"AN ANALYSIS of CASES of DEMENTIA PRAECOX with special reference to pre-psychotic Symptoms together with a critical review of recent work on the etiology of the condition"

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INTRODUCTION.

Many factors have contributed towards the fact that a minority only of cases of mental disorder come under the care of the mental specialist in that stage of the disease when cure or alleviation is possible.

No single factor is of greater importance than the inborn prejudice of the public and of the profession against asylum treatment. Now, however, that the public mind is being enlightened as to the necessity for seeking advice in the earliest stages of mental disorder it is essential that the signs and symptoms of incipient insanity should be more clearly defined and correlated with the later and ultimate stages of the disease.

It is certain that there is a large mass of psychosis and neurosis in the general population today which is unrecognised and therefore unstudied and disregarded. "It should be possible" as Macpherson (i) says, "to detect almost anywhere mental defect intellectual or moral; the periodic emotional oscillations or the recurrence of mild depression or the mild exaltation of the early stage of manic depressive insanity, or the unfounded suspicions, the mild delusions, aggressiveness and vindictiveness which indicate paranoia or again the aimlessness, inefficiency and idle habits of the milder forms of Dementia Praecox etc.".

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The purpose of this thesis is then,

(i) To examine closely the recent work in the etiology of dementia praecox.

(ii) To review the work already done upon the early or pre-psychotic symptoms of the same condition.

(iii) From a study of the early histories of a series of dementia praecox cases to attempt to determine the factors responsible for the breakdown.

(iv) To emphasise the possibilities of Prophylaxis.

ETIOLOGY.

(i) THE GENETIC THEORY OF MOTT.

Mott (2) has come to the conclusion that the essential cause of the disease is an inborn germinal defect; a genetic inadequacy which is partially manifest in the reproductive organs at adolescence and which reveals itself clinically in an arrest of neo-cortical growth. In support of this view he has brought forward a mass of evidence from his studies in the pathology of the brain and reproductive organs of cases of dementia praecox.

In the testes he finds evidence of a primary regressive atrophy of the spermatogenic functions and of the interstitial cells of Leydig and, in the ovaries of female cases, a regressive atrophy and failure of the primordial follicles of the ovary to develop Graffian follicles. These findings he considers to be indicative of a hereditary deficiency of the "genetic vital impulse" (3).

His findings in the brain correspond to those already described by Nissl and Alzheimer and consist of changes in the ganglion cells of the cortex akin to that met with as a result of senile change.

He argues, however, that the failure of function of the Nerve Cells of the brain in dementia praecox may be correlated with a failure of oxidation processes in the grey matter owing

to a deficiency ofthe "vital energy" of the nucleus.

One must be careful to differentiate between the definite pathological findings of this observer and the hypotheses which he builds thereon.

Many of his findings in relation to the atrophy of the sexual glands have been confirmed by other workers e.g. Tiffany (4) and Matsumoto (5); the latter considers that this regressive atrophy of the sexual glands is the primary cause of a disturbance in the normal balance of the internal secretions which results in an auto-intoxication or disturbance of the normal nutritional equilibrium.

Corson White, Collon and Stevenson claim to have obtained in cases of dementia praecox, a positive Abderhalden reaction to the sexual glands only. The significance of such findings is doubtful, but Stoddart (6) quotes them as in a way confirming Mott's histological discoveries.

On the other hand various workers have failed to confirm Mott's findings. Morse (7), from a study of 27 cases of dementia praecox, came to the conclusion that there was no correlation between atrophy of the sexual glands and the duration of the mental disease or the degree of psychic deterioration. A series of controls in non-psychotic cases of approximately the same ages dying of the same diseases gave exactly similar findings excepting in cases of feeble mindedness, hypoplasia, and emaciation. He concludes:- "From the pathological side there

is little evidence of a primary atrophy of the gonads in dementia praecox with the possible exception of those cases developing on a basis of mental defect. Any atrophy when present can be accounted for by the somatic disease from which the patient suffered. This explanation" he says "is not only simpler and less hypothetical than that of a primary atrophy but, is more in accord with the facts if they are critically studied".

Witte. (8) does not believe in the genital theory of Mott and states that one finds the same lesions in epileptics, idiots and in those who have suffered from infantile disease. Prior. (9) found that in cases of epilepsy in females the ovaries were invariably fibrotic and atrophic., At the same time he comments on the fact that no corresponding change was found with the same persistency in the male sex gland.....

From a study of the nerve cell changes in dementia praecox and in manic depressive psychosis, Cheney (10) came to the conclusion that "there was no uniform or constant cortical or individual nerve cell picture in dementia praecox which would enable one to distinguish such a case from one of manic depressive psychosis".....

He considers as unproven therefore that the nerve cell changes described are essential to the clinical picture of dementia praecox .....

(ii) DISTURBANCES IN THE ENDOCRINE SYSTEM.

Recent discoveries in the realm of the endocrine or ductless gland system have been reflected in the work done upon the etiology of dementia praecox.

Whether the cause be considered to be psychogenic or physiogenic the endocrine system has been dragged in as the mechanism through which the disease process works.

If the findings of Mott be confirmed it is logical to expect that the endocrine glands, which developmentally are related to the sexual glands and to the sympathetic nervous system (ii), should show evidence of disturbance of function.

Apart from cases of gross disease such as exophthalmic goitre little as yet is known of the part played by individual ductless glands in the production of disease symptoms. None of the so-called tests for hypo and hyper-function of individual glands can be considered sufficiently trustworthy as to warrant deductions being based thereon. Much of the evidence offered by recent workers must accordingly be rejected.

One fact of importance brought out by many of the investigations is that acute cases seem to react in an altogether different way from the chronic or clinically adjusted and it would seem that, in future studies, the two states must be differentiated when possible.

Mott inclines to the idea that there is a hypo-function of

the whole of the body tissues especially of the reproductive and endocrine systems. (12)

(a) Adrenal and Pituitary Disturbances.

From a study of 100 cases including 27 of dementia praecox Mott has described a regressive atrophy in the cells of the medulla of the suprarenal glands (13) and a similar condition in the anterior portion of the pituitary gland (14) as occurring only in dementia praecox. He hopes to correlate the changes already found in the reproductive system with those of the endocrine system and of the vegetative nervous system, Considering the close relationship which exists between the reproductive organs and the cortex of the adrenal bodies it is important to note that Mott found little or no change in this portion of the organ,

In contrast to these findings Morse (15) in a study of the other glands in his cases concluded that there was no uniform condition of the endocrine glands in dementia praecox.

In particular the lesions in the adrenal bodies were such as are usually found in the diseases from which the patients died.

The pituitary gland in about half the cases was fibrosed but this condition seemed to depend upon the terminal disease and upon the state of nutrition.

Cushing (16) quotes the findings in the histological

examination of the pituitary gland in 8 cases of dementia praecox, in which no histological change of any note was found; he expresses a grave doubt as to what information of value is likely to be obtained from microscopic investigation of such tissue cells and believes that only a serological test after the nature of the Abderhalden test for pregnancy will be conclusive.

Dawson (17) quoted by Mott found a faint reaction to the Goetsch test in the majority of his cases of dementia praecox and this he takes as evidence of adrenal inadequacy. Considering that the test is purely pharmocological it is doubtful if any value can be placed on these findings.

Many of the symptoms of dementia praecox namely low blood pressure, feeble pulse, cold extremities, shallow breathing, low oxygen consumption, and katatonia have been quoted as supporting the probability of a lesion of the medullary portion of the gland (18).

But other authors have shown that as yet there is little or no evidence that the medulla of the adrenal bodies is of any importance in the normal animal economy and even express doubt as to whether the adrenalin output is at all affected even by emotional excitement (19).

Macleod (20) quoting insulin experiments showing that the effect in adrenalectomised animals does not differ from those in normal animals expresses a similar doubt as to the part played by adrenalin in life processes.

Addison's disease has often been claimed as the classical example of adrenalin deficiency and such prominent symptoms as low blood pressure, present also in dementia praecox, thereby explained. But it has been shown that such amounts of adrenalin as are normally poured into the blood would tend to lower the blood pressure instead of raising it (22).

Gley (23) concludes (i) that adrenalin is not necessary for the normal functioning of the sympathetic nervous system, (2) that it is not necessary for the maintenance of normal life, (3) that there is little evidence to shew that the amount of adrenalin normally secreted is sufficient to produce any definite physiological effect. Any conclusions based on other assumptions must therefore be accepted with reserve.

(b) Thyroid Disturbances

Uyematsu, (24) found a shortening of the bleeding time and an increase in the platelet count in catatonic dementia praecox. The fact that the same condition is found in frank hypothyroidism has led this author to suggest a possible relationship.

Bowman (25) from a study of basal metabolism in dementia praecox found that 42 out of 50 cases gave low readings.

This he did not consider due to simple hypothyroidism and feeding with thyroid was not productive of any improvement. Lewis & Davis (26) found, however, that thyroid feeding was of great value in a number of their cases in whom they suspected thyroid deficiency.

Phillips (27) from a study of thyroid enlargment in cases of mental disease came to the conclusion that the nature of the psychosis is in some degree determined by the form of the functional disturbance of the gland viz: that hyperthyroidism is usually associated with states of excitement e.g. manic depressive insanity and hypothyroidism with states of apathy and indifference e.g dementia praecox. All the cases of dementia praecox upon which the author bases his conclusions were cases of deficient physical and mental development and so must be considered as cases of dementia praecox occurring in congenital mental deficients no evidence of hypothyroidism apart from the deficient development being quoted.

Rutherford (28) submits that all mental instability including dementia praecox is physical in origin and hypothyroidal in nature, but admits that particularly in dementia praecox it is difficult to produce satisfying evidence of the initial sub-thyroidal state. He quotes the infrequency with which Graves disease is seen in the

insane and as a contrast the well known liability to mental disease of goitrous patients in whom a deficiency of thyroid secretion is presumed.

So contradictory are the findings that one can only conclude that at present, the existence of endocrine disturbances as a factor in the etiology of dementia praecox must be regarded as quite unproven.

In contrast to much of the recent work on the endocrine glands and their relation to dementia praecox Tucker (29) suggests what seems to be a much more reasonable mode of approach to the solution of the problem viz: the study and comparison of the psychotic syndromes connected with definite endocrine disturbance as opposed to the prevailing system of taking a psychosis and endeavouring to find an endocrine disturbance to fit it.

Cushing (30) has shown the way in this respect in a paper on "Psychic disturbance associated with ductless glands." Unfortunately his description of the mental states is not sufficiently detailed but the value of his work lies in the fact that in the majority of his cases the lesion of the gland concerned was in each case confirmed by operation. He describes in general terms the dullness and lethargy of and indifference of gigantism, the despondency and hypochondriasis of acromegaly,

the mental and physical inactivity of hypopituitarism as seen in Frohlich's syndrome etc. and links his descriptions to the gland or glands actually concerned. Most of the types described are advanced but a study of the earlier changes in the patient's mentality just prior to the onset of the more severe symptoms which called for operation would undoubtedly have been of value in providing a description of the lesser degrees of gland disturbance. By this means it might then be possible to match ~~those~~ such symptoms with those of one or other of the psychoses.

(iii) DISTURBANCES OF THE VEGETATIVE NERVOUS SYSTEM.

Eppinger and Hess., (31) have described a temperamental type which they call the vagotonic; they define vagotonia as being "a constitutional condition which makes the vagus system more irritable than its antagonist the sympathetic."

They consider vagotonia to be a form of constitutional inferiority and state that it is frequently found in classes of people who show signs of degeneration ... e.g. Polish Jews.

They draw attention to its association with status lymphaticus; this should be noted with reference to the association of the same condition with dementia praecox...

Observations were made on mental cases but, apart from the mention that in individual cases changes occurring in quick succession may be demonstrated from a condition of

sympatheticotonia to one of vagotonia during the same attack say of catatonic excitement, no definite conclusions are drawn. It is interesting to observe that the authors consider that the real etiology or vagotonia must be sought in some disturbance of the internal secretions and not vice versa as some authors have claimed.

The following are some of the typical features of the vagotonic:-

Actions hasty and precipitous... Tremor of eyelids, tongue and extended flushing and pallor of the face...fingers.etc.

Cyanosis of the hands	Dermography
Easy Sweating	Gastroptosis
Widening of palpebral fissure	Salivation
Insensibility of the pharynx	Bradycardia
Frequency of urine	Sexual excitability &c.

Increase of tendon reflexes.

Not a few of the characteristics mentioned belong also to dementia praecox and it is of interest therefore to note the findings of various workers as to the reaction of dementia praecox patients to injections of pilocarpine.. atropine, etc.

Deductions are based on the hypothesis that pilocarpine acts specifically upon the vagus system in the same way as adrenalin and atropine are supposed to act as stimulants

to the sympathetic system ...

An excessive reaction to an injection of pilocarpine subcutaneously is taken as evidence of the instability of the vagus autonomic system. Whatever be the truth of this there are individuals who react strongly to small doses of pilocarpine and others again who react as excessively to atropine.

(Melancholics are said to be sympatheticotonic (32) but no experimental evidence on this point has been traced.)

Raphael (33) found that 19 old or clinically adjusted cases gave no particular reaction to pilocarpine, atropine or adrenalin.

48% of 37 acute cases corresponded to the vagotonic type as shown by their reaction to the drugs mentioned and 22% corresponded to the sympatheticotonic type.

The same author is quoted as stating that there is no positive evidence of vago or sympatheticotonic reaction in dementia praecox cases.

Dawson (34) in a series of 50 cases (not differentiated as to acute or chronic) found that of:-

29 catatonic	dementia praecox	cases	17	displayed	vagotonic manifestations		
14 simple	"	"	"	7	"	"	"
7 paranoid	"	"	"	2	"	"	"

He concludes that the chief physical manifestations of

dementia praecox appear to be due mainly to disorders of the vegetative nervous system a conclusion which seems scarcely justified.

In the writer's series of cases tested with pilocarpine of 32 cases classified as follows:-

Catatonic	6
Simple dementia praecox	14
Hebephrenic	9
Paranoidal	3

9 only gave a definite or slightly excessive reaction. One only, a case of simple dementia praecox gave an intense reaction. All the others gave little or no reaction whatsoever.

The 9 cases which gave any definite reaction were equally divided amongst the simple, hebephrenic and paranoid types. None of the catatonic cases gave any definite reaction.

Aschner (35) in a recent survey of the present status of the pharmacodynamic functional tests of the vegetative nervous system, rejects the earlier claims of Eppinger and Hess and concludes that an intense reaction to one or all of the drugs used is indicative only of some functional anomaly in the sphere of the vegetative nervous system and that one cannot draw any conclusions as to an abnormal excitability

much less to an abnormal tonus of the entire sympathetic or vagus systems.

As in the case of endocrine disturbances, it must be concluded that the etiolgical significance of disturbances of the vegetative nervous system in dementia praecox is as yet obscure.

(iv) GENERAL FINDINGS.

Walker (36) confirms the findings of other workers in recording a low basal metabolism in cases of dementia praecox. He is not of the opinion however that this is due to a diminution of the thyroid principle, but rather to a decrease in all the bodily functions. He finds evidence of vagotonia in several cases, and what is particularly of interest, during remission, a disappearance of the vagotonic symptoms and a rise in the basal metabolism. The author does not say whether this is true of dementia praecox alone, and absent in the acute phases of other insanities..

Raphael (37), in a series of carefully studied cases found delayed sugar tolerance, relative hepatic hypo-function relative hypo-lipaemia, evidence of depressed basal metabolism and increased red cell fragility.

These he takes as evidence definitely suggestive of a basic hypo-oxidative state, a state of general metabolic depression. Many of his facts may be taken as evidence simply of a change in physical state as e.g. fragility of red blood cells which he admits is also found in the blood of cardiac patients with marked circulatory stagnation.

He comes to no definite conclusion as to which gland or glands are affected in this state of metabolic depression.

(v) THEORY OF BACTERIAL INFECTION.

Ford-Robertson (38) has put forward the theory of unspecific infection. He holds that in dementia praecox patients there is a special type of inherent defective resistance to the action of bacterial toxins and particularly so of the association centres.

Therapeutic immunization at an early stage of the disease he believes may hope to arrest the process before the brain is irretrievably damaged; in the results of this line of treatment lies the proof of the hypothesis.

Kraepelin (39) states that the existence of an auto-intoxication may be regarded as at least probable and many other investigators have repeatedly drawn attention to the fact that many of the mental symptoms, the delusions, the hallucinations, illusions, and the mental confusion resemble more the toxic type of psychosis than any other. Many of the metabolic disturbances described would fit into such a hypothesis but as to the source or nature of the toxin nothing is known.

Holmes (40) Monakow and others regard dementia praecox as an auto-intoxication through the action of intestinal bacteria and the first mentioned author brings forward evidence to show that histamine-like substances which are the result of intestinal putrefaction can

produce deteriorating conditions similar to dementia praecox.

Cotton (41) believes that manic depressive insanity, dementia praecox and the paranoid states have a common aetiology viz:- chronic infection, and resulting toxaemias. At the Trenton State Hospital as a result of treatment by the removal of chronic foci of infection and the use of auto-genous vaccines, etc. the average number of discharges was increased from 43% to 80%.

"The psychoses" he believes, "instead of being considered "as a disease entities should be considered as symptoms "and often as terminal symptoms of a long continued masked "infection, the toxaemia of which acts directly on the brain". (42).

On the other hand Kopeloff and Cheney (43) have published a series of studies in focal infection in which they found that the removal of infected teeth and tonsils in 27 cases showing manic depressive, dementia praecox and psycho-neurotic reactions has been followed by no more mental benefit than was shown by a comparable group of 33 patients from whom such supposed foci were not removed.

Cotton (44) argues that the unsatisfactory results obtained by Kopeloff and Cheney were due to the inadequacy of the treatment.

Chalmers Watson (45) whilst making no definite claims states that, in his opinion, an infection of the system of a latent and attenuated kind - a sub-infection- is a factor of the first importance in the aetiology of many of the common mental disorders including dementia praecox.

Hall and Neyman (46) from a very careful etiological study of 25 cases of dementia praecox came to the conclusion that they could be divided into 3 groups according to the findings, viz:-

12 in whom there was definite evidence of toxaemia

5 which seemed to be purely psychogenic in origin and

7 only which gave any evidence of endocrine disturbance

Again we are compelled to conclude from the conflicting evidence of various workers in the same field of investigation that, as yet, the theory of unspecific infection is unproven.

Whether or not we subscribe to the belief that the etiological factors lie almost entirely within the mental sphere and that the physical symptoms of the condition are but secondary the unsatisfactory nature of the evidence in support of the purely physiogenic causation of dementia praecox is in itself sufficient justification for a reconsideration of the mental factors involved.

(vi) THE HEREDITARY FACTOR

The influence of an insane heredity upon the occurrence of dementia praecox cannot be denied.

Wolgsohn's (47) figures have been most frequently quoted.

Of 2215 admissions 647 were cases of dementia praecox and of these 90% showed a hereditary taint. It must be noted, however, that in 64% only was there evidence of mental disease in the ascendants and in the remaining 36% the factors noted were alcoholism and other forms of nervous disease.

Mott (48) from a study of the ages of insane offspring and parents observed the tendency for the insanity to occur at a much earlier age and in a more intense form such as imbecility and dementia praecox in the offspring and concluded that this was simply Nature's way of eliminating unsound stock.

Dementia praecox according to this is then but the terminal stage of a degenerate stock. This Law of anticipation has however been seriously questioned within recent years (49).

Mott (50) himself in a recent discussion on Medical Sociology has stated that investigations into the heredity of insane and mentally defectives have shown a dissociation between the types of stock that give rise to insanity and

those that give rise to mental deficiency.

The idea that heredity is everything is fast disappearing

It is no more certain that a person with a herditary taint of insanity will develop insanity in one or other of its forms than that a person with tuberculous taint will develop tuberculosis, Under intelligent prophylactic treatment which recognises the weakness the chances are that neither the tuberculosis in the one person nor the insanity in the other will develop.

This view is upheld by Steiner (51) in a survey of modern trends in psychiatry. He favours the view that only a disposition for the affection is inherited and that under especially favourable conditions in the individual life no disease at all occurs. He considers therefore that it is of the greatest significance to study the entire psychical habitus, character, and temperament of the apparently healthy individuals who harbour this predisposition.

II. THE DEMENTIA PRAECOX "PERSONALITY"

The idea of an insane "make up" or diathesis is no new one. Clouston (52) recognised that "there are certain human beings characterised through life by striking peculiarities, eccentricities, originalities, commonly in useless ways, oddities, disproportionate developments and non-conformities to rule, these things not amounting to mental disease in any correct sense and yet being usually by heredity closely allied to it or by evolution ending in it at last"

He found difficulty, however, in recognising this diathesis because of the variety and multiformity of its manifestations but it is doubtful if, at that date, any detailed work had been undertaken in order to discover if the types were indeed of such a diverse character.

Later investigations seem to show that definite types of insanity develop in individuals of a very well defined personality.

Clouston's own description is of interest for later comparison. He says "we find such persons strikingly "original but not reasonable, different from other men in "their motives in their likings, in the highest degree "impracticable and unwise, some are abnormally sensitive and "receptive some are subject to influences and motives to a "degree unfelt by ordinary men such as hypnotism, sympathy, "natural forces, etc. "

But this diathesis or "make-up" is contained within what is termed the "personality" the aggregate of the tendencies predisposing to those reactions which the individual concerned has come to display habitually in the adjustments which his life has required of him" (53)

This "personality" or "make-up" exercises a determining influence upon the nature of all mental disturbance.

Particular poisons may and can produce definite emotional states but the exact picture is determined not by the nature of the poison entirely but by the conditions already laid down in the personality (54).

In cases of cerebral thrombosis and hemorrhage it has been noted (55) that the resulting mental symptoms and the type of disturbance are essentially influenced by the normal traits and character "make-up" of the individual concerned. Even in such a gross organic disease like general paralysis of the insane it has been shewn that the neuropathic predisposition is an important factor in the genesis of the condition (56)

Some authors deny the significance of this and believe that the familial peculiarity is purely physical but, in the absence of reliable evidence, it is at least as reasonable to suppose that the predisposition is as much mental as physical particularly when the central nervous system is

involved.

Laignel Lavastine (58) claims that the presence or absence of psychic manifestations in ~~thyroid~~ thyroid toxaemia is determined by the individual mental predisposition.

It is possible from this point of view to admit the toxic factor in the production of all the psychoses without detracting from part played by the individual personality in determining the clinical picture (59).

(a) CLINICAL TYPES

It was Adolph Meyer who in 1903 insisted that dementia praecox is a disorder which may not develop in anyone but that only some personalities are in danger and it was therefore he who inspired much of the work which culminated in Hoch's description of the "shut in" personality (60).

Hoch is careful to say that this personality is not the only one in which dementia praecox may develop but "it is the most frequent and the most clearly circumscribed".

"We find in dementia praecox" he says "persons who do not have a natural tendency to be open and to get into contact with their environment, who are reticent, seclusive, who cannot adapt themselves to situations, who are hard to influence, often sensitive and stubborn but the latter in a passive rather than in an active way"

"They show little interest in what goes on, often do not participate in the pleasures, cares, and pursuits of those about them; although often sensitive, they do not let others know what their conflicts are; they do not unburden their minds, are shy, and have a tendency to live in a world of fancies. This is the "shut in" personality".

Hoch considers that the deterioration in dementia praecox is nothing more nor less than the expression of the

constitutional tendency in their extreme form," a shutting out of the outside world," - "a deterioration of interest in the environment;" "a living in a world apart..." To the dementia praecox patient the path of least resistance leads them away from contact with the world to the realm of mere fancy where the demands upon the individual are minimised.

In a series of 72 cases 51 per cent gave definite evidence of belonging to this type. In cases which undeniably deteriorated the "shut in" personality was well marked in 66 per cent.

Jelliffe (61) described the dementia praecox type as being rather abnormally brilliant "but with the lights turned inward rather than outward... Unpractical in the use of their hands; unable to observe with accuracy, unready to adapt themselves to uncongenial environment; intolerant of imposed regulations and of standards of requirements; subject to fits of abstraction; irritable towards the members of their own families; abnormally sensitive, prone to discuss deep insoluble questions".

Meyer (62) found that the children who later tend to develop dementia praecox were often examples of goodness and meekness rather than of strength and determination, with a tendency to keep to the good in order to avoid fights and

struggles, freaky as to appetite, hypochondriacal, unsteady in occupation, inefficient, given to daydreaming and, above all, evincing a loss of directive energy and initiative.

Again (63) he describes the children as "peculiar" rather than defective and in behaviour "model children". He emphasises the tendency to suffer shame and to brood over failure as also their apparent difficulty in translating thought into action,

Kirby (64) found in 100 cases of dementia praecox a plainly "shut in" personality in 50%. He pointed out that in those cases which did not show the typical make up there was very often seen a certain "shallowness of interest" rather than the general "shutting in" of the ideas.

Frankhauser (65) agrees in general with the description "shut-in" and adds that such people in his experience are usually "whimsical, show an inability to use money sensibly, leave jobs without reason, blame others for ill-luck, have a poor sense of responsibility, do not concern themselves with realities and refuse to accept facts, are intractable, stubborn, aimless, restless and often apathetic and indifferent."

Other authors are less definite in describing any one prevailing type but mention those features which seem to be most prominent thus, Schultze (66) states that 50% to 70% of his patients exhibited from the beginning a shy quiet disposition, or, particularly in his female patients, an irritable capricious character.

Schott (67) reports 28% of his dementia praecox patients as quiet and reserved.

Kraepelin (68) himself refrains from giving definite figures but mentions the special frequency, particularly in males, of a quiet shy retiring disposition," the sort of individuals who make no friendships and live entirely for themselves."

Of secondary importance and mostly in girls he found:- "instability, sensitiveness, excitability, nervousness, self-will and a ~~tending~~ tendency to bigotry." A smaller group mostly boys were "lazy or restless, disliked work, were inclined to nasty tricks; did not persevere anywhere, and later became vagrants and criminals"; in contrast another group showing again a larger percentage of boys, were conspicuous by their "docility, good nature, anxiety, conscientiousness and diligence and as patterns of goodness held themselves aloof from all forms of childish naughtiness."

Libert (69) describes what he calls a pre-dement stage in dementia praecox cases. This stage he finds is characterised by a diminution of the moral faculties, unsociability, apathy, impulsiveness, by a habit of contradiction which foreshadowed negativism; under military conditions these people are intolerant of discipline and frequently desert whilst women of the type resort to prostitution since they hate the effort required to earn a livelihood in any other way. To differentiate such changes from lapses of moral imbecility he claims is important sociologically and ~~medi-cologally~~ medicolegally.

Thwaites (70) from a study of the cases of dementia praecox occurring in Syria suggests that dementia praecox is but an exaggerated expression of a mental degeneracy the roots of which are to be traced outside asylums in the average mental constitution. He considers the whole question a dispositional one.... that certain dispositions commonly met with are the immature counterparts of the morbid mental states which fill our asylums, the diseased state being merely an evolution of the so called healthy one and thus he finds dementia praecox to be found in its immature form in the "supineness", "apathy" and "phlegm" of the Syrian youth.

(b) PSYCHOLOGICAL TYPES

Jung (71) has described the classical types of "Introvert" and "Extrovert" the former corresponding roughly to the dementia praecox mentality. In the "Invert" the general psychic energy, which he characterises "the libido", is directed towards the centre the ego; in the "Extrovert" towards the periphery, the object.

The introverted "personality" feels deeply but does not show his feelings; there is a sameness of sympathy visible though the inner feeling may be different in each case. Thinking and feeling are contrasted in the two types since the extrovert shows his feelings in their extreme form.

The examples he quotes from various sources are illuminating in exactly defining the types concerned.

The "tenderminded" of William James are the introverts of Jung, interested only in inner spiritual things as opposed to the material facts of existence. "They care little for facts and fit data into their ideal constructions".

The "classics" of Ostwald are again the introverts. "Slow to react, produce with difficulty, exercise little or no personal influence are paralysed by their own severe criticism; live apart and are absorbed in themselves."

Theodore Roosevelt and Woodrow Wilson both former American Presidents have been cited as examples of the two types.

Roosevelt "the fighter, impulsive, direct in attacks, the man of action with no time for abstract thinking or theories." Wilson, "idealistic, slow in action, unemotional and cold, unable to grasp the material facts of a situation."

More recently both Jung and his disciples have proceeded to make subdivisions of the types already mentioned and Hinkle (72) now recognises four modifications of the original divisions viz: the objective and subjective extrovert, and the objective and emotional introvert, but, since all of the sub-divisions lie between the two extremes, it is reasonable to suppose that the majority of normal people are included within them.

It might also be assumed that the earliest stage of the ultimate introverted type would be found in one or other or both of the sub-divisions and from this point of view the essential characteristics of each are of interest. The objective introverts are said to be those in whom "feeling" in all its phrases is absent....they have no perception of anything else than hard cold fact and logic. The emotional inverts on the other hand are more difficult to define. They are generally refined, unstable, moody, uncertain, sticklers for truth and candour, inclined to neatness and order, jealous and supremely selfish. Hinkle states that to this type belong the essential neurotics in whom the essential feature is an instability of temperament.

"The aim of all these studies in personality is, to enable one to construct a properly detailed plan of mental hygiene for adolescents for practical use among physicians teachers and parents." To render this possible it is necessary that the clinical types described should be still further condensed, analysed, and classified so that the essential features may be more easily grasped.

Any statement or summary of a personality should attempt to indicate the reactional assets and liabilities of the individual such that an insight is gained into the probable general course of action which the individual would follow in any given set of circumstances. Amsden has made a simple classification of the facts which are of importance in this regard:-

(1) Intellectual activities

(2) Somatic demands

(3) Self-estimate and self-criticism

(4) Powers of adaptation.

A reconsideration of the salient facts of the prevailing predementia praecox personality viz. the "shut in" personality in the light of the above classification will be of value therefore in summarising and analysing the detailed clinical description.

a. Intellectual activities

There is often a good primary mental development but not always so. As an offset to this there is a limited intellectual activity as evinced by daydreaming, abstraction, lack of initiative and ability to plan. It seems as if the intellect were sidetracked by some subjective interest.

b. Somatic demands.

There is again a diminished demand for motor activity as shown by a lack of enthusiasm, unwillingness to converse, indifference, apathy, deficient sense of observation.

It is more difficult to determine what part exactly the sex factor plays in the "make up" of the individual, He is already so reticent and seclusive that little or no direct information can be obtained from him. There is, however, a certain amount of information to show that there is a degree of repression of the sex instinct due perhaps to a lack of frank habits of social intercourse with the other sex. There is too a degree of sentimentality but many of the case histories reveal love affairs seemingly superficial and which, when broken off as they often were, were easily forgotten. This seems to be but another example of the extreme "shallowness" of interest even in the strongest of human instincts.

c. Self estimate and self criticism.

From the outset it is obvious that the most outstanding feature of this personality is the unfavourable comparison which the individual makes as a result of his own conscious or subconscious self-analysis.

There is reticence, seclusiveness, sensitiveness, shyness etc. all of which may be explained as being due to the individual's sense of inferiority and lack of confidence in his own abilities and which, in the absence of any compelling force which might tend to overcome this sense of dissatisfaction by the cultivation of the traits which are deficient, leads to a further withdrawal of the personality from contact with the material facts of existence.

The weaker and more dependent sort of individual will simply shrink within himself, the indifferent and lazy type will adopt a passive attitude and will neglect all responsibility without a thought, the more crafty will, by the adoption of deceitful methods, seek to avoid responsibility by means of evasion.

Further studies in personality may show some correspondence between the pre-dementia state and the various forms of the fully developed forms of the disease and it is certainly not difficult to recognise the ultimate catatonic in the first of these types, the simple or vagrant in the second, and the paranoid in the last of all.

d. Powers of adaptation

The power to adapt oneself to changes of circumstances demands knowledge, experience, and, above all, ~~the~~ that compelling force which inspires the individual to further effort in spite of failure.

It is just here that the "shut in" personality fails. There is no compelling force, there is no interest, there is no purposefulness, no eagerness to live and enjoy life, but, instead, there is a shirking of responsibility, an inability to learn therefore from experience, and, in the end, a failure to adapt.

Running through all there is this lack of self-confidence, this feeling of inferiority, which seems to colour the whole personality and to guide the course of the individual's actions.

Nor is the study as simple as this. The individuals range from the brilliant precocious youth on the one hand to the congenital deficiency on the other and each demands separate consideration. Each case must be taken at its own level. The breaking point, that point ~~of time~~ when the individual recognises once and for all the utter inadequacy of his resources for his individual needs and gives up the struggle, differs in each case, for, whilst the very simple demands of a normal existence may prove too much for the

defective, it may require the prolonged strain of exceptional events to cause the breakdown of the individual of unusual or even normal mental endowment.

The problem, as Macfie has said of the mental defective, is a time consuming one. It means compiling the resources of the individual, comparing them with his environment, and attempting to make the former suffice for the latter either by modification of the environment or by an augmentation or improvement of the individuals resources.

III. CASE HISTORIES.

The following case histories refer to patients at present inmates of the City of London Mental Hospital, Dartford. All of the histories were compiled anew from information acquired from relations and friends as a result of personal interviews within recent months.

The scheme of investigation was based on an "Outline of the Personality" for which I am indebted to Dr. D.K. Henderson, Physician Superintendent of the Royal Mental Hospital, Gartnavel, Glasgow, This outline follows generally that already referred to and quoted from Amsden.

It consists of a series of questions under the following headings viz:

1. Traits relating to intelligence, capacity for acquiring knowledge, judgment etc.
2. Traits related to the output of energy mental and physical.
3. Traits related to the subject's estimate of himself.
4. Adaptability to environment.
5. Mood.
6. Instinctive demands related to the sexual instinct.
7. General interests.
8. Pathological traits.

Many of the histories, as was to be expected, are less complete than others and, indeed, there are few which are in all respects satisfactory but, considering the varied

standard of intelligence encountered in the relations and friends this is not surprising. Many cases in fact were commenced but had to be relinquished on account of the paucity of information received.

One thing at least was obvious from the investigations made and that is that any scheme of prophylaxis must begin with the parents and guardians of the ultimate insane. It was a matter of surprise how many parents there were who knew little or nothing of the essential character traits of their sons and this was more particularly true of the fathers.

Whether or not one is entitled to conjecture the part ~~is~~ played by the "mother" influence and nurture in the production of many of the defects of character present in these patients, one cannot but deplore the lack of interest displayed by most fathers in the character training of their sons particularly.

Weaknesses of character are very often condoned by the mother and if, therefore, the major part of the responsibility for the training of the boy falls to the mother then, it is not in the least surprising that remediable defects are concealed and the opportunity of correction during the plastic age lost.

This has been used as an argument for entrusting the training of children from the age of six years onwards to

others as in the boarding school system but, it is just those tender plants to which we refer which would do worst under any such system which does not discriminate between one sort of child and another. One of the main objects of school life is certainly to produce adaptability to environment but, in those in whom the power to adapt is almost entirely lacking the demand for adaptation required by the ordinary boarding school would almost certainly prove fatal.

It is surprising too how few cases one meets of the only child afflicted with this form of insanity. It may be that the usual system of training which falls to its lot and which serves to invest it with exalted ideas of its own importance may remove it from the category in which an acute sense of inferiority is so potent in its baneful effects.

Cases in which the patient is the only son in a large family of girls do not seem so infrequent but it is doubtful nevertheless whether one ought to lay much stress on this factor unless in the absence of individual factors of seemingly more importance.

E.J.

Age 30. Single. Accountant's Clerk. 5th of 7

Age on first attack? 20

F.H. No insanity T.B. or alcoholism

Quick at school but didn't "put his back into his work"

Never shy or backward - inclined to be hilarious

A bit vague in his aims. Did not plan well

Not handy with tools

Worked by fits and starts. Did not "stick a job out"

He had the "artistic" temperament. "Brains" but would not use them

Seemed to have plenty of confidence but apt to be led

Conceited about himself

Made friends easily, fond of company

Generous; even profligate

Not at all stubborn

Frank and open, Not dreamy

Didn't worry much; Inclined to lean on people at home.

Not a deep reader or thinker

Sensitive - Would "nurse" a disappointment

He failed in Civil Service Examination but did not seem as disappointed as he ought to have been

He then was employed in the City, but did not succeed owing to his lack of application

Was sent to a post in Canada which he held for a year and then for no reason at all he threw up.

After squandering his money he was brought home.

Parents rather think now he got the idea that he had been sent away "to be got rid of" as a failure in life.

Present condition

Patient has lucid intervals of a few days to many weeks during which he can be employed usefully. For the most part however he is quite confused. Foolish and rambling in conversation. Laughs quietly to himself and writes the most ridiculous nonsense. At times he is abusive and occasionally violent.

Analysis:

It is scarcely necessary to go into any elaborate psychological analysis of this case but a simple consideration of the facts are illuminating.

We have here a youth living at home and educated at school and college up till the age of 18. He fails to pass a Civil Service examination in which his brothers are successful and the age limit precludes his making a further attempt. He is known to be somewhat lackadaisical and inclined to lean on others. He is sent to a post in the City but fails to keep it through lack of application. An opportunity arises in Canada and the boy is packed off "to sink or swim". It was unavoidable that he should

consider himself "got rid of" on account of his repeated failures at home. Unfitted by training to fend for himself and lacking the power of adapting himself to such a change of circumstance he ultimately breaks down.

The father of the patient has a fetish for highly educated sons and daughters apparently without regard as to their individual fitness for the professions; he is now acutely conscious of the mistakes he has made in this particular instance.

Considering the "make up" of the boy it is reasonable to ~~believe~~ suggest that (1) he should not have been crammed in his education but, rather, should have been trained to some calling in which the training was slow and graduated (2), that having failed for the Civil Service and again in the City he should not have been sent abroad trusting entirely to his own resources.

Even at this stage it would have seemed possible to undo much of the wrong already committed. The boy might have been taken in hand and set to some occupation more in accord with his capabilities and artistic traits. By this means the realization of an acute sense of inferiority might have been avoided instead of being precipitated.

H.L.

Age 31. Single. Bank Clerk. Youngest of 5.

Age on first attack 29.

No insanity T.B. or alcoholism.

Ex-Soldier, discharged from the Army ~~Normal~~ normal.

Quicker at School than others of the family.

Over-generous.

Not a leader, but on the other hand not easily led.

Not very practical, Not the boy one might ask to repair anything.

Bashful before strangers, but made friends very easily.

Very energetic physically.

Not conceited. Sometimes in fact untidy in his dress.

Not moody. Not particularly tactful.

Was one who would take advice.

Patient was quite a sociable boy. Timid with strangers.

Mother does not think he was adaptable (He had lived at home).

Danced a lot.

Apparently quite satisfied with environment.

Patient did not reveal himself to others.

He did not seem either to read or think deeply.

Only superficially interested in religion

Not at all demonstrative. Felt things too keenly.

Not exceedingly conscientious. More "happy-go-lucky"

Not particularly interested in his work.

Derived more pleasure and gave more of his interest to other things than to his business.

When away from the office, no more thought of his job.

Optimistic. Fond of comfort. "An easy chair a delight".

A bit sentimental. Not particularly attracted by the other sex.

Became engaged after the War.

No special hobbies.

Mother. Does not seem to know a great deal about the Son's inner thoughts.

Bouncy little woman. Artistic, Pert and Capable.

Father, was "easy going"; not very fond of company; good tempered.

Son was quite fond of company (More so than of working or studying).

Present Condition:

Patient is moody, seclusive, and rarely speaks unless spoken to and then he replies mostly in monosyllables. He is given to exhibitionism and is the subject of attacks of catatonic excitement. Both memory and judgment are impaired.

Analysis:

This case shows more of a shallowness of interest rather than any outstanding traits indicative of insecurity or inferiority. The patient's employment demanded no very great degree of intelligence and still less of active

thinking and planning. He had no ambition and seemed to take little or no interest in his job. The lighter pleasures of life were more to him than his business. Serious thinking was unknown to him and what thinking he did was at the best superficial. In spite of all he was optimistic as most superficial thinkers are, had contemplated marriage and was in every way genuinely satisfied with his unexciting existence. The war did not seem to disturb him and yet his record of service is good but, it must be recognised that those men who to the superficial gaze make the best soldiers and seemingly the bravest, if judged by docility and amenability to discipline, are just those superficial thinkers whose chief asset is their absolute lack of imagination.

On his discharge from the Army this patient returned to his old firm but instead of being reinstated in his old position at the Head Office, he was relegated to a Branch Establishment of the firm. From the beginning he was profoundly dissatisfied with the change, began to brood over it and later, on account of a report received from the Branch Manager as to his inefficiency, was discharged from the firm. He rapidly deteriorated and his present condition is as described.

The first defect in this patient's upbringing was the

lack of paternal influence his father having died when he was very young. Most of his life was spent in boarding houses; his mother was a woman of many intellectual interests and apparently was more concerned in cultivating those than in training her family. Later she married again and any influence she had was lost. It seems surprising that a woman of intelligence should be so blind ~~as~~ to the defects in her children. As long as he had a job and seemingly enjoyed life in general that she believed was quite an ideal state for any young man.

It is difficult to say what means might have been successful in deepening this patient's interests during his earlier years. A stricter parental control would certainly have been of assistance in directing his energies along more definite lines and the choice of some other occupation, probably of a manual nature, night have stimulated his interest in a practical and productive manner. Productive labour is undoubtedly a soul satisfying occupation and often the most intellectual of men take a secret and peculiar pride in the work of their own hands, crude and unskillfully performed as it may be.

It is remarkable how few of these patients have been employed in any productive capacity. This fact is not of the same importance in whose of superior mental endowment in whom

the element of intellectual strain is perhaps of more consequence. Many of the patients studied have been clerks of various sorts mostly in non-responsible positions, shop assistants, warehousemen etc. and it rather seems as if this drift towards the lower grades of intellectual as opposed to manual labour is indicative of the comparatively poor mental endowment of these subjects. The non-stimulating effect of such occupations is obvious and the success of occupational therapy even in the comparatively late stages of the affection seems to show that, had such patients been trained in manual work as opposed to low grade intellectual, the chances are that the symptoms which follow upon shallowness and lack of interest would not have developed.

I.K.

Age 38. Clerk. Single.

Age of the first attack. 37

No history of insanity, T.B. or alcoholism.

Ex-soldier. Discharged from the Army normal.

Father died of "Tabes Dorsalis" at the age of 58.

"A Dreamer" Artistic in temperament.

Never athletic.

Very conscientious (excessively so) "A plodder".

Frightfully polite and orderly in his habits.

Sensitive. Touchy.

Made friends easily. (But not a good commercial traveller).

Not much "grit". Could be led easily, by stronger mind but could be stubborn.

Inclined to be shy and bashful.

Never in a temper. (Nothing upset him). Too good for a boy; never mischievous

Absolutely deliberative and calculating. Shrewd.

Stickler for truth and right.

Not a deep thinker. A Mother's boy. Leaned on her.

Conceited about himself and opinions.

Satisfied with environment.

Present Condition:

He is troublesome and resistive. At times refuses to speak

or eat. Memory and judgment impaired to a marked degree. He is the subject of auditory hallucinations.

Analysis:

The outstanding feature of this personality is his overconscientiousness. Such traits as reticence, excessive precision, stubbornness, and overconscientiousness may be taken as evidence of the degree to which the person is "on guard" and this in turn as evidence of some degree of insecurity and inferiority. In this case the other traits present conform to this diagnosis viz. sensitiveness, shyness dreamyness, seclusiveness and the lack of grit and sense of dependence upon his people.

The patient was undoubtedly a man "in a rut," the very essence of precision, conscientiousness and righteousness (a stickler for truth and right) apparently quite contented and happy as long as there was no call for adaptation to change of circumstances.

During the War this patient was rejected for foreign service and served in the Anti-Aircraft Forces in which he performed his duties with the same degree of conscientiousness. Another strange act of duty which he performed before joining the army was to break off his engagement because he thought it was not fair to his fiancé.

On returning to civil life he found that the position which he had occupied for 15 years had been filled and no attempt was made to reinstate him in any other capacity. He found difficulty in finding another place and began to brood over "the injustice of it all". The extent to which he had magnified the importance of his war service only intensified this feeling and gradually he sank into himself.

This then is a case of a man "in a rut", constitutionally and by training unfitted to meet changes of circumstances and difficulties of every day existence, who, though he managed to weather the stress of Army Service probably upheld by his very keen sense of patriotism, when met with the problem which undoubtedly faced millions of others, retired ignominiously from the struggle.

In this case the Mother was a regular business woman who believed in personally running everything connected with the home. This boy had lived continuously at home up till joining the army and always leant on his Mother. They were inseparable and used to go for a day's holiday together, "more like husband and wife" than Mother and grown up Son. The patient found his pleasures in the solitary interests of collecting antiques, stamps etc.

Neither in his business, his home life, or even in his hobbies was there any call for those qualities of mind, or even of body which are essential to any successful adaptation.

Had this patient remained untouched by the War in all probability his resources would have been ample for his needs; had indeed he been able to take up his old position in the firm the same might have been true but, the unexpected stress found no elasticity of mind, no experience to draw upon and so came the break.

P.P.

Age 21. Single, Army Cadet. Youngest of 3.

Age on first attack 19.

Came of generations of soldiers.

Learnt easily, passed "high" into Sandhurst.

Not talkative, but not shy or backward.

Deliberate rather than impulsive.

Very fond of reading history etc.

A leader. Definite in purpose.

Self-reliant, took disappointment well.

Did not reveal his inner feelings, "too much the soldier for that."

Really conscientious but as a duty.

Amenable to discipline.

Had to be to school "on time"

Charming manner.

Not moody - placid rather but as "still waters run deep"

Not particularly mischievous.

Rather stubborn; "a stickler" for the right.

Wouldn't cry with pain or punishment.

Was long in talking as a child - rather hasty tempered then.

Curious ideas about early scripture lessons.

Seemed to look on others with a superior sort of smile but did not openly criticise.

Boy shouldered responsibility of Mother and Sister on death of the Father.

Was keen to attain to position in order to be able to provide for them.

He was compelled to give up his army career on account of heart strain.

He then took up Electrical Engineering and again broke down.

Kept in bed for 3 months by Doctor's orders, he undoubtedly brooded over his disappointments particularly over his inability to provide for his Mother and Sister. ~~And~~ It was towards the end of this period that the first mental symptoms appeared.

Present Condition:

Typical catatonic Dementia Praecox. Marked cerea flexibilitas. Muteness. Carelessness in dress. Occasional outbursts of homicidal violence. Admits no hallucinations. Memory and orientation perfect.

Analysis:

In this case we have a boy of high purpose and honour punctilious and disciplined, "a born solider" true to his race. He is acutely conscious of the low financial circumstances of the family consequent upon the death of his father. He is compelled for health reasons to relinquish his military career entirely but, bears up well under this colossal disappointment. Having temporarily recovered he seeks another profession still intent upon providing for his Mother and Sister but again his health fails. He is

confined to bed for a period of three months with a doubtful prognosis hanging over him. Keenly sensible of the responsibility thrown upon him and of his utter helpleseness and failure and indeed of his dependence upon his Mother he breaks down. One cannot but think that the sentence of three months confinement to bed in an otherwise healthy youth precipitated a crisis which might have been avoided by attention to mental factors as well as physical. The diagnosis which demanded this drastic treatment is not known definitely but was described as "arteriosclerosis". At the present moment nothing pathological can be discovered in the heart and the resting blood pressure is as follows:- 130/75. Further comment is scarcely necessary.

D.S.

Age 36. Single. Mercantile Clerk. Eldest of 6.

Age on first attack 35.

2nd Lieutenant; Indian Army.

Head wound which healed rapidly.

No palsy. No fits.

Discharged from the Army Normal.

Quick at learning. Very good at mathematics.

Always good at games.

Deliberative. More conscientious than most boys.

Not useful with his hands (Would send bicycle away to be repaired)

Energy continuous. Not very self-confident.

Modest and diffident in company.

Foppish in dress.

Wouldn't talk about himself.

Not critical - generous in judgment.

Made friends easily. Fond of company.

Very very polite, but didn't talk much.

Very reserved. Not at all demonstrative.

Not a deep reader or thinker. No deep interest in Spiritualism or Religion.

Finicky (always washing his hands.. standing joke in the house)

Extremely orderly and neat.

Took quiet way with everything. "No fuss".
Excessively truthful. Resented sympathy.
As a child frightened of the dark and being alone.
A "good child" ... not much mischief or temper.

Present Condition:

Indifferent and apathetic, flares up in argument. Refuses to play tennis or cricket, although he is an expert in both. Is unusually contented and has no desire apparently to be out of this institution. He admits having heard voices, but says he had given that up. Adopts the Buddha attitude and answers most questions by "No."

Analysis:

This case reveals a very definite shallowness of character and interests and at the same time has all the marked traits which spring from a degree of inferiority and insecurity. Possessed of a fairly good primary mental endowment there is, still, an absence of ambition, a lack of self-confidence, and a diffidence and reserve which seem to spring from a complete lack of interest in the affairs of others. He is described as finicky, exceedingly truthful and conscientious, orderly for a man, and, what crystallizes the whole character in a few words "as taking

the quiet way with everything" the doctrine of passivity from which it is but a short way to the Buddha like nature of his present state.

This patient distinguished himself as an athlete whilst at school. At the age of 18 he went out to India as clerk to a mercantile firm. Apparently the degree of interest which he derived from the unlimited opportunities of indulging in his favourite sports saved him from an earlier deterioration.

He came home to enlist and was wounded whilst serving in France. On his recovery he was sent to India on garrison duty. On demobilisation he returned to England apparently normal.

As soon as he came into possession of his army gratuity he proceeded to set up in business a proceeding which his people, knowing his character and abilities considered doomed to failure, as it was. Left penniless it became a serious problem how he was going to earn a living. He went as Sportsmaster to various Boys' Schools but was dismissed on account of eccentricities of manner and serious lapses of memory.

The loss of his gratuity did not seem to affect him in any marked degree and one can only assume therefore that

when faced with the problem of obtaining a living and possessing few qualifications other than his athletic record the patient again took the quiet and easiest way of avoiding the difficulty and simply retired within himself.

Fred R.

Age 31. Married 2 Children Pupil Teacher.

Age on first attack 29.

No insanity T.B. or alcoholism.

Ex-Soldier, wounded. Discharged as "fit."

Very studious, "happy with books".

Always reserved. Not frank and open.

Quieter than his brothers.

Moody; and occasionally excitable.

Did not make friends easily.

Self-willed. Sensitive. Antagonistic.

Very religious, brooded somewhat.

Worried a lot "anxious minded".

A love affair at the age of 20 was said to have "broken his heart".

In spite of this he married about 3 years ago and is the father of two healthy children.

Army Board in 1922 decided that Patient's condition was constitutional, unaffected by service and that, in their opinion, the discipline of army life may have delayed the onset of his mental trouble.

He was said to have had an attack of neurasthenia 2 months after leaving the army but recovered.

Present Condition.

Dull, listless, apathetic, rarely speaks. Takes no interest in anything. At times has fits of excitement, during which he rambles in conversation and is apparently

quite confused. Frequently too he goes into a "hysterical fit" which lasts about 10 to 15 minutes only. Memory retained to a degree but judgment impaired.

Analysis:

We have here a more or less typical example of the "shut in" type of personality with its reserve, seclusiveness, sensitiveness, moodiness, stubbornness, anxiety over trifles, dreamyness, and interest in the deeper problems of religion contrasted with a poor sense of reality and a general aimlessness of purpose.

This patient was engaged in office work prior to joining the army but, on his discharge, he took advantage of the Government educational scheme and commenced to qualify as a teacher. In spite of the fact that he was wholly dependent upon his allowance from the Government he married and is the father of 2 children. Undoubtedly there were financial difficulties over which the patient brooded and when in order to prosecute his studies, he was compelled to move from home into lodgings it was then noted that he was becoming more seclusive and self centered, brooding over his troubles for hours on end and making no effort to tackle the problems which presented themselves.

There is no evidence to show that his army experiences

had any marked effect upon his mental condition though he is said to have been unwilling to go on account of an intellectual antagonism to war. He was severely wounded but made an uninterrupted recovery and was discharged fit.

Considering the nature of the man, nothing could have been worse for him than the choice of an existence which was at the best precarious. What inspired him to marry under such circumstances cannot be called optimism, for that quality seemed foreign to him, but must rather be considered in the light of a beginning deterioration. It is not unlikely as was the opinion of the Army Board that the discipline of his army career actually postponed the onset of his symptoms.

Had this patient on his discharge remained single then it is possible that he might have gone through the course of training as a teacher successfully or, having married, had he taken up work which would have provided an immediate and more adequate remuneration then, it is possible, he would have avoided the strain of financial worry which must be looked upon as an exciting cause of his breakdown. The stress of circumstances inspires some men to increased effort but such a nature as this seems to possess no reserve of character or energy and to such an one only the strict avoidance of unusual stress and strain will enable him to maintain a balance.

S.C.W.

Age 32 Single. Tobacconist. Eldest of 6.

Age on first attack 30.

Paternal Grandfather was eccentric.

Ex-Soldier. Discharged as normal.

Learned without effort.

Always "top" boy.

Erratic in every way. Energy used irrationally.

Moody, would never play with other boys.

Stubborn, could not be argued with - very self willed.

Very conceited about his own opinions. Looked down on others.

Dreamer, he had big ideas but was most impractical.

Very absent minded.

Never seemed to "stick" a job.

Very deep thinker. Brooded over world problems.

Quick in judgment. Very imaginative.

Never liked to associate with strangers.

Not definite in purpose.

Never clever with tools.

A "good" boy, often depressed.

Very orderly for a man.

Rarely made friends; with older people if at all; Never "pally" with brothers.

Mostly "on his own".

Over conscientious over home claims.....craved sympathy.

Very critical and fault finding.

Mood variable. Always a "Mother's Boy".

Finicky in food.

Wasted his energy uselessly.

Broke down whilst trying to run a small retail tobacconist's business.

Present Condition:

Quiet and seclusive. In conversation expresses anarchistic ideas of Government, refuses to recognise any authority whatsoever. Says he is "a law unto himself". Rarely speaks unless questioned. Avoids the Medical Officer if possible. Previously was in state of catatonic excitement.

Analysis:

This case seems to belong to the vagrant or simple type of the dementia praecox "personality". Well endowed mentally but erratic, aimless in purpose and in execution, unpractical, "never able to stick a job", a compendium of general and disconnected knowledge, having a good conceit of himself and displaying a very definite associability and a well marked overconscientiousness in small matters. The failure to accomplish small tasks and to shoulder

light responsibilities stands out in contrast to the deep interest displayed in the more obscure problems of politics and religion in association with older minds.

The patient was in the army and though he had no definite breakdown, his letters were full of pseudo-philosophical diatribes against war and the wickedness of the nations to the exclusion of matters of more personal interest.

On his discharge he was seemingly normal and proceeded to set up in business as a retail tobacconist. In spite of the fact that he often worked far into the night this enterprise was not very successful. Even at this juncture, however, instead of devoting his energies wholly to business he was displaying a far keener interest in the affairs of the local Labour Party. In the midst of all this he suddenly broke down and was removed to hospital in a state of violent excitement.

In this case, however the sex factor has a part. The patient was anxious to marry but could not afford to do so and any illicit gratification of his sexual instincts was repugnant to his strong moral prejudices. He gave way in the end to masturbation though it is doubtful if this was represented by more than the occasional normal nocturnal emission. His remorse and self-condemnation over this were probably more potent influences in his ultimate

breakdown than his failure in business though undoubtedly the strain and worry were contributory causes.

It may be that, if economic conditions were easier and earlier marriage accordingly possible, the prevalence of "self abuse" would be diminished. It is doubtful what part is played by the physical abuse in the production of abnormal mental states but in the cases here under consideration it would seem that the keen sense of shame and self-condemnation experienced in those of strong religious principles is of more importance. The more ignorant are aware only of the moral wrong in the act and are thereby inclined to magnify its deleterious effects and to accept as a judgment all sorts of symptoms both physical and mental which may appear to follow.

It is surprising that in this case no attempt was made to dissuade the patient from setting up in business for the whole trend of his character was against its success. The boy who never finished the smallest task he ever set himself was not the person to run an independent venture along successful lines.

He was the sort of boy who might have done very well had he been taken in hand by an older man and his energies and abilities directed along a definite course. Considering his school record it is amazing that none of his school-masters were sufficiently interested as to attempt this.

-His own people were rather ignorant country folk with few ideas outside of their daily toil.-

Any scheme of prophylaxis must include the school teacher probably more than anyone, but he must have at hand for consultation the school doctor who must extend his scheme of examination beyond tonsils and adenoids or in preference the family physician should he still exist in this relationship to the families of the future.

B.S.P.

Age 35. Married. 1 Child. Youngest one in family of 5

Age on first attack 33.

No insanity T.B. or alcoholism. Stockbroker's Clerk.

Ex-Soldier. Discharged from the Army normal.

Quick at School learned easily (Boarding School).

Played sports Cricket and Hockey.

Went to the City at 16 years of age.

Always buying books and reading.

Promoted regularly during 11 years in the City (Stock Exchange) One firm.

Never worried about business.

Not the sort of man whose advice was sought.

As a child fits of temper.

Fear of the dark and being alone.

Said to be reckless as a boy.

Impulsive. Couldn't argue. Would flare up.

Thought to be a bit selfish.

Was not practical. Couldn't "Garden".

Full of energy. Worked by fits and starts, however.

Talkative - not bashful - keen sense of humour.

Not self-reliant. Sensitive to insult and to opinion of others

Very particular about dress. Blames faults on others.

Magnified illnesses. (Afraid of being ill).

Inclined to self-pity.

Sociable and easy to get acquainted with.

Prefers to be in company.

Not moody. Temper hot but quickly over.

Kind hearted and generous. Not tactful "Just says a thing"

Would co-operate with others.

Not critical at all.

Did not like mistakes being pointed out to him.

Jealous but not suspicious. Forgiving, Sensitive. Confiding

Erratic. Not a good organiser or leader.

Present Condition:

Quiet and well behaved. Conversation foolish and rambling, Auditory hallucinations and ideas of inspiration. Smiles foolishly; says he is quite happy and contented, Memory retained to a degree.

Analysis:

It is the "shallowness" of this character which is its outstanding feature. There is no particular seclusiveness, or moodiness, but, on the other hand, there is a general air of irresponsibility. This is an unpractical, unreliant, sensitive, jealous, quicktempered, individual, good natured enough in his way, a dynamo of undirected energy, the sort

of man who blossoms in prosperity and withers in adversity. This conception of his "make up" is confirmed in a way by the simplex type of dementia praecox which he has developed.

The patient retained his position in the City for 11 years and this marks him off from the other simplex type which is more aimless and purposeless, the individuals who never seem to keep a job. They exhibit the same restless undirected energy which makes it impossible for them to settle down to any steady employment but are more seclusive and melancholy.

The patient served in the army and on his return went back to his old firm and continued with them right up till the onset of his present illness. About a year before he broke down he married a girl who was a Roman Catholic he being a member of the Church of England. His people both before and after the marriage raised a storm of opposition because of the religious difficulties of the union but in vain. The fact that he refused to accept their advice did not mean that he had ceased to worry over the matter. A man of strong character would have made his decision and remained by it but, in our patient, it only remained "sub judice" and constantly recurred to his mind. A child was born and again the religious difficulty of its upbringing revived all his fears and doubts besides inviting further remonstrances from his family. Very soon thereafter

the first symptoms of his psychosis appeared.

From his history one can only explain his breakdown by believing that the problem presented by the different religious faiths of his wife and himself was too much for the weak and shallow character of the patient unfortified as it was by any deep principle or conviction which might have enabled him to come to a decision and to maintain it against opposition.

P.G.K.

Age 34 years. Warehouseman. Single.

Age on first attack 31.

Ex-Soldier. Shell-shock. 1916-17. Nothing thereafter till 1920.

Melancholic Uncle.

Youngest of 15.

Elder brothers were very much older so that sisters were his companions in age.

Quiet and reserved; shy and backward, stuttered as a child

Anticipatory excitement; too nervous to argue (would stutter too much).

Was a nervous child and easily frightened.

Didn't confide in anyone particularly but tended to keep things to self .

Of a worrying nature. Brought his troubles of business home.

Wouldn't make friends easily. Not particularly generous. Not conceited.

For a man frightfully orderly. Frightfully conscientious. "A good old plodder", Worked fearfully hard. Didn't learn easily but was diligent.

Not a deep thinker. Read light novels.

Good common sense. Deliberate in judgment. Not ambitious.

No good with tools. Played the piano but not well.

Not very self-confident. Easily impressed by others. Inclined to be led.

Good boy. Never mischievous.

Not talkative. Tactful. Very polite. Never violent in temper.

Forgiving. Satisfied with environment. Didn't show emotions

Day dreamer a bit. Walked in sleep as a child. Timid. Inoffensive.

Sensitive to pain. Not very much grit. Was a "Mother's boy".

A bit sentimental and was engaged to a girl.

Was more interested in sport than in anything. Rarely read the papers except to see the football news.

Was very religious, but did not seem to worry over things of that nature. Not superstitious.

Mother was quiet, subdued and calm. Died of Pneumonia years ago.

Father was hasty, excitable, but jovial in nature. Like the son however he did not show his excitement though he felt it. Died of senile decay 75 years of age.

Worried over trifles but told no one. Otherwise son quiet like the Mother. The other brothers were of the jovial type and not so quiet and reserved as this boy. His friends were more of the jovial type. Patient was in lodgings long before the War. Was a delicate baby Mother was 42 and Father was 48 when he was born.

Present Condition:

Patient is the subject of "periodic" dementia praecox. He has frequent attacks of catatonic excitement but is remarkably well in the intervals. There is very little impairment as yet of memory or judgment but he shows a marked disinclination to work and takes little or no interest in the outside world.

Analysis:

This patient shows very clearly those traits which we have shown to be indicative of that sense of inferiority and insecurity which so often predisposes to the development of the malignant symptoms of dementia praecox.

A nervous child, always shy and backward, seclusive and sensitive, overconscientious, scrupulously orderly in habits, unambitious, somewhat lackadaisical, dreamy, lacking grit and energy, showing a poverty of thought and exhibiting a sense of dependence upon others.

It is of particular interest to note that in this case the patient had a mental breakdown whilst in the army. This is described as consisting of periods of excitement in which he was confused, deluded, and hallucinated. He recovered and was discharged from the Army in 1918. He returned to his civil employment and continued to work right on till 1920 when he again became strange in manner and later developed the acute symptoms which have been described.

It is a general opinion that the War was responsible for no new type of psychosis and that the strain and stress of service acted only as precipitating cause in an individual otherwise predisposed (73).

It is considered, however, that the breakdown in the majority of these cases occurred at a higher level than in

the civil cases of dementia praecox and this is taken as the explanation of the much more favourable prognosis in the war cases. Unless all the cases discharged during the war period as recovered are followed up it is impossible to say whether this is fully justified or not.

Most civil asylums have now a considerable number of patients who have been on service and in whom the mental symptoms are considered to have been either caused or precipitated by the strain of war service.

In many of these the symptoms have developed after varying periods following discharge from the service in some, after years, and it is extremely doubtful if in such cases the experiences of war are to be considered as of much importance in precipitating the mental breakdown.

It is otherwise with those cases which have shown definite signs of mental instability whilst on service and, in such, the late development after a shorter or longer interval must be considered as a recurrence after a period of remission particularly in the absence of any apparent exciting cause in the interim.

In the case under consideration there is no history of any new set of circumstances or of any event which might be calculated to precipitate a fresh attack and it is interesting to note that the hallucinations during this

recurrence were to a very large degree coloured by the patient's war experiences.

It is doubtful if this case is to be looked on as one of those which, but for the stress and strain of war, might have remained free from psychosis. It is true that there are people of the dementia praecox "make up" who never develop psychotic symptoms but, in these cases, the weaknesses of character are invariably tempered by compensatory habits either of work or play which enable them to adjust satisfactorily and it is the fact that such do adjust which is the strongest argument in favour of prophylactic treatment in those who show the dangerous traits.

In this case there do not seem to be any such compensatory traits present and so it would seem likely that this patient would have broken down sooner or later even in the absence of war strain.

This patient's position in the family and the fact that all his brothers were already grown up when he was born thus throwing him almost entirely into the company and care of his sisters is a significant fact in the history for it must be conceded that the influence of brothers upon a weak character is in most cases stimulating and hardening.

H.G.T. Age 45. Single. Insurance Agent. Eldest of 5. (4 girls)
Age on first attack 44.

F.H. Parental grandmother was confined in an asylum.

Clever,. Read deeply... and a deep thinker
Always reserved. Never told his business to any one.
One never knew whether he was annoyed or pleased.
Shy as a boy. Worked hard. Read instead of playing.
He had no boy friends. "Good" child, not mischievous.
Very selfish. Not handy with tools.
Deliberate in judgment. Could plan well.
Not talkative. Very critical.
Not particularly imaginative
Distinctly asocial. Would go upstairs to his bedroom when visitors were in the house.
Not much respect for the rights of others.
Not at all demonstrative
Conscientious. Finicky.
Never or rarely jocular. Resented advice. Strong willed
Always "peculiar"... absolutely self-contained.
Erratic - went off to America without explanation: returned as unexpectedly.

He was a very successful man in the Insurance world and was very highly thought of.

Present Condition.

Seclusive, irritable, abusive at times, Harbours delusions of persecution. Untidy in dress. Refuses to work. Difficult to place but resembles hebephrenic type of Dementia Praecox.

Analysis:

It is scarcely necessary to do more than mention that this case is a classical example of the "shut in" personality, and, in fact, the provisional diagnosis of mild dementia praecox was made only when the peculiar but typical "make up" was discovered.

To his family this patient was a complete enigma. He was utterly selfish from his boyhood right up till his return from America shortly before his admission. On his return, which was as unexpected as was his departure 8 years before, it was noticed that he was much less selfish and this was associated with a new found but apparently very deep interest in religion. He was quite as seclusive as before and persisted in going into lodgings in the City. His incarceration was a direct result of his complaining to the police that his cigarettes had been tampered with.

One can only conjecture what might have been the precipitating cause or circumstance in this case. The

patient's sex history is unknown but it is probable that there was a diminished sex instinct or, if not, then a very rigid repression.

What effect later consideration had upon his ignominious flight to America at the beginning of the war one cannot say but the patient pointblank refuses to discuss what part he played during this period or even to admit that he was abroad. Though he is generally antagonistic this is the only topic upon which he really "flares up".

It seems more likely from his new found religious interest that there had been some sudden revulsion of feeling towards his former attitude of utter selfishness. More we do not know.

In the absence of definite evidence therefore as to the precipitating cause the interest of this case lies (1) in the very complete picture which it affords of the "shut in" personality.(2) in the late age at which the first mental symptoms were noted (3) in the remarkable efficiency of the individual prior to this attack.

It is reasonable to suppose that such an individual would not have broken down in the absence of some very distressing experience.

Why it is that one shut in personality should break down early and another not at all or later in life it is difficult to say particularly in the seeming absence of any very definite mental disturbance. In the case under consideration the outstanding feature apart from the general make up is the business ability and efficiency of the individual. He showed a remarkable energy and interest in his job and it may be that the very keenness with which he conducted his affairs even to the very selfishness of his private life, the fact of having some impelling force, saved him from earlier deterioration.

R.K. Age 31 on admission. Builder, but not practical.

Age on first attack, 30. Married. No children.

F.H.No insanity. T.B. and Alcoholism on the Mother's side.

3rd in the family of 7.

Cheerful and the soul of any company. Not of a worrying nature. Quick tempered but in the main not irritable. Could scarcely be quarrelled with. Made friends very easily. Whole interest in business. Didn't learn quickly at school. Never read anything but the racing news.

Very energetic and active physically but not a thinker at all. Impulsive in habit. Full of self-confidence. Said he was too clever, and much too good for his job. A "know all". Wouldn't admit ignorance. Very vain and proud; in dress, but not orderly in habits. Worried by courtmartial case where he had run a man down and killed him.

Stubborn; always "in the right". Jealous minded. Would tell troubles, and be the better for sympathy. Very fault-finding and critical. Demand for self assertion.Good natured but self-willed.

Mother died of drink 10 years ago. T.B. on Mother's side.

Present Condition:

Patient is seclusive and when spoken to is rambling in

conversation. He is abnormally contented and takes little or no interest in his surroundings. His memory is fairly well retained. He is the subject of auditory hallucinations.

Analysis:

The most prominent feature of this personality is the abounding self confidence and overweening conceit. It is difficult to discern in the history any positive evidence of insecurity or inferiority unless one considers that the philosophy of such a character is that of the motto, "When in doubt be aggresive". That he was sensitive "deep down" is shown from his attitude towards the accident in which, driving a motor cycle, he ran a man down and killed him. On the wider grounds too of adaptation this is just the sort of individual who, knowing all and refusing ever to admit mistakes, suffers from a complete disability to learn from experience.

But it is scarcely necessary to force this view of the case in face of the inadequate grounds upon which this self-confidence was based.

Self confidence without knowledge does not go far in the world of today in which reasoned action directed along definite lines counts for more than mere energy and self-confidence; the latter have been described as the bow and arrow in the hands of a giant against the repeating rifle of

drilled soldiers.

It is obvious from this patient's history that his mental equipment was limited and his boasting and blustering manner was but a cloak for mere ignorance. Certainly he liked "to boss the show" but more than mere liking is necessary in order"to boss a show" successfully.

The patient after his discharge from the army was engaged in business with his father and brothers, but in a subordinate position. On the death of the father,however, the patient took charge of affairs though his elder brothers were still in the firm. He took to worrying over business which apparently was proving too much for him though he would not admit that this was so. Just then, his brothers and particularly the eldest of the family, began to assert themselves and to question his right to the executive position in the firm.

Immediately following upon this he began to harbour mild delusions of persecution, refused to take his food and sank into a state of complete apathy.

Both parents were addicted to alcoholic excess and the patient himself was very intemperate before his marriage. It is not difficult to imagine what were the conditions prevalent in such a household, and, in fact, it may be reasonably assumed

that they approximated to the primitive in that each individual would be allowed to fend for himself and "the divil take the hindmost". In such a garden a "make up" such as has been described for this patient would not be an exotic plant.

One can assume that many of the traits were indeed a direct result of the environment . The fact that he more or less seized the reins of power on the death of his father was indicative of his general attitude, but, the insecurity of the grounds upon which he held the position only became evident when he encountered real opposition. A really strong man having made the bid for power would have at least made some attempt to fight for its retention, the patient, on the other hand, in the hour of his need had nothing of character and grit to fall back upon and retired ignominiously from the struggle.

F.H. Age 29. Farm labourer. Single. Eldest of 5.

Age on first attack 28.

F.H. No insanity. T.B. or alcoholism.

Not quick at school.

Too quiet for a boy, never mischievous, but stubborn.

Shy and backward.

Hardworking but lack of energy. No ambition.

Kept everything to himself, day dreamy.

Conceited about dress

Selfish, thought only of himself.. would go out alone

Not excitable.. Didn't have any boy friends

Peculiar in his ways. Deeply interested in Spiritualism.

Present Condition:

Rambling in conversation. Memory and judgment deficient. Auditory hallucinations. Unoccupied. Occasionally aggresive. Careless of personal appearance.

Analysis:

This patient is a clear cut example of the "shut in" personality in a person of rather poor mental endowment. He has all the seclusiveness, aimlessness, "unpracticalness", and restlessness of the original description.

He was backwardsand forwards to Canada on three or four occasions but "never made anything of it". He would return without explanation and go off again without a word. On the last occasion when he returned he would talk of nothing but Spiritualism and undoubtedly his interest in its insolubilities was the exciting cause of his mental breakdown.

It would seem as if this patient should have been treated as a higher grade imbecile from the beginning of his school career. Only an intimate knowledge of his character however would have led one to discover him but, it is likely that he could have been saved from his present state by such an early recognition and appropriate training.

J.C.D. Age 44. Single. Eldest of 4.

F.H. Mother committed suicide at the age of 52.

At School he did not learn easily

Always easily led; - "good natured"

Happy sort of a boy. Made friends easily.

Hadn't much "back bone".

Wouldn't settle down to hard work.

Went from one thing to another, without accomplishing anything

No hobbies

More profligate than generous

Not shy or bashful

Indefinite in purpose. Well informed but "Jack of all trades"

Said to have had Typhoid Fever at the age of 7 or 8 years and his character was alleged to have altered entirely from this time

Went to America and little is known of his life there.

On his return definitely abnormal; the patient was said to have been in an asylum in U.S.A. but during which period is not known

Present Condition:

Restless, troublesome patient, rambling in conversation Occasionally violent and abusive, harbours delusions of persecution. Marked impairment of thought and judgment and, to

a less marked degree, of memory.

Analysis:

This patient is again an example of the restless aimless unpractical type of individual which is so apt to develop into a simple type of dementia praecox.

This patient was heir to a large business but would on no account settle down to it. He was settled on a farm in Canada but remained a few months only. From this time he was lost sight of almost entirely but undoubtedly he wandered round in the same aimless sort of manner but as to the exciting cause if any of his first breakdown there is no information though the father suspects a liaison with a woman in America.

It is doubtful what might have been made of this patient if recognised in his earlier years. Undoubtesly a change in his character was noticed at the age of 7 though whether due to the cause mentioned is difficult to be sure. One cannot but think that had he been trained to smaller tasks before undertaking his part in the father's business the result might have been more satisfactory. It was apparently too late then to train him anew though more use might have been made of his own particular abilities which one imagines might have lain in the selling rather than in the manufacturing line of business.

In suggesting methods of dealing with such individuals one is inclined to learn from the Church of the Middle Ages, in its attitude towards the hordes of itinerant friars of the time. Wisely the Church did not attempt to rope these individuals into any of her more strict and staid ecclesiastical orders but, recognising that their aimlessness and restlessness were part of their natures and not of their creed, gave them an almost unlimited scope whilst at the same time retaining an absolute jurisdiction over their actions. As Macaulay has described it the Church "harnessed enthusiasm".

B.McL. Age 23. No occupation. Youngest of 5.

F.H. Insanity on father's side.

Wasserman reaction negative.

As a child was said to be normal up till five years of age

He walked at an early age and talked quite well when about 2-3 years old

He was a very frightened boy and, when sent to school at the age of 5 "went right into his shell".

He did not learn easily and was worried over the little tasks which were set him.

He was extremely sensitive and did not mix with other children.

He was of a sad and doleful nature but generous and unselfish.

There was a sudden change at the age of 19 during the time of the air raids of which he was intensely afraid.

From this time he refused to speak and very soon lapsed into his present state of mind.

Present Condition

Childish and weak minded. Mute. Dirty in habits.

Masturbator.

Analysis:

It is doubtful if one can accept the evidence of the parents as to the early normal development of this patient but, even though one accepts him as a congenital deficient, the facts are of interest.

This case takes us to one extreme end of the scale of mental development in cases of dementia praecox but the measures of prophylaxis are the same in principle despite the difference in the primary mental endowment.

It is extremely probable that had this patient been treated from the beginning of his school career as a mental deficient and trained according to his interests, his power of attention, and his abilities in any particular direction, and his environment modified accordingly, the result might have been very different even though the individual had been capable only of work on a lower grade than the normal.

As it was, the patient was tested against the normal and, in the mothers phrase, simply "went into his shell". It is true that the earlier training of the child within doors mostly and without the companionship of other children was the worst possible training for such a child and the mother herself volunteered the opinion that she was quite sure she had done wrong in protecting the child so much and in omitting to accustom him to play and mix with others.

H.A.M. Age 21. No Occupation. Middle son of 3.

Wasserman reaction. (Father had syphilis 40 years ago)

Walked at 2 years of age

Did not talk until 6 and was very slow thereafter

Learned to read and had a smattering of French

No good at arithmetic; had an excellent memory

Was always very shy and retiring; did not attempt to play with other children

Very obedient. Interested in religion

Sudden inexplicable change 2 years ago at 19 years of age

"Twists" of temper the first sign.

Refused to speak... "Retired within himself".

Present Condition:

Mute. Takes no interest in anything. Clean in habits. Not employable.

Analysis:

Again we have to deal with a congenital deficient who, given no proper training, has been allowed to sink within himself.

It is reasonably certain that under a proper system of education commensurate with his abilities (of these there was

evidence) this patient would have developed into a useful member of society capable of productive work even though of a lower grade.

The obvious way in which these patients do actually sink within themselves draws forth queries from the parents and relations as to what they might have done had they known the probable trend of the deficiency. There is undoubtedly a large field for prophylaxis in the case of the higher grade deficients but it is essential and possible to ensure that such is begun in the home at the hands of the parents.

H.A. Age 32. Farm pupil. Single. 6th child of 7.

Age on first attack 20.

F.H. No insanity T.B. or alcoholism.

Quick at school, but did not apply himself

Good and obedient child

No initiative. Sensitive and touchy

Shy and backward in company ..

Good manners

Quick to jump to conclusions

Sat a lot alone with books. Imaginative

Resented leaving home. Brooded over this ..

A talented musician, but not practical.. (began at 8 years of age)

Not at all "handy"

Conceited in his own opinion.

Not ambitious. Not very frank

Conscientious. Finicky in dress. Orderly in habits.

Frightfully interested in religion. Used to say strange things

Always conscious of punishment for evil doing

Would not lead but difficult to influence

Loved animals.

Present Condition

Quite demented. Foolish and rambling in conversation

Stands about in rigid attitudes. Certain degree of cerea flexibilities. Memory and judgment gone.

Analysis:

The general "make up" of this patient is more or less that of the "shut in" personality; unpractical, dreamy, sensitive, stubborn, lacking initiative, seclusive in thought and opinions etc.

This patient was at home continually up till the age of 20 when he was sent as a farm pupil to a place far distant from his home and somewhat inaccessible. He bitterly resented leaving home and brooded over this; in addition farming did not appeal to him in any way. Within a few months a certain strangeness of manner was noted and gradually the symptoms of catatonic dementia praecox developed. His relations now consider that they made a mistake in not allowing him to follow his musical bent and regret, above all, that he was sent away from home.

Comment is scarcely necessary but, it seems likely that, had the patient been allowed to follow his musical bent, he might have been saved from dementia. On the other hand, if attention had been paid during the earlier years of his life to the acquirement of a certain degree of confidence in accepting responsibility and an attempt made to lure him from

his seclusiveness then, it is possible that the separation from home would have not weighed so heavily on him and the uncongenial employment been accepted in a more adaptative frame of mind.

It is easy of course to be wise after the event but, the weaknesses of this character, when compared with that described by Hoch, are so obvious that one cannot but regret that they were not recognised earlier and some attempt made to obviate the logical outcome of the trend.

P.C. Age 30. Single. Officer in the Burma Police.

Age on first attack, 23. Youngest of the family.

F.H. No insanity or alcoholism. T.B. or near relative

Father, - Irritable and ill-tempered

Mother, - More placid

Clever bright boy at school, full of energy

Mischievous.. but very bashful and shy

Never very self-reliant or self-confident

Good tempered but too quiet to be jovial.. Easily led.

Had the brain but wouldn't apply himself

Sensitive.. would take offence easily

Not frank or confiding.

Easy going enough but worried "within himself"

He is said to have lost his nerve whilst elephant shooting.

He would have preferred engineering as a profession.

Police work did not seem to appeal to him.

Present Condition

Patient is the subject of frequent attacks of confusion in which state he is never violent nor aggresive, but simply confused and talkative. These attacks are periodic at intervals of 2 to 3 weeks and between the attacks patient is

more normal. There is however marked impairment of thought, judgment and memory.

Analysis:

In this case we have a clever enough youth blessed with any amount of energy but at the same time inclined to be sensitive, reserved, shy, selfconscious, lacking "grit" and inclined to lean upon others the very traits which would have led one to discountenance the adoption of any profession which entailed responsibility in a high degree.

This boy was sent straight from school to study for the examination the passing of which entitled him to a post in the Burma Police. This examination he passed easily enough and he then entered the service apparently without any other preparation than might be given a new subaltern in the Army. What apparently was lacking was a gradual promotion and training such as is provided at the Army Cadet Schools and which serve to train a man in the acquirement of responsibility. Instead, this youth was thrown upon his own resources from the start and was only a few months in the service when he broke down. A prolonged furlough seemed to restore his mental equilibrium and he returned to duty but, again broke down within a few days time.

We are told that the patient had no very great liking for

the profession and this we can understand when we know that his whole character "make up" reveals those traits which are evidence of a feeling of insecurity and inferiority.

We are also told that his own desires lay towards Engineering as a profession and one cannot but think that this would have been a very much wiser choice and might have saved him from deterioration. Such a profession entails above all the practical translation of thought into action the very thing which we find this sort of patient lacks constitutionally. The training which it affords calls for no sudden acquirement of the traits which are faulty but instead, combining as it does manual with intellectual skill, demands a slow but logical progression thus avoiding those sudden jolts which are so fraught with danger. Traits of character can be modified by training and the choice of a profession should be guided by a knowledge of the personality.

It is not given to everyone to be able to lead armies or run empires and it should be incumbent upon those who acquire the responsibility of training families to consider the natural bent of the individual before attempting to fit square pegs to round holes.

In the majority of cases the powers of adaptability are so strong that nothing untoward happens but, it is in such a case as this, that the results are so disastrous.

A.E.P.

Age 25. Single. Warehouseman. Age on first attack 25.

F.H. No history of insanity T.B. or alcoholism in the family.

Ex soldier. Lost a leg. Mute for weeks after being wounded

On discharge normal mentally and so for 3 years until prior to admission

Not very bright at school. "A plodder".

Conscientious and stolid

Inclined to be sulky. Did not reveal himself at all.

Silent but thought to be the silence of mental inactivity.

Town life seemed to be too quick for him.. "seemed to feel as if he was left behind"

Not sufficiently alert to do the work of an office boy

Obstinate in a quiet way

Family didn't seem to understand him

Didn't read or think deeply

Didn't like responsibility

Resented discipline .. but in a sulky manner

"In a groove".. No ambitions. Satisfied with his job.

Not particularly clever with his hands.

Could not plan a thing out

Dogged in opinions

Inclined to be led

Not critical or sensitive, too stolid for that

"The typical country lad lost in town life"

Present Condition:

Catatonic Dementia Praecox, cerea flexibilitas .. Muteness, indifference, occasional outbursts of temper, complete apathy.

Analysis:

This is a case in which the primary mental development is deficient to some extent. The dangerous sense of inferiority has been precociously developed as a result of too stressful environment. The patient was born in the country in Ireland and brought when young to live in London. He is described before the war as "seeming to feel as if left behind in the rush of city life" or again "as a country lad lost in city life".

After vicissitudes of employment he apparently found his level in a warehouse where demands were low, the duties more or less mechanical, and the responsibility nil.

Joining the army he is ever in trouble on account of a sullen disregard for discipline. Seriously wounded he recovers and is discharged apparently quite normal mentally and with a pension sufficient to enable him to live without

any necessity for working.

For three years he lived an absolutely useless existence eating and sleeping and doing very little else. His strangeness of manner developed slowly; he gradually became more and more associal and at the last distinctly antagonistic and violent.

Prior to the war this patient had been conscious of a sense of inadequacy to cope with the strain of city life, but, finding employment which did not demand much of his intelligence, was apparently saved from brooding over his failures.

Left by the war maimed (and therefore still more unfitted for the strain of existence) but independent by virtue of his pension the result was very different. With nothing to distract his interest from his own thoughts he broods and in the end lapses into dementia.

Had this patient been reared on the farm on which he was born it is likely that his resources would have proved ample for requirements.

Usefully employed at low grade work he is kept from deterioration.

Left independent without an interest in life he lapses.

E.A.H.

Age 21. Single. Clerk. Youngest of 4 (3 are girls)

Age on first attack 20

F.H. No insanity T.B. or alcoholism

Joined Defence Force April 1921, following upon which these symptoms developed.

Quick at learning

As a child more placid than irritable but had fits of temper

Never very obedient.

Not very energetic and always for himself

Said to be clever with hands

He could concentrate

Very shy and bashful. (Would go out if sister had friends to tea)

Reserved; wouldn't confide in anyone

Didn't like people to know what he was doing

Wanted always to work on his own

Moody on the whole

Had few friends; preferred to be by himself

Never told his purposes; but didn't seem particularly ambitious

Conceited in knowledge, said to be self-reliant

Stubborn; would have his own way

Finicky; Critical

Kept opinions and views to himself

Did not finish anything

He was very friendly with an uncle who was a peculiar individual. This was his only friendship, and he seemed to discuss deep insolvable questions with him.

Present Condition:

Foolish in conversation. Cannot be employed. Exposes himself frequently. He is the subject of auditory hallucinations. At times restless and mischievous, at others dull and listless.

Analysis:

The seclusiveness, shyness, reserve and moodiness of this patient's "make up" are sufficient to warrant its inclusion within the general description of the "shut in" personality. Nothing is more striking than the complete absence of that joyous abandon in life which one associates with the normal healthy youth.

Undoubtedly the most significant fact of this history is the patient's friendship with his uncle. This person was a Pharmacist and is described as being peculiar, moody,doleful conceited, hypercritical, making no friendships and seeking none, interested in Aetheism Spiritualism and similar problems. Apparently the boy was attracted in the first

instance by his uncle's knowledge of chemistry but, later, he became interested in all the mysteries of life and existence which the older man delighted to talk about. The change in the boy's manner particularly in the accentuation of his secretiveness and moodiness was noted for a long time before the breakdown and attempts were made to break off the association but without success.

In April of 1921 the patient joined the Defence Force and served in camp from then till July following which the first definite mental symptoms were observed. It seems likely that the separation from home and the sudden association with numbers of boys of his own age was the exciting cause of the breakdown but that it was brewing for a long time is certain. Undoubtedly the predisposition fostered by association with his Uncle must be considered as the root causes of the trouble.

What part was played by the sex factor is not known but from the beginning of his illness he has been given to exhibitionism and masturbation. The absence of frank social intercourse with the other sex can only accentuate any sexual eroticism there may be already present in the "make up" and is to be regretted.

Nothing is more conducive to the acquirement of sexual perversions than seclusiveness and daydreaming. Unless the

mind is genuinely interested in matters which demand time and energy it will always more often than not busy itself with amorous dreams and sexual fancies.

Here again is a striking fact how little the father of the patient knew of his son and indeed how little interest he had evinced in the early training of the boy and this in spite of the fact that the boy was apprenticed to him as an accountant.

One cannot but deplore the association which in this present case led to the boy sinking deeper within himself nor is it unreasonable to suppose that, had this friendship been avoided and the boy's interests directed along definite and more active lines, the result would have been very different.

Most boys, even in the absence of brothers, usually find companions in boys of their own age and when they choose otherwise one must carefully consider what the effect is likely to be upon the younger and more plastic mind. Instead of growing alongside his fellows and developing as they develop gaining that experience which can only be acquired by striving with one's equals, the younger or weaker in this case is given no opportunity of developing along natural lines but is moulded by the older and more experienced. Only when this process can be calculated to strengthen what is weak and to redirect what is already misdirected is the

association justified. When, as in this case, both tend in the same dangerous direction and the weaknesses are present in both the association is fatal.

H.M.B. Age 58. Single. Retired Army Officer

Age on first attack ? 30

History:

Patient was educated at Wellington College.

He went to India first as a cadet and later obtained a Commission in the Indian Army.

This he held for 10 years when he was passed over for the Adjutantcy of the regiment.

He resigned immediately and returned to this Country.

From that time forward he led an aimless existence.

He hawked sewing machines around the Hackney district of London.

He went through the Boer War as a trooper.

He worked his passage to Canada and back on three occasions.

Ultimately he took an overdose of Veronal and was arrested by the police and sent to St. Luke's Asylum from which place he was transferred to Dartford.

During his stay here he has been more eccentric than maniacal, at times, abusive, but rarely destructive. His memory is perfect and there is no evidence of dementia proper. He works in the kitchen but does not consider that this is "infra dig" but rather his personal contribution towards the

philosophy of "Anti Bunkum" and real Democracy. He has developed a passion for "Anti everything" and is really nothing more or less than a religious crank.

Analysis:

Though it is impossible to obtain any facts of importance concerning this patient's early mentality it may be reasonably assumed that he was competent enough up to and including the first six or seven years of his army career. The fact however of his being passed over for the Adjutantcy must be considered as evidence of, at least, deficiency in executive ability.

The patient's own explanation of the course of events is interesting and apparently trustworthy. He says that the reason for his immediate resignation was not a sense of disappointment proper but rather an acute sense of his absolute inferiority mentally, physically and morally.

The aimless restless and unpractical existence which this patient led on his return to England makes one think immediately of the vagaries of the simple form of dementia praecox and the acute sense of inferiority of which the patient was conscious tends to confirm this view of his mental condition.

One must, be prepared however to explain why this patient should have avoided dementia and this is again best considered in the light of his own description of his mental state.

Whereas, he says, during the first few years following upon his resignation from the Army he was weighed down continually by a sense of complete worthlessness so much so that he attempted suicide by poisoning, from the time that he began to seek comfort in religion this has ceased to concern him.

It is not unlikely that dementia would have been his fate had he not counteracted the fatal tendency of self-depreciation, following upon a sense of inferiority, by an avowal of a deep religious faith. His progress in religious matters is but another evidence of his original innate eccentricity which we have described as being akin to, if not evidence of, simple dementia praecox.

This case is quoted chiefly on account of the patient's own explanation of his mental state and of the avoidance of a dementia.

Early recognition of the cases which tend to develop psychoses is essential to any scheme of prophylaxis. A study of the cases described and analysed affords sufficient evidence to show that early recognition is possible.

Of the twenty cases described fifty per cent exhibit well marked symptoms of the "shut in" personality which can be recognised were the descriptions more widely known to the profession.

Of the others, two correspond to the vagrant or simplex type of dementia praecox which exists in large numbers amongst the general population but, which may evade detection for a long time. Again the symptoms are sufficiently definite and clear cut as to render detection possible. Two belong to the mentally deficient group and it is amazing that these should have escaped detection and so were denied the inestimable advantage of a properly regulated education on a lower standard. Four of the cases reveal a certain shallowness of interest - a degree of disinterestedness in the material facts of existence - a state which may be considered as a half way house towards the "shut in" personality. In one case alone of the twenty investigated was there a complete absence of those traits of character which seem to predispose towards the development of this

particular psychoses and even here an intelligent understanding of the circumstances of the case might have obviated the breakdown.

It is considered that in most early recognition of the weak and dangerous traits of character was possible had the nature and significance of the symptoms been recognised and it is believed that in all a deeper knowledge of the individual peculiarities and circumstances of life might have led to the successful adoption of measures calculated to avoid the ultimate deterioration.

An analysis of the cases from other points of view is of interest.

The following table shows the relationship between the age of onset and those cases which showed the symptoms of the shut in personality:

Age of onset	No. of Cases of dementia praecox	No. showing "shut in" personality
Under 20 years	3 (2 mentally deficient)	-
20-25 "	5	3
25-30 "	6	4
30-35 "	4	1
35-40 "	1	1
over 40 "	1	1

There seems to be no relationship between the occurrence of "shut in" personality and any particular type of the fully developed disease. This one would expect from the fact that the same weaknesses of character are present in all though in varying degree .

Of the ten cases showing the symptoms of the "shut in" personality the types of dementia praecox developed are as follows:-

Catatonic	3
Hebephrenie	3
Demented	2
Paranoidal	1
Simple	1

The significance of the lack of manual skill has already been emphasized and the accompanying table of occupations confirms the importance claimed for it.

There is not a single skilled manual worker amongst all of the cases described.

Occupation	No.
Clerks	9
Army Officers	2
Labourers	2
Army Cadet	1

Occupation	No.
School Teacher	1
Shopkeeper	1
Builder	1
Farm Pupil	1

It is not unreasonable to postulate that there is no individual so resistant but that a strain or stress can be imagined sufficiently powerful to cause a breakdown. Working from this it is possible to propound, theoretically at least, a rational justification for attempts at prophylaxis.

The fact that in any series of these cases there are some individuals who, though possessing all the traits of character belonging to the dementia praecox "make up", have yet weathered the stress and trials of ordinary existence so successfully that the breakdown has been postponed until middle life is in itself justification for any enquiry into the reason for such a postponement. Nor is it unreasonable to suppose that there are many individuals of the same character who never break down because of a successful adaptation.

It should be possible therefore by a modification of circumstances, training and environment in those predisposed

to avoid the onset of symptoms of psychosis.

The child is not the product of heredity alone. Though character may be considered immutable still, environment and education may completely alter its manifestations and, above all, its direction. Undoubtedly the actions of the individual and particularly during childhood are governed by the reaction of environment "its very being is moulded by the influence of its surroundings".

Mental hygiene is calculated to reinforce the weak points in character and only a knowledge of the seeming causes of adolescent insanity in those entrusted with the training of children will render any scheme of prophylaxis practicable.

Emphasis must be laid on the importance of overcoming the inherent unsociability of the possible praecox subject. The timid frightened shy child must be tempted from it's seclusiveness by a rigid insistence upon the little conventions of life manners, deportment etc. These have been described as the oil of social intercourse and unless acquired during childhood lay the unfortunate individual open to embarrassment and mortification. A failure to feel at ease results in a withdrawal from such circumstances and in the establishment therefore of a more or less self centered existence from which it is but a short step to the formation of a definite psychosis.

The apparent inability of the predementia praecox subject to translate thought into action together with the illuminating facts revealed by a study of the occupations of the cases described and noted by other investigators as to the infrequency with which the psychoses develop amongst manual workers suggests the importance of such training in the education of all children and particularly in those in whom this particular weakness is recognised. There is a certain innate pride of achievement in production which is not inspired by any form of purely mental effort and it would seem as if it is this sense of achievement which must be fostered in those who stand on the brink of psychosis.

Nor should this training be confined to prophylaxis: it has been found that the most successful way of avoiding rapid deterioration in the subjects of the fully developed malady is to teach them to acquire a degree of manual skill.

It has long been recognised that intellectual fatigue frequently acts as an exciting cause and it is here particularly that the intelligent co-operation of the educational authorities may be of value. The precocious child must always be regarded as abnormal and treated as such and all parading of exceptional knowledge before admiring relatives forbidden.

Daydreaming and irritability in an otherwise healthy child should be looked upon as signs of fatigue and the requisite intellectual rest prescribed. A short interval as in all cases of temporary fatigue will work wonders and a change from the purely intellectual to the interests of handicrafts will be doubly valuable.

In the main, books should be neglected for occupation of the nature of manual and physical training particularly in those children who are obviously queer. If the powers of adaptation be trained and stimulated during childhood and the earlier years of youth there need be no fear for the adolescent.

Every case must be studied on its own merits and the closest co-operation between the parents and the physician encouraged. Examination must not stop short at the physical and who more admirably placed for recognition of the trends of character than the family physician.

The many schemes for the treatment of borderland cases are worthy of all commendation but these will be of real value only and when the knowledge of the possibilities of prophylaxis in mental disease has spread to the mass of the profession and through them to the general public.

REFERENCES:

(1) Macpherson J.M. Science April 1920

(2) Mott Ibid July 1921

(3) Mott B.M.Journal March 25th 1922

(4) Tiffany State Hosp.Quarterly February 1921

(5) Matsumots J.M. Science October 1920

(6) Stoddart Ibid October 1922

(7) Morse Journal Nerv.and Psychopathology No.13. 1923

(8) Witte Zert. f.d.ges. Nerv and Psy. Vol.LXXX

(9) Prior J.M.Science January 1920

(10) Cheney J.Nervous and Mental Diseases June 1923

(11) Langdon Brown B. M. J. November 6th 1920

(12) Vide (2)

(13) Mott B.M.J. July 21st 1923

(14) Mott Lancet. July 21st 1923

(15) Vide (7)

(16) Cushing J.N. & M.D. 1915

(17) Dawson J.M. Science April 1923

(18) Mott as in (13)

(19) Vincent Lancet August 12th 1922

(20) Macleod Ibid July 28th 1923

(21) Starling "Human Physiology" 1920

(22) Vide (19)

(23) Gley "Revue de Medicine" XL 1922

(24) Uyematsu American Journal Psychiology July 1921

(25) Bowman Archiv. Nerv. and Psy. 1923

(26) Lewis and Davis J.N. & M.D. 1921

(27) Phillips J.M.Sc. Oct.1919

(28) Rutherford ibid 1922

(29) Tucker American Journal Psych Oct.1922

(30) Cushing American Journal Insanity 1913

(31) Eppinger & Hess J.N. & M.D. 1914-15

(32) Nursing Manual for Asylum Attendants 1923

(33) Raphael A.J.Psy. No.4 1923

(34) Vide (17)

(35) Aschner. Jahreskurse fur Arztliche Fortbildung No.5 1923

(36) Walker Lancet July 21st 1923

(37) Vide (33)

(38) Ford Robertson Annual Meeting Med Psycho.Association 1921

(39) Kraepelin "Dementia Praecox"

(40) Holmes Medical Record 1920

(41) Cotton State Hosp. Quarterly November 1920

(42) Cotton American Journal Med. Science September 1922

(43) Kopeloff and Cheney J.N. & M.D. April 1923

(44) Cotton as in (42)

(45) Chalmers-Watson J.M.Sc. January 1923

(46) Hall & Weyman J.N. & M.D. 1922

(47) Wolgsohn Allg. Zeit fur Psy. 1907

(48) Mott L.C.C. Publications 1911

(49) Jeliffe and White 4th Edition 1923

(50) Mott B.M.J. August 11th 1923

(51) Steiner Jahreskurse No. 5 1923

(52) Clonston "Mental Diseases" 1896

(53) Amsden American Journal Psy. Vol.II No.4 1923

(54) Cole J.M.Sc. July 1922

(55) Monchy Monat fur Psy und Nerv. No.17 1922

(56) Quoted J.M.Sc. Jan. 1920

(57) Cole Vide (54)

(58) Laignel Lavastine "Le Prog.Med." April 1922

(59) Borin Schw. Arch. fur Nerv. und Psy. 1920

(60) Hoch Review Nerv and Psy. Vol.IV 1910

(61) Jelliffe Monograph 1911

(62) Merger American Journal Psy. Col. XIV

(63) Meyer Psy Clinic Vol.II No.4

(64) Kirby New York Academy of Medicine Vide (60)

(65) Frankhauser Schw. Med.-Wochenschrift April 27th 1922

(66))
(67)) Kraepelin "Dementia Praecox"
(68))

(69) Libert Bull de La Soc. de Med Ment de Belg 1912

(70) Thwaites J.M.Science 1908

(71) Jung. "The Psychology of Dementia Praecox"

(72) Hinkle "Psychoanalytic Review" 1922

(73) Henderson Review Nerv.and Psy. November-December 1918

(74) Cameron "The Nervous Child" 1922