afternoon - x - every thing seems "boxed up" - xx (says there is nothing in his mind) - thinks of the noise of a sparrow outside the tent - " here there was a protracted delay in which no further associations could be obtained.

There was no evident reason why a person normally quick in mental reactions at other times should show this abnormal retardation under the experiment. The obvious inference left little doubt that the patient was concealing the true state of his mind, that he was not responding with the first word that came into his mind as he pretended to do. Further, as almost invariably happens in these cases, he exaggerated the condition, and coloured it rather highly. With the intention of impressing on the medical officer the simplicity of his mind in regard to the newer inventions of the war, he volunteered the information that another patient had been talking to him a lot about tanks. He had never heard of them before: he thought a lot about them and of what sort of things they were. He had seen many of them past the hospital on trains, and he saw they were like the old caterpillars, but he could not see how a tank moved along, he could not understand it.

This indicated an apparent impairment of the power of
understanding, which, in view of his power of apprehending other things equally difficult, was obviously assumed. So also with regard to other weapons of war, gas and aeroplanes, he "didn't seem to understand it". The submarine was another thing practically unheard of before. He had been reading in the paper of the sinking of a liner. He had never heard before of torpedoes, and he could not understand how anything from under the water could sink a ship that size.

Probably a conviction was forming in his mind that the evidence was increasing and that his embellishments had not produced the desired effect. At any rate a few days after this he reported that practically all his memories had come back and the manner of it was as follows: The day previously while at dinner a wasp was flying about, and patient rose to kill it. A sergeant remarked that a wasp's sting was worse when dead than when alive, another sergeant observed that he once saw a man stung on the thigh. He had no sooner said this than the memory came back to the patient of being wounded on the thigh by a piece of shrapnel in May 1917 - it felt just like a sting at the time. He got up and went and lay on his bed and his memories came back one by one. All the circumstances of his present condition returned to him. He remembered being up at his battery and starting out to the village of E.... A salvo of shells came over, he jumped into a trench, something hit him on the left side of the head and he lost consciousness. He
came to himself about two hours later lying on his stomach in a field, feeling dazed, and covered with dust. He thought he was at the docks at Karachi and expected to see the troops about him waiting to embark. He got up and walked about half a mile, then he came over faint and sat down. When he woke up again - he thought about an hour afterwards - he could not remember anything; his mind was a complete blank. He started to walk along a road when a soldier met him and patient asked where he was. The soldier asked him what had happened to him and he replied that he did not know. The soldier then took him to a dressing station at F..... and when he sat down he began to vomit. He was asked what his name was but did not know it; so they went through his pockets and took an envelope out. When the patient saw this he remembered his name and address, and, in fact, then all his memories came back except the period between waiting for the boat at Karachi and his "coming to" in the field. He could not remember anything of his life between those dates, and he had remained in that condition until the day before, when the episode of the wasp took place. Now he said all his memories had returned, except, curiously enough, the fact that he could not remember the identity of a girl who had written to him some weeks before. He could not remember receiving the letter, he said, nor the person who wrote it.

It was a circumstantial, realistic and plausible tale and at the end of it he said he wished to express his
thanks for the treatment. Unhappily, however, for one's faith in human nature it proved to be completely fictitious. The following morning he confessed that the condition had not been genuine. He had for some time been feeling increasingly nervous in the line and in addition relations had become greatly strained between him and the officer of his unit. On the day when he started for the village of E..., shells came over and he got frightened and ran. He was not hit in the head etc. He met a soldier who took him to a dressing station where he was so frightened that at first he could not give his name. He calmed down shortly afterwards and as he found he was being sent to hospital he decided to keep up the deception.

Case 41. In July, 1917, a man was sent into hospital as the "unidentified man". He had a gun-shot wound of the right hand, the middle finger of which had required amputation. He had been found, about 6 weeks before, wandering not far from the line, at F..., with a gun-shot wound in his hand and was taken by two men to an advanced dressing station. It was found that he had complete loss of memory for the whole of his past life. No information could be obtained from him regarding his name, regiment, home, or any of the intimate details of his past life. He did not know if he were a married man, if his parents were alive, or what was his former occupation. He had no identity disc, pay-book, or other means of identification on his person and the following day he was sent to a Casualty Clearing Station as the unidentified man. In the latter hospital after
representatives from the surrounding regiments had failed to identify him, an attempt was made to obtain some information from the patient as he was going under and coming out of an anaesthetic, but without result. He remained there five or six weeks obtaining treatment for the wound and making himself useful in the ward.

When examined he was found to be a bright, cheerful individual, clear in mind, able to understand perfectly what was said to him and normally responsive in reaction time. He stated that he remembered everything since "coming to" at the advanced dressing station, but nothing of his life before that time. He could not read, nor write; was unable to name a letter of the alphabet written on paper before him, but declared that he could distinguish between what was "writing" and what was "not-writing". He had been in that condition since the time he found himself in the Advanced Dressing Station.

Unlike B., (case 30), there had apparently been no definite confusion noted at the advanced dressing station and certainly not at the Casualty Clearing Station the following day. There was no childishness of manner, his attitude was that of a grown man; he was sensible and rational in his conversation and he had no difficulty in apprehending what was said to him. There was no loss of the power of naming objects, though as we have seen he was unable to name the letters of the alphabet. He was capable of counting up to twenty-one from the fact that he had helped the
sister in the Casualty Clearing Station who had twenty-one beds in her ward. Beyond twenty-one, however, he was unable to go. Further, unlike B. he showed no anxiety about his condition, accepted his severe disability with apparent indifference, and showed no undue keenness or enthusiasm in filling in the gaps of memory.

The condition was investigated along the lines described in the last case and within a few days his confidence gave way and he confessed the imposture. He stated that he left his regiment in billets and went up towards the trenches. He had had bad news about his wife and was feeling very worried and depressed. He intended to do away with himself and meant the shot which injured his hand, for his head. When he fired and saw what he had done he "sort of came to himself", he said, and realizing the seriousness of his position threw his pay-book and other means of identification away. On being taken to the dressing station and asked his name he said he did not know, and as he found it was successful the deception was maintained.

In considering the varied symptomatology of the war neuroses a problem that was often brought to notice was the possible relation between the emotion of fear and the occurrence of delusions of persecution. Theoretically the association was not difficult to establish: shells, the trenches and the things immediately associated thereto did, naturally, arouse feelings of apprehension. By the simple principle of association it was easy to formulate an
explanation of various phobias, fear, for example, of open spaces or agoraphobia, from the greater danger of such exposure; fear of closed spaces or claustrophobia, from the well-known apprehension of burial in a dug-out. It was only one step further in association to assume a fear of persons, forming, conceivably the early stage in the development of definite persecutory delusions.

Delusions of persecution were of common occurrence in the psychoses of the war and consequently, under the conditions of a psychosis, unsusceptible to exploration of the underlying basis. It was, therefore, a matter of considerable interest when the following case was admitted into hospital in the beginning of September 1918.

Case 42. Private T.C., aet. 22, admitted in an apparently very apprehensive condition. When brought into the office he held up his finger, glanced over his shoulder and said "Hush!" He then leant forward and in a whisper, said: "He keeps following me ...... Jerry". The dominant feature of his condition seemed to be the belief that a German kept following him about ... "All over the show... with rosary beads round his neck... a big man... with black hair and beard and a yellow face". He would not speak above a whisper, because, he said, "He'll hear me". In fragments the history was obtained from him. He had gone "over the top" some days before with his battalion and taken the objective. He saw a great many dead Germans including the one who was following him about, who, he
said, was strangled by rosary beads round his neck. The
following morning they were relieved and went back to the
reserve trenches. Two days later when on their way up to
the front line again patient said he felt the German was
following him. He turned round saw the man behind him and
fell down in a state of terror. He said the German wanted
to get his revenge as he (patient) had killed a lot of his
compatriots with bombs, "hundreds of times on raids". The
history was extracted from him with some difficulty ac-
 companied by much screwing up of his face, pointing with
his finger etc. in the effort to remember, and frequently
interrupted with such remarks as "I must go back" and "May
I go back?" which seemed inconsistent with a genuine con-
dition of extreme apprehension. On being examined he would
not close his eyes for the rhomberg test, as, he said,
"He'll get me". Unfortunately, therefore, for the cause of
research the exaggeration of the condition led to doubts
of its authenticity. A pointed hint was given to him,
and the same evening he stated that he was much improved.
The following morning he reported that the German had
disappeared and thereafter left him in peace.

The way of the transgressor is reputed to be hard,
and the detection of malingering was often not a matter of
great difficulty, in those cases especially who aspired to
too high flights of fancy. It is more than probable, how-
ever, that many cases occurred which were never exposed,
and there appeared not infrequently dubious conditions in
which a definite decision as to diagnosis could not be determined.

The following fragment of dialogue is the record of an actual conversation with a patient - typical of the only kind of conversation that could be elicited from him. His conduct was simply childish and silly. He gave no real trouble, was clean in habits, enjoyed his food, but was untidy in his person and perverse in trivial matters. Certain features of the condition suggested dementia praecox, there were others, however, with which this could not be reconciled. After several week's observation a definite conclusion could not be obtained and he was evacuated to the Base under a provisional diagnosis.

Medical Officer. "How are you getting on now?...Take the match out of your mouth. How are you getting on?"

Patient. "Champion, Sir."

M.O. "Better than you were yesterday?"

P. "Champion, Sir."

M.O. "Why do you keep your eyes closed?"

P. "What you were saying, Sir."

M.O. "What did I say?"

P. "The same thing, Sir"

M.O. "What do you mean by that?"

P. "Got it, Sir"

M.O. "What have you got?"

P. "That."

M.O. "What's 'that'"
M.O. "Why do you make gestures like that?"
P. "Because they are better ones than those ones."
M.O. "What are 'those ones'?"
P. "Those ones."
M.O. "What?"
P. "Those ones."
M.O. "What do you mean by that? (No answer)"
M.O. "What do those gestures mean?"
P. "Life, Sir."
M.O. "What's that?"
P. "Polar Bear, Sir."
M.O. "Why are you stretching out your hands?"
P. "My power, Sir."
M.O. "What power?"
P. "What you said, Sir."
M.O. "Why do you make those faces?"
P. "Très bon, Sir -- -- They are champion, Sir -- -- Très bon -- -- Looks champion, Sir."
M.O. "What looks champion?"
P. "Ah! Très bon, eh? -- -- New ones."
M.O. "New what?"
P. "Boots, Sir -- -- what time is it now, Sir?"
M.O. "What time do you think it is?"
P. "I think it's about one o'clock, Sir -- -- Do you mean that, Yes? take it then."
CHAPTER VII.

PROGRESS and PROGNOSIS.

"To be feared of a thing and yet to do it is what makes the prettiest kind of a man." This was Alan Breck Stewart's philosophy, in "Kidnapped," and it formed a perfect epitome of the psychotherapeutic standard in the war neuroses.

We have described the different types of the war neuroses as they occurred in their simplicity in the early stages. But that they rapidly became complicated if neglected, and within a short time might reach an appalling state of demoralisation, was a fact too well-known to need emphasis. The nature of this complicating process we shall discuss later; at the moment we shall consider the general problem of the basis on which a prognosis could be formed.

The factor of predisposition is considered by many writers to play a preponderating role in the production of the war neuroses. Mott writes: "A large majority of shell-shock cases occur in persons with a nervous temperament, or in persons who were the victims of an acquired, or inherited neuropathy; also a neuro-potentially sound soldier in this trench warfare may, from stress of prolonged active service, acquire a neurasthenic condition. If in a soldier there is an inborn timidity, or neuropathic or psychopathic taint, causing a locus minoris resistentiae, it necessarily follows that he will be less able to with-
stand the terrifying effects of shell fire and the stress of trench warfare.” Wolfsohn in an investigation, under Mott’s guidance, found as we have seen, in 72 to 74 per cent of the cases studied a previous neuropathic constitution or a family history of nervous or mental disorder. Marr states that in 30 per cent of cases he found either a history of personal neuropathic inheritance, a family history of nervous or mental disease or a history of anatomical, physiological and mental stigmata. Roussy and L’Hermitte have come to a similar conclusion.

On the other hand Babinski and Froment write that "we may remark in passing that predisposition, personal or hereditary antecedents, the nature of the individual and the emotional constitution appear to be of secondary importance". Eder from his investigation of one hundred cases found a pre-war history (family or personal) of nervous or mental disorder in only 30 per cent.

A history of predisposition, congenital or acquired, would seem, a priori, an important factor in the production of the neurosis and in the formation of a prognosis. In practice however, it was found to be for the latter a very uncertain guide. The environmental influences were overwhelmingly potent and disrupting. They constituted psychologically a constant stimulus to one of the strongest dispositions of human nature. It was not surprising, therefore, that the corresponding emotions became aroused to an excessive degree. So long as men are born with emotional
dispositions they will be liable to the their excessive action when excessively stimulated.

Cases commonly occurred with a clear personal and family record and yet with whom no return to active war conditions was possible. On the other hand many cases with a definite history of predisposition made an excellent recovery and returned after an adequate period of treatment to their units. In this regard the history of the nine cases from the raid may be recalled. Four of them had a definite family or personal history, of whom two, in addition, had had an apparently severe though brief attack of delirium. Yet all of them returned voluntarily to the trenches after only 48 hours rest. A.... L...., captain in a famous regiment who after two year's distinguished service in the field found himself in hospital with a typical attack of war neurosis of type I,, stated that from childhood he had always been timid. Noises especially affected him, so that when in the line he always wore ear protectors. Up till a few years before, he said, if he were at a railway station when an express train passed through he became so nervous that he had to clench his teeth and shut his eyes. Yet in the course of over two year's hard fighting on the western front this officer won the D.S.O. and the M.C. In several instances that have come under the writer's observation decorations for bravery have been won after the occurrence of an attack of "shell-shock".
The following case is also instructive:

Case 43, R.H., aet. 30, at the beginning of 1919 developed an attack of melancholia of the manic-depressive type with ideas of suicide. He was certified and sent to an asylum. 10 years before he had had a previous attack of excitement which had lasted for four months and for which he had been placed under certificate. He had joined the army in September 1914 and served abroad in France, Salonica, Egypt and Palestine for nearly three years in an infantry regiment. He remained perfectly well mentally during that time, for two years of which he had no home leave. He was demobilised in the early months of 1919 and a week later became depressed.

Case 44, F.W.B., a young man of 25 of clear family history and antecedents became insane in February 1915. He was apathetic, self-absorbed and unemotional, most of the time mute, inaccessible and apparently indifferent to his surroundings. He resented interrogation, which if persisted in caused him to become irritable and sarcastic; occasionally he became absolutely stuporous and negativistic. When he did speak he was incoherent and enigmatical. He adopted a superior tone and was meticulously precise in grammar. When asked his age he said he might be of different ages in different parts of him. On another occasion he observed "You are not the Truth - you are not a true man - you are trying not to be what you think I want - I know a false man when I see one - you are not the Truth -
an impostor - if he wants to be a true man he must have
that hot water bottle brought in at once - the truth is
the true God - I am not the True God - don't say I am."
Later he declared that his father who came to see him was
not his real father, and that he himself had recently
changed into a number of different personalities among
whom were Shakespeare, King Solomon and Richard Burton.
Occasional transient katatonic phases appeared throughout
the course of the condition. He was faulty in his habits
and when questioned regarding this said on one occasion
that he had a special reason for it, and on another that
it was the only thing for him to do at the time. Natur­
ally the diagnosis of Dementia Praecox (Katatonic form)
was made. Within four months, however, he had completely
recovered and was discharged. He went away on holiday for
several months and then joined the army in October 1915.
After a year's training in England he was sent out to
France. There he carried on with his unit until wounded
in the fighting in May 1917. At the same time he was taken
prisoner and kept in Germany until Christmas 1917. Then
he was sent to Switzerland where a severe operation was
performed on his arm. He remained perfectly well mentally
during the whole of this time and never showed any sign
of "shell-shock". He was repatriated after the armistice
and is now back at his former profession.

The other side of the picture is also impressive,
however, more especially in the lessons it discloses of
the importance of early training and environment. James writes: "We see that the mind is at every stage a theatre of simultaneous possibilities. Consciousness consists in the comparison of these with each other, the selection of some, and the suppression of the rest by the reinforcing and inhibiting agency of attention.---- The mind, in short, works on the data it receives very much as a sculptor works on his block of stone. In a sense the statue stood there from eternity. But there were a thousand different ones beside it, and the sculptor alone is to thank for having extricated this one from the rest." The "sculptor" we may look upon as the forces of environment and as to the effect the early atmosphere may have in warping the character the following cases are instructive.

Case 45, Private J.H., aet. 36, was admitted into hospital on 30/7/17 with a note from his regimental medical officer to say that he did not consider the patient fit for active service. He was so nervous as to be unable to fire a rifle. After 24 hours in the reserve trenches the medical officer found him trembling, weeping and bathed in perspiration.

A few hours after admission into hospital a knock came to the office door, the patient walked in and, with tears in his eyes, said he wished to thank the medical officer and sisters for their great kindness to him! The history of the case was as follows: As far back as he could remember he had always been afraid of his father.
Rigorously stern in character, his father, a man apparently of excellent motives, was evidently incapable of appreciating or showing any insight into a child's mind. Any little mischief-making, any little wrong-doing, or even apparently the child's natural tendencies to play were suppressed and treated with great severity. A simple game of marbles was fraught for him with the severest consequences if discovered. His father never punished him corporally but sent him to bed for a day, or locked him in a dark room for several hours "just to give him a fright".

In consequence an atmosphere of fear and repression pervaded the home. There was no relaxation. The child was constantly afraid of doing things that might call down punishment on his head, and grew up in a state of almost constant apprehension. To make matters worse his mother seemed to be lacking in normal sympathy with his childish feelings. She tried to put in practice a theory of frightening him out of his nervousness. She would come into the room with a sheet over her head pretending to be a ghost. This made the patient simply terrified; he used to rush under a bed and stay there trembling and quaking for hours. She further commonly used to threaten that if he were a "bad boy" she would tell his father.

It seems a fitting point to add that his father was an undertaker. The elder brother of the patient who was taking up the paternal profession used frequently to take the patient along with him to the mortuary to measure the
corpse. Sometimes, "just for fun" he would push the
patient into the room with the dead body and lock the
the door. The unfortunate small boy was terrified to
find himself alone with a corpse. He found accordingly
when he grew up that he could not follow his father's oc-
cupation but became instead a compositor.

Thus constituted, he was called up to the army under
the Derby scheme in March 1916. He was a hard and con-
scientious worker in ordinary tasks, but when practising
rifle-shooting, they had to hold him down. He shook from
head to foot so much that he could not fire the rifle.
Once he did manage to fire it and missed the target. He
was duly sent out to France in August 1916 and kept at the
base for a month. One day they were paraded and the order
given for all those who had had no bombing practice to
stand out. The patient, faithful to his conception of
duty, stood out with the rest. Accordingly a few days later
at the bombing school he found himself with a live bomb in
his hand. The instructor pulled the pin out and the patient
threw the bomb into the air and fainted.

It was almost a miracle that no one was hurt; but his
condition was recognised and he was made assistant cook.
For eight months he worked faithfully and conscientiously,
and then was chosen as one of a draft for the trenches.
At a depot on his way to the line his nervousness at the
rifle-range was so apparent that they made him a batman.
He continued at this post for two months and then was sent

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up to the trenches. The day after his arrival in the reserve line he was sent to hospital, as we have seen, by the regimental medical officer.

There was no family history of any nervous or mental disorder. All the evidence in the case pointed to the distortion of his personality by the influences of his early environment. The two great dispositions of fear and self-subjection were drawn out to an abnormal degree and warped his whole outlook on life. He was a conscientious, likeable little man, ashamed of his disability, extremely anxious to do what he could to make up for it, and absurdly grateful for any small kindness. He came in the army, he said, with an unstained character, and he hoped he would go out in the same way.

Case 46, Lieut. S.J.H., aet 34, was admitted into hospital in July 1918. He was in a tremulous, "jumpy" condition, complained of nervousness, depression, headaches, giddiness and inability to control his feelings. He had, in addition, a whole series of phobias which will be later considered. He had arrived in France about five weeks before, feeling at the time nervous and lacking in confidence. He was sent up to the Divisional wing and a few days later while on manoeuvres became nervous, confused, lost control of himself, "made a fool of himself" and was sent to hospital. As regards the family history, patient stated that his mother was nervous and his father died, aged 62, from apoplexy. There was no history of any
nervous or mental disease which was likely to have exerted a predisposing influence on him.

The story of his early life, however, was significant in the light of his later history. When he was two and a half years old, his father and mother were divorced. He was brought up by his father, and shortly after the divorce the father married again. As early as he could realise anything, he said, he realised that his step-mother did not want him. She never showed the slightest affection for him, and he had the idea that he was in the way. His father was quite indifferent at that time and neither of them were actively cruel to him. About the age of four he was sent to stay with some relatives of his step-mother in a dirty part of London. Even at that early age, he said, the surroundings and the people repulsed and disgusted him though his guardians were not unkind to him. It seems now, he said, when he thought of it almost a nightmare. At the age of 6 he was labelled and sent by train in charge of the guard to a boarding-school in the country. There, he said, the sense of his loneliness was very strong, and he resigned himself to a motherless and fatherless existence, without affection. He remembers that at that age he was afraid of his father and step-mother - a feeling which was not tempered by the knowledge that they felt any attachment to him.

He remained only about six months at the boarding-school and then was brought back to the father's home, and
from that time his life became almost unbearable. He suf-
f ered much from loneliness, was always left "out in the
cold" and was frequently told by his step-mother that she
wished he had never been born. His meals he had with the
maid in the kitchen except on Sundays. He became in-
creasingly nervous and shy and was driven more in on himself.

From this more refined exhibition of cruelty his par-
ents gradually passed to a more brutal form. His father
began to punish him unmercifully for the most trivial causes,
and often for none at all. Often he was locked up in his
room on bread and water for a day, and sometimes for a week.
At other times he would be dragged from his bed by his
father at a late hour, and thrashed with a cane for no rea-
son, until he was almost mad with pain. His father seemed
to take a sort of fiendish delight in doing this, patient
said, and it was not an alcoholic phenomenon, as he was a
very temperate man. At other times his father would test
his ability with his school lessons but became so irritable
and impatient that the terrified boy could not give him a
correct answer even if he knew it. He was in consequence
called a fool so often that he soon came to believe it. He
was always being punished, he said, on trumped-up charges
until finally in addition to his extreme nervousness, his
feelings of worthlessness and inferiority, he developed a
bitter and resentful outlook towards life.

From as early as he could remember, he said, he had
always had an intense longing for someone to show affection
to him and to whom he could reciprocate - the natural figure being, of course, a mother. The treatment he received at home had made him nervous, more widely and more intensely afraid of people and things than the normal boy, sensitive and shy, with a definite feeling of inferiority, afraid to put himself forward - to express himself. All the natural self-assertive tendencies of his disposition were thrust back and repressed and he became introspective and self-absorbed.

As a consequence of this repression he used to give expression to his suppressed tendencies by means of phantasy. His imagination formed for him what he used to call his "fairy-mother", who was kind and affectionate, whom he could speak freely to and love. He used to weave daydreams and romances about her and to dream of her at night. He read Henty's books, and they made a strong impression on him. So he used to compensate for the other starved and repressed aspects of his nature by constructing phantasies depicting himself a hero performing deeds of valour.

At the age of fourteen he was sent to an office, but had no interest in the work and was discharged for carelessness at the end of eighteen months. The same thing happened with the next post he obtained, and in consequence his father turned him one night from the house at the age of sixteen, with eight shillings in his pocket. He underwent a period of hardship after this for some time. As he said, he lived anywhere and fed sometimes only once a day, until he found a post in a city warehouse. Here a marked religious development took place. He had been
brought up in the Church of England though not strictly, but while in the warehouse he came under the influence of a clergyman and subsequently became confirmed and an enthusiastic member of the church. Gradually, however, his fervour waned. He had been hoping for relief from his mental unrest, at that time somewhat vague and indefinite with him. On the advice, therefore, of a fellow-worker he turned to the Catholic religion and later was duly received into that church. Again, however, he was disappointed; he felt no happier. Perhaps because he was expecting a miracle, he said.

By this time he had saved up enough money to pay his passage to Canada, and at the age of twenty-one he took a steerage ticket and landed at Winnipeg. After obtaining some experience in farming he eventually settled down at a post in a wholesale store. He had felt his change of religion as a load on his mind, and one day while passing along the street he heard from a church the old music. He went in and saw the vicar, and eventually was again received into the Church of England. At this church he met the girl who had for three years a very great influence over his life. He was in the choir and liked by the church people. The girl, who was destined to be a missionary, instilled in him, he said, all the finer, wholesome ideas that a man ought to have. She had a sort of purifying influence over him; he was fast overcoming his nervousness and shyness, and for the first time in his life found him-
self very happy. In sex matters he was still very ignorant and his outlook towards women highly idealistic, founded most probably on the "dream-mother" phantasies. The association was nothing more than a friendly one on the girl's part, but the patient found that she had inspired a deeper sentiment in him. Under her influence, on an appeal being made for missionaries, he volunteered, and had an interview with the Archbishop. At the following preliminary examination however, he failed. Later, he sat for the medical preliminary examination with the intention of becoming a medical missionary; but again was unsuccessful.

By this time the girl had entered a hospital to train as a nurse. This aroused feelings of jealousy on his part, and prevented their meeting as before. He realised then the state of his feelings, and after enduring the conflict for some time spoke to the girl's mother on the subject of their marriage. Unhappily for his ambitions, he was given to understand that his suit was hopeless.

His reaction to this was one of bitterness and resentment against fate. He came to believe that there was no just Providence, but simply some inevitable predestined force. He gave up the idea of God and of prayer and became an atheist. He stated that he felt he had always been religious, but his conception had chiefly been of a religion of fear, in which the punishment aspect impressed him more than anything else.

To assist himself in forgetting, he decided to go away, to get into new surroundings and occupy himself with work.
He resolved not to make new friends, but found this was not so easy as he thought. He obtained a post on a survey party and it is this period that marks the development of his various symptoms. One day he had to go out in a blizzard, but got lost, and about an hour and a half later was found, with his hands and face frozen, staggering round in circles not two hundred yards from the house. After that he never again could face a blizzard.

A few months later while at survey work he fell between two planks and was only saved by his arms from being precipitated into a canon 30 feet below. He was considerably shaken up at the time, and felt nervous and apprehensive. The following day he became sick and for months afterwards suffered from dyspeptic symptoms. His condition grew worse so that he had to give his work up. He developed a fear of it, and was unable to face going up a mountain. He went away for six weeks but during that time the phobic condition spread. He became afraid to go out by himself; he dreaded that he would collapse, and one day on attempting to walk in a large park he was seized with sudden panic and had to rush home as quickly as he could.

Another incident of considerable significance occurred one day while with a friend in a furniture store, on the top floor. The friend who was about to be married was buying furniture for his home. Patient was suddenly seized with a feeling of emptiness in the stomach, and a deadly fear that something terrible was going to happen to him. He had a horrible choking sensation and a feeling of helplessness, and since that incident he had had a fear of
He developed also the fear of a crowd which he traced back to a terrifying experience at the age of thirteen when he was crushed in a crowd at St. Paul's Cathedral. The open sea, too, became a source of terror to him, and this he associated with an episode in which he fell into a large bath at the seaside. Finally, the fear appeared of being alone, a fear which he could not trace to any incident in his early life, but stated that it was not present before his accident at the cañon.

He obtained another post and persisted very much in this condition until the war broke out. He joined the army immediately and came to England in 1914. During his training he remained fairly well, and was persuaded, against his better feelings, to accept a commission in February 1915. He was sent out to the Dardanelles in October 1915 and after two months was invalided to Alexandria with epistaxis. In the course of a few weeks he recovered and rejoined his regiment on the Suez canal. Then, however, the whole series of phobias came back again. On patrol at night, although he knew the enemy were many miles away, he was in a continual state of dread. On one occasion on patrol he completely lost his sense of direction, became panicky, his heart began to thump, a sick feeling developed and a condition of terror that he might collapse. On another occasion while crossing the desert to a camp, the awful sense of loneliness and panic came over him. He felt he had to run and was exhausted when, to his relief, the tents of the camp appeared.
In July 1916 he was invalided to England and remained on home duty until June 1918 when, as we have seen, he was sent to France.

We have already noted how in phantasy the patient compensated for the deficiencies of real life. It was instructive to observe how in his dreams the same phenomenon took place. At the time when the ideal of a missionary was strongly activating him the following dream occurred which he said had remained clear and vivid for ten years:

"I dreamt that I was in the Shipping Department of the firm I was working for. There were a lot of packing cases around, some empty, some full. I walked through the room which had an archway and there I saw sitting on one of the boxes Christ as a little child, and his Mother was with him. I can't remember whether I asked if I could kiss him or not, but I did do so, then I don't remember anything else that happened." The shipping department was the branch in which he worked. The figure of Christ proved to be the symbolical representation of the girl, E. who as we have seen, subsequently became a missionary. The Mother was the mother of the girl.

As expressing the conflicting impulses of his "hero" complex he had the following dream: "I dreamt that I went to stop a runaway horse and it stopped before I got to it. Thus the opportunity of doing a heroic act fizzled out."
The dream reminded him of an actual experience in which he stopped a horse, during his training, just as it started.
to run away. It was also constellated with an experience in Canada when, while on the march, a runaway team ran into the rear of the column.

He stated that from time to time dreams occurred which expressed his deep hatred for his father and step-mother. He had dreamt, for example, that he has been in a room and seen his father there. He has tried to attack him but was always kept back by some invisible force. The same type of dream occurred referring to his step-mother. He had never actually in the dreams struck either of them.

We see again in this case how as the result of his early environment practically all his natural self-expressive tendencies were repressed. His fear disposition and self-subjection disposition were stimulated to an excessive degree and exercised a distorting influence on his later development. A character in consequence was produced with a lack of normal balance and stability; he became a timid, phobic, apologetic individual, diffident and irresolute, and totally incapable of meeting his fellow men on a basis of equality.

The consideration of the above cases is sufficient to show that the existence of a predisposition was not enough in itself to determine the prognosis. The main problem was to obtain a clear estimation of the strength of the factors of adaptation. Adaptation was still possible, as we have seen, even in the presence of predisposition congenital or acquired. A guiding principle could, therefore, only be
formed from an appraisement of the factors in each individual case. Further to clarify the problem, it was necessary to bear in mind that the standard in France differed from that in England. Treatment in France, was designed to enable the patient to return in the shortest time to the environment which had caused his breakdown. It implied, therefore, a stringent control over demoralising influences, and vigorous means of keying the patient up to the adaptation standard.

Opinion in England during the course of the war varied considerably on the subject of prognosis. By some it was assumed that no man was capable of being sent back to the trenches after an attack of "shell-shock". This view was inaccurate in fact, and, in the majority of cases, was prejudicial to the best interests of the patients themselves. As we have already observed, practical help was obtained from a classification of patients into three groups, viz. the Subnormal, those incapable of adaptation to active warfare, exemplified by cases 43 and 44; the Normal A group, normally adaptable individuals overcome by the strain of prolonged service, such as Capt A....L....; the normal B group, normally adaptable individuals overcome by sudden exceptional shock as exemplified by the patients from the raid. In the first group the prognosis was, of course, hopeless as regards efficiency for active war conditions, though most were capable of undertaking duties behind the forward area. In the Normal A group about 50% were found
able after appropriate rest and treatment to return to duty. In the normal B group the prognosis was excellent, 85% being rendered fit to return to their units. Of the total number of 4,235 cases treated, 63.5% were rendered fit to return to duty. As the war went on the prognosis naturally grew worse, from three main causes: impaired quality of the new troops, increase in the intensity of the warfare and from the strain of the prolonged campaign. As regards relapses, there were 5% of readmissions from this cause; but it was impossible to form any accurate estimate, owing to the movements of the troops from one army area to another - and, unfortunately, there was no linking up of the different army centres.

Regarding the prognosis of the different types, the direct tremulous type (1) and the "conversion" type (3) were by far the most hopeful. Of the other forms, the stuporose, generalised amnesic and combined cases were less amenable to treatment and practically all were sent down to the Base. The acute tremulous, apprehensive symptoms of type (1) in the appropriate atmosphere subsided generally in the course of three or four days. The "conversion" symptoms, mutism, aphonia, deafness and the others were so easily and rapidly amenable to treatment as to be practically an indifferent factor in the estimation of the case. Once the "conversion" symptom was cured the case then became similar to those of type 1.

The average period of residence in hospital for the
cases successfully treated was eighteen days.

Fatigue was an almost universal accompaniment and it occurred in two forms as McCurdy states; a physical form, which cleared up within a few days under rest, and a mental form and indication of the existence of the mental conflict, which varied naturally with the condition of the patient. Headache and giddiness were very frequent sequelae and were also looked upon as an index of the activity of the conflict. Being subjective symptoms they could be judged only by indirect evidence. Thus if a patient complained of "terrible" headaches and it was found on careful observation that he was bright and cheerful, played cards, laughed and joked with the other patients, joined in the concerts, ate well and slept well, it was a fair inference that his headaches were not incapacitating.

As we have said, the cure of the immediate symptoms in the large majority of cases was a matter of little difficulty. The main problem after that was the adjusting of the mental imbalance that remained, to effect a restoration, as far as possible, of the condition of adaptation. This did not imply the entire abolition of a state of conflict, for that was impossible, but an attempt, by weakening the fear factor and strengthening the repression mechanism, to reach a state of stable adaptation - which in itself at basis was a state of conflict.

Early control of the case was a practical necessity. We have shown the initial, spontaneous opposition in the vast majority of cases to
the admission of the presence of fear. Unless, then, the case were at once taken in hand and this dissociation removed, a series of conflicting mechanisms developed which rapidly obscured the original simplicity of the condition. A fear condition implied a tendency, or desire, or wish to be away from the fear-inspiring situation; it was a natural sequel to the psychological condition. There were, then, two motives, acting subconsciously, in practically all cases and from these arose a series of defence or compensation mechanisms. The most evident way of preventing a return to the feared environment was by the continuation of the existing disability which had procured the patient's temporary relief. This led to the prolongation and exaggeration of the symptoms and, in general, to an attitude of hypochondriasis. If this proved ineffective the next connected development would probably be the appearance of a symptom associated by similarity or contiguity, in the patient's mind with the disability he was suffering from. In this way during the progress of a case a sudden mutism or deafness might occur, or a relapse or partial relapse. This failing, any disability might appear, however, remotely associated with the condition.

In regard to the resistance against the admission of fear, the simplest form of defence was a refusal to acknowledge or entertain the idea. This would develop into a denial of the fact, then to the confident assertion of the opposite and in general to a considerable sensitiveness
to any suspicion on the part of others. This might lead, if tactlessly handled, to the development of a sentiment of resentment and opposition against the medical officer or against the authorities. The condition might further develop until a projection mechanism became established leading him to accuse others of being afraid to "do their bit". Lastly, in the long-standing, chronic cases the "secondary function" of the neurosis came into play in the motive it provided for a pension.

In addition to the factors of conflict already mentioned a further and very important component was added when the shame reaction was aroused to a considerable degree. According to McDougall, shame depends on the development of the self-regarding sentiment, and corresponding with the attributes or components - in other words the conators - comprised within the self-regarding sentiment will be the reaction of shame to the different situations of life. "Thus", as McDougall points out, "a man whose self, as object of his self-respect, includes courage or athletic prowess will feel shame if he appears cowardly or bodily incapable, whereas most women, whose selves as objects of their self-regarding sentiments have not the attribute of physical courage or athletic capacity, will run away from a mouse or show themselves incapable of jumping over a fence without the least pang of shame". (174)

Individuals naturally differ in the extension and complexity of their self-regarding sentiments, according
to the differences in innate disposition and early training. The main factors of the emotional complex of shame are negative and positive self-feeling struggling together—which constitutes bashfulness—but qualified by the pain of baffled positive self-feeling. The check to the impulse of self-assertion may provoke anger, and this is allied to the vengeful emotion, though differing from it in that the anger is directed against the self and therefore incapable of finding adequate satisfaction. These different components or conators are differently aroused in different individuals. When the negative self-feeling is conspicuously aroused the reaction is the common one of loss of confidence, hopelessness and depression which may lead to suicide. Cases which show a dominant anger reaction are not so common but they do occur. The following is an instructive example:

Case 47, Lance-Corporal T.S., aet. 20, was admitted into hospital on 31/12/17 having produced a self-inflicted wound in the left shoulder with his revolver in the trenches on 28/12/17. He had returned from leave three days before the incident took place. He was reported by his commanding officer as being a sound and reliable N.C.O., but had been noted to be "windy" since returning from leave. Private J.G., who saw the occurrence stated in evidence that he saw the patient with his revolver cocked levelled at his head. "I asked him what he was doing and he replied 'I am going to do it, Jim'. I said 'Don't be a fool, and rushed
at him and attempted to wrest the revolver from him. As I did this he pulled the trigger and shot himself in the chest."

The patient stated that he arrived back from leave on Christmas Eve. He was feeling depressed at coming back, although there had been nothing in particular, he said, to make him depressed. He was a single man, had no private worries, but simply felt down-hearted, in the usual way, on coming back. He went up to the trenches on 27/12/17 and found that he was "windy" - nervous and scared, and inclined to run when shelling started. This worried him, he said, because it was the first time that he had felt like that. During that night he did run on two or three occasions and the humiliation and shame of it preyed on his mind. The following day he was in the same condition, and in the afternoon he got the order to come up out of his dug-out. Shelling was going on and again he felt terrified and inclined to run. Then the sense of ignominy came over him with force; he determined he wouldn't run, said to himself he didn't intend to run again. So he drew his revolver, levelled it at his head and would have "done himself in" if his friend had not knocked the revolver down. He had been in France since June 1916, all the time with his unit, as a Lewis gunner, in and out of the trenches. He had had only one leave from which he had returned only three days before the above incident had taken place. There was no previous history of any definite nervous or mental disorder.
reported, however, that he had a fear of heights, and on one occasion had had a sudden impulse to jump into the river while crossing London Bridge. His brother was a cripple, suffered from fits and was mentally deficient. It is instructive to note in this case, in addition to the activity of the anger component of the shame reaction, the fact that excellent adaptation to trench life took place notwithstanding a history indicating a definite predisposition.

The whole problem of the mental conflict was, of course, more serious in officers and N.C.O.'s from the greater responsibility they bore, implying a degree of will-control, a power of thinking swiftly and of acting resolutely that was impossible if tormented by an imperfectly adjusted conflict. The more varied and complex the mental life, the more accustomed to self-analysis, the less ordinary pretexts or "rationalisations" would satisfy the ideals of the individual. A more elaborate series of rationalisations would be evolved leading to a conflict of more subtle ramifications.

There were, finally, cases in whom, though similar to the majority in the beginning, what may be called the natural tendency to recovery did not take place. A tremor or a stutter, for instance, occasionally persisted in spite of every effort. Most commonly, however, what occurred in the irremediable cases was that, after the acute symptoms had subsided, they became preoccupied and apprehensive, developed a hypochondriacal outlook, and became
unable to direct their thoughts from a prevailing fear. Phobic manifestations often developed and spread, the patient became depressed, seclusive and shrank into himself. A linking-up process of varying extensity with earlier complexes took place in accordance with the principle we have already described.

Case 46, Lance-Corporal W.F., was admitted into hospital in a mildly tremulous condition complaining of headaches and occasional dazed, confused feelings at night, and sleeplessness. While on patrol a few days before just behind the front line trench he was blown down by one shell and buried by another. He struggled out, was shaking all over, felt dazed, terrified and jumpy, and was sent to hospital.

The acute symptoms subsided in the course of a few days, but he became preoccupied and miserable. He could not get the thought of what had happened out of his mind; it haunted him day and night, and seemed as clear and vivid as when it occurred. If he tried to read or otherwise to occupy himself, he could not keep his mind concentrated; his thoughts always wandered back to the terrifying incident. At night he could not get to sleep as the frightening thoughts kept constantly recurring. He went about, he said, in a continual state of fear but he did not know what it was he was frightened of. This latter dissociation was resolved on asking him carefully to examine his mind and find out what he was afraid of. After doing so he
admitted that it was a fear of shells. There was no sign on examination of any organic disorder. Service in France one year and seven months. He had had typhoid twenty months before, but there was no history of previous nervous or mental disorder. His mother was nervous: there was otherwise no family history of mental or nervous disease. The condition became linked-up with a complex due to a mining accident several years before. The same series of symptoms developed then, he said, so that he had to give up his work as a miner, - he could not bear the thought of going back to it.

Case 49, Private J.P., aged 24, was admitted into hospital in a depressed, emotional condition. There was a slight tremor present, he complained of "going hot and cold all over, of pain in the heart and choking feelings. His heart, he said, seemed to be out of place; it seemed to go up into his throat and then go down again.

About three weeks before admission while with others at a bombing school they were practising detonating and undetonating bombs. The patient had finished his and was asked to instruct another man who could not properly manipulate the bomb. When he took the bomb in his hand it began to fizz. The men were standing in a ring and the patient threw the bomb towards a trench about fourteen yards away. It exploded before it reached the trench wounding six other men and the patient. They were sent to hospital and the same day his friend died, and was buried
about ten yards from the tent in which the patient was being treated. He was twelve days in the tent and every time he went out he used to see the grave. It began to prey on his mind and made him sleepless. He began to fancy he could see his friend at his bedside at night. It made him terrified - he used to jump up, and then the vision would be gone. About a fortnight later the choking feeling developed, he became more preoccupied, nervous and depressed. He was court-martialed for neglect a few days later, and although acquitted it preyed further on his mind and increased his mental distress. He had had fourteen months service in France. There was no history of previous nervous or mental disease. At the age of 15 he had fallen about fifteen feet and this "got on his nerves" for a day. He "pulled himself together", however, he said, and was all right after that. His family history was negative.
CHAPTER VIII.

TREATMENT.

There was no more striking feature of the war neur­oses than the facility with which the symptoms could be corrected by the most diverse methods of treatment. Sugges­tion, persuasion, manipulation, reeducation, hypnotism, analysis and the faradic battery all met with the most astonishing and gratifying success.

Bernard Hart has observed that the apparently manifold modes of psychotherapy are in reality varieties of three basic methods viz. suggestion, persuasion, and analysis. Suggestion from the point of view of psychopathology we have already considered. As an instrument of psychotherapy, as Hart points out, it is directed solely towards the pen­ultimate link of the chain of causes and achieves its success in the treatment of a symptom by the substitution of a conviction that the symptom is not present. In so far as the substituted conviction is stronger than the cause or causes (which still remain untouched), it will repress the latter and give relief from the symptom.

Persuasion as taught by Dejerine and Dubois differs from suggestion in degree but not in nature. Suggestion according to Dubois is the acceptance of an idea by the mind, but, he writes, "One must distinguish between suggestion which acts by the circuitous paths of insinuation, and persuasion which honestly appeals to the reason of the
subject. And again, "We do not speak of suggestion when, by honest persuasion and a logical setting forth of good reasons, we have influenced the conviction of our neighbour ....... Suggestion implies that good faith has been more or less imposed on." The difference, he states, is similar to that between blind faith and reasoning faith. Persuasion is a process of logical argument on the part of the physician who meets the patient "with a parry for every thrust."

Dejerine as we have already noted, lays great emphasis on the importance of the emotions. "The first work of the psychotherapist", he writes, "should be to reconstruct his patient's personality, and in order to accomplish this reconstruction he will have to depend almost entirely upon the sthenic emotions." The initial step in the process is to gain the patient's confidence by assuring him that he will be cured, and approximately how long it will take. The second step is to exercise a "liberating action" on the scruples, the feelings of remorse and self-reproach of the patient by encouraging an act of confession. Finally the patient's personality is to be directed into healthy channels, and here, "it is in the very personality which the patient had previously had that one must look for the elements of direction and re-orientation of his personality and of his life." "You will...... by creating an emotion in him which is sthenic because it conforms to his former tendencies, call forth the most con-
structing and uplifting sense of action," (144)

As we have previously pointed out, Dejerine does not explicitly indicate what are the sthenic emotions. The emotion of anger, or a sentiment of hate may be said very definitely to be sthenic, but it is presumably to emotions such as these that Dejerine refers. A further difficulty arises in connection with the reconstructing process when we recognise that many factors of a neurosis are commonly unconscious — unrecognised by or unknown to the patient — and without a procedure designed to bring these to the surface, no adequate degree of reconstruction of the personality can take place. Hart again observes that, though superior to the method of suggestion, the aim of persuasion is also merely to destroy the penultimate link in the chain of causes, and substitute for it the conviction that the symptom is not present.

Analysis, or, to use Myers' term, exploration, to distinguish it from the implications of psychoanalysis, is the process of bringing to light the underlying causes of the neurosis and of remedying them. It is thus seen to be a method of treatment quite distinct from and more radical than either suggestion or persuasion; although it is not always clearly separated, as, for example, in the case psychoanalysed by Brill, whose patient attributed her improvement to a mixture of rhubarb and soda.

For the sake of clearness we must separate in the procedure of analysis the process of bringing the causal
complex to light from the process of dealing with it, modifying or abolishing it, after it has been brought to the surface. That the first in itself has a beneficial action - if perhaps only a temporary one - is seen in everyday experience; in the relief that is felt, for example, in telling one's troubles to a friend, or in the practice of confession amongst catholics. In regard to the facing of a moral difficulty McDougall has observed: "It is possible or even probable that, when we stoutly face a temptation, frankly recognising it for what it is \[
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and when we thus conquer it, the tendency is destroyed." (149) The process is closely associated if not identical with the action of volition. As James has pointed out, effort of attention, in the holding of an idea or presentation before consciousness is the essential activity of volition. "The essential achievement of the will, in short, when it is most 'voluntary', is to ATTEND to a difficult object and hold it fast before the mind." The mode in which this is brought about is the subject of divergent views. According to James it is effected by the inhibition or suppression of all conflicting ideas; McDougall's view, on the other hand, as we have already noted, is that it is brought about by a positive reinforcement of the idea by the co-operation of the self-regarding sentiment.

Morton Prince is of opinion that the mere emergence of the forgotten memories into consciousness is not sufficient to produce cure. In his view the fundamental
process is the changing of the setting or viewpoint or meaning of the ideas. "This" he writes "is the goal of psychotherapy, and, in my judgment the one fundamental principle common to all technical methods of such treatment." (151)

Jones points out that in the translation of an unconscious complex into consciousness several consequences occur. It becomes "accessible to the influence of numerous conscious considerations bearing on it, but with which it has previously been out of contact" - including those mentioned by Prince. Further, "illogical displacements of the affects are resolved through the latter being traced to their original source." Thirdly the affect is freed from the strong dissociating tendency of the unconscious, becomes diffused over the whole mind ..... and "becomes worked off in various adequate and suitable ways." (153)

This latter is the process of abreaction. The whole series of these changes is comprised under the term assimilation - the complex has become assimilated to the main body of the personality and is now under the control of the will. It is not assimilation, however, which is looked upon as the fundamental factor; the important process in the treatment is the overcoming of the internal resistances which were the cause of the repression and the obstacle to assimilation.

We are now in a position to correlate these considerations with our previous conceptions of psychology. The complex we have seen to be a series of conators.
purpose of clearness in description we may take the case of the simplest complex composed of a single conator - an idea linked to an emotion. If we represent it as follows:

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  O----------O
     Idea     Emotion
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it is evident that the only thorough and radical method of treatment would be to break the relation so that the idea no longer arouses the emotion - which we may term the process of abreaction:

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  O    O
     Idea     Emotion
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This may not be possible, however; the mere demonstration, for example, to a patient that he is afraid of the trenches is not enough to make that fear disappear. The other alternative, therefore, is to develop the repression activity - the sentiment of self-respect - so that it is enabled to overcome the fear conator and produce thus the condition of adaptation:

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  O----------O
     I.     E.
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Prince's conception of changing the setting of the idea by linking it up with different emotions is one of undoubtedly great value. In practice, however, it denotes a process of repression - unless the original conator has
been dissolved, when the changing of the setting would seem strictly to be superfluous though certainly useful as a strengthening process.

We may take as an example the problem of a young nurse-probationer brought up with the usual horror of death, who finds that one of her duties is to "lay out" the corpse. The idea of this duty at first arouses in her strong emotions of disgust and fear. Soon, however, she becomes "accustomed" to it, the emotions originally natural to the occasion disappear, and, in fact, she grows to take a pride in her work. What psychological change has taken place in her mind? We can hardly say that a sublimation has taken place with such emotions as disgust and fear whose tendency is away from such a process. The subject, however, has had to face the disagreeable problem and this in itself has, no doubt, produced a partial abreaction. The further process has probably been that, according to Prince's principle, the object has become linked with a series of different emotions, in this case the self-regarding sentiment, which enables her to carry out the duty without qualm and with a feeling of professional pride.

As regards the process of working off the emotion through sublimation, this is possible with such energies as the sex emotion, but it is difficult to see how it can take place with such an emotion as fear. A distinction, in fact, would seem to be necessary between those emotions
with a tendency toward their object such as anger, sex, self-assertion, and those of a negative kind such as fear, disgust, self-abasement, whose tendency is away from the object. No sublimation process would seem possible with the latter group, while with the former it is of everyday occurrence. We see then that strictly speaking there are only two possible methods of psychological treatment of the causal complex, viz. abreaction and repression. Suggestion and persuasion are simply methods of producing repression. Analysis may produce complete abreaction, a partial abreaction by sublimation, or simply repression, depending on the nature of the emotions to be dealt with.

Turning to the practical consideration of the war neuroses we may recall that we had here to deal in the large majority of cases with the emotion of fear. The problem of treatment may be divided into two, symptomatic and radical. Every patient admitted to hospital was kept in bed for three or four days, seldom longer. This was sufficient to do away with the physical fatigue. Sleeplessness was not common, but patients who from say, extreme tremulousness and apprehension, were unable to sleep were given paraldehyde, which was practically the only drug used - if we except hyoscine occasionally given for violent "crises"—and was invariably effective. During this period any symptomatic treatment required was carried out, and the radical measures begun. The cure of the symptoms was generally a matter of little difficulty;
there were many simple means at hand which proved readily efficacious. The conversion symptoms we have seen to be due to repression, effected, we have suggested, by a subconscious sentiment of abhorrence or repugnance. The problem, therefore, was to arouse the will into action, to get the patient to make the effort necessary to overcome the resistance of the sentiment, and drag, so to speak, the repressed function to the surface again. It implied often a considerable effort on the part of the patient, and as it was a process which aroused the whole fear-conflict again, it was a distressing experience for him.

Very commonly simple persuasion and exhortation were sufficient to stimulate the effort and produce cure. The same procedure under hypnosis was also widely effective. In dealing with large numbers of patients, however, saving of time was essential and recourse was generally had under the circumstances, to seclusion or faradism. In the latter method the position of affairs was explained to the patient; that, for example in a case of mutism, by making the appropriate effort he would be able to speak. It was taken for granted that the patient would be very anxious to get rid of such a disability and in fact would be willing to go through, if necessary, a considerable amount of discomfort to attain this end. If by his ordinary efforts he were not able to bring about the desired cure, he would be aided by a little tonic stimulation with the faradic
brush. It might be a little unpleasant, but he would not mind that as it would produce a welcome relief from his disability. In regard to seclusion-treatment the method was in principle the same.

It was only rarely that a symptom resisted one or other of these forms of treatment and one grew to look upon the conversion phenomena as unimportant factors in the condition; those that did persist were almost invariably tremors or dysarthrias. After the bodily symptoms had been cured, however, the main problem remained common to all the types, namely, to deal in a more or less radical way with the conflict that still existed in the patient's mind. The aim was to bring the conflicting forces in the mind to a condition of stable equilibrium, in other words to restore the previous condition of adaptation. Bringing the problem down to its psychological elements, it meant that the idea of returning to the trenches, or to the forward area, aroused in the patient's mind the emotion of fear and its accompaniments. This unless stabilised rendered an immediate or early relapse, if returned, more than probable. As we have seen that there are only two possible methods of dealing with such a psychological situation, viz. abreaction or repression, one or other, or both of these measures had to be employed. Plainly the production of a complete abreaction under the circumstances was impossible. As we were dealing with one of the strongest
emotional dispositions in human nature it was obviously futile to expect such a degree of abreaction as would make the patient indifferent and neutral to the idea or to the actual experience of shells and the other fear-inspiring stimuli. Reliance had to be placed, therefore, most on repression.

The first step in the process was to make the nature of his conflict conscious and clear to the patient without the possibility of self-deception. We have seen the initial opposition that existed against admitting the agency of fear. This dissociation had to be overcome, the complex brought to the surface and circumstantially discussed with the patient. The most effective antidote to dissociation and automatism is conscious control; and as the effort towards this must come from the patient himself it was obvious that the clearer understanding he had of the state of affairs in his mind the better he would be able to make the required effort towards control.

Much, however, depended on how this was done. An abrupt dictatorial manner merely aroused the patient's resentment, and the feeling that the doctor did not understand him. The only way was to waive distinction of rank and meet the patient on the basis of human nature; to listen to his story and to show a sympathetic insight into his difficulty; to make it clear to him that the question of his fear was raised not with the purpose of accusing him, but to show him first that it was there and secondly how
to overcome it.

We have observed that complete abreaction could not be hoped for, but a certain partial dissipation of the emotion took place when the complex was doggedly faced. The following record of a conversation with an officer indicates the mode in which this was encouraged. The patient had broken down on his way up to the trenches to rejoin his battalion after recovering from a wound in England.

Medical Officer. "On the road up to the trenches when the shelling took place you began to feel shaky, nervous and jumpy as you have described. You know now what it was that made you feel like that?"

Patient. "As you have explained, doctor, I see now that it was fear."

M.O. "If you think of the matter further, what is it that you are afraid of? Of being wounded or of death?"

P. (after some hesitation). "I suppose it can only be that."

M.O. "Is it very distressing for you to think of shelling and bombs and death?"

P. (with a shudder). "It is, doctor, it makes me feel nervous and rather sick."

M.O. "Let us, nevertheless, continue to think of it. Give yourself a bad five minutes, insist on looking the situation in the face, and thinking it out. It will, no doubt, make you feel distressed, but you will find yourself much better afterwards. You agree?"

P. "Yes, doctor."

M.O. "Let us consider the fact of going back to the trenches, and machine guns and shells. Think of the men already there sticking it out. You were able to stick it out yourself before you were wounded. Is that not so?"
P. "Yes, doctor."

M.O. "Let us go further and suppose that shells are dropping here just now; that they are exploding outside this tent; that one explodes in here this moment, and we see bits of ourselves flying over the ropes. What of it? Is it so very terrible?"

P. (after a pause) "It is not really so bad after all."

Left to themselves patients would seldom or never undertake a facing of the situation in this manner. Repression, as we have said, spontaneously occurred and led to the manifold dangers of dissociation and automatism. By this process, however, the patient was made to confront the disagreeable fact and to come to a decision. The way was opened then for the next step, the strengthening of the controlling mechanism. This, psychologically, implied the arousing of a self-regarding sentiment. When the implications of the condition had been explained to the patient, that his personality had been overwhelmed for the time being by the emotion of fear and that he could not remain satisfied with this, it acted as an appeal to his self-respect. Apart from a very transient arousal of shame, in fact, the usual immediate reaction, was to bring forward the great self-sentiment. Experience bore out the fact that it was not so much the arousal of the emotion that was of importance, but the loss of normal control. As an officer-patient remarked, he was aware that, when an N.C.O., he was looked upon as a very fearless soldier, while all the time he knew he was "one of the most fearful".
The endeavour in this direction was supported by a definite daily programme of training for the convalescent cases. A standard of discipline was maintained which was definite but not harsh, and recreation of every legitimate form was encouraged. In particular, a concert party was generally maintained from among the patients themselves, and, in reference to this, it was instructive to note how satire on the "shell-shock" condition was tolerated. In general the atmospheric tone that was aimed at was one of cheerfulness and of cure.

The problem of the war neuroses to-day, however, is the problem of the chronic case. We have indicated in general outline how the complicating process took place. Four main activities seem to be concerned, viz. repression of the causal experiences, a linking-up process with earlier complexes, very commonly the development of a sentiment of resentment from tactless treatment by medical boards or others, and lastly the development of the "secondary function of the neurosis" from the motive to persistence which the bestowal of a pension gives. The last factor magnifies to a considerable degree the normal difficulties of psychotherapy, but a clear insight into the original nature of the condition is naturally of great value in the estimation of the case. The chief method of radical treatment, however, must remain an unravelling of the different components; an exploration, more or less elaborate as the individual case demands, which will surmount the resistances, bring the causal factors to the surface, and erase or reorganise them.
The problem, though difficult, is hopeful when we remember the gratifying success of treatment gained in the early stages under the most disadvantageous conditions, and when we consider that it was merely through such a process of readjustment that the results were obtained. One did not lay the flatteringunction to the soul that any mysterious transference of energy took place to the patient. It was wholly due to the magnificent quality of the material that such readjustment was made possible.

"His soul is even with the sun
Whose spirit and whose eye are one,
Who seeks not stars by day, nor light
And heavy heat of day by night.

Him can no God cast down, whom none
Can lift in hope beyond the height
Of fate and nature and things done

By the calm rule of might and right
That bids men be and bear and do,
And die beneath blind skies or blue."
REFERENCES.

(2) W. JAMES, Pragmatism. p. 53
(3) P. JANET, "Major Symptoms of Hysteria".
(5) JANET, "Major Symptoms". p. 332
(6) J. BABINSKI & J. FROMENT, "Hysteria or Pithiatism", p. 17
(7) BABINSKI & FROMENT, ibid p. 47.
(9) DEJERINE, ibid p. 234.
(10) " " p. 248.
(11) " " p. 249.
(12) BABINSKI & FROMENT, ibid p. 18.
(13) DEJERINE, ibid p. 242
(14) BABINSKI, ibid p. 22.
(15) FREUD, "Selected Papers on Hysteria." Trans. Ch. I.
(16) " " "Interpretation of Dreams." Trans. Brill.
(18) " " "The History of the Psychoanalytic Movement."
(19) BABINSKI & FROMENT, ibid.
(20) G. ROUSSY & J. L'HERMITTE, "Psychonevroses de Guerre."
(21) H. C. MARR, "Psychoses of the War."
(22) MARR, ibid p. 47.
(23) " " p. 67.
(24) " " p. 110.

(196)
(25) Sir F. W. MOTT, "War Neuroses & Shell Shock".
(26) J. R. YEALLAND, "Hysterical Disorders of Warfare."
(27) J. T. McCURDY, "War Neuroses".
(28) " " ibid p. 49.
(29) " " p. 120/121.
(30) " " p. 13
(31) " " p. 15.
(32) " " p. 124.
(33) M. D. EDER, "War Shock".
(34) " " p. 133.
(36) " " "Treatment of a Case of Narcolepsy". Lancet, Feb. 28, 1920.
(38) " " "The Hysterical Element in Organic Disease, Etc." Lancet March 8, 1919.
also "A Case of Claustrophobia". Lancet Aug. 18, 1917.
(41) " " "War Neuroses and Military Training". Mental Hygiene, Oct. 1918.
(45) " " "Psychology". Home University Library. p. 63.
(47) Wm. JAMES, "Principles of Psychology". Vol II. Ch.24.
(48) C. LLOYD MORGAN, "Introduction to Comparative Psychology". Chapter 12.


(50) J. DREVER, "Instinct in Man".

(51) " " ibid p. 169.

(52) " " p. 157.

(53) MORTON PRINCE, "The Unconscious". p. 450.


(56) DREVER, ibid p. 203


(60) MORTON PRINCE, ibid Ch. IX.

(61) DREVER, ibid p. 215.


(63) MORTON PRINCE, ibid p. 448/9.

(64) BERNARD HART, "The Modern Treatment of Mental and Nervous Disorders." Lecture delivered Manchester University 25.3.18.

(65) MORTON PRINCE, ibid p. 538.

(66) JONES, ibid p. 321.

(67) HART, "Psychol. of Insanity". Ch. IV.


(69) DREVER, ibid p. 151.


(71) " " p. 97.

(72) " " p. 100.

(73) JONES, ibid p. 359.

(75) BABINSKI & FROMENT, ibid p. 25.

(76) " " " " p. 26.


(78) " ibid p. 21.


(80) STOUT, ibid p. 22.

(81) " p. 575.

(82) Morton Prince, ibid p. 2.

(83) " " " p. 82/3.

(84) In the "British Journal of Psychology". Nov. 1919.

(85) Morton Prince, ibid p. 493.

(86) " " " p. 356.

(87) STOUT, ibid p. 183.

(88) DREVER, ibid Ch. VI.


(90) " " " Soc. Psych.". p. 384.

(91) " " " p. 382.

(92) DEJERINE, ibid p. 227.

(93) " " p. 264.

(94) JONES, ibid p. 326.

(95) BERNARD HART, "The Methods of Psychotherapy."


(97) JONES, ibid p. 475/6.

(98) McCURDY, ibid p. 103.

(99) " " p. 105.
(100) RIVERS, "War Neuroses and Military Training".
(101) ibid.
(102) W. TROTTER, "Instincts of the Herd in Peace & War".
(104) ibid. ibid. p. 50.
(105) Roussy & L'Hermitte, ibid. Ch. I.
(107) Babinski & Froment, ibid. p. 22.
(108) A. F. Hurst, "Hysteria and War Experience.
Lancet Nov. 1, 1919.
(111) E. W. Scripture, "Stuttering and Lisping."
(112) ibid. ibid. p. 38.
(114) Morton Prince, "The Unconscious." Lecture XV. and
"The Dissociation of a Personality."
(115) James, "Principles of Psychology". Vol. I Ch. XIV.
(116) Janet, "Mental State of Hysterics". Ch. II.
(118) James, "Principles". Vol. I. Ch. X.

(200)
(127) " " " " " p. 431.
(129) FREUD, "Psychopathology of Everyday Life." Ch. VIII.
(130) " " " " " Ch. VIII.
(132) JUNG, "Analytical Psychology." p. 308.
(134) McCURDY, ibid Ch. III.
(135) " " p. 21.
(137) MOTT, ibid p. 107.
(138) MARR, ibid p. 48.
(139) ROUSSEY & L'HERMITTE, ibid p. 152.
(140) BABINSKI & FROMENT, ibid p. 28.
(141) EDER, ibid p. 13.
(145) " ibid p. 227.
(146) Dejerine ibid p. 300.
(147) " " p. 301
(150) JAMES, "Principles" Vol II p. 561.
(151) MORTON PRINCE, "The Unconscious." p. 368.
Extracts from two previously published articles by the writer have been incorporated in the text of the thesis wherever considered appropriate, viz. "On the Nature of 'Shell-Shock'", Bulletin of the Canadian Army Medical Army Corps, September, 1918, and "The Analysis of a Composite Neurosis", The Lancet, January 11, 1919.