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Two Addresses

ON

WAR PSYCHO-NEUROSIS

(I.) NEURASTHENIA

THE DISORDERS AND DISABILITIES OF FEAR

*Delivered before the Harveian Society of London on
December 15, 1917*

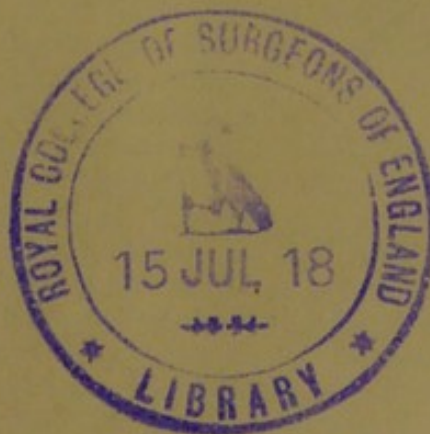
(II.) THE PSYCHOLOGY OF SOLDIERS'
DREAMS

*Delivered before the Psychiatric Section of the Royal Society of
Medicine on January 8, 1918*

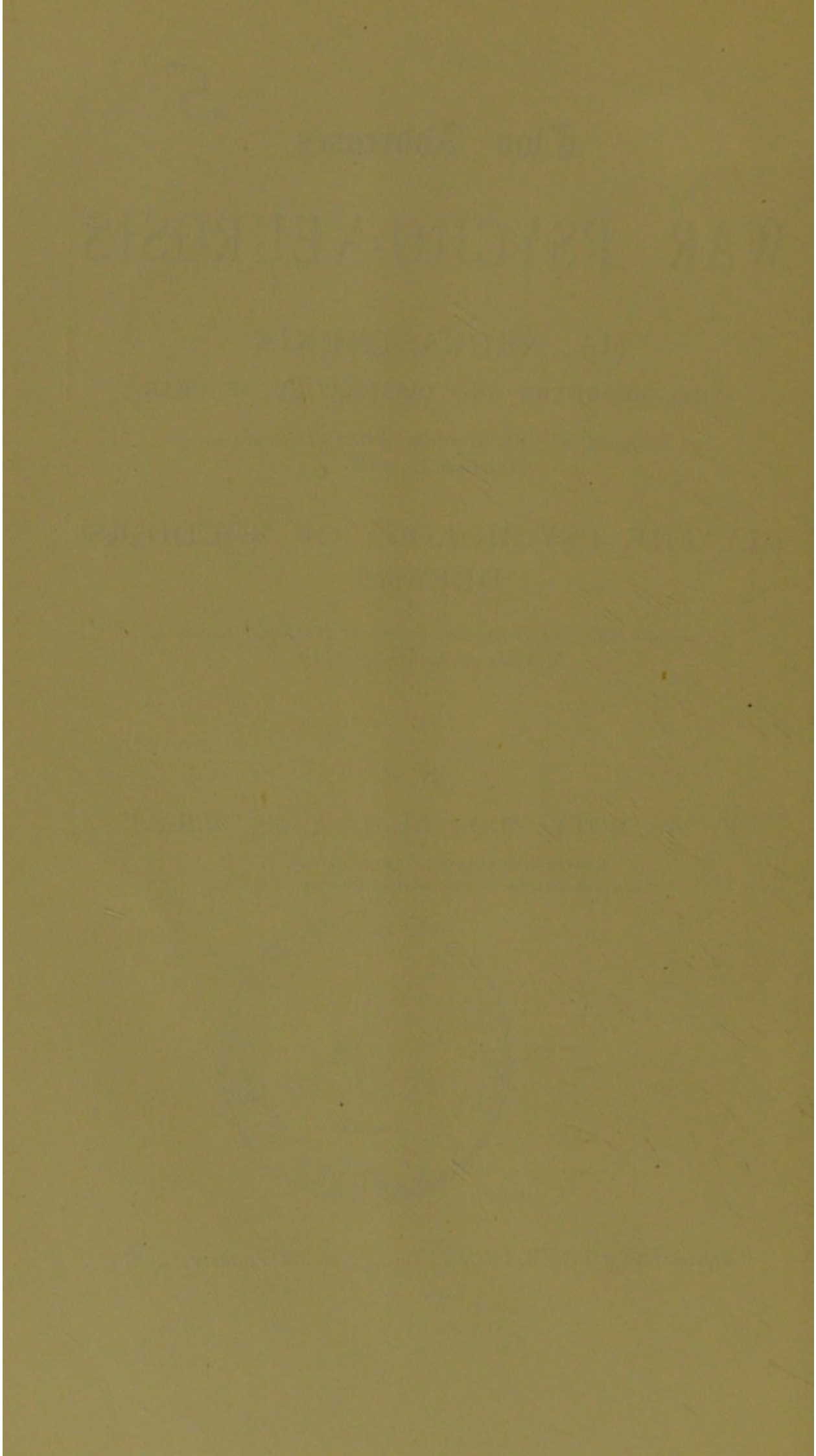
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Two Addresses

ON

WAR PSYCHO-NEUROSIS.

(I.) NEURASTHENIA

THE DISORDERS AND DISABILITIES OF FEAR.

MR. PRESIDENT AND GENTLEMEN,—When the secretary of this society did me the honour of asking me to open a discussion on neurasthenia I ventured to suggest that I should deal with the subject of war psycho-neurosis, which during the last three years or more I have had ample opportunity of studying.

The two important war psycho-neuroses are hysteria, or as Babinski terms it pithiatism, and neurasthenia. But before dealing with neurasthenia more in detail, it is well to define terms. In war psycho-neuroses it is difficult to separate neurasthenia from hysteria, for the sensori-motor phenomena of hysteria are so very frequently combined with the general symptoms of neurasthenia. The term neurasthenia implies nervous exhaustion, but as Dejerine states, in his great work on the "Functional Manifestations of Psycho-neuroses," nervous debility is not neurasthenia; and it would be well if the medical profession would accept his definition, for probably no term employed in medical science has been more loosely and inappropriately used than the term neurasthenia. It has been employed to cloak ignorance, to help deception, and to aid fraud. For instance, to avoid certification and to satisfy the scruples and susceptibilities of friends almost every form of

insanity has been designated neurasthenia; again, under the Employers' Liability Act traumatic neurasthenia became a by-word for workmen's compensation neurosis and pension neurosis, and now this great war has shown conclusively that the most severe injuries of the head and the spine and of the peripheral nervous system occur without any signs or symptoms of neurasthenia; in fact, if we want to find severe neurasthenia we should not go to the surgical wards. It is found, however, in those individuals who have been returned suffering with so-called "shell shock," but who exhibit not a sign of visible injury on the body, and of whom it may be said that in the majority of cases there is no evidence of commotional shock or concussion. Presently I will attempt to offer an explanation, but first let me give you Dejerine's subtle definition of neurasthenia, and later we shall see how closely it accords with the facts exhibited in cases of war psycho-neurosis.

Definition of Neurasthenia—Dejerine.—"Neurasthenia consists of the ensemble of phenomena which result from the *non-adaptation* of the individual to a *continuous emotive* cause and the *struggle* of the individual for this adaptation." Neural fatigue or nervous debility is neither neurasthenia nor hysteria. If to the phenomena of fatigue there is superadded a state of continued emotivity upon which may be grafted obsessing preoccupation, we are justified in diagnosing neurasthenia.

The points to which I wish to draw special attention, and which form the essence of Dejerine's definition, are *continued emotivity and preoccupation*, causing a *persistent condition of neural exhaustion*, and the phenomena resulting therefrom. Is neural exhaustion caused by using up neural energy? Or is it by interfering with the storage of neural energy? Or, finally, is it caused by interfering with the functions of the endocrine glands, or by a disturbance of their normal biochemical inter-relation reacting in the cerebro-spinal and sympathetic nervous systems? Probably all three factors conspire together to bring about neurasthenia.

THE PERSONALITY.

Every individual has a *personality* depending upon what he was born with and what has happened after birth; with regard to emotivity the inborn factor is all-important. Feeling tends to dominate reason, but in the well-balanced mind emotion and imagination are guided by reason and controlled by will.

My own experience now based on statistics proves conclusively that by far the most important factor in the genesis of neurasthenia is an inborn or acquired tendency to emotivity. The family and personal history of 100 cases of war psycho-neurosis without visible injury, compared with 100 cases of shrapnel, gun-shot, and other bodily injuries under the surgeon's care, show a striking difference in the comparative frequency of an inborn neuropathic, psychopathic tendency, and temperamental timidity in the two groups. Still this does not quite answer the question why the psycho-neuroses neurasthenia and hysteria should not be found among the wounded; for a great many soldiers with a neuropathic or psychopathic tendency must be returned suffering with wounds. We have then to consider how far the existence of the wound by its moral effect interferes with a particular mental preoccupation.

Among the prisoners of war there must be a large number of men who have an inborn or acquired tendency; nevertheless, hysteria and severe neurasthenia are seldom seen in prisoners' camps. According to Willmanns, among 80,000 prisoners in the camps of the 14th Army Corps there occurred but five cases of hysteria, including a single case of hysterical fright neurosis. He further calls attention to the fact that among 20,000 patients proposed for internment in Switzerland the army medical officers of the Exchange Commission found scarcely an instance of severe neurosis. The same held true of the Germans interned in Switzerland. Although neurasthenic, vaso-motor and similar disturbances were common enough, the severe neuroses of the shock and fright type were not observed. I am informed also that in the field

hospitals at the front cases of hysteria and neurasthenia are not nearly so common as at the base hospitals.

Now, reverting to Dejerine's definition, and the importance he attaches to preoccupation, we have to consider how we can explain these facts. First, let us consider the effect on the mind of the emotion *Fear*. There is a considerable similarity in the signs and symptoms which are manifested by individuals of very different personality, suffering with war psycho-neuroses. Fear is a primitive emotion common to all human beings; it is associated with definite sensori-motor reactions for self-preservation—namely, the paralytic crouching attitude of immobility for concealment, or of the active reaction of flight or fight in which there is increased conversion of latent into kinetic energy. In the latter state, Cannon and Elliot have shown that there is a profound effect on the endocrine glands; notably there is a mobilisation of adrenalin with its reaction on the thyroid, its causation of a rise of blood-pressure and conversion of more glycogen into sugar for the production of muscular energy.

THE INFLUENCE OF DREAMS AND THEIR SIGNIFICANCE REGARDING PREOCCUPATION OF THE MIND.

Dejerine points out that the dream can even, in some cases, if it introduces into consciousness images sufficiently vivid, be considered as an emotive excitation, and when persistent and terrifying, as it is in the case of soldiers suffering with war psycho-neuroses, we may assume that there is a state of continuous emotivity.

Dreams occurring in a certain type of individual as a result of war experiences, and their continual revival in the imagination as the dreams indicate, show that there is always present in the subconscious mind a source of contemplative fear. The ideas which give rise to this contemplative fear may break through the threshold of consciousness when the attention is not diverted by the

continuity in the chain of perceptual experiences and their association with the past whereby the personality adapts itself to the external world in the struggle for existence.

In dreams, when the perceptual relations of the body to the external world are dissociated, ideas of past war experiences are revived in consciousness with great vividness in the great majority of cases. The fact that some soldiers cannot recollect their dreams is no proof that they have not occurred. Kant ("Dreams of a Spirit Seer") said:—

"I rather suppose that ideas in sleep may be clearer and broader than even the clearest in the waking state, for man at such times is not sensible of his body. When he wakes up his body is not associated with the ideas of sleep, so that it cannot be a means of recalling this former state of thought to consciousness in such a way as to make it appear to belong to one and the same person."

We now know that soldiers who have these dreams of battle shout in their sleep, give orders to their men, and thus bear out the observation and wisdom of Lucretius, who says:—

"To whatever pursuit a man is closely tied down and closely attached, upon whatever subject we have previously much dwelt, the mind having been put to a more than usual strain in it, during sleep we for the most part fancy that we are engaged in the same. Lawyers think they plead causes and draw up covenants of sale, generals that they fight and engage in battle, sailors that they wage and carry on war with the winds; we think we pursue our task and consign it when discovered to writings in our native tongue. So all other arts and pursuits are seen for the most part during sleep to occupy and mock the minds of men."

Many of the soldiers under my care have had no recollection of their dreams, but the fact that they woke up in a cold sweat or that the next morning they felt dejected was sufficient proof that they had been dreaming. In fact, many of them have been heard to shout in their sleep; some of these were mutes; a good few have gone through all the process of fighting with bombs, rifle, or bayonet, and yet have had no recollection of the pantomime of war which they have been enacting during their sleep. I think, therefore, there is sufficient evidence to prove that contemplative fear or terror has left a deep impress on the minds of these men and produced a continual state of fear emotivity.

OBSESSIONAL PREOCCUPATION.

The next point we have to consider is *obsessional preoccupation* in relation to the continuance of this emotivity and to other fears which may be termed anticipatory.

The war psycho-neuroses neurasthenia and hysteria do not differ in any essential from those met with in civil life, except that they are coloured and determined by war experiences, and the emotion of fear with its instinctive reaction for self-preservation, both of which play a dominant part. The dodging reflex and the startling reflex so commonly seen in soldiers suffering with "shell shock" neurasthenia afford a striking reminiscence of instinctive self-conservative reactions to the booming of shells or bombs.

PSYCHO-NEUROSES IN RECRUITS AND CONSCRIPTS.

An interesting and instructive report to the Medical Research Committee by Lieutenant-Colonel F. W. Burton-Fanning upon Neurasthenia in Soldiers of the Home Forces¹ clearly demonstrates the fact that large numbers of men in civil life in all grades of society carrying on their occupations are, when conscripted, the subjects of neurasthenia. Consequently this nervous affection is of great importance from a military point of view as a cause of loss of man-power to the Army. As the author remarks, numbers of these patients have spent far more time in hospitals and convalescent homes than with the units; it is therefore open to doubt whether it is worth while training such men for soldiers, as it would be more profitable to spend the money and energy in the manufacture of munitions.

Another fact which is brought home to all those who have had the care of cases of war psycho-neuroses is, that the signs and symptoms of hysteria and neurasthenia of men who have been to the front and have been invalided home (except those

¹ THE LANCET, June 16th, 1917, p. 907.

in which there has been definite evidence of cerebral or spinal commotion, burial or gassing) in no way differ essentially from the signs and symptoms of hysteria and neurasthenia of men who have never been out of England. I have seen both hysteria and neurasthenia arise from the fear of conscription or, having been conscripted, an hysterical crisis has occurred when it became known that the conscript would be in a draft for general service abroad.

Burton-Fanning found that the majority of cases of hysteria and neurasthenia owe their condition to an inborn temperamental neurotic disposition, which accords entirely with my own experience of recruits and of soldiers suffering from these nervous affections. Indeed, the inborn factor dominates, as a rule, in proportion to the failure to discover adequate cause of stress arising from military service. These conscripts, as Burton-Fanning says, disagree with the doctor's "Fit for Service." "They resent being found fit and bring certificates of their unfitness for which they are willing to pay considerable sums." Such cases give a typical proof of Dejerine's dictum by a continued emotivity and mental preoccupation concerning their unfitness.

In such a mental attitude, therefore, they start their military career under a cloud and find their comrades not over congenial. Many of the men, especially clerks, are quite unfit for hard training and suffer with mental and bodily fatigue, aggravated by insomnia and anxious mental preoccupation. They complain of the usual symptoms of neurasthenia—viz., tremors, fatigability by mental or bodily effort; loss of confidence and irresolution; hyperæsthesia, paræsthesia, and pains which they consider to be rheumatic; fainting attacks; præcordial pain and palpitation; feelings of dizziness; insomnia and dreams: loss of appetite and anorexia; headache and gastric troubles.

The relation of the genital functions to emotivity is well known, and in civil life sexual disorders, sexual abuse, and fears regarding impotence play an important rôle in the genesis of neurasthenia. I have not found a large percentage of officers and men sent home from the front suffering with

neurasthenia who have been mentally preoccupied or who have complained of fear connected with the genital functions. In fact, they are few as compared with those seen in civil life.

The motor disorders and disabilities met with in war psycho-neurosis may be the outcome of instinctive reactions of fear; many of the hysteric motor paralysees and disabilities are, by popular metaphor, associated with fear. Thus "dumb with fear," "quaking with fear," "paralysed by fear" are motor phenomena; but the influence on the secretions and excretions is also signalised in popular metaphor and the vaso-motor reaction manifested by acrocyanosis is popularly expressed by "blue funk." Each individual reacts to emotions according to his personality, and each physical reaction, whether kinetic, cardiac, respiratory gastric, or genital, when exhibited for the first time, is subconscious.

THE PERSONALITY AND EMOTIVITY.

We may then ask, Is there any relation between the psychological disturbances and the psychical signs of disordered emotion? I have already shown that there is, as regards the external manifestations of the emotions of fear. But it also applies to the functions of all the organs of the body. Every part of the body is represented in consciousness, and a stream of stimuli from every structure and organ is flowing continually into the seat of consciousness, making us aware of our existence and constituting the *ego*. These stimuli were termed by Ribot "cœnæsthetic."

Consciousness of this bodily sensibility, unless our attention is directed voluntarily to some structure or organ, is only aroused when either the stimulus ceases to flow from some part of the body, or the stimulus is changed from the normal in its periodicity, rhythm, or intensity. The fields of perceptual consciousness which brings the *ego* into relation with the external world are correlated with the cœnæsthetic fields; consequently an emotive preoccupation concerning the particular functions of an organ or structure by inhibiting the normal

automatic action determines a disordered function of that organ. For we know that any organ or structure which naturally or by habit performs its functions automatically becomes disordered in its functions when there is mental apprehension and preoccupation regarding the performance of that function. This is an every-day experience. So we can understand how a continued preoccupation regarding the function of an organ like the heart or the stomach, or indeed any organ of the body, of the perfect action of which we should be quite unconscious, becomes an obsession; for disordered function tends to repercussion in the field of consciousness, causing a continual conflict between reason and emotion for readjustment. Thus a vicious circle is liable to be established owing to the inherent state of emotivity of the neurasthenic.

PREOCCUPATION AND APPREHENSION.

I have yet to consider why it is that soldiers without visible injury should so frequently have this continued state of emotivity when far away from danger. I have already indicated that anxiety aroused by the fear of war experience will, in conscripts, lead to neurasthenia, and that this can only be cured by exemption from service. Likewise when men come back from the front suffering from shell shock the best tonic is to assure them *at once* that under the new system of categories they cannot be found fit for service for six months, and probably they will not be sent on general service again. Soldiers sent to convalescent hospitals owing to continuous apprehension of the future often return to hospital in a more neurasthenic state than when they went. I have noticed also a number of cases amongst officers and men who have come to our hospital, in which there has been a mental conflict and preoccupation regarding their honour and reputation as soldiers, and having no visible evidence to justify their return from active service, they are apprehensive lest their comrades should regard them as shirkers. If they had got a wound

which disabled them there would be something to show, and they would have no fear or apprehension regarding estimation of their honour or justification for being invalided home. Owing to their neurasthenic condition they are unable to see things in their proper light.

Again, financial worry, domestic difficulties, and other fears of their future may add to the factors of mental preoccupation and neural exhaustion and hinder recovery. In respect to special organs being affected, the cardiac functions are most often disarranged; indeed, the majority of cases of what is called D.A.H. (disordered action of the heart) should be termed neurasthenia, for the knowledge of a neurotic individual that the diagnosis has been made of disordered action of the heart is liable to set up an obsessional preoccupation, causing præcordial anxiety, palpitation, and rapid action, which, reacting, intensifies the emotional disturbance and excites many of the distressing symptoms of this neurosis.

MANIFESTATIONS OF EFFECTS ON THE ENDOCRINE GLANDS.

Owing to limitation of time I cannot do more than briefly allude to the manifestations of effects on the endocrine glands in certain individuals. Many of the cases of neurasthenia have exhibited definite evidence of affection of the endocrine glands by the fact of increased blood pressure; rapid-acting heart; enlargement of the thyroid; von Graefe's sign; Möbius's sign and fine tremor. According to Crile, there is normally an interrelation of the thyroid, the adrenals, and the brain, which constitutes the master-key to the automatic action of the body.

CONCLUSION.

In conclusion, while admitting that, from commotion or prolonged stress of war, a stable nervous organisation may develop an acquired emotivity;

nevertheless, it seems that the psychogenic or auto-suggestive factor, acting upon a pre-war emotive brain, is the chief determining cause of war psychoneurosis, and the neurotic patient's protest of anxiety lest he be boarded out of the service, or not allowed to go to the front, is really in many cases an indication of an exhausting conflict which has been going on continually in his mind between the self-conservative instinct and the moral obligation of duty and patriotism, which has its roots in the social herd instinct.

(II.) THE PSYCHOLOGY OF SOLDIERS' DREAMS.

MR. PRESIDENT AND GENTLEMEN,—One of the most striking symptoms of soldiers suffering with war psycho-neuroses, whether commotional or emotional in origin, is the terrifying dreams which disturb the mind, and one of the most certain signs of improvement is sound sleep, the sweet unconscious quiet of the mind.

In books on psychology and psycho-analysis I find no reference to the psychology of soldiers' dreams. Yet, in that greatest of all works on human thought and action, we find reference to the dreams of soldiers and their significance so true to the present day experiences that I shall refer to them and the possible classical source of their inspiration.

In the "*De Rerum Natura*" of Lucretius he says:—

"And generally, to whatever pursuit a man is closely tied down and strongly attached, on whatever subject we have previously much dwelt, the mind having been put to a more than usual strain in it; during sleep we for the most part fancy that we are engaged in the same; lawyers think that they plead causes and even draw up covenants of sale, generals that they fight and engage in battle, sailors that they wage and carry on war with the winds. We think that we pursue our task and consign it when discovered to writings in our own native tongue. So all other arts and pursuits are seen for the most part during sleep to occupy and mock the minds of men."

Lucretius next calls attention to the evidence of dreams in animals:—

"And often during soft repose the dogs of hunters do yet all at once throw about their legs and suddenly utter cries and repeatedly sniff the air with their nostrils as though they had found and were on the tracks of wild beasts."

In another passage Lucretius says:—

"Again the minds of men which pursue great aims under *great emotions* often during sleep pursue and carry on the same in like manner; kings take by storm, are taken, join battle, raise a loud cry as if stabbed on the spot."

In Shakespeare there are two passages which may have had their source of inspiration in the "De Rerum Naturae" of Lucretius—viz., the speech regarding Queen Mab by Mercutio and that of Lady Percy to Hotspur.

As Lucretius says, a man dreams of whatever pursuit he is closely tied down to; at the present day the soldier dreams that he is in the trenches fighting Germans, or he hears and sees the shells bursting, shouts in his sleep, and wakes with a start. How truly Shakespeare describes this when he says:—

"Sometimes she [Queen Mab] driveth o'er a soldier's neck,
And then dreams he of cutting foreign throats,
Of breaches, ambuscadoes, Spanish blades,
Of healths five fathom deep; and then anon
Drums in his ear; at which he starts and wakes,
And, being thus frighted, swears a prayer or two
And sleeps again"

(In the quarto 1597 edition the text had "mines and countermines" instead of "Spanish blades," which seems singularly appropriate just now.)

In Lady Percy's speech to Hotspur there is the following passage:—

"Why hast thou lost the fresh blood in thy cheeks;
And given my treasures and my rights of thee²
To thick-eyed musing and cursed melancholy?
In thy faint slumbers I by thee have watch'd
And heard thee murmur tales of iron wars:
Speak terms of manage to thy bounding steed,
Cry, 'Courage! to the field!' And then hast talk'd
Of sallies and retires; of trenches, tents;

² Mr. Curdy, in discussing the Anxiety Neuroses of Soldiers, says:—"The man who is visited by his wife or his sweetheart is a disappointment both to himself and his visitor in that it is impossible for him to give any proof of his affection. This finds expression in a manifestly obvious way through the symptoms of impotence, which is, so far as I have been able to learn, universally present in the anxiety state, either as such, or in the form of its equivalent lack of erotic feeling."—"War Neuroses," Psychiatric Bulletin of New York, July, 1917.

Of palisades, frontiers, parapets;
 Of basilisks, of cannon, culverin;
 Of prisoners' ransom and of soldiers slain,
 And all the currents of a heady fight.
 Thy spirit within thee hath been so at war,
 And thus hath so bestirr'd thee in thy sleep,
 That beads of sweat have stood upon thy brow
 Like bubbles in a late-disturbed stream;
 And in thy face strange motions have appear'd,
 Such as we see when men restrain their breath
 On some great sudden hest. O! what portents
 are these?"

(First Part of *Henry IV.*, Act II., Sc. III.).

The experiences of the war have shown us how true the psychology of Lucretius and Shakespeare is as regards soldiers' dreams and how utterly wrong the following statement of Brill, a follower of Freud, is:—

"Dreams accompanied by fear are of a sexual nature; the ideation causing the fear in the dream was once a wish which was later subjected to repression."

And the two fundamental motives to human action are undoubtedly the preservation of the individual and the preservation of the species—that is, self-conservation and propagation.

SOLDIERS' DREAMS AND THE DOCTRINE OF FREUD.

The doctrine of Freud, and still more that taught by his followers, does not take into consideration, as a psychogenic factor of neuroses, the conflict caused by suppression of painful memories of experiences associated with the emotion of fear in relation to self-conservation. Long before the war I thought this was a weak point in the argument of the Freudians, for it leaves out of account this instinct.

Captain W. H. R. Rivers, in a recent interesting article, states:—

"The denial of the validity of Freud's theory of the Unconscious in the form currently held by its adherents as the means of explaining nervous and mental disorders is, however, something very different from the denial of the validity of this theory altogether. Not a day of clinical experience passes in which Freud's theory may not be of practical use

in diagnosis and treatment. The terrifying dreams, the sudden gusts of depression or restlessness, the cases of altered personality which are among the most characteristic of the present war, receive by far the most natural explanation as the result of war experience which by some pathological process, often assisted later by conscious activity on the part of the patient, has been either dissociated or is in process of undergoing changes which will lead sooner or later to this result. While the results of warfare provide little experience in the favour of production of the functional nervous disorders by the activity of repressed sexual complexes, I believe they will afford abundant evidence in favour of the validity of Freud's theory of forgetting."

Instead of theories we should seek, however, some bio-chemical or bio-physical explanation why sudden emotional shock or continued emotional disturbance should produce an acquired emotivity in neuro-potentially sound individuals, as it undoubtedly does, though it must be admitted that in the majority of instances a pre-existing emotivity was present. The special merit of Freud's theory, according to Rivers, is that it provides a psychological theory of dissociation of the factors upon which it depends and of the processes by which its effects can be overcome. According to the views long current in psychology, experience is remembered in so far as it is frequently repeated and according as it is interesting and arouses emotion pleasant or unpleasant, and forgetting is a process which stands in no special need of explanation. The dreams of soldiers, some of which I will relate to you, exhibit in a striking manner how an incident of war associated with emotional shock is graven on the mind, for it continually recurs in a vivid and terrifying manner in their dreams, half-waking state, and in some few cases even in the waking state, constituting hallucinations. Forgetting this painful experience is a natural defensive reaction.

DREAMS IN RELATION TO THE UNCONSCIOUS.

The special merit, according to Rivers, of Freud's theory is that it affords an explanation of the mechanism of forgetting, and especially the forgetting of an unpleasant experience by a thrusting of it out of consciousness and keeping it out. This

mechanism Freud terms the Censor, which is supposed to act as a constant guard, only permitting the arousing of the repressed experiences to reach consciousness in sleep, in the half-waking state, in hypnosis and automatic states in which the normal control of the censor is removed or weakened. Even in such states it is only permitted to become manifest in an indirect or symbolic manner. But does this hypothetical censor differ essentially from inhibition exercised by the highest centres of control, centres upon which voluntary attention depends? For voluntary attention would be made ineffectual by emotional perturbation. Consequently the inhibitory functions of the higher centres of control must be continually and, after a variable time following the emotional shock, unconsciously exercised in repressing the recollection of the experience. At first during the conscious waking state the experience which caused the emotional shock crosses the threshold of consciousness in spite of the voluntary attempts of the patient to divert the mind, causing mental perturbation accompanied by visible emotional disturbances. The individual is conscious at first of this conflict, but its very continuance tends in the normal individual to make it pass into the unconscious. But this does not mean that the struggle is not going on; for every now and then the painful terrifying experience may in some cases rise into consciousness and cause marked emotional disturbance and depression.

DREAMS IN RELATION TO NEURASTHENIA OF SOLDIERS.

As I have frequently observed, the persistence of terrifying dreams, often of one particular horrible experience recurring with great frequency, and even in the half-waking state persisting in the mind, proves that the struggle is going on. Indeed, experience shows that while these dreams persist the other signs of neurasthenia exist. Indeed, a prognosis of recovery largely depends upon whether the patient has refreshing sleep, undisturbed by

these terrifying dreams. We may assume that these dreams cause a state of continuous emotivity.

Dejerine defines neurasthenia as the ensemble of phenomena which result from the non-adaptation of the individual to a continuous emotive cause and the struggle of the individual for this adaptation. Neural fatigue or nervous debility is neither neurasthenia nor hysteria, but if to the phenomena of fatigue there is superadded a state of continual emotivity upon which may be grafted an obsessing preoccupation, then, according to Dejerine, we are justified in diagnosing neurasthenia.

He also points out that the dream can even, in some cases, cause an emotivity if it introduces into consciousness images sufficiently vivid to be considered as an emotive excitation, and when persistent and terrifying as it is in the case of soldiers suffering with war psycho-neuroses, an acquired emotivity may be engendered in a neuropotentially sound individual.

Dejerine admits the conflict as the cause of the psycho-neurosis, and points to the fact that a great number of functional neuroses may in a way be considered crystallisations of emotive phenomena. The emotion may be of internal or external origin, external emotive excitation creating what has been called emotive shock.

EMOTIONAL AND COMMOTIONAL SHOCK IN RELATION TO SOLDIERS' DREAMS.

In a general way emotion is a reaction of the personality. Under intense emotional shock an individual may be deprived of even elemental perceptions; not seeing any more, not hearing any more, not feeling any more, transformed into a simple automaton, the subject, as Dejerine says, is, so to speak, in a state of psychological syncope. Soldiers under shell fire may become for the time being mere automata, and wander away unconscious of what they have been doing; it is difficult to decide whether they are suffering from emotional shock or from commotional shock without visible injury caused by forces generated by high explosives.

The emotional shock may be the result of terror or horror, and one must differentiate between these two forms of contemplative fear, in both of which the imagination plays an all-important part.

Sir Charles Bell says:—

“Horror differs both from fear and terror, although more nearly allied to the last than the first. It is superior to both in this, that it is less imbued with personal alarm. It is more full of sympathy with the sufferings of others than engaged with our own. We are struck with horror even at the spectacle of artificial distress, but it is peculiarly excited by the real danger or pain of another. Horror is full of energy; the body is in the utmost tension, not unnerved by fear.”

Terror is more self-regarding; horror is more altruistic. Both sentiments are based upon the primitive emotion of fear.

The character of the dreams of soldiers shows that they are imbued with terror or horror, sometimes with both.

FREUD'S THEORY OF THE UNCONSCIOUS IN RELATION TO THE DREAMS OF SOLDIERS.

The special characteristic of Freud's theory of the unconscious is active repression of a painful experience, and his doctrine of the part taken by such repressive experience in the production of bodily and mental disorder is the principal feature of Freud's theory in its relation to psycho-neuroses; for many morbid mental and bodily states are due, according to Freud, to a conflict between repressed experiences, now usually called complexes, and the general personality of the sufferer.

Freud, and especially his followers, have only seen the sexual aspect of Freud's theory, and they have only regarded sexuality as its basic principle. But the experience gained since the war shows that this position is no longer tenable.

My experience regarding the infrequency of a sexual basis of neurasthenia and hysteria occurring in the case of soldiers returning from the front agrees with that of many other observers, but again I quote the words of Captain Rivers for two

reasons: firstly, because a statement by an eminent psychologist who has studied the question practically affords a strong support to my observations; and, secondly, it is further strengthened by the fact that many of the officers who were under my care for a time subsequently came under his careful observation. Rivers says:—

"In my own experience cases arising out of the war which illustrate the Freudian theory directly and obviously have been few and far between. Since the Army at the present time would be fairly representative of the whole male population of the country, this failure to discover to any great extent the cases with which the literature of the Freudian school abounds might well be regarded as significant.

We now have abundant evidence that those forms of paralysis and contracture, phobias, and obsessions, which are regarded by Freud and his disciples as pre-eminently the result of repressed sexual tendencies, occur freely in persons whose sexual life seems to be wholly normal."

THE INBORN AND ACQUIRED FACTORS OF EMOTIVITY.

We have over and over again abundant evidence that pathological neuroses and mental states are due directly to the shocks and strains of war.

There are certain facts to consider upon which reliable premises may be founded. They are as follows: (a) Every individual has a personality depending upon the inborn factor, the raw material he was born with, which is a complex depending upon species, race, and family. (b) What has happened after birth.

My experience now based upon statistics proves conclusively that by far the most important factor in the genesis of war psycho-neuroses is an inborn or acquired tendency to emotivity. The family and personal history of 100 cases of war psycho-neurosis without visible injury compared with 100 cases of shrapnel, gunshot, and other bodily injuries under the surgeon's care, made by an American officer, Captain Wolfsohn, at my suggestion, at the 4th London Hospital, show a striking difference in the comparative frequency of an inborn neuropathic or psychopathic tendency or tempera-

mental timidity in the two groups. However, my experience coincides with that of Rivers in the fact that commotional and emotional shocks and stress of modern trench warfare may be the direct cause of an acquired emotivity in a neuropotentially sound individual, and this emotivity may manifest itself in the form of neurasthenia, hysteria, psychasthenia, as well as confusional, stuporose, demential, hallucinatory, maniacal, and depressional states, from which, however, as a rule they make a complete recovery.

Stress of trench warfare eventually lowers the resistance of the normal individual to shock whether it be emotional or commotional.

It is not uncommon to find a good soldier or officer under the excitement of battle "carrying on" after he has been blown up by a shell and even rendered for a short time unconscious or dazed, but a few days later breaking down and developing a psycho-neurosis. Experience has shown that he is unfit as a rule for general service for six months. How can emotional shock be differentiated from commotional shock? The latter is often complicated and intensified by the former happening at the time of the commotion, and the dreams of soldiers prove this.

Commotion may produce vascular changes and minute hæmorrhages which are scattered through the grey matter of the cerebro-spinal axis in some cases. There is a demonstrable physical change, for the pressure of the cerebro-spinal fluid is increased; there is often hyperalbuminosis, and in severe cases, as one would expect, blood may be found in the fluid. The French lay stress upon the Voltaic vertigo test which is present in the great majority of cases of commotional shock. Moreover, a fair percentage are deaf on the side upon which the shell exploded, and examination may show a ruptured drum. How does emotional shock act? Very probably the endocrine glands, especially the adrenal and thyroid, are profoundly influenced by emotional shock, and the persistence in the subconscious mind of memories of experiences associated with terror or horror is revealed by the dreams of war experiences.

SECRETO-MOTOR REACTIONS THE OUTCOME OF SUP- PRESSED FEAR DURING THE WAKING STATE.

The subconscious memories of war experiences connected with fear and the self-conservative instinct are probably continually acting upon the lower cerebro-spinal and sympathetic secreto-motor, bulbo-spinal, and autonomic centres, accounting for many of the secretory and motor phenomena observed in war psycho-neuroses. The motor disorders and disabilities met with in soldiers suffering from emotional or commotional shock are frequently of the nature of instinctive defensive reactions. Thus, a tic of the head has acquired the name of the "dodging reflex," being the spontaneous movement which would take place upon hearing a shell coming; this tic is especially liable to be excited by any sudden noise or sound. Again, many of the motor paralyses and disabilities we know to be associated with fear by popular metaphor. Thus, "dumb with fear," "quaking or trembling with fear," "paralysed by fear," and the crouching attitude of many "shell shock" cases suggest the defensive reaction of concealment by immobility—in contradistinction to that by flight or fight. In these latter conditions an increased discharge of muscular energy is required, a rise of blood pressure, and an increased quantity of glycogen is converted into sugar. This is effected through the splanchnic nerves exciting an increased mobilisation of adrenalin from the suprarenal glands.

A very common vaso-motor phenomenon exhibited by soldiers suffering from shock, especially those who are troubled with terrifying dreams, is acrocyanosis, cold-blueness of the extremities, hence the popular expression of "blue funk." In about 10 per cent. of severe cases of shock there are signs of Graves's disease—viz., some degree of exophthalmos, von Graefe's sign, Möbius's sign, tachycardia, and fine rhythmical tremors 8 or 9 per second, and the thyroid gland is more easily palpable than normal.

SECRETO-MOTOR REACTIONS THE OUTCOME OF TERRIFYING DREAMS.

Many of my cases were unable to recollect their dreams, but complained of waking up in a fright and in a cold sweat. Kant³ explains this by saying that:—

“In the waking state we do not remember any of the ideas which we might have had in sound sleep. From this last follows, however, only this much, that the ideas were not clearly represented while we were waking up, but not that they were obscure also while we slept.”

Further, he says:

“I rather suppose that ideas in sleep may be clearer and broader than even the clearest in the waking state. For man at such times is not sensible of his body. When he wakes up his body is not associated with the ideas of his sleep, so that it cannot be a means of recalling this former state of thought to consciousness in such a way as to make it appear to belong to one and the same person. A confirmation of my idea of sound sleep is found in the activity of some who walk in their sleep, and who in such a state betray more intelligence than usual, although in waking up they do not remember anything.”

In the dreams of soldiers, when the perceptual relations of the body to the external world are dissociated and the inhibitory functions of the highest cortical centres of voluntary attention are in abeyance, ideas of past war experiences are revived with great vividness in the great majority of cases, even in those who are unable to recollect their dreams. For besides those cases which wake up in a fright and cold sweat, there have been numerous instances of soldiers who have walked in their sleep and many others have talked, shouted out orders and cried out in alarm as if again engaged in battle; some of these have been mutes. But the strangest phenomena of forgotten dreams of soldiers suffering with shock are observed in those who in their sleep act as though they were back in the trenches engaged in battle, and go through all the pantomime of fighting with bomb, with bayonet,

³ Dreams of a Spirit Seer.

with machine gun and with rifle, and yet remember nothing of these happenings when they awaken. One or two cases of this kind had to sleep in the padded room in order to prevent them doing injury to themselves. Evidently during their sleep vivid imaginings of their previous experiences are arousing defensive and offensive reactions in face of the imaginary enemy.

As these dreams cease to disturb sleep, so these manifestations of fear tend to pass off and give place to the sweet unconscious quiet of the mind. Occasionally during the waking state contemplation of the horrors seen provokes hallucinations or illusions which may lead to motor delirium or insane conduct. At least this is the interpretation I should put upon the symptomatology of the two following illustrative cases:—

1. A captain, aged 20, was admitted under my care in a state of restless motor delirium; he moved continually in the bed, sat up, passing his hand across the forehead as if he were witnessing some horrifying sight, and muttering to himself; yet, when interrogated, he answered quite rationally. This motor delirium I associated with the continuous effects on the conscious and subconscious mind of the terrible experiences he had gone through. His whole company had been destroyed, and, while talking to a brother officer, the latter had half his head blown off by a piece of shell. The patient improved very much, but a relapse occurred after a night disturbed by terrifying dreams. Even after a year had elapsed his nervous system showed a marked emotivity and he had to be boarded out of the service.

2. *Paroxysmal attacks of maniacal excitement following shell shock.*—A young man, aged 19, was admitted suffering with shock due to emotional stress and shell fire. He suffered with terrifying dreams, and after he had been in hospital a short time he developed sudden paroxysmal attacks of maniacal excitement. The first attack occurred suddenly. One afternoon he had been helping as usual in the kitchen, and then he went and lay down on his bed and apparently went to sleep; he suddenly woke with a startled, terrified look, became flushed in the face, sweated profusely, and made for the door as if to get away from some terrifying conditions. He was with difficulty restrained. He remained in this excited state, glaring rapidly from side to side, giving one the impression that he was suffering from terrifying hallucinations of sight and hearing, although he would make no response to interrogation. He did not recognise his wife, the doctor, or the sisters. Once when I, accompanied by two medical officers in uniform (strangers), came up to speak to him he became violently agitated as if some terrifying conditions had been aroused by the sight of the uniforms;

the face was flushed and he sweated so profusely that the perspiration dripped in a stream off his nose. The attacks would last from a few hours to a few days; they came on quite suddenly like an epileptic fit and often without any apparent cause. They became more severe and frequent, and when we had moved the neurasthenic patients to the Grove-lane schools he one day ran out of the building into the playground and attempted to get over the wall. He was brought back and I saw him sitting in the ward on his bed; his head was buried in his hands; I spoke to him; he immediately got up, looked at me in the most terrified manner, and made for the door; it required four orderlies to restrain him, and he fought and kicked violently, exhibiting much strength and nervous energy. Much to my regret I found it necessary to have him sent to Napsbury. I have heard that he has made a complete recovery and been discharged. It may be mentioned that there was no history obtainable of epilepsy or insanity in the family.

This case rather suggests the psychic equivalents of epilepsy in the attacks.

I have asked numbers of soldiers and officers to write down their recurrent dreams for me, and I possess a considerable number of such records. Almost without exception they have a direct relation to war experiences. This method avoids suggestion on my part by putting leading questions. I ask them to state how far the dream is related to previous experience and whether any particular dream or dreams constantly recur. I tell them that a correct description in writing will prove a valuable means of throwing off the terrifying effects. In only one instance was there any pronounced sexual basis; the subject of that particular dream, which constantly recurred, was of a disgusting and horrible nature, and when it occurred gave rise to most distressing hysterical manifestations. The patient was a private and wrote down the nature of this dream on condition that I would never make it public. Whether, as he affirmed, he had actually witnessed the scene, or whether, as is possible, it was gross exaggeration, or a delusion arising from a recurrent dream, I am unable to say.

The dreams are nearly always visual and auditory re-representations, shells exploding which they see and hear, machine guns firing, &c., and associated with the emotion of fear; for they wake up in a fright and cold sweat.

In one case, however, the patient when just dozing off was disgusted by the smell of dead

bodies, and this smell was followed by horrifying visions of putrefied corpses. He explained it by the fact that he had been serving some time at the front, and the continuous shell fire had shattered his nerves, rendering him unable to continue to fight in the trenches, and he had latterly been employed in burying the dead.

A very common complaint of soldiers is a falling feeling; this is not limited to men in the R.F.C., although it is usual for them to dream of their especial experiences. A not infrequent dream is that they are engaged in bombing or fighting; that their machine is hit, and that they are descending in an aeroplane in flames. It does not necessarily mean that this has been their experience, but the anticipation of the possibility of such a catastrophe from the knowledge of the fate of others has left such a deep impression on the mind that the imagination provides the source of the terrifying dream.

A very remarkable dream of an officer of sound nervous constitution is worthy of full consideration, and I will merely record what he wrote, for it clearly shows his dream accords with his experience, and it illustrates how true is the observation of Lucretius:—

“And generally to whatever pursuit a man is closely tied down and strongly attached, on whatever subject we have previously much dwelt, the mind having been put to a more than usual strain in it, we for the most part fancy we are engaged in the same.”

This is the one instance in which an individual has dreamt the experience of hunger and thirst in addition to battle experience.

Recorded Dream of a Second Lieutenant.

“During the five days spent in the village of Roeux I was continually under our own shell fire and also continually liable to be discovered by the enemy, who was also occupying the village. Each night I attempted to get through his lines without being observed, but failed. On the fourth day my sergeant was killed at my side by a shell. On the fifth day I was rescued by our troops while I was unconscious. During this time I had had nothing to drink or eat, with the exception of about a pint of water.

At the present time I am subject to dreams in which I hear these shells bursting and whistling through the air. I also continually see my sergeant, both alive and dead, and also my attempts to return are vividly pictured. I sometimes have in my dreams that feeling of intense hunger and thirst which I had in the village. When I awaken I feel as though all strength had left me and am in a cold sweat.

For a time after awaking I fail to realise where I am and the surroundings take on the form of the ruins in which I remained hidden for so long.

Sometimes I do not think that I thoroughly awaken, as I seem to doze off, and there are the conflicting ideas that I am in the hospital, and again that I am in France.

During the day, if I sit doing nothing in particular and I find myself dozing, my mind seems to immediately begin to fly back to France.

A dream that keeps on coming up in my mind is one that brings back a motor accident I had about six years ago, which gave me a severe nervous shock. I had, of course, entirely forgotten about it, except when in a motor, when I always thought of it.

Of the fifth day I have absolutely no recollections."

EFFECTS OF THE DREAM THE NEXT DAY.

As these dreams are nearly all of a terrifying or horrifying nature, and connected with the emotion of fear and failure of the defensive reactions of self-preservation, the subjects of them awaken with a feeling of dejection and pallor; they have, as Shakespeare says, "Lost their fresh blood in the cheeks."

A dream recorded by one officer is therefore of psychological interest in this respect as showing that a dream of a successful struggle for life with an enemy under terrifying circumstances may give rise to a feeling of exhilaration on waking; whereas the same officer when he dreamt of a scene that he witnessed causing horror gave rise to a feeling of dejection.

These two dreams, which recurred at intervals, were based upon two separate experiences. The one related to the existence of the legless body of a Prussian that lay for days in front of their dug-out, and which it was highly dangerous, as it was found to their cost, to remove. The other related to a fight with a Prussian who threw a bomb which just missed him and exploded out of harm's way; he

threw a bomb which blew the enemy's head off just as the Hun was preparing to throw another bomb at him. A repetition of the state of feeling that actually happened during life must be assumed to have occurred as a result of the dream.

*Analysis of Dreams with Incongruous Associations
may Reveal an Emotional Association.*

I could multiply instances of memories of particular experiences recurring in soldiers' dreams of a similar character to those related, and I think I have shown that when Shakespeare speaks of dreams born of fantasy, children of an idle brain, he was clearly not referring to the dreams of soldiers who had recently been exposed to all the emotional shock of battle, but to those experiences of past life which had been broken up and dissociated into elemental perceptual parts which are linked up in incongruous association.

Apparently incongruous association may by careful investigation reveal an emotional association; thus a present fear experience may be associated with a past and forgotten fear experience, as the following dream shows:—

An officer who had served in South Africa told me that he had had a dream from which he awoke in a fright. He was in a mine passage at the front when he met a leper who came towards him. Upon questioning him and asking him if he could recall some period of his life in which his mind had been disturbed by a leper, he remembered that in South Africa he and his comrades were much alarmed, and vigorously protested against a leper being allowed to remain in an adjoining sangar. Evidently this had left a deep impression graven on the mind; the principal subject, the leper, was dissociated from concomitant experiences in the South African War, and became linked up with a recent terrifying experience of being in a mine passage, which likely enough was also an experience in which the emotion of fear occurred. Both incidents, suffused with very strong feeling, in all probability were deeply graven on the mind and became firmly fixed by subconscious association.

Another case is the following, in which the dream appeared to have an incongruous association of

dissociated experiences, but in which there was a natural association of primitive emotions.

A sergeant, who had been a schoolmaster, was asked to write down his dreams by Captain W. Brown, who had sometimes charge of my cases at the Maudsley Hospital. The first was as follows:—

"I appeared to be resting on the roadside when a woman (unknown) called me to see her husband's (a comrade) body which was about to be buried. I went to a field in which was a pit, and near the edge four or five dead bodies. In a hand-cart near by was a *legless body*, the head of which was hidden from sight by a slab of stone. (He had seen a *legless body*, which was covered by a mackintosh sheet, which he removed.) On moving the stone I found the body alive, and the head spoke to me, imploring me to see that it was not buried. Burial party arrived, and I was myself about to be buried with *legless body* when I awoke."

The second dream was as follows:—

"After spending an evening with a brother (dead 11 years ago) I was making my way home when a violent storm compelled me to take shelter in a kind of culvert, which later turned into a quarry, situated between two houses. Men were doing blasting operations in the quarry, and whilst watching them I saw great upheavals of rock, and eventually the building all round collapsed (explosion of a mine). Amongst the debris were several mutilated bodies, the most prominent of which was *legless*. I tried to proceed to the body, but found that I was myself pinned down by masonry which had fallen on top of me. As I struggled to get free the whole scene appeared to change to a huge fire, everything being enveloped in flames, and through the flames I could still see the *legless body* which now bore the head of my wife, who was calling for me. I was struggling to get free when my mother seemed to be coming to my assistance, and I awoke to find the nurses and orderlies standing over me."

It appears that the patient had been shouting in his sleep, beginning in a low voice and gradually becoming louder until eventually he was shrieking. The *legless body* occurred in all his dreams; the sight of this had evidently produced a profound emotional shock. He had worried a great deal about his wife, who was much younger than himself, so that we have this incongruous association of the *legless body* and the head of his wife calling him; finally, what more natural than the mother to come to his help. The emotional complex is not incongruous in this dream, for fear is linked up with the tender emotion.

Psycho-analysis, or the unravelling of the origin and the relation of these dreams to disorders or disease of mind and body, I do not intend to

discuss, nor the value of psycho-therapy, but I am inclined to agree with an eminent Italian psychiatrist, Lugaro, who, in the review of "Shell Shock and its Lessons," says: "The people who can touch psychic wounds with delicacy and sympathy are extremely rare, especially among doctors."

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